SOCIAL HEALTH PROTECTION NETWORK

Social health protection and health financing for universal health coverage in the Republic of Korea

A historical and analytical review of the reform processes

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CONTENTS

ABBREVIATIONS AND ACRONYMS

ADL	activity of daily living
AMI	acute myocardial infarction
CHE	catastrophic health expenditure
CNC	care needs certification
CPI	consumer price index
DBCAC	Drug Benefit Coverage Assessment Committee
DMF	Drug Master File
DRG	diagnosis-related group
GDP	gross domestic product
GNI	gross national income
HCBS	home- and community-based services
HIRA	Health Insurance Review and Assessment Service
HIPDC	Health Insurance Policy Deliberation Committee
KMA	Korean Medical Association
LTC	long-term care
LTCF	long-term care facilities
LTCI	long-term care insurance
MFDS	Ministry of Food and Drug Safety
MOHW	Ministry of Health and Welfare
NBLSS	national basic livelihood security system
NHI	national health insurance
NHIS	National Health Insurance Service *(known in English, before 1 January 2013, as the National Health Insurance Corporation (NHIC))*
NPS	national pension scheme
OOP	out-of-pocket
P4P	pay-for-performance
PGDI	personal gross disposable income
RBRV	resource-based relative value
RSA	risk-sharing arrangement
SSIS	social security information service
SHP	social health protection
UHC	universal health coverage

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Certain conventions are used throughout this document. All Korean names are written with last names listed first and first names listed second. The conversion of Korean won (KRW) to US dollars (US$) is calculated using a standardized exchange rate of KRW 1100 to US$ 1.

This document mentions policies and reforms through 2021: any changes announced, planned or implemented after 2022 may not be reflected.

OVERVIEW

This paper aims to examine the process by which social health protection and health financing systems were developed and reformed in the Republic of Korea since their establishments in 1960s. This document consists of five chapters.

The first chapter, “The single-payer national health insurance system”, explores when the institutional changes took place, what interests and conflicts appeared, and how the Republic of Korea achieved population coverage and the merger of the national health insurance (NHI) funds into a single fund. The determinants and outcomes of the economic crisis and social reforms are examined as they relate to governance structure. The second chapter, “Health financing reforms in the 2000s”, details the reforms to the Republic of Korea’s social health insurance system. The payment system contains a fee-for-service system, diagnosis-related group payments, a pay-for-performance (P4P) model and per diem payments. The section on coverage expansion covers key changes in NHI policies: a copayment ceiling, copayment rate and exemption, positive list system and a refund mechanism for medicines. The third chapter, “Social health protection”, addresses medical aid for those living in poverty, financial support for catastrophic health expenditures (CHE), personal assistance and sickness and maternity benefits. The fourth chapter, “Long-term-care insurance”, covers how population aging affects the sustainability of the social health insurance system and the introduction of new funding mechanisms for the care of older people. The last chapter, “Way forward”, provides the policy implications of the Republic of Korea’s social security system as the country works towards universal health coverage (UHC) and social health protection (SHP).

1. THE SINGLE-PAYER NATIONAL HEALTH INSURANCE SYSTEM

The national SHP system was founded in the Republic of Korea with the enactment of the Livelihood Protection Act in 1961 and Medical Insurance Act in 1963. These laws strengthened the SHP system and gradually led to the population's compulsory enrolment in health insurance. Since 1977, the Republic of Korea has extended compulsory health insurance coverage to companies with 500 employees, then 300 and then, in 1981, to 100. The Republic of Korea covered the entire population within 12 years of the first extension and merged multiple health insurance schemes into a single-insurer system *(1)*. Universal population coverage was achieved in 1989 under an authoritarian regime aiming for political legitimacy in collaboration with and sometimes in tension with civil society. Recent studies reveal that voluntary initiatives based on community cooperatives of wage workers and medical providers were important prerequisites to compulsory enrolment *(2)*. The merger of the multiple schemes into a single-payer system in 2000 was part of social policy reforms by a progressive government designed to improve efficiency.

1.1. Political and socioeconomic context

Since the mid-1970s, the Korean export-oriented economy has grown remarkably. The gross domestic product (GDP), which was US$ 21.8 billion in 1975, increased more than tenfold to US$ 283.3 billion in 1990 and then doubled to US$ 576.4 billion in 2000 (Table 1). The nominal GDP per capita increased twentyfold from US$ 618 to US$ 12 261 between 1975 and 2000. During the same period, gross national income (GNI) and GNI per capita multiplied by 42 and 31 respectively. Personal gross disposable income (PGDI) increased from US$ 477 in 1975 to US$ 7600 in 2000. The ratio of PGDI per capita to GNI per capita fell from 77.9% to 58.5% as the profit of private entities exceeded household income over time. The annual growth rate of the Consumer Price Index (CPI) was reported at 25.2% in 1975 and increased to 28.7% in 1980. Then the rate of increase in the CPI dropped to a significantly lower annual rate, amounting to less than 10% from the 1980s to the 2010s.

The demographic features also changed (Table 1). Between 1975 and 2000, the total population increased from 35.3 million to 47 million, and life expectancy rose by nearly 12 years from 63.1 to 74.9 years. While more people lived longer, families had fewer children. The total fertility rate declined from 3.4 to 1.4 children. Consequently, the dependency ratio of the elderly (65 years and older) working-age people (15–64 years old) rose from 6.0 to 10.1.

Table 1. Economic and demographic indicators

	1975	1980	1985	1990	1995	2000	2005	2010	2015
Economic growth									
GDP (billion, US$)	21.8	65.4	101.2	283.3	566.8	576.4	934.7	1143.9	1465.3
GDP per capita (US$)	618	1714	2481	6608	12 569	12 261	19 399	23 083	28 724
GDP annual growth rate (%)	7.8	-1.6	7.8	9.9	9.6	9.1	4.3	6.8	2.8
Income and consumption									
GNI (billion, US$)	21.6	64.8	99.0	283.0	564.7	572.5	928.1	1145.6	1469.9
GNI per capita (US$)	613	1699	2427	6602	12 522	12 179	19 262	23 118	28 814
PGDI (US$)	477	1215	1701	4427	8206	7600	11 270	12 611	16 038
CPI (annual % growth)	25.2	28.7	2.5	8.6	4.5	2.3	2.8	2.9	0.7
Demographics									

	1975	1980	1985	1990	1995	2000	2005	2010	2015
Total population (million)	35.3	38.1	40.8	42.9	45.1	47.0	48.2	49.6	51.0
Life expectancy (All)	63.1	65.0	67.4	70.3	72.8	74.9	77.2	79.5	81.3
Total fertility rate	3.4	2.8	1.6	1.5	1.6	1.4	1.0	1.2	1.2
Dependency ratio	6.0	6.1	6.5	7.4	8.3	10.1	12.5	14.8	17.5

Note: GDP, GNI, PGDI, CPI are nominal as given in current prices, without adjustment for inflation.

Source: Bank of Korea, 2021. Korean System of National Accounts, Statistics Korea, 2021. Consumer Price Survey, UN, 2020. World Population Prospects (https://kosis.kr/index/index.do).

Political goals and priorities differed across interests. The military government along with elite bureaucrats played a major role in the centralized policymaking process *(4)*. Beginning in 1962, the authoritarian regime led export-driven industrial growth following a series of five-year Economic Development Plans *(5)*. The civil registration system, introduced in 1968 and enforced in 1970, improved administrative efficiencies in public administration and vital statistics *(6)*. In the midst of urbanization and industrialization in the 1980s, labour unions and liberal intellectuals argued for policy agendas such as democratization, redistribution of wealth and labour rights.

The Korean government adopted the American health care system of leaving medical care to the private sector after the Second World War *(6)*. The government had offered financial support to private hospitals since the late 1970s to increase access to medical care for those insured under NHI. But an increasing number of private medical institutions resulted in an imbalance in resource allocation. The concentration of medical institutions intensified in urban areas, and the number of hospital beds drastically increased throughout the 1980s and 1990s. The number of medical institutions increased from about 4000 in the 1950s to 7000 in the 1960s, 10 000 in the 1970s, and 20 000 in the 1990s *(6)*.

1.2. Implementation of national health insurance

The Medical Insurance Act of 1963 was enacted shortly after a presidential election following a military coup. The law, without any means of enforcement, resulted in fewer than 20 voluntary health insurance funds *(7)*. The voluntary funds benefited only a small number of people with the ability to pay insurance premiums. Cooperatives and mutual aid associations soon faced difficulties in managing the voluntary-based social health insurance model due to adverse selection and operational inefficiency *(8)*. Yet their experiences contributed to institutionalizing mandatory enrolment and developing insurance management strategies, and inspired academic experts and business owners to discuss potential impacts and countermeasures. In 1977, the law was revised to include compulsory enrolment in health insurance as part of the Fourth Economic Development Plan of 1977–1981 *(1, 5)*. Driven by the political will of the authoritarian regime and rapid economic growth, the mandatory enrolment in NHI was initially adopted for employees. Employees of corporations with more than 500 workers were covered by health insurance beginning in 1977. Two years later, the coverage expanded to employees of governments, schools and corporations with more than 300 workers. The target population for compulsory enrolment extended to employees working at firms with more than 100 workers, 16 workers and five workers in, respectively, 1981, 1983 and 1988. Family-based membership allowed dependents to be covered by the employee scheme (Table 2).

A pilot programme for the self-employed served to establish a premium rating and collecting system and define the benefit package. The pilot programme was implemented in three rural areas in 1981

and extended to one urban and two more rural areas in 1982. In the 1980s, when the economy was thriving, policy research and debate continued over the premium-setting and risk-pooling mechanism *(6)*. While the urban and rural self-employed, about 46% of the total population, had a growing demand for health insurance, many of them had no or limited financial capacity to pay the premiums *(1)*. Even in the pilot areas, the inability to pay the premiums and limited income assessment threatened the financial sustainability of self-employed insurance funds.

The government settled a dual premium rating system. The insurance contribution in the employee scheme was based on monthly wage and was shared equally between the employee and their employer. However, the self-employed bore insurance premiums alone, which were levied based on income, properties and family size. The informal sector requested the government subsidy before the compulsory enrolment. When the NHI covered the rural self-employed in 1988 and extended to the urban self-employed in 1989 *(9)*, the government subsidy accounted for about half of the total revenue of the insurance schemes for the self-employed. The proportion of government subsidy declined incrementally in the 1990s *(1)*.

The Republic of Korea's Medical Aid Program and family-based membership have contributed to rapidly expanding population coverage. The Medical Aid Program was a part of the government's public assistance, based on the Livelihood Protection Act of 1961. The government instituted the programme to provide subsidies for medical services to people living in poverty based on the Medical Protection Act of 1977 *(1)*. People living in poverty were defined as those who could not pay insurance premiums and living expenses; the government adjusted the standards of poverty and eligibility for the Medical Aid Program. The initial number of non-contributory beneficiaries was more than 2 million (5.8% of the total population) living below the poverty line, which was defined in 1977 as the minimum cost of living *(6)*.

Table 2. History of population coverage expansion by funding schemes in the Republic of Korea

Date	Employees	Self-employed	Others
1977	Employees of companies with more than 500 workers		Spouses, lineal ascendants or descendants as dependents by family-based membership
1977			Those living in poverty by the Medical Aid Program
1979	Civil servants, teachers and employees of companies with more than 300 workers		
1981	Employees of companies with more than 100 workers	Pilot programmes implemented in three rural areas	
1982		Additional pilot programmes in two rural areas and one urban area	
1983	Employees of companies with more than 16 workers		
1984			Spouse's parents as dependents

Date	Employees	Self-employed	Others
1987			Siblings and spouse's lineal descendants as dependents
1988	Employees of companies with more than five workers	All self-employed in rural areas	
1989		All self-employed in urban areas	

The government designated health facilities to provide identical benefit packages for NHI beneficiaries. A tight fee schedule (no-balance billing) and prevention of selective contracting promoted access to care. There were multiple health insurance funds based on workplaces and regions, alleviating the burden of income assessment as well as encouraging homogeneous groups to accept the concept of social insurance. In 1989, the three types of health insurance schemes consisted of over 370 funds: about 140 funds for employees, 230 for the self-employed and a single fund for government officials and teachers *(7, 10)*. NHI achieved universal population coverage with the government providing the Medical Aid Program for those living in poverty as well as partial subsidies for the self-employed.

1.3. The merger of multiple health insurance schemes

Equity and efficiency of multiple insurance funds

Despite universal population coverage, increased demand for medical services resulted in increased health care expenditures under the fee-for-service payment *(9)*. The private sector dominated health care provision, making a capital investment in new hospitals, more beds and high-tech equipment. Though the government prohibited extra billing, doctors had incentives to increase the volume of medical services or provide uninsured medical services *(1)*. The increase in health expenditures caused a financial burden on both NHI funds and individual households.

The system of multiple health insurance funds had a limited risk-pooling capacity, undermining horizontal equity across the funds with high administrative costs *(1)*. Each insurance fund consisted of people with highly homogeneous demographic and socioeconomic characteristics, leading to the polarization of fiscal capacity across funds. For instance, urban workers in the employee scheme tended to be young, productive and healthy. On the other hand, the self-employed in a rural area were likely to be middle- and older-aged populations living on agriculture and fishery, often with chronic diseases or disabilities. When funds had smaller or poorer populations, they suffered chronic financial deficits. Small-size insurance funds attempted to consolidate in order to take advantage of economies of scale *(5)*. Nevertheless, over 300 insurance funds remained until the 1990s. The cumulative gap between revenue collection and medical demand widened among insurance funds.

A single-insurer system had been perceived as an alternative due to inequity across the funds and administrative inefficiency. While proponents of this system emphasized that the single-payer system was more equitable, other stakeholders had different interests in gains and losses. The government showed prudence in weighing the sustainability of the existing NHI system against the potential increase in tax subsidies for the vulnerable *(1)*. Opponents asserted the strengths of multiple insurance funds in managing moral hazards of the insured *(6)*. Stakeholders with different interests could not agree on merging the funds—until the socioeconomic crisis hit.

Political-economic changes

In the late 1980s, the economic boom diminished after macroeconomic conditions changed from low oil prices, low-interest rates, and low exchange rates *(11)*. Although the subsequent economic growth was steady, income inequality worsened. Civic groups demanded the transition to democracy as well as the redistribution of wealth. Social movements for democratization and labour rights reached their peak in 1987. Political agendas contributed to the welfare laws and social policies for vulnerable populations established in the 1990s *(12)*. The National Assembly approved the revised bill of the Medical Insurance Act to create a single-insurer system in 1993, which the right-leaning president vetoed *(9, 12)*. Then four years later, the South-East Asian financial crisis occurred. In 1997, Korean society underwent a chain reaction—concerns about foreign currency reserves and liquidity were extended to the economic fundamentals of many businesses *(13)*. Soon large-scale bankruptcy coincided with mass layoffs and a high unemployment rate in the labour market. The government called for a bailout from the International Monetary Fund. Households and business entities suffered from the loss of income with little social safety net. The impact of the economic crisis on health care utilization was regressive across the income levels *(14)*. The public experienced social solidarity from the economic downturn and shifted the top political priority into the extension of the social security system. More importantly, the new civilian government had the momentum to undertake multiple social policy reforms simultaneously, including pension plans, unemployment insurance and health insurance.

Merging multiple insurance funds

President Kim Dae-jung, elected in 1998, pursued social policy reforms with civic groups as a key counterpart, instead of centralizing the policymaking process with bureaucrats *(15)*. In the health care sector alone, several agendas competed for policy priorities, including the merger of insurance funds, payment system reform, drug pricing policy and the separation between drug prescription and dispensing. The civilian government and the civic groups quickly proceeded the organizational integration in order to alleviate the inequity among insurance funds. The insurance for public employees and teachers was merged with the self-employed insurance funds in 1998. Based on the National Health Insurance Act enacted in 1999, which came into force in 2000, the NHIC (known in English as of 2013 as the National Health Insurance Service (NHIS)) was established as a single-insurer by providing for the integration of the various funds into one.

The consolidation of the financial accounts of the NHI funds followed three years later in 2003 (6). The three-year gap between entry into force of the law and consolidation of funds was a result of the different insurance contribution rating systems. Imposing the same rating system was excluded from the reform due to the administrative burden of the means test and income inequality between employees and the self-employed. Instead, sophisticated calculation techniques were used to progressively increase contributions among the insured based on their income. The revenue collection system also improved its operational efficiency by computerizing the billing system and diversifying the payment methods such as cash, direct debit and online banking.

1.4. Governance

Two quasi-governmental organizations

After the merger, the NHI system consisted of an insurer, the insured and the providers. In the Republic of Korea, the insurer's role was divided into two quasi-government implementation agencies: the NHIS and the Health Insurance Review and Assessment Service (HIRA). They were

established under the supervision of the Ministry of Health and Welfare (MOHW) in 2000 *(6)*. The NHIS was the monopolistic insurer responsible for determining the benefits package, managing the insured's eligibility, rating contributions, collecting revenues and reimbursing health care provisions. The NHI replaced unilateral price setting with an annual price negotiation with the coalition of provider associations. The HIRA had a high technical capacity to perform claim review and assessment, handling the pricing and performance assessment *(1)*. Those two agencies sometimes had problems of duplication and divergence of their functions. The MOHW played a leading role in health policy formulation and reforms, supervising the NHIS and HIRA(16).

Conflict of interest in health care reforms

During the insurance fund merger, the government pursued payment and pharmaceutical reforms simultaneously. These two reforms were rather radical and comprehensive in order to change the pattern of health care provision and utilization *(17)*. The most prominent issue opposed by the Korean Medical Association (KMA) was the separation of drug prescribing and dispensing. Medical providers used to earn profits from drugs (i.e. the difference between the reimbursement and purchase price of medicines) in an implicit return for the tight fee scheduling for medical services *(18)*. The medical providers experienced a pilot programme between 1982 and 1985, when political priority was given to expanding population coverage and service delivery. Since then, the associations of doctors and pharmacists relentlessly tried to defer several attempts to legislate the separation reform in the 1990s *(17)*.

In the new progressive government, instead of bureaucratic and legislative bodies, civil society played a pivotal role in health policymaking. Civic groups supported the government to introduce a positive list system and advocated for access to medicines for rare and incurable diseases *(19)*. They developed an acceptable proposal for the reform, and disseminated information transparently to the public. This was possible because progressive scholars and democratic activists were in partnership with the government. The government introduced drug price regulation in 1999 and enforced the separation reform in 2000 *(17)*.

The price regulation, implemented in 1999, was mainly about monitoring physicians and reimbursing them only for the actual prices that they paid to pharmaceutical manufacturers. This policy aimed to end physicians' profits from medicines, thus eliminating their opposition to the separation reform. However, the government's declaration that the physicians' income from medicines was unethical outraged physicians. Physicians struck, opposing the agenda of payment reforms for pharmaceuticals. The number of physicians participating in strikes snowballed to the point of paralysing the health care system. Physicians further succeeded in altering or deferring other reforms related to the payment system.

Medical providers argued that the fee schedule was too tight, with the allowed fee being much lower than the actual cost of services. Although the rate of increase in medical fees surpassed the CPI after the mid-1990s, health care providers compared the medical fee to the customary charges (market price). More and more hospitals expanded departments for revenue generation, such as outpatient clinics, diagnostic laboratories and specialized wards. The large proportion of outpatient clinics in secondary and tertiary hospitals disrupted functional differentiation in the service delivery system.

NHI adopted two major approaches to the payment system with little control mechanisms for expenditure and volume: the resource-based relative value system (RBRV) and the diagnosis-related group (DRG)-based payment system. The original expectation was that the RBRV system could reduce the distortions to relative prices across medical services and providers *(18)*. Instead, the RBRV

system was implemented as a steppingstone for medical providers in 2001 and led to an overall increase in medical fees with higher payments to hospitals than clinics. And the government halted the nationwide implementation of the DRG system, which was launched as a pilot programme in 1997 *(18)*. The three-year pilot programme targeted commonly used services with minimum variation in medical expenses to encourage voluntary participation. The prolonged pilot programme had positive impacts on changing physicians' economic incentives and cost containment, e.g. reduced length of stay and administrative costs *(18)*.

Financial sustainability

These simultaneous reforms had an immediate effect. The NHI faced a fiscal deficit due to a net loss in spite of cumulative surplus in 2001 *(17)*. The central government responded to the deficit with a comprehensive package of emergency funding. Congress passed the Special Act for the Financial Stability of NHI on the condition of temporary enforcement until 2006 *(6)*. The Special Act strengthened the government's accountability in the NHI and established a policy review committee for decision-making. The share of government support grew from 28% to 50% for the self-employed (40% from the national treasury and 10% from the health promotion fund via a tobacco tax) *(16)*. The government also pledged other measures, including tightening claim reviews and the consideration of the financial burden on the NHI as a key criterion of the benefits package. Some long-term policy measures were also announced or implemented: a copayment reduction, the DRG-based payment system and long-term care insurance.

As a part of policy measures designed to counteract the financial deficit, the Health Insurance Policy Deliberation Committee (HIPDC) was established under the MOHW. The HIPDC began as a consulting body in 1999 and expanded its role with an increased number of committee members in 2002 *(20)*. Besides than the vice minister of the MOHW as the chair, 24 members serve the HIPDC for three years, consisting of eight members from payers (including labour unions, employer associations, and civic groups), eight from provider associations (including the KMA, Korean Hospital Association, Korean Dental Association, Korean Pharmaceutical Association, and Korean Traditional Medical Association), and eight representing the public interest (four government representatives and four independent experts) *(1)*.

The HIPDC plays a key role in priority-setting and social consensus for the fiscal sustainability of the NHI. The tripartite committee has deliberated on benefits packages, contribution rates and pricing. Deliberation is based on a majority rule with a quorum of half of the members. Although technical committees in the HIRA submit recommendations on benefits extensions before voting, those in either payer or provider positions frequently fail to reach an agreement. The eight representatives in the public interest, especially the four independent experts, often hold a deciding vote *(21)*. Since the HIPDC has continued with little change, provider groups have raised questions about the government’s management and voting rights in the committee *(20)*.

2. HEALTH FINANCING REFORMS IN THE 2000S

2.1. Overview of health financing

Population coverage by schemes

As the population covered by health insurance grew to 97% of the total population, the proportion of the Medical Aid Program beneficiaries (those who do not contribute) fell to 3%. The statutory health insurance scheme prevents the opting-out of enrolees except for particular circumstances such as overseas stay *(7)*. The NHI enrolment type depends on age, employment status, income and assets. A report must be submitted to the NHIS in case of changes to employment status or income loss. The NHIS can offer reductions in contribution for vulnerable groups, who are not eligible for the Medical Aid Program, from 10% to 50%.

Foreign nationals working as self-employed could enrol voluntarily in the NHI beginning in 1999 – enrolment became compulsory for the employee in 2006 *(22)*. Voluntary enrolment led to some concerns on adverse selection *(22, 23)*. The government responded by introducing a 3-month minimum length of stay before voluntary enrolment in 2008, later extended to 6 months in 2018 *(22)*. And the government pursued compulsory enrolment for foreign nationals beginning in 2018 and enforced in June 2019. The Health Insurance Act was revised several times to adjust the insurance contribution rating system according to residence status and ability to pay.

Table 3. The trend in the population coverage of the national health insurance

		1980	1985	1990	1995	2000	2005	2010	2015	2020
Population Coverage by Schemes										
Total		**11 368**	**21 254**	**44 110**	**45 429**	**47 466**	**49 154**	**50 581**	**52 034**	**52 871**
NHI	Total	9226	17 995	40 180	44 016	45 896	47 392	48 907	50 490	51 345
		81.2	84.7%	91.1%	96.9%	96.7%	96.4%	96.7%	97.0%	97.1%
	Employee	9161	16 424	20 759	21 559	22 404	27 233	32 384	36 225	37 150
		80.6	77.3%	47.5	47.5%	47.2%	55.4%	64.0%	67.6%	70.3%
	Self-employed	-	375	19 421	22 457	23 492	20 159	16 523	14 265	14 164
		-	1.8%	44.0%	49.4%	49.5%	41.0%	32.7%	27.4%	26.8%
	Pilot	-	1,195	-	-	-	-	-	-	
Medical Aid Program		2142	3259	3930	1413	1570	1762	1674	1544	1526
		18.8%	15.3%	8.9%	3.1%	3.3%	3.6%	3.3%	3.0%	2.9%

Unit: One thousand people.
Source: NHIS and HIRA, NHI Statistics, 2021. https://kosis.kr/index/index.do

Source of funding

The primary source of funding in the health sector in the Republic of Korea is the NHI. Yet, the NHI's share of this funding has been stagnant, with an incremental increase from 43.6% in 2000 to 49.8% in 2018. For the past 20 years, the general tax contributed to the health sector has remained around 10% of the current health expenditure. The proportion of out-of-pocket (OOP) payments is still over 30% in total, decreasing from 43.6% in 2000 to 32.5% in 2018. The OOP payment consists of copayment expenses for covered services and full payment for uncovered services in the NHI.

Voluntary health insurance, including private health insurance, has also increased its proportion of funding from 2.5% to 7.6% between 2000 and 2018.

Table 4. The percentage of funding sources in the health sector

	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
Public financing	53.9	59.0	59.1	61.3	59.0	60.9	59.1	58.9	59.0	59.9
NHI	43.6	48.1	48.0	48.8	47.2	49.4	48.4	48.3	48.8	49.8
Government tax	10.3	10.9	11.1	12.5	11.9	11.6	10.7	10.6	10.3	10.1
Voluntary health insurance	2.5	2.4	2.8	3.0	3.9	5.1	6.3	7.3	7.9	7.6
OOP payment	43.6	38.6	38.0	35.7	37.1	34.0	34.5	33.9	33.0	32.5
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: WHO, Global Health Expenditure Database, 2021. https://apps.who.int/nha/database/

Funding the NHI

The NHI schemes apply fixed rates of insurance contributions based on ability to pay. The contribution for employees is based on payroll multiplied by the contribution rate *(1)*. NHI's contribution rate has increased from 2.80% in 2000 to 6.99% in 2022. The contribution for the self-employed is determined by household wealth, including income, property and automobiles. The wealth is scored and the score is multiplied by a corresponding statutory value set by the National Health Insurance Act enforcement ordinance. Starting when President Moon Jae-in came into office in 2017, the contribution rating system has been undergoing reforms. In that year, the NHIS launched a two-stage reform to the contribution rate *(24)*. The reform aimed to achieve vertical equity through a premium collection system in which contribution was proportional to the ability to pay, not employment status. The employee insurance scheme widened the income contribution base and tightened dependents' eligibility. In other words, it started to charge contributions on non-wage over a certain threshold and eliminate dependents' status whose capacity to pay was over a certain threshold. The contribution for the self-employed became more reliant on income and the proportion of property and automobiles in contribution rating was reduced in 2018. This is expected to alleviate the regressive burden of contribution. The NHIS also introduced a minimum premium for low-income households and announced a plan to increase the income threshold for that minimum premium in 2022. The first-phase reform in 2018 resulted in lower premiums for 5.68 million households by about KRW 20 000 (about US$ 20) on average *(24)*.

Health expenditure

From 1980 to 2020, the total health expenditure increased by more than 100 times and is now estimated to reach KRW 161 trillion in 2020 (US$ 137 billion). Health expenditures for curative care, including inpatient, outpatient, and home care, increased nearly one hundredfold from KRW 899 billion (US$ 753 million) in 1980 to KRW 90 trillion (US$ 82 billion) in 2020. Over the past 40 years, the proportion of outpatient care services in the total expenditure has increased from 20.7% to 25.8%, whereas inpatient care services decreased from 45.1% to 30.0%. Home care accounted for only 0.1% of the total in 2020. Expenses on long-term care (LTC) hospitals were included from 1994 when LTC hospitals first became institutionalized. The spending on LTC hospitals was about KRW 23 trillion (US$ 21 billion), accounting for 14.5% of the total health expenditures.

Table 5. Health expenditure by type of health service (in billion KRW, %)

	1980	1985	1990	1995	2000	2005	2010	2015	2020*
Total health expenditure	1365	2893	7275	14 758	25 398	44 205	78 263	110 393	161 753
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Personal expenditure	1271	2728	6718	13 687	23 500	41 294	72 493	102 177	149 710
	93.1	94.3	92.3	92.7	92.5	93.4	92.6	92.6	92.6
Curative care	899	1956	4817	9677	16 532	26 941	43 998	62 255	90 243
	65.8	67.6	66.2	65.6	65.1	60.9	56.2	56.4	55.8
Inpatient care services	20.7	24.5	26.7	29.1	29.3	30.9	28.7	26.7	25.8
Outpatient care services	45.1	43.1	39.5	36.5	35.8	30.1	27.5	29.7	30.0
Home care services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Medical goods	371	768	1892	3961	6807	12 916	20 780	25 412	33 495
	27.1	26.5	26.0	26.8	26.8	29.2	26.6	23.0	20.7
Prescription drugs	3.5	6.8	8.4	10.3	15.4	21.2	19.7	16.1	15.1
Over-the-counter drugs	14.0	11.7	10.4	10.1	6.6	3.9	3.5	3.2	2.6
Others	9.6	8.0	7.1	6.4	4.8	4.1	3.3	3.7	3.0
LTC hospital	-	-	-	21	88	760	6464	12 969	23 503
	0.0	0.0	0.0	0.1	0.3	1.7	8.3	11.7	14.5
Ancillary services	2	4	9	28	74	677	1251	1 541	2469
	0.1	0.1	0.1	0.2	0.3	1.5	1.6	1.4	1.5
Collective expenditure	94	165	557	1071	1898	2911	5770	8216	12 043
	6.9	5.7	7.7	7.3	7.5	6.6	7.4	7.4	7.4
Preventive care	3.3	1.8	2.3	2.1	2.1	2.4	3.4	4.0	3.7
Governance and administration	3.6	3.9	5.4	5.1	5.4	4.2	4.0	3.4	3.7

*2020 values are estimates. Ancillary services include laboratory services, imaging services and transportation.
Source: MOHW. National Health Accounts 2021.

2.2. Payment system

Fee-for-service payment system

A fee-for-service payment system is used to reimburse the medical care services included in the benefits package. The fee schedule has been based on the RBRV system since 2000 *(18)*. The relative value takes into account medical providers' direct and indirect input with no consideration of the quality of care or patients' health outcomes. Provider groups measure their workload, and the Clinical Practice Expert Panel in the HIRA calculates overhead costs. Determining relative value requires a lengthy bargaining process among different specialties as it serves as a redistribution of income among providers *(21)*. Although physicians have monopolistic power over service provision and data generation, an imbalance exists between and within specialties and different types of medical institutions.

The framework and scale of relative value have been refined periodically by technical committees in collaboration with medical societies. Two major refinements in 2008 and 2017 partially resolved the imbalance by using calibration techniques *(25)*. The first refinement broke down input items to measure more accurately the physician's workload (time and intensity), overhead costs, and the risk associated with malpractice *(26)*. The second refinement adjusted the compensation imbalance between different types of services and levels of medical institutions based on accounting statements.

The relative value is multiplied by a conversion factor (as a unit price) to calculate a fee. In principle, the conversion factor is negotiated annually between the NHIS and the provider groups. When they fail to agree, the HIDPC votes on the conversion factor. Initially, a single conversion factor was used for all types of health care providers. Since 2008, the conversion factor has been subdivided into provider groups, e.g. physicians, dentists, pharmacists, etc. The average annual increase rate was about 2.76% from 2003 to 2007, dropping to 2.16% from 2008 to 2019 *(25)*. As fee scheduling measurements and items become more complicated and extended, the HIRA plays a vital role in classifying and managing services and procedures *(27)*.

As medical providers increase the volume and intensity of both insured and uninsured services (21), the rapid increase in overall health expenditures continues under the fee-for-service system.

Diagnosis-related group payment system

The Korean DRG payment system continued as a voluntary pilot programme. The number of diagnosis-related groups increased from five to nine, and the number of (voluntarily) participating providers increased from 54 to 1645 *(6)*. In 2012, the DRG-based payment system was applied to all providers, although it targeted only seven diagnosis groups. The seven diseases for DRG payment are lens procedures, tonsillectomies/adenoidectomies, anal/perianal procedures, inguinal/femoral hernia procedures, appendectomies, hysterectomies and caesarean sections. Studies comparing before and after the mandatory adoption of the DRG payment showed its positive impacts on the length of stay and readmission rates and a spillover effect into outpatient service *(28, 29)*.

Shortly thereafter, the government developed a separate case-based payment system called the new DRG payment system (6). A combination of fee-for-service, per diem pay and DRG-based payment was expected to relieve providers' strong opposition to case-based payment (21). In 2009, Ilsan Hospital, run by the NHIS, launched a pilot programme for the new DRG payment, and as of 2020, 98 hospitals are participating voluntarily (30). The number of diagnosis-related groups also rose drastically from 20 to over 500. The payment was applied to voluntarily participating providers with higher margins and incentives for providers (31). Unbundled payments for services costing over US$ 100 per unit, i.e. fee-for-service for expensive services, were introduced in 2016. Three years later, the new DRG includes patients having four severe diseases (cancer, brain disease, heart disease and rare intractable illness).

However, providing higher margins and extra billing failed to change provider behaviour in terms of the volume and intensity of medical service *(32)*. Payment reform faced a wide perception gap among stakeholders, including the government, health care providers, and experts in academia *(30, 33)*. The government prioritized cost containment and assumed the new DRG model would be more acceptable to providers. Academia emphasized fundamental changes in a financial incentive structure, deeming the new DRG model as a strategic choice to extend the application of prospective case-based payment.

Pay-for-performance

Health care providers claim reimbursement from HIRA based on the diagnosis and treatment data of patients, rather than on the results or impact of treatment on patients' health. The need for a performance-based reimbursement mechanism has been discussed since the 1990s *(31)*. HIRA promoted quality assessments on the use of medicines, including antibiotic prescription rate, injection prescription rate, etc., following the revision of the NHI Act in 2000. Then the HIRA implemented a pay-for-performance (P4P) system, or the Value Incentive Programme, mainly for tertiary and general hospitals *(21)*. The first three-year pilot programme provided incentives, beginning with acute myocardial infarction (AMI) and caesarean section patients at tertiary general hospitals from 2007. Performance measurement included volume, process (timely interventions and medications) and outcomes (mortality within 30 days) for AMI, and the difference between actual and risk-adjusted rates in caesarean sections. Initially, there was only an incentive to meet the quality criteria, though a 1% disincentive was included in the third pilot programme in 2009 *(31)*. All participating hospitals met the minimum criteria above a grade 5, leaving the disincentive of no use.

Since 2011, the P4P system has been scaled up in different areas to create a quality assessment with an incentive mechanism. A total of six items were introduced, including prophylactic antibiotics used for surgery, haemodialysis and the prescription rate of antibiotics at the clinic level. Each item has its own target value and measurement to improve performance. The evaluated institution, evaluation method, grade classification, and (dis)incentive scale have been customized for each item. For example, a 5-grade absolute evaluation is performed for hospitals for the use of prophylactic antibiotics in surgery, rewarded by a 5% increase or decrease rate. On the other hand, the injection and antibiotic prescription rates among clinics are evaluated by a 9-grade relative evaluation. Accordingly, two indicators showed the positive impact of these incentives. The antibiotics prescription rate has decreased from 25% to 20% between 2011 and 2019. The injection prescription rate has also declined from 20% to 15% in the same period.[1] The current P4P model should extend the target areas and institutions to be assessed as well as evaluate other performance measures, including length of stay and intensity of care *(1, 21)*.

Per diem payment for long-term care hospitals

LTC hospitals were introduced for rehabilitation, post-acute care, geriatric patients and chronically ill patients in 1994 (31). LTC hospitals served as a place where discharged patients could stay before returning home, or where the elderly with low case severity could remain for an extended period. The growing number of LTC hospitals and beds led to increased health expenditure under the fee-for-service payment system, leading to a call for a payment system tailored to patients in LTC hospitals.

The NHIS introduced per diem payment for LTC hospitals in 2008 after a one-year pilot programme. The daily fixed amount was charged for seven different patient groups classified by an assessment of their therapeutic need *(34)*. Beginning in 2010, the per diem amount was adjusted with weights depending on the number of physicians, nurses and other health personnel compared to the statutory minimum requirements. Yet LTC hospitals' admission criteria and service provisions overlapped with acute care hospitals and nursing homes, accelerating competition with them *(35)*. LTC hospitals were also in the private sector and had no obligation for referral and care coordination with other providers. LTC hospitals instead allowed for the revolving or prolonged hospitalization of

1 HIRA. Heathcare Bigadata Hub. http://opendata.hira.or.kr/op/opc/olapEvaInfo.do

geriatric patients for non-therapeutic reasons, such as the absence of an in-home caregiver. They deteriorated allocative efficiency and quality of care in the Korean care system. The government responded by strengthening standards for physical and human resources beginning in mid-2010 when fires and safety issues at LTC hospitals took place. Patient groups were classified into seven categories and then into five categories in 2019. Two of the original categories were merged into relevant categories indicating the level of medical needs for exclusive categorization. The fee-for-service payment was adopted for CT, MRI, special rehabilitation treatment, dialysis, physician's referral, and prescription medicines for dementia *(21)*.

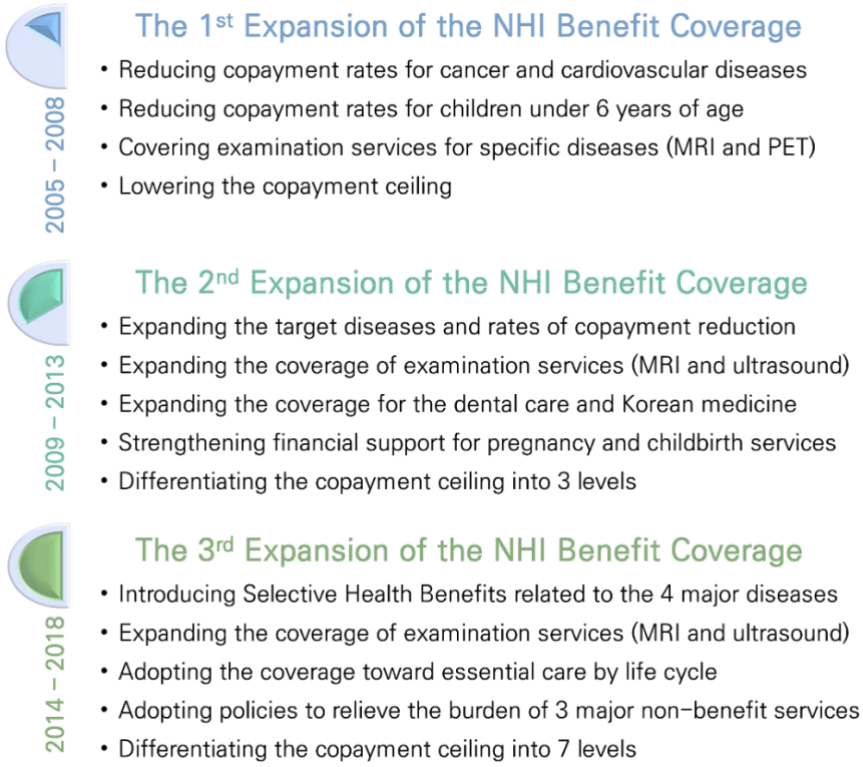
2.3. Expansion of benefits coverage

Following the population coverage, benefits coverage was expanded in the 2000s. The OOP payment consists of a copayment under the NHI scheme and full payment of uninsured services *(1)*. The cost-sharing is primarily based on flat rates according to the institution level and service type. For inpatient services, the copayment rate is 20%. The copayment rates for outpatient services range widely: 30% at pharmacies and physician clinics, 40% at hospitals, 50% at general hospitals, and 60% at tertiary hospitals. In principle, the rate is lowest for primary care and the highest for tertiary (specialized) care *(7)*.

The NHI has developed mechanisms for the insured to protect them from the burden of medical costs. Figure 1 summarizes the main achievements in expanding NHI benefits coverage. The coverage expansion was presented as part of a long-term plan for social security in the early 2000s *(31)*. By item, acute treatments, expensive medicines and diagnostic tests using cutting-edge technology often have priority over prevention, rehabilitation and end-of-life care. As providers rapidly increase volume and develop new services (not covered by NHI), the positive impact of the financial protection benefits expansion has been smaller than expected *(36, 37)*. The proportion of the NHI payments in total medical expenditure remains in the range of 60%, measured at 61.3% in 2004, 63.4% in 2015 and 62.7% in 2017 *(36)*. In spite of continuous attempts, the coverage expansion policy has had a relatively low impact on alleviating the burden of CHE or impoverishment *(37, 38)*.

The First Comprehensive Plan of National Health Insurance, established in 2019, aims to enhance sustainability and secure public trust in the NHI *(39)*. The plan contains recommendations for the extension of the benefits package and the improvement of funding and management of the NHI scheme. More details on the copayment ceiling and copayment rates will be discussed below.

Figure 1. Major policy achievements during the three phases of the expansion of national health insurance benefits coverage



Note: The author modified the original material.
Source: MOHW, The First Comprehensive Plan of NHI (2019-2023), 2019, 2.

Copayment ceiling

The copayment ceiling has played a role in protecting households from financial risk since 2004 (31). There are ceilings on (cumulative) OOP payments, beyond which patients are exempted from copayment for six months. In 2009, the uniform ceiling was divided into three upper limits depending on income level, with an extended time window from six months to a year (7). In 2014, the number of upper limits increased to seven. The number of upper limits has been the same since 2018, while the upper limit for LTC hospitals is subdivided based on the number of days. If the number of hospitalization days exceeds 120, the upper limit of copayment has risen by about KRW 400 to 500 thousand (US$ 363 to US$ 454).

The copayment ceiling applies only to the copayment for insured services. Services not included in the benefits coverage of NHI are excluded, e.g. denture implantations, admission fees for a private room, and outpatient visits for minor diseases at tertiary hospitals *(31)*. And the upper limits are annually adjusted to the CPI. Because the financial burden due to the OOP payments for certain services is still high, especially for people living in poverty, the upper limits for those in the bottom 50% of income were lowered to 10% of their annual income in 2018 *(37)*.

Copayment rates and exemption

High cost-sharing by the NHI insured became the key issue to alleviating the burden of OOP payments and ensuring access to care. The government began by adjusting copayment rates for specific populations and diseases under the umbrella of a coverage expansion policy. The first

reduction in copayment rate was recorded in 1983 for chronic renal failure patients using outpatient dialysis treatment. But the most well-known reduction has been for severe diseases such as cardiovascular diseases or cancer through the initiatives of NHI benefits expansion. Patients with severe diseases benefited from a copayment reduction to 10% in 2005 and 5% between 2009 and 2010. Patients with rare or incurable diseases have paid 10% of the copayment since 2009, while the number of illnesses recognized as rare and incurable has grown. Patients with cardio-cerebrovascular disease or major trauma are eligible for 30 days without registration. Patients diagnosed with other target diseases need to register or renew the copayment reduction application, which can last for up to five years. Copayment reduction is also employed for patients receiving hospice services or suffering from severe tuberculosis, dementia and others.

Meanwhile, between 1985 and 2007, a fixed amount was charged for outpatient care. This was supposed to contribute to cost containment and in 1995 a similar model was applied to the 70-year-old elderly for copayment reduction *(40)*. The elderly paid only KRW 1200, a little more than US$ 1, up to a limit of KRW 10 000 (US$ 9). The age limit was lowered to cover those aged 65 or over in 2001. The fixed charge slightly increased to KRW 1500 with the upper limit of KRW 15 000 in the following year. Even at that time, the rise of the amount and upper limit had little effect on controlling health care utilization for the elderly *(40)*. Nevertheless, the fixed charge, less than US$ 2, for the outpatient, stayed the same for over 17 years. The utility of the policy was diluted incrementally by inflation and an increased fee schedule through 2017 *(41)*. In 2018, the government announced the three levels of copayment rates at 10%, 20%, and 30% depending on the amount exceeding the upper limits. The differential threshold levels for copayment led to increased use of medical care by the elderly, while the average cost-sharing per person decreased by KRW 13 479 (US$ 12) between 2017 and 2018 *(41)*. The proportion of outpatient visits, paid by the flat-rate copayment, plunged 16.8% from 37.0% in 2017 to 20.2% in 2018. The proportion paid by 10% copayment rate surged by 14.7% from 8.0% in 2017 to 22.7% in 2018. The average outpatient visits and total medical expenditure per person increased by 0.4 per day and KRW 6022 (US$ 5), respectively.

In 2019, the new administration announced the so-called Moon Care, which was later developed into a comprehensive plan (31). Moon Care includes copayment reduction as a part of primary policy measures to strengthen health care coverage for vulnerable populations: the elderly, the disabled and children. Public accountability for dementia patients was one of the major policy agendas in the administration, so the government reduced the copayment rate for patients with severe dementia to 10% and decreased the cost of sophisticated dementia diagnostic tests, using neurocognitive tests and MRI tests, by more than half. In addition, the OOP rate for the elderly's dental services, which had been relatively expensive, was lowered from 50% to 30%, and the price of dentures and implants fell as well (31). Dental care was also expanded for children on top of discounted medical services by age group. The copayment rate decreased to 5% for premature or low-birth-weight infants using outpatient services and for children under 15 years of age during hospitalization. The disabled benefited mostly from the assisting equipment.

Positive list system

After the merger, civic groups continued advocating for the government's reform of the NHI's cost containment, leading to the implementation of the positive list system *(19)*. A positive list system was introduced in January 2007, which grants benefits selectively to products with treatment effectiveness and economic value *(42)*. The process begins after the Ministry of Food and Drug Safety

(MFDS) approves a product for sale. Pharmaceutical manufacturers can submit applications to list the approved drug in the NHI benefits package on a voluntary basis. Next, the HIRA convenes a Drug Benefit Coverage Assessment Committee (DBCAC) to assess the cost-effectiveness of medicines within 120 days *(3)*. The NHIS is responsible for the subsequent price negotiation of the approved original drug with the pharmaceutical manufacturer within 60 days.

The final decision resulted from the evaluation criteria for drug listing and price negotiation. The evaluation criteria include clinical benefits such as severity of disease, clinical effectiveness (compared to existing medicines), cost-effectiveness, financial burden on patients, expected sales and substitution effect, impact on the NHI budget, and reference price. After negotiations are concluded, the MOHW must report the result to the HIPDC for deliberation and resolution within one month. The positive list system with economic evaluation has contributed to the cost containment of pharmaceuticals. However, it is still challenging to strengthen the transparency of the decision-making process while respecting societal value judgement about how much and for whom resources should be allocated.

Manufacturers and patient groups complained that it took almost 240 days for the reimbursement decision. To strengthen access to medicines, policy measures were developed including the Approval Reimbursement Assessment Link System and the conditional exemption of economic evaluation *(42)*. The assessment link system allowed manufacturers to apply the approval assessment and listing of drugs beginning in 2014 – the exemption of economic evaluation was adopted in the following year. Several anticancer and orphan drugs are exempted from cost-effectiveness analysis as there are too few patients to collect data. Introducing such measures is based on the expectation that the drug has greater health outcomes that override waiting for the regular reimbursement decision-making process.

NHI pricing determined generic drug prices by discount rate following the registration order in the NHI formulary. And the 'same-price-for-the-same-drug' principle was adopted to promote generic medicines in 2012 *(42)*. During the first year after the patent had expired, the price of the original and generic drug were reduced, by, respectively 70% and 59.5% (from the original price). After one year, the price was reduced to 53.55% regardless of the listing order. There were exemptions for essential drugs and drugs produced by fewer than three manufactures. The pricing policy resulted in decreased price dispersion but led to little change in market share and price competition among manufacturers *(43)*. The government introduced a new tiered pricing system to strengthen manufacturers' accountability for drug production and quality management. The reforms, announced in 2019 and effective in 2020, determine the price of generic drugs based on their quality requirements and listing order *(31)*. Up to the 20th listed medicine, the bioequivalence test performance and the use of drug master file (DMF)-registered substances are required. If both conditions are satisfied, 53.55% of the original price is set. The pricing rate is at 45.52% when one requirement is met, and 38.69% when none are met.

Refund mechanism for medicines

The refund mechanism is based on a contract between the NHIS and pharmaceutical companies to protect the NHI's financial sustainability and promote access to medicines. There are two types of refund systems currently in operation: price-volume-based agreements and risk-sharing arrangements *(42)*.

The Price-Volume Agreement has been in effect since 2009. It aims to prevent excessive spending by the NHI due to an excess of pre-estimated drug sales. Drugs of KRW 1.5 billion (US$ 13 million) or more per year are the target for comparing the expected and actual sales in the previous year. If the excess is greater than a certain level, the pharmaceutical company and the NHIS can negotiate for a discount, on average of 2%, up to a maximum of 10% *(44)*.

Risk-sharing arrangements (RSAs) were introduced in 2013. A similar objective and operation mechanism was tried in a pilot programme, called a refund programme, launched in 2009. The HIPDC decided to terminate the pilot programme and allow medicines to benefit from RSAs once the existing contract expired. This allowed performance-based risk-sharing between the NHIS and pharmaceutical companies *(45)*. The DBCAC determines eligible drugs for an RSA: anticancer or orphan medicines for life-threatening diseases, drugs with no substitute alternatives or therapeutic equivalents, or drugs determined by the DBCAC based on disease severity and societal impact on public health *(42)*. Pharmaceutical companies can choose the type of arrangement for a drug: Refund, Expenditure Cap, Utilization Cap/Fixed Cost per Patient, or Conditional Treatment Continuation with Money Back Guarantee. Drugs exempted from the economic evaluation can apply for an RSA. Between 2013 and 2017, 30 drugs were signed, and patients' access was improved for anticancer and orphan drugs with high savings per capita according to the NHI claim data *(46)*. However, such analysis cannot reveal the full impact of each RSA because of confidentiality clauses and a lack of transparency of payback conditions *(47)*. The NHI claim data consist of patient information on cost-sharing and total medical expenditure prior to the contract fulfilment. Ex-post financial balances and clinical data are needed to provide evidence of the contribution of RSAs to the NHI's financial sustainability and patients' health.

3. SOCIAL HEALTH PROTECTION

SHP is a right-based and people-centred approach to advance UHC (48). It involves quality health care with financial stability regardless of health status. The goal is to support people facing burdensome direct medical expenses as well as indirect costs due to income loss and informal care need.

This chapter will examine relevant policies for SHP in the Republic of Korea in two areas. One is alleviating the direct expenses of health care: the Medical Aid Program and financial support for CHE have a role in financial protection, especially for vulnerable populations. The other area is relieving the indirect costs of illness and diseases, such as personal assistance, the burden of patient's family members during hospitalization and undergoing integration into nursing care. Paid leaves, such as sickness leave and maternity benefits, have been institutionalized to preserve productivity during illness or childbirth.

3.1. Medical Aid Program

The Medical Aid Program was initially one of the benefit packages for livelihood protection for the underprivileged. It was financed through the government's budget after the launch of the NHI in 1977 *(6)*. President Kim Dae-joong, a democratic leader and politician who was democratically elected, led major social reforms after the 1997 economic crisis. The National Basic Livelihood Security System (NBLSS) has served as a social safety net to ensure the minimum living standard since 2000. Besides medical benefits, major benefits include support for housing and education. The operation of the Medical Aid is similar to the NHI except for the revenue source: the NHIS and HIRA contribute to assessing and reimbursing the claims from medical providers, using the revenue

generated by central and local governments *(49)*. The proportion of Medical Aid Program beneficiaries in the total population has gradually decreased since 1980 when they accounted for 18.8%. That declined to 8.9% in 1990 and further to 3.1% in 1995 after universal population coverage was completed. About 3% of the total population has remained as Medical Aid Program beneficiaries since 1995.

Means testing determines the eligibility of people living in poverty by comparing their earned income and 40% thresholds of the standard median income, a reference value for the level of income widely used in Korean social welfare policies. The minister of the MOHW announces the standard median income annually after deliberation and a decision by the Central Livelihood Security Committee. The standard median income reflects relative poverty by benchmarking the median level of national household income *(50)*.

Medical Aid Program beneficiaries are classified as Type 1 or Type 2 recipients. Generally speaking, Type 1 recipients, determined by three laws, are regarded as people without the ability to work. Type 1 beneficiaries also include people the National Basic Living Security Act defines as those unable to work, those who benefit from livelihood security agencies, and registrants with certain disease and conditions (i.e. cancer, severe burns, tuberculosis, rare and incurable diseases). Under the terms of other acts, people eligible for Type 1 recipient classification and benefits also include vulnerable or underprivileged populations, including people living in disaster conditions, refugees, people of national merit, people who are adopted and who are under 18 years of age, people experiencing homelessness and others. Type 2 recipients are defined as those eligible for the Medical Aid Program who do not fall into one of the Type 1 categories. After the NBLSS reform, the proportion of Type 1 recipients increased and has remained at 70% of the total population of people eligible for the Medical Aid Program *(49)*.

In addition to eligibility criteria, the designations of Type 1 and Type 2 determine cost-sharing rates under the Medical Aid Program. Type 1 beneficiaries use inpatient services free of charge and outpatient services with a cost-sharing rate of about US$ 1 to US$ 2 per visit. Type 2 beneficiaries pay a 10% copayment rate for inpatient services and about a 15% copayment rate for outpatient services at hospitals (Table 6). All beneficiaries of the Medical Aid Program are required to make OOP payments for uninsured services or cost-sharing items. Type 2 recipients with disabilities have additional benefits, such as extra discounts or exemptions from copayments.

The Medical Care Assistance Act enables unidentified persons to be admitted to medical institutions for emergency care at no cost to them. In Korea, an “unidentified person” is someone who has no state-issued registration number (which is normally given at birth) or whose registration number cannot be determined at the time they require emergency care. People living in homelessness may have an erased or no registration number, or a person may be admitted for emergency care in a state of unconsciousness or otherwise unable to communicate.

Table 6. Copayment rates for the covered medical services

	NHI	Medical Aid Type 1	Medical Aid Type 2
Inpatient care	20% copayment rate	Free	10% copayment rate
Outpatient care	30% for clinics 40% for hospitals 50% for general hospitals 60% for tertiary hospitals	Flat cost-sharing: KRW 1000 for clinics KRW 1500 for (general) hospitals KRW 2000 for tertiary hospitals	Flat cost-sharing + copayment rate: KRW 1000 for clinics 15% for (general) hospitals, tertiary hospitals

Source: MOHW, 2021.

The Medical Aid Program adopted policy measures similar to NHI regarding financial mechanisms and coverage expansion. Local governments have adopted a copayment ceiling to pay medical expenses exceeding the upper limits of beneficiaries. In 2004, people living in near poverty and with rare and incurable diseases became eligible for the Medical Aid Program. But they switched back to being NHI insured in 2008, a year before the copayment rate for people living with rare and incurable diseases was reduced to 10%.

Civic groups and academic experts criticized the indiscriminate benefit packages, with NHI being less generous than the Medical Aid Program, lump-sum payments, and family support obligation rule *(51, 52)*. In response, the NBLSS implemented reforms in 2015 to customize benefit packages for recipients and ease their family support obligations. As of 2021, the income threshold to receive benefits under the Medical Aid Program is less than 40% of the standard median income *(49)*. The government eased the family support obligation only for livelihood beneficiaries, who are people earning less than 30% of the standard median income, and excluded Medical Aid Program beneficiaries.

Due to the strict eligibility criteria for the Medical Aid Program, those ineligible for this program (especially those whose income is just a little bit above the threshold) pay substantial health insurance premiums and OOP expenses, with only a few reductions *(53)*. At the same time, the Medical Aid Program does not ensure free access to non-covered medical services. Those living in poverty, rather than the NHI insured, are at a higher risk of CHE and impoverishment due to a lower capacity to pay for uninsured services. Therefore, the government has offered financial support for CHE, as shown below.

3.2. Financial support for catastrophic health expenditure

The purpose of financial support for CHE is to prevent undue financial burden due to OOP expenses by compensating low-income households for a portion of health expenditures. Due to high cost-sharing and uninsured services, 2–4% of the population experiences CHE, depending on the data source *(38)*. The government introduced a financial support programme subsidized by a general tax. It began as a pilot programme for severe diseases to alleviate income inequality and prevent impoverishment in 2013. After the legislation in 2018, applicants' income and capital were measured for eligibility assessment. Those in the bottom 50% of income brackets (less than 100% of the standard median income) can be the beneficiaries.

The thresholds of the CHE vary depending on social security status and income level. Beneficiaries who do not receive other public assistance and pay over 15% of their annual income in CHE are

eligible for financial support. If they do receive social benefits, payment over KRW 0.8 million and KRW 1 million (US$ 727 and US$ 909) is considered a CHE occurrence. The same amount of other social benefits is deducted from the financial support. Both inpatient and outpatient care are covered for up to 180 days. Unlike inpatient services, coverage for outpatient service is limited to cancer, cerebrovascular disease, heart disease, rare diseases, incurable diseases and severe burns. The government subsidizes 50% of the total payment up to KRW 20 million (US$ 18 182) per year, including copayment and uninsured services. The project positively alleviated the burden of household medical expenses *(38)*. However, people living in poverty receiving other social welfare were prohibited from overlapping benefits, weakening the policy impact.

Low-income households struggled with the high risk of unemployment or poverty during the COVID-19 pandemic. The MOHW has taken actions based on the Act on the Support for CHE enacted in 2018 and revised in 2021. The MOHW raised the upper limit of financial support to KRW 30 million (US$ 27 000), paying 80% to 50% of the total CHE, depending on the income bracket of households below 200% of the standard median income *(54)*.

3.3. Personal assistance

Besides medical services and goods, patients and their family members often need to pay indirect medical expenditures such as transportation, food and opportunity costs. Whether such indirect costs should be subsidized or covered by NHI is deeply rooted in Korean society's cultural and systemic context, and in its values.

Acute care hospitals in the Republic of Korea often use minimum employment for inpatient services to minimize costs (55, 56). For decades, it was taken for granted that family members would bear the cost of hiring a caregiver or the opportunity cost of staying with the patient. Social demand for personal assistance services has risen along with the increase in female participation in the workforce, cost of caregiver labour and patient expectations about the quality of care. In 1999, a policy implemented incentives according to nurse staffing levels, which had a positive impact on the nurse-to-bed ratio in most tertiary hospitals by 2008 (56). But there was little change in nurse staffing at hospitals located in the suburbs and rural areas or at those with fewer than 250 beds. The MOHW announced an Integrated Nursing and Care Service scheme by ward in 2015 after a series of experimental measures. The government applied multi-layered incentives for hospitals: supporting investment in supplies and equipment, differentiating fees by time window and service type, and providing additional payments to help hospitals meet staffing requirements. The number of institutions (and beds) operating under the Integrated Nursing and Care Service scheme has rapidly increased, from 112 institutions (7443 beds) in 2015 to 534 institutions (49 067 beds) in 2019.

3.4. Sickness and maternity benefits

According to article 50 of the National Health Insurance Act, NHIS can provide cash benefits as prescribed by presidential decree. Among other benefits, including sickness allowances, the enforcement ordinance addresses benefits related to pregnancy and childbirth *(31)*. However, social demand for the right to rest escalated in response to the COVID-19 pandemic. Sickness leave was encouraged in private and public sectors. The government announced a pilot programme implemented in six regions in 2022 *(57)* that 2.63 million people, or 5% of the general population, would receive 60% of the minimum wage per day for sickness leave. In December 2021, the Korean National Assembly approved the agreement on the 2022 budget, which allocated KRW 11 billion to

the MOHW for the pilot programme *(58)*. The three schemes will be evaluated using different eligibility and payment criteria.

Maternity leave has been the only statutory paid leave in the Republic of Korea as the country faces a rapidly declining birth rate *(59)*. According to Article 74 of the Labour Standards Act, maternity leave is guaranteed for a total of 90 days with full income compensation by either the employer or employment insurance, depending on the number of employees the employer has. Since 2008, the MOHW has also offered vouchers and compensated people for OOP payments for pre-and postpartum care and prenatal screening. The upper limit and the scope of usage were expanded in 2019 to cover medical expenses for neonates *(31)*. Despite these incentives to increase the birth rate, fewer workers have taken maternity leave: falling from 90 000 in 2012 to 70 000 in 2020 *(60)*. Multidisciplinary studies and public advocacy have emphasized disincentives to taking maternity leave, and the government has taken other measures: working-hour reductions, financial support for the use of assisted reproductive technologies and parental leave. Beginning in 2001, the Ministry of Employment and Labour raised cash benefits from employment insurance. The total number of workers on parental leave increased from about 64 000 (over 62 000 women and over 1000 men) to some 112 000 (over 84 000 women and over 27 000 men) between 2012 and 2020 *(60)*. The experience rate was higher for office workers and workers at companies with more than 100 employees *(61, 62)*.

4. LONG-TERM-CARE INSURANCE

4.1. Aging society and care for older people

The Republic of Korea has an aging population. In 2000, when social welfare reforms introduced a national pension scheme and strengthened employment insurance, more than 7% of the total population was aged 65 or older. At that point, those who had already retired or lost the ability to work barely had public means to ensure their livelihood in later life. Those elderly without income or properties primarily relied on their families or continued working for a scant amount of income. By 2017, the proportion of the elderly population over 65+ exceeded 14%. The poverty rate for the elderly aged 65 and over was 58.4% for market income and 42.3% for disposable income at the threshold of 50% of median income *(63)*.

Rapid population aging also led to demographic and social changes. As suggested in Table 1 , the Republic of Korea experienced a record-breaking decline in the total fertility rate and a drastic increase in the dependency ratio. Over the past 40 years, the total fertility rate fell from 3.4 in 1975 to 1.2 in 2015, approaching below one. On the other hand, the dependency ratio nearly tripled from 6.0 to 17.5 between 1975 and 2015. More women with better health and higher education have participated in the labour market. Fewer people view childbirth, child-rearing, and living with parents as a family norm or obligation *(64, 65)*. Domestic work, including informal care and housekeeping, has been commodified or outsourced. This change has put those unable to perform daily activities independently and those a family caregiver cannot help at risk of a higher financial burden to access care.

As the population aged, elderly people increasingly relied on social welfare programmes and needed assistance in daily life. The progressive administration, which succeeded the civilian government in 2003, unveiled the five-year Basic Plans on Low Birth Rates in Aging Society, in article 20 of the Framework Act on Low Birth Rate in an Aging Society in 2006. Long-term care insurance (LTCI) was expected to cover the cost of services to support the daily living needs of the elderly, strengthen

financial protection for eligible beneficiaries, and ensure the sustainability of NHI by reducing social admissions.

4.2. Introduction and development

LTCI, a contribution-based compulsory insurance, was introduced in 2008. Based on the Long-term Care Insurance Act of 2007, NHIS served as the insurer, providing a government subsidy for elderly people living in poverty. The insurance premium rate was calculated as a percentage of the NHI premium rate to reduce resistance. The LTCI contribution rate started at 4.05% of the NHI contribution in 2008 and remained at 6.55% between 2010 and 2016. The LTCI revenue automatically rose with the fixed premium rate linked to the NHI contribution rate between 2010 and 2016 (Table 7). The Moon Jae-in administration announced a series of reform plans across multiple fields such as public health, medical care, long-term care and social welfare. The LTCI contribution rate experienced a sharp increase: as of 2020, the contribution was 10.25%, reflecting a growing expenditure on LTCI. Total financial resources rose more than 11 times from KRW 869 billion (US$ 790 million) in 2008 to KRW 9614 billion (US$ 8.74 billion) in 2020, and total spending more than 17-fold from KRW 555 billion (US$ 504 million) to KRW 9470 billion (US$ 8.61 billion).

The LTCI collects insurance contributions from all the NHI insured and determines eligibility using the care needs certification (CNC) system *(66)*. The number of CNC applicants and LTCI beneficiaries have both surged as the population has aged. As a result, the number of eligible recipients of LTCI-covered benefits has increased from 330 000 in 2010 to 1 million in 2020.

Service types in the LTCI are divided into institution benefits and home- and community-based services (HCBS) benefits. The institution benefits include staying in a nursing home or group housing facility. The HCBS benefits consist of home-visit care, home-visit bathing, home-visit nursing, day and night care and so on. A special cash allowance can be offered in limited conditions, for example, when no service providers can approach remote areas where beneficiaries live. Compared to other medical and social services, the introduction of HCBS to the Republic of Korea is relatively recent. HCBS has grown its share in the overall service provision market from 68.8% in 2010 to 76.0% in 2020, because competition between small-scale service providers has been intensified. Inducing economies of scale by establishing a corporation may contribute to the improvement in service quality and overall efficiency of the system *(67)*.

Table 7. The trend in the population coverage of the national health insurance

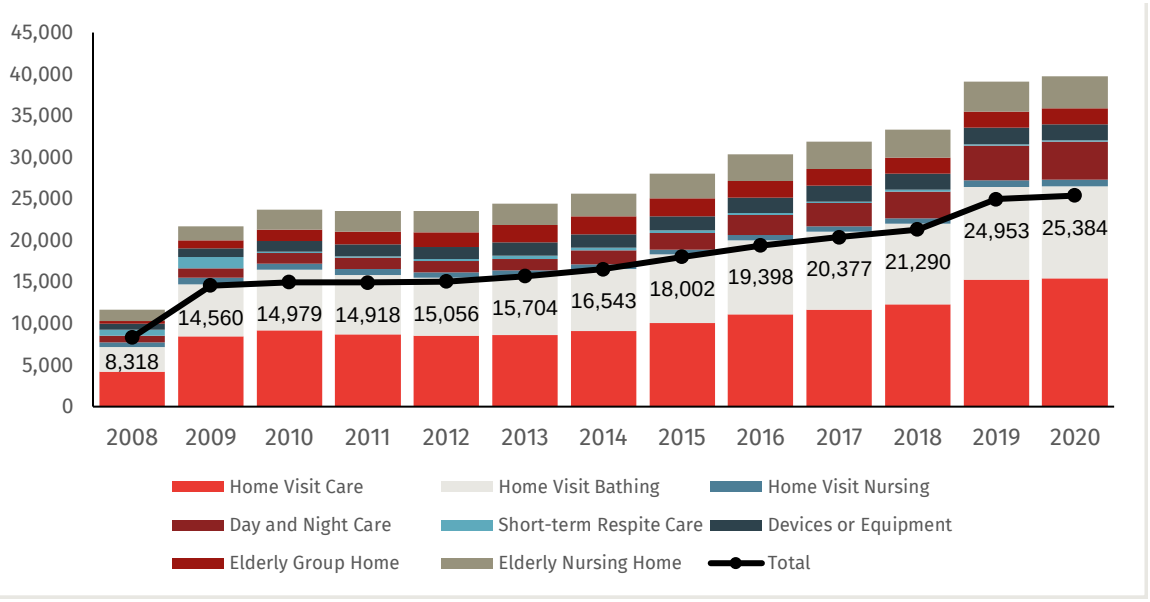
		2008	2010	2012	2014	2016	2018	2020
Financing for the LTCI								
Contribution rate (%)		4.5	6.55	6.55	6.55	6.55	7.38	10.25
Total revenue (A, billion KRW)		869	2878	3562	4149	4730	6153	9614
Total cost (B, billion KRW)		555	2589	2937	3850	4723	6801	9470
Ratio of cost over revenue (B/A)		**63.9%**	**90.0%**	**82.5%**	**92.8%**	**99.9%**	**110.5%**	**98.5%**
Population characteristics related to the LTC Care								
Proportion of the elderly population to the total population		10.2	10.9	11.7	12.7	13.5	14.8	16.4
Applicants (thousands)	Total	356	622	643	737	849	1009	1183
	Over 65-year-old	339	586	604	695	803	959	1128

		2008	2010	2012	2014	2016	2018	2020
Approval rate after the assessment		**-**	**54.2%**	**77.0%**	**79.4%**	**80.2%**	**82.4%**	**85.1%**
LTC benefit recipients	Total (Thousand)	-	338	495	585	681	832	1007
	NHI insured	**-**	**78.8%**	**78.2%**	**79.6%**	**79.8%**	**80.8%**	**81.3%**
	Medical Aid	-	21.2%	21.7%	20.5%	20.2%	19.3%	18.8%
Service types	Institutions	-	20.7%	25.0%	23.9%	22.3%	18.8%	14.1%
	HCBS	-	68.8%	64.1%	64.5%	65.6%	68.5%	76.0%

Note: The eligibility, items and process for the investigation and assessment for the applicants were prescribed by Ordinance of the MOHW.
Source: NHIS. LTCI statistics for the elderly.

The supply of LTC-providing institutions expanded, with the number of providers increasing substantially between 2018 and 2019 (Figure 2). More than half of the services are home-based, and a substantial portion of providers can offer varying types of services. Unfortunately, the performance and satisfaction of LTC services are not guaranteed.

Figure 2. Number of institutions providing long-term care



Note: As multiple types of services are provided by a single institution, the sum of each type is greater than the total. Red dots with white numbers represent total numbers.
Source: NHIS, LTCI statistics for the elderly.

The total health expenditure and the share for the elderly have risen even since the introduction of LTCI. The relationship between the NHI and LTCI has been examined closely and depends on the type of hospital. For example, health status and treatment needs of patients at acute-care hospitals differ from those at LTC hospitals. Per diem-based payment for LTC hospitals allows for long stays for those without family caregiving or housing stability *(68)*. Others, with low medical needs, who have a relatively high ability to pay, have been incentivized to stay for a long time in LTC hospitals until the expenditure reaches the threshold of the copayment ceiling. After that point, there is no financial burden of payment *(35)*. Such abuse of the medical system persists and contributes to the cumulative increase in health care expenditure of older people in the NHI.

4.3. Payment and coverage

NHIS manages the LTC insurance system (i.e. revenue, entitlement, payment). NHI insureds contribute to LTC insurance while receiving benefits only when they meet the eligibility criteria. The criteria include age, diagnosis and inability to perform activities of daily living (ADLs). The NHIS eligibility assessment aims to identify whether those aged 65 or more have difficulty performing ADLs or whether those under age 65 are living with a geriatric illness-related physical disability. The CNC system was developed using a standardized 52-item functional assessment tool and assessment procedure for applicants across the country *(66)*. Item values are used to score and calculate the level of LTC applicants through a computerized formula. Eligibility assessment began with three levels in 2006 and extended to five levels in 2014.

The level determines the service coverage, supply capacity and copayment. The LTCI initially set three levels, which were reorganized into five levels in 2014, and it approved a new level for cognition assistance in 2018. As of 2021, five levels ranged from Level 1 (entirely dependent) to Level 4 (moderately dependent), followed by Level 5 (people with dementia and low physical dependency) *(66)*. Level 6 was introduced for people with early-stage dementia, providing in-kind benefits for day care centres and family respite care. All beneficiaries needed to receive a renewal assessment every two to three years depending on the level. The strategy was to expand benefits for beneficiaries with chronic illnesses and degenerative diseases while encouraging self-care for beneficiaries with improved health. Unlike medical services, which prevent and treat illness and diseases, LTC services can assist people with ADLs. Since the number of applicants and beneficiaries has increased, the time window for renewal assessment has been extended to alleviate the administrative inefficiency. For instance, people classified at Level 1 who are bed-ridden were exempted from the requirement for a renewal assessment.

Benefit packages consist mainly of in-kind benefits: home or institutional care (21). Home-based services are paid by times of visit, hour or day and institutional care is paid per diem. The beneficiaries' classification level determines the range of services and monthly upper limits that LTC will pay. The copayment remains 20% for institutional care and 15% for home-based care for all five classification levels. As with medical care, reductions of 60% to 40% are available based on the ability to pay. Assistive devices can be bought or rented with benefits covering up to KRW 1 600 000 (US$ 1454) of the cost per year. Items eligible for purchase or rent were announced by the NHIS. Cost-sharing rates depended on the eligibility of beneficiaries: 15% for all beneficiaries, 6% or 9% for those paying reduced insurance premiums, and 0% for those benefiting from basic livelihood subsidies. NHIS used to announce a fee schedule with no formal negotiation with LTC providers (21). Currently, the Long-Term Care Committee, comprising 22 members representing providers, insureds, and the government/public sector, play a role in deliberating contribution rates, benefits packages and fee schedules.

5. WAY FORWARDS

In 2019, the Republic of Korea celebrated the 30th anniversary of the achievement of UHC, the 20th anniversary of the single-payer system for the NHI, and the 10th anniversary of the introduction of LTCI. Many factors shape the road towards UHC. The Republic of Korea case shows a historical path and provides lessons for reforms advancing SHP and UHC. The social health insurance system has built on changes in demographic structure and political-economic development. Health care reform is inherently political, with vested interest groups playing an active role.

The early history of NHI demonstrates that its organizational structure is the key to risk-pooling. Multiple health insurance funds led to a problem of inequity and limited efficiency in purchasing. Since the merger, the single centralized payer has been more effective in financial protection, revenue generation, risk-pooling and purchasing. Expanding the benefits coverage and contribution base has been more important in recent reforms. The NHI of the Republic of Korea still needs to strengthen financial protection, especially for those living in poverty, by expanding public funding. A pilot programme for sickness benefits, a representative measure of SHP, is planned following the experience of the COVID-19 pandemic.

Governance structures are also important for participation and accountability. Private clinics and hospitals in the Republic of Korea have held a monopoly on health care provision while they cannot opt out of the NHI. NHIS, a single-insurer, has influenced service delivery by – strict price regulation with no-balance billing. But the fee-for-service payment system provides medical providers with strong incentives to increase the volume and intensity of care. There have been measures to strengthen governance of health policy. A citizen committee and expert committees have supported deliberation and resolution by the HIPDC. For value judgement, the citizen committee empowered patient groups and the general public to deliberate on explicit principles and criteria to set priorities in the NHI benefits package. Expert committees provide scientific evidence and consensus, collaborating with clinical providers, academic researchers and public authorities.

The reforms to the NHI expanded benefit coverage and contribution exemption for the elderly without other social security nets, resulting in rapid increase in health expenditure. The LTCI was introduced as a response to the unprecedented rate of population aging and poverty among the elderly. Unlike the NHI, the LTCI simplified the service types and fee schedules. Limited coordination between the NHI and LTCI worsened a perverse incentive for long stays at LTC hospitals. Continuum of care and quality assurance are vital to prevent spillover effects on the health and long-term care system. The recent reform in community care (for aging in place), with the launch of a pilot programme in 2019, supports comprehensive care coordination of preventive care, acute care, rehabilitative care and LTC with community-level welfare services.

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ANNEX 1. TIMELINE OF THE DEVELOPMENT OF SOCIAL HEALTH PROTECTION AND HEALTH FINANCING IN THE REPUBLIC OF KOREA

KEY	Total policy measures in each reform area
Benefit coverage & payment	28
Long-term care	5
Governance	9
Population coverage	7
Social health protection	12

Macro-level events	Date	Reform areas	Policy measures
Military Coup	1961	Social health protection	Livelihood Protection Act was enacted
First Five-Year Economic Development Plan (1962-1966)	1962		
	1963	Governance	Medical Insurance Act was enacted for voluntary enrolment
	1976	Social health protection	Medical Insurance Act was revised for compulsory enrolment as a legal foundation for SHP and UHC
Fourth Five-Year Economic Development Plan (1977-1981)	1977	Population coverage	Employees of large companies with more than 500 workers were enrolled in NHI
		Social health protection	An MA programme for people living in poverty was initiated
	1979	Population coverage	Government employees, teachers and employees of companies with more than 300 workers were enrolled in NHI
	1981	Population coverage	Employees in companies with more than 100 workers were enrolled in NHI
		Social health protection	A pilot programme for the self-employed was implemented in three rural areas
		Social health protection	Welfare of Senior Citizens Act was enacted
	1982	Social health protection	The pilot programme for the self-employed was implemented in five rural and one urban areas
	1983	Population coverage	Employees in companies with more than 16 workers were enrolled in NHI
13th presidential inauguration (Roh Tae-Woo)	1988	Population coverage	The pilot programme covered all self-employed in rural areas
	1989	Benefit coverage & payment	Pharmaceuticals were covered by the NHI benefit package
		Population coverage	The programme covered all self-employed in urban areas, and mandatory health insurance achieved the universal coverage of population

Macro-level events	Date	Reform areas	Policy measures
14th presidential inauguration (Kim Young-Sam)	1993		
	1994	Benefit coverage & payment	Long-term care hospitals were introduced for rehabilitation, mental health and post-acute care
Financial Crisis in Southeast Asia	1997	Benefit coverage & payment	A DRG-based payment was launched as a pilot programme based on voluntary participation
15th presidential inauguration (Kim Dae-Jung)	1998	Governance	National Medical Insurance Act enacted succeeding Medical Insurance Act
		Governance	The Fiscal Stabilization Fund was established to reallocate contribution revenues across insurance funds
	1999	Governance	National Health Insurance Act enacted to succeed National Medical Insurance Act (enforced on 1 January 2000)
		Governance	Fee schedule began to be negotiated between the insurer and provider associations
	2000	Governance	All health insurance funds were merged into a single national health insurer (NHIS)
		Governance	Medicine prescribing and dispensing were separated between doctors and pharmacists
		Benefit coverage & payment	The fee scheduling method changed to be based on a RBRV system
		Social health protection	The NBLSS was launched
	2002	Governance	A HIPDC was introduced to decide the coverage of benefits package
16th presidential inauguration (Roh Moo-Hyun)	2003	Governance	Financial accounts of the NHI schemes were consolidated
	2004	Social health protection	The National Basic Living Security Act, enacted from Livelihood Protection Act
		Benefit coverage & payment	A copayment ceiling was introduced for cumulative OOP payments over six months
	2005	Benefit coverage & payment	A four-year benefit expansion policy (2005–2008) was announced
First Basic Plans on Low Birth Rates in Aging Society (2006-2010)	2006	Benefit coverage & payment	Copayment reductions from 20% to 10% were applied for cancer and cardiovascular diseases
		Benefit coverage & payment	The positive list system was introduced
	2007	Benefit coverage & payment	The user fee for outpatient care was applied to MA beneficiaries: KRW 1000 for primary care and KRW 2000 for tertiary hospitals
		Long-term care	LTCI Act was enacted

Macro-level events	Date	Reform areas	Policy measures
17th presidential inauguration (Lee Myung-Bak)	2008	Long-term care	LTCI was introduced, separate from the NHI, but managed by the NHIC
		Benefit coverage & payment	Fixed rate per diem payment system for LTC hospitals was introduced
		Benefit coverage & payment	Economic evaluation was required for listed drugs
		Benefit coverage & payment	Conversion factor for fee scheduling was subdivided by the medical institution
	2009	Benefit coverage & payment	A five-year benefit expansion policy (2009–2013) was announced
		Benefit coverage & payment	Copayment reductions from 20% to 10% were applied for rare and incurable diseases
		Social health protection	The cost of hospitalization for Type 2 MA beneficiaries was reduced from 15% to 10%
		Benefit coverage & payment	A new DRG-based payment, a combination of prospective payment and fee-for-service, was implemented as a pilot programme
		Benefit coverage & payment	The Price-Volume Agreement was implemented
	2010	Benefit coverage & payment	Copayment reductions from 10% to 5% were applied for cancer and cardiovascular diseases
	2011	Benefit coverage & payment	Pay-for-performance scheme on a few services was implemented based on quality assessments
		Social health protection	Dementia Management Act was enacted
	2012	Benefit coverage & payment	The DRG-based payment system for seven DRG was mandatorily implemented at clinics and hospitals
		Social health protection	The homeless became a Type 1 beneficiary of MA
18th presidential inauguration (Park Geun-Hye)	2013	Benefit coverage & payment	A five-year benefit expansion policy (2014–2018), the Benefit Expansion Policy for Four Major Severe Diseases, was announced
		Benefit coverage & payment	The DRG-based payment system for seven DRG was mandatorily implemented at general and tertiary hospitals
		Benefit coverage & payment	A pilot programme for RSA was launched for orphan drugs and pharmaceuticals against cancer and rare diseases
	2014	Benefit coverage & payment	The copayment ceiling was further expanded from three to seven income levels
		Benefit coverage & payment	Economic evaluation exemption for anticancer and orphan drugs
		Long-term care	The levels of eligibility of LTCIs were expanded from three to four levels

Macro-level events	Date	Reform areas	Policy measures
MERS outbreak	2015	Social health protection	NBLSS reforms expanded population coverage and personalized the benefits in four categories
19th presidential inauguration (Moon Jae-In)	2017	Benefit coverage & payment	A five-year benefit expansion policy, called Moon Jae-In care or Moon Care, was announced
	2018	Population coverage	Compulsory enrolment in health insurance for all foreigners and immigrants staying in the Republic Korea for more than 6 months
		Benefit coverage & payment	Extra charge for treatments by highly experienced specialists was banned
		Long-term care	Dementia patients at an early stage became eligible for LTC insurance
	2019	Benefit coverage & payment	The First Comprehensive Plan of NHI (2019–2023) was established
		Long-term care	A two-year pilot programme for community care (for aging in place) began in 16 districts
COVID-19 Pandemic	2020	Benefit coverage & payment	Telemedicine was temporarily permitted in response to the COVID-19 pandemic