Case study

Republic of Korea

Soonman Kwon
Seoul National University
Republic of Korea

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Abstract

The Republic of Korea (henceforth referred to as Korea) uses price regulation for health care that is based mainly on fee-for-service (FFS). FFS in Korea has been applied to outpatient and inpatient care for all levels of providers, from physician clinics to tertiary care hospitals, since the introduction of mandatory health insurance system in the late 1970s (which later reached universal coverage for the population in 1989). The goal of price regulation was to ensure access to health care and contain health expenditure by tightly regulating the price of health care in the context that the majority of health care providers are private. Initially, private providers were opposed to the fee scheduling of the national health insurance (NHI) system, where balance billing is not allowed. However, the authoritarian government in the late 1970s was able to enforce a unilateral fee setting for all providers that denied an opt-out option so that the same fee schedule applied to both public and private providers.

Since 2000, the National Health Insurance Service (NHIS) and each provider association (physicians, hospitals, pharmacists, etc.) negotiate the fees. When negotiations fail, the tripartite Health Insurance Policy Deliberation Committee (HIPDC) decides the fee. Health Insurance Review and Assessment (HIRA) also plays an important role in costing and analyzing provider behaviour related to pricing. Pricing for health care is based predominantly on FFS, with the exception of Diagnosis Related Group (DRG)-based payment for six disease categories and per-diem case-based payment for long-term care (LTC) hospitals as well as the piloting of a mixed payment of DRG, FFS and per-diem payment. There is no bundled payment system to cover the services given by the different levels of providers.

1
Development of National Health Insurance and Purchasing Mechanism

NHI of Korea has adopted price regulation for health services since its inception. Although not explicitly stated, keeping prices low through fee scheduling has been regarded as essential for the cost containment and financial sustainability of NHI. Price regulation has long been one of the most important elements of purchasing in the Korean NHI system. In the early stage of health insurance development, the government used price regulation to keep premium contributions low and expand population coverage rapidly. Price regulation has been the main target of complaints by health care providers, which are predominantly private, who maintain that the low fees fail to compensate for the cost of service provision (Kwon, 2009a).

When national health insurance was introduced, the government set the fee schedule lower than customary charges, although there is no scientific evidence on the extent that NHI reimbursement covers the cost of provision. The government was worried that the majority of health care providers would not contract with NHI when the contract conditions, such as payment level, were not generous, resulting in potential access problems for the insured. Consequently, the government mandated all health care providers to join the NHI system. In other words, providers were not allowed to decline treatment to NHI patients. However, the mandatory participation of providers also means that NHIS does not selectively contract with providers nor exercise its purchasing power as a single payer.

More than 300 health insurance funds/societies, covering three different types, namely, public employees and school teachers, private sector employees, and the self-employed, were merged into a single fund in 2000 (Kwon, 2018). Since then, national (public mandatory) health insurance has two agencies. NHIS handles premium collection, fund pooling, and reimbursement to providers. HIRA deals with purchasing, such as claim review as well as the design of benefits package and provider payment system. Providers submit medical care claims to HIRA, which reviews and assesses the claims and sends the information to NHIS for reimbursement to providers. The launch of a single purchaser to some extent provided an opportunity for NHI to strengthen its purchasing capacity, including a more sophisticated method and process related to price setting.

NHIS sets and collects insurance contributions and manages the eligibility of the insured, health insurance benefits, including prevention programs, and reimbursement to providers. NHIS manages both health insurance and LTC insurance. HIRA reviews expenses associated with the health insurance benefits utilized, assesses the appropriateness of the

health care utilized by comparing with guidelines or clinical decisions of similar providers, and develops standards for benefits and reimbursements.

Although reimbursement to providers is paid by NHIS, HIRA plays an important role in the purchasing through claim review and quality monitoring; guidelines for quality; designing benefits standard for providers (criteria of reimbursement); payment system and costing; listing and classification of procedures, pharmaceuticals and materials for provider payment and claims; and resource management through the profiling of providers and high-cost technology/equipment. HIRA plays the major role in the technical work regarding collecting and analysing provider activity and cost data.

In terms of governance, the NHIS's board of directors consists of 16 members: one president, 14 directors, and one auditor. The president, auditor, and five directors work full-time. NHIS has one headquarter (eight bureaus), one research institute, six regional offices, 178 branch offices, one general hospital, and one LTC facility (www.nhis.or.kr). NHIS has about 14 000 workers. HIRA has one headquarter (22 departments), one research institute, and seven regional offices. One of the key institutions of HIRA is the Healthcare Review and Assessment Committee, which consists of less than 1050 members and maximum of 50 full-time members, who play an important role in the benefits design, and the review and assessment of claims. HIRA also has various expert committees to support technical decisions. In total, HIRA has about 2500 workers.

The main responsibility for NHI policy formulation and planning is on the Ministry of Health and Welfare (MoHW). MoHW plays a key role in translating health policy goals and service planning priorities into NHI programs (Kwon, Lee and Kim, 2015). To implement NHI, NHIS and HIRA monitor and assess claims, health care utilization, health care cost, etc., and give reports and recommendations to the MoHW.

2
Governance of Price Regulation

In the single insurer system established after the merger, major decisions on health insurance, such as contributions and benefits coverage, became a national agenda and required a new policy framework (Kwon, 2003a). NHI introduced an annual price negotiation between the insurer and provider associations, replacing the unilateral price setting by the insurer and the MoHW. Initially, NHIS negotiated the annual increase in fee with the coalition of provider associations, i.e., both medical and hospital associations. Because it was difficult to get consensus among all provider associations, these negotiations rarely succeeded. This condition changed after negotiations were changed to occur between the NHIS and individual provider associations. The negotiation is on price only, without consideration of volume or a sectoral/overall spending cap.

After experiencing a big financial deficit in 2001 as a result of a fee hike for physicians after their strikes against pharmaceutical reform (Kwon, 2003b), the health insurance system introduced HIPDC, which approves major decisions on health insurance, such as the contribution rate, benefit packages, pricing, etc. When the annual negotiation on price increase fails between NHIS and each provider association, e.g., medical, hospital, dental, traditional medical, pharmaceutical, etc., HIPDC makes the final decision on fees.

As a tripartite committee, HIPDC consists of 25 members, including the Vice Minister of Health and Welfare as the Chair, and representatives of payers, providers, and expert/public interests. Eight members represent payers (two from labour unions, two from employer associations, and one from a civic group, consumer association, farmers association, and self-employed association, respectively), eight from health care providers (two from the Korean Medical Association, and one from the Korean Hospital Association, Korean Traditional Medical Association, Korean Dental Association, Korean Pharmaceutical Association, Korean Nurse Association, and Korean Pharmaceutical Manufacturers Association, respectively), and eight experts and public agency representatives (one from MoHW, Ministry of Strategy and Finance, NHIS, and HIRA, respectively, and four independent experts).

Voting in HIPDC follows a majority rule with a quorum of half of the members. The chair participates in the voting only when no majority is reached. Those representing payers and those representing providers are almost always divided, e.g., payers are against an increase in contribution and provider fee, while providers generally support the increase. In many cases, the eight members representing experts and government/insurer, especially the four independent experts, play a key role in the final vote outcome. The four experts vote independently as individuals.

The decision of HIPDC is final with no mechanism for dispute resolution. The government nominates the four expert members, and provider groups criticize that those four experts are not neutral or independent but often biased against providers. Provider groups maintain that two out of four experts should be nominated by providers and two by payers rather than by the government.

HIPDC is also involved in benefits decisions. A request for a service to be included in the benefits package can be submitted by provider associations, consumer groups, NHIS, etc. The request should be endorsed by HIPDC with crucial inputs provided by NHIS and HIRA. Pharmaceutical manufacturers submit a request for medicines to be covered by NHI, for which HIRA makes a decision on listing based on economic evaluation and other considerations (budget impact, severity of disease, etc.). Then, NHIS negotiates the price with the manufacturer. Pharmaceutical spending accounts for 22.5% of total health expenditure as of 2017 (OECD, 2018).

Under NHI, the copayment rate for inpatient care is 20%, except for cancer and cerebrovascular patients (5% copayment rate). A reduction in the copayment for cancer patients has improved equity in health care access and payment (Kwon, Lee, and Kim, 2015). Copayments for outpatient care are 30-60% depending on the level of providers, i.e., physician clinics, hospitals, general hospitals, and tertiary care hospitals. There is a ceiling on total copayment for NHI every six months, with a higher ceiling applied for higher income groups (total of seven groups). Patients pay the full price for uninsured services, i.e., those not included in the benefits package.

3
Provider Payment Systems and Pricing

Fee for Service (FFS) Payment

FFS is applied to outpatient care and the majority of inpatient care in acute care hospitals. There is little distinction between primary and specialist care, e.g., the majority of physician practitioners working in clinics are board-certified specialists, and there is a very limited role of gatekeeping and referrals. As a result, there is a uniform fee schedule for all types of outpatient care. HIRA classifies services and procedures for fee scheduling under FFS payment. On the other hand, providers tend to prefer classification into as large a number of services as possible. As of 2014, there were 7489 services and procedures, 18 262 materials, and 15 734 medicines in the benefits package reimbursed by FFS payment.

The fee schedule is based on a Resource-Based Relative Value (RBRV) system. Relative value considers physician workload (time and effort) and overhead cost plus the risk associated with malpractice, although its amount is very small compared with the workload and overhead components. One of the key weaknesses of RBRV is that medical care is valuated based on the input of providers and its value to patients (e.g., contribution to health outcomes) is not considered in the pricing. In other services, for example, two services with identical input costs lead to the same price even when the contribution/benefit of the two services to patient outcomes are different.

The measurement of physician workload is delegated to provider associations, and the measurement of the overhead cost is the responsibility of HIRA. The relative value scale covers all medical care, and the determination of relative value includes a lengthy bargaining process among specialties as it tends to redistribute income among them. For example, the relative values for surgery, radiology services, and laboratory tests are still regarded as over-valued compared with consultation services in Korea. As a result, the relative value scale of individual services is revised only periodically through technical committees with the participation of medical

societies. The conversion factor (unit price per relative value, which is used to convert the relative value into a fee) is negotiated between NHIS and each provider association every year, as mentioned above.

The value of physician workload is controversial. There is a big concern about using physician income to determine the value of workload in the RBRV because physicians seem to earn excessive income as a result of an imperfect market for medical care, i.e., monopoly power of the medical profession. Physician workload is the major component of the cost of clinics, but overhead cost accounts for a larger share of hospital costs. Consequently, overhead cost measurement and allocation is a very important element of RBRVs for hospitals. The allocation of overhead cost to various departments and further to individual services is highly controversial and can even be arbitrary. Because the majority of hospitals are private, HIRA's research on fee scheduling (usually in collaboration with universities and research institutes) is based on only a small number of sample hospitals, which causes controversy over the representativeness of the cost data. HIRA provides some financial incentives for providers that join the sample, so the sample changes each year, and its composition is not representative. To get accurate data for costing is always a challenge for price setting in Korea.

The FFS system has led not only to an increase in volume and intensity of services, but also to the provision of services with a greater margin and even a distortion in the supply of medical specialties in the long run. For insured services, physicians are not allowed to charge more than the fee schedule set by NHI (i.e., no balance billing). However, physicians can provide both insured and uninsured services in the same episode of care/visit and charge high fees for uninsured services (so called, extra billing) to compensate for the low pay by the tight fee schedule for insured services.

Case-based Payment

DRG-based payments has been applied for seven minor surgeries since July 2012, including lens procedures, appendectomies, caesarean sections, tonsil and adenoid procedures, inguinal and femoral hernia procedures, anal procedures, and uterine and adnexa procedures for non-malignancies. The DRG payment system accounts for only about 5% of inpatient care expenditure. HIRA has a department responsible for the classification, pricing, and evaluation associated with DRG-based payments.

To transition from FFS to DRG payment for inpatient care, the government launched a DRG pilot program in February 1997 for voluntarily-participating providers. The pilot program confirmed the positive impacts of the DRG payment on the behaviour of health care providers, such as a reduction in the length of stay, medical expense, average number of tests, and the use of antibiotics without a negative effect on quality of

care (Kwon, 2003c), but strong opposition by providers has been a stumbling block to extending the DRG system beyond the seven minor surgeries listed above.

A combination of per-diem, FFS, and DRG payment, which is known as a new case-based payment in Korea, but is very similar to the DPC (Diagnosis Procedure Combination) payment in Japan, is applied for all cases in NHIS Ilsan Hospital and all local government hospitals (Annear et al., 2018). In this payment, hospitals are still paid for more hospital days exceeding the pre-specified level, albeit at a reduced rate (80%), and reimbursed through FFS for those services whose fee is over about US$ 100. Because it is not a pure prospective payment, the government expects that providers are more willing to accept this new type of case-based payment compared with the DRG-based payment. However, this new payment has a limited impact on the efficiency of provider behaviour. It has not reduced the length of stay or health expenditure, but rather increased the provision of services that are more expensive than the threshold level of US$ 100 in participating hospitals (Kwon et al., 2013). Due to provider opposition to the DRG-payment system, the government seems committed to a mixed payment system similar to DPC and has encouraged (private) hospitals to join its pilot program by offering the carrot of high fees.

Pay for Performance

HIRA has implemented pay for performance (P4P), or the Value Incentive Program, for selected areas, but mainly for tertiary care and general hospitals. It began with AMI (acute myocardial infarction) and caesarean sections. Performance measures used volume, process (use of timely interventions and medications), and outcomes (mortality within 30 days) for AMI, and the difference between actual and risk-adjusted rates in caesarean sections. The performance of 43 large general hospitals was first evaluated at the end of 2008, resulting in hospitals being divided into five groups (relative ranking). A financial incentive, which was 1% of total health insurance reimbursement, was paid to group 1 at the end of 2009. A financial disincentive, which was -1% of insurance reimbursement, was introduced in 2010 when scores lower than the (absolute) threshold (highest score of hospitals in group 5 in 2008) were recorded. It is reported that P4P resulted in 1.55% improvement in the quality measure for AMI between 2007 and 2008, a 0.56% point drop in the caesarean section rate, and an overall reduced variance in quality among providers, and significant improvement in the lowest performers (Cashin et al., 2014; OECD, 2010).

The target area and hospitals of the program have been extended, taking into account severity, feasibility, possible improvement, and social impact (HIRA, 2017). As of 2016, P4P covers acute stroke for tertiary care hospitals, surgical antibiotic prophylaxis for general hospitals, hemodialysis for hospitals, and drug prescription for clinics. The financial incentive

structure has also changed. Hospitals are evaluated and divided into five groups as before, but the incentive varies for different target areas. For example, for antibiotic use, the top 3% of hospitals get incentives and bottom 40% are subject to disincentives. For dialysis, top 10% get incentives and hospitals with a performance score under 65 receive disincentives.

The current P4P model focuses too much on clinical quality and should be extended to other important performance measures such as the length of stay, intensity of care, etc. How to use the P4P framework to improve the quality of primary care is a concern too. P4P in Korea currently targets areas where it is easier to measure performance, rather than areas that have the most serious quality issues. Furthermore, participants are mainly big hospitals, not because they have the most serious quality problem, but because their performance is easier to assess or they have less problems of reporting compared to small-scale providers. In the future, P4P based on hospitals should take into account the performance of individual physicians.

Per-diem Payment for Long-Term Care Hospitals

NHI pays LTC hospitals based on per-diem payment, differentiated by seven categories: highest medical need, high medical need, medium medical need, behaviour problems, cognitive impairment, low medical need, and physical function problems. Those seven categories are further classified into subcategories based on ADL (activities of daily living), resulting in 15 different per-diem payment levels.

Per-diem payments are adjusted upward depending on the number of physicians, nurses, and other health personnel above minimum requirements (compared with acute care hospitals, LTC hospitals have lower minimum requirements in terms of medical personnel per patient). Per-diem payment accounts for about 10% of inpatient care expenditure. Per-diem payment does not include all costs, and FFS is applied to CT, MRI, special rehabilitation treatment, dialysis, prescription medicines for dementia, and costs paid for referred services.

Pay for Long-Term Care (by Long-Term Care Insurance)

Korea introduced public insurance for LTC in 2008 (Kwon, 2009b). NHIS manages LTC insurance to collect the contribution, assess the eligibility of applicants, and reimburse providers. All insured with NHI are insured for LTC insurance, but in the case of those under 65 years, LTC insurance provides coverage only for age-related LTC needs. The LTC insurance contribution is collected from all enrollees of NHI. The contribution was set to 6.55% of NHI contributions until 2017, 7.38% in 2018, and 8.51% in 2019.

Benefit packages consist mainly of in-kind benefits, i.e., home care and institutional care; home-visit care/nursing, bathing,

and assistive devices such as wheelchairs, walkers, and bath chairs, etc., for home care services; and aged care facilities and congregate housing for institutional services (Jeon and Kwon, 2017). A ceiling of benefits per month for residential care exists depending on the five different functional levels based on the need assessment. The functional levels are determined when NHIS assesses the eligibility of the applicant for the benefits of LTC insurance.

In NHI, there is a division of labour between NHIS and HIRA, but NHIS performs all necessary functions, including claim review and assessment, in the case of LTC insurance (NHI pays LTC hospitals, while LTC insurance pays LTC facilities, which are not required to employ physicians.). The payment for residential care (at LTC facilities) is per-diem, the level of which depends on the five functional levels of the beneficiary.

The fee is determined by NHIS, with no negotiation of fee between NHIS and providers. NHIS plays the major role in the technical work on collecting and analysing provider activity and cost data. The absence of fee negotiations in LTC insurance, in contrast to NHI, shows the weaker professional/bargaining power of LTC providers compared with health care providers. Separate public insurance for health care and LTC, although managed by NHIS, still causes problems in the coordination of health care (e.g., those provided by LTC hospitals) and LTC (e.g., those provided by LTC facilities) (Kim, Jung and Kwon, 2015).

4
Institutions for Cost Estimation and Price Setting

Price reimbursement to providers by NHIS is supposed to cover both capital and operating costs, although providers argue that the price is below the cost of production such that they incur a loss. Physicians argue that they have incentives to provide uninsured services, for which they can charge market/customary prices, to compensate for losses from insured services. However, there is little scientific evidence to support the providers' argument regarding the fairness of NHIS payments. To the contrary, admission to medical schools has become more and more competitive, and the entry into the hospital market has increased with a comparatively very small number of exits, all of which indicate that the physician and hospital services markets are very lucrative.

Cost finding mainly uses bottom-up approaches with micro-costing. As mentioned earlier, the availability and reliability of cost data is a key challenge, because the majority of providers are private and reluctant to provide detailed information on their financial condition. Providers should submit to HIRA data on the provision of insured services in order to get reimbursement, but neither the government nor insurers have regulatory power to force providers to submit data on

uninsured services because those services are not subject to reimbursement by NHI.

Prices are different for different levels of providers. NHI has a uniform fee schedule, above which it adds 15% more for physician clinics, 20% for hospitals, 25% for general hospitals, and 30% for tertiary care hospitals. The price differential among different levels of providers is based on the idea of a higher fee for higher input cost, but there is no guarantee that a higher cost and price for a higher level of providers leads to higher value/quality for patients. There is little rationale on the amounts of top-up for providers, e.g., why tertiary care hospitals should be reimbursed 10% more than hospitals and 5% more than general hospitals. Further, the higher fee can provide perverse incentives for hospitals to increase their physical capacity to a higher level, resulting in the increasing dominance of big hospitals.

NHI pays a uniform fee to public and private hospitals. Because more than 90% of hospitals are private, the (uniform) fee is regarded as a fee for private providers. Almost all public hospitals have fiscal autonomy, and budget funding for them accounts for a much smaller share of reimbursement from NHI.

For LTC hospitals, NHI pays a 5% lower price for long-term stays over six months and 10% lower price for stays over one year to encourage hospitals not to keep patients longer. It seems that the discount for long-term stays in LTC hospitals is not very effective, because patients of long-term stay usually benefit from the ceiling on out-of-pocket payment under NHI (no out-of-pocket payment once payment exceeds a threshold). For physician clinics, there was a price discount of 10% when the number of patients exceeded 75 per day, but this discount was abolished in 2015.

5 Review and Monitoring of Provider Behaviour

Currently, Korea has a sufficient supply of providers who cannot survive without participating in NHI (in the system of universal population coverage). However, NHI needs to re-consider the mandatory participation of providers. The policy of mandatory participation and no selective contracting limits the single payer NHI to exercise its bargaining power in the selection of providers and maintaining quality of care. The compulsory participation of providers in NHI has been a politically sensitive and controversial issue. Progressive civic groups are worried that the abolition of the mandate on providers will lead high-quality hospitals to not join NHI. Under universal coverage of the whole population, even leading tertiary care hospitals do not have financial incentives to opt out of NHI.

In the absence of selective contracting, review and assessment by the purchaser are important for assuring the quality and

performance of providers. NHIS and HIRA have a strong information and communications technology (ICT) base for their purchasing function. HIRA, in particular, fully utilizes claims data covering all providers and the entire population. For reimbursement, health care providers should submit claims to HIRA; 99.9% of health care providers submit claims through an EDI (Electronic Data Exchange) system introduced in 1996 or Medical Claims Portal Service introduced in 2011. About 1.4 billion claims are filed every year, approximately 65% of which are reimbursed after the electronic review. Thanks to ICT, it takes a maximum 15 days from claim to payment to providers.

HIRA applies an electronic checkup for errors, omissions or miscalculations, and the electronic review is based on indicators such as disease type and medication. Some claims such as outliers are reviewed closely by (full-time) review personnel, with additional input by (part-time) experts or committee members. HIRA reviews claims based on detailed review guidelines. Under FFS payment, the review and assessment are complicated with ever increasing numbers of rules, standards, guidelines, etc. When the review is done, HIRA sends the results to NHIS, which then pays the providers. If providers do not agree with the review results, they can appeal to HIRA. If they cannot accept the results of the appeal, they can appeal to the MoHW. In 2017, HIRA performed on-site investigations of about 950 health care providers, which is about 1.3% of all providers (HIRA, 2018).

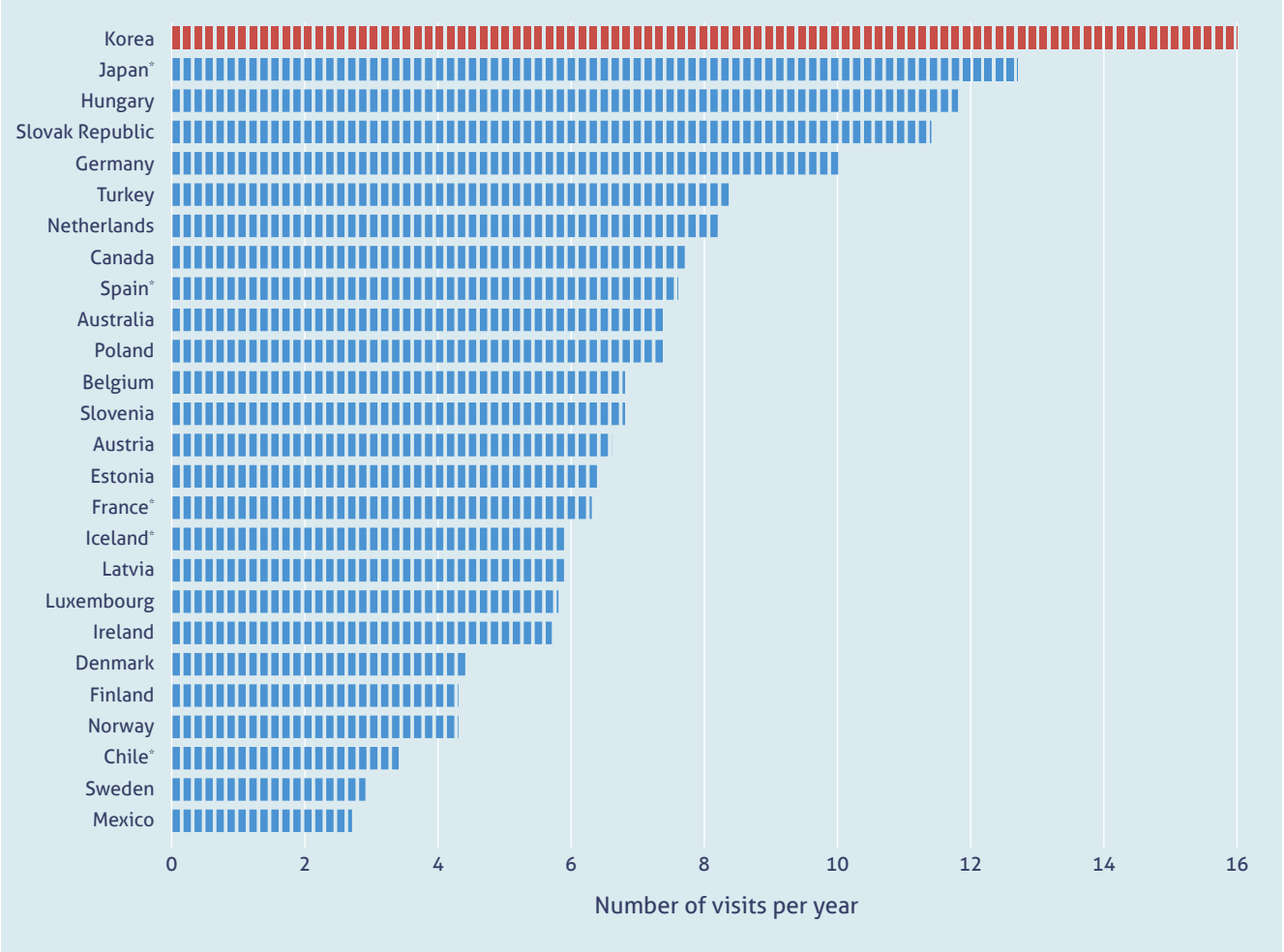
Thanks to universal population coverage, HIRA manages nation-wide data, covering all providers and the whole population of Korea. Performance information is disclosed to the public through the HIRA website to help them make rational choices regarding providers. In the inpatient sector, quality is measured in terms of structure, process and outcome for selected areas, such as AMI, acute stroke, caesarean sections, and CABG (coronary artery bypass graft), colorectal cancer, breast cancer, lung cancer, surgical volume for five surgeries, use of prophylactic antibiotics for 11 surgeries, etc. For chronic conditions, hypertension, diabetes, hemodialysis, and asthma are assessed. Regarding outpatient medications, information is gathered for the prescription rates of antibiotics and injections, number of medicines per prescription, and expense of medicines prescribed.

6
Performance and Effects of Price Setting

The effect of price setting seems limited, as providers can increase volume under FFS. In health systems where FFS is the major type of provider payment system without a macro-level spending cap and where the majority of providers are private, cost containment is a huge challenge. The number of outpatient visits in Korea is the highest and the length of stay for inpatient care is the second highest (after Japan) among OECD countries

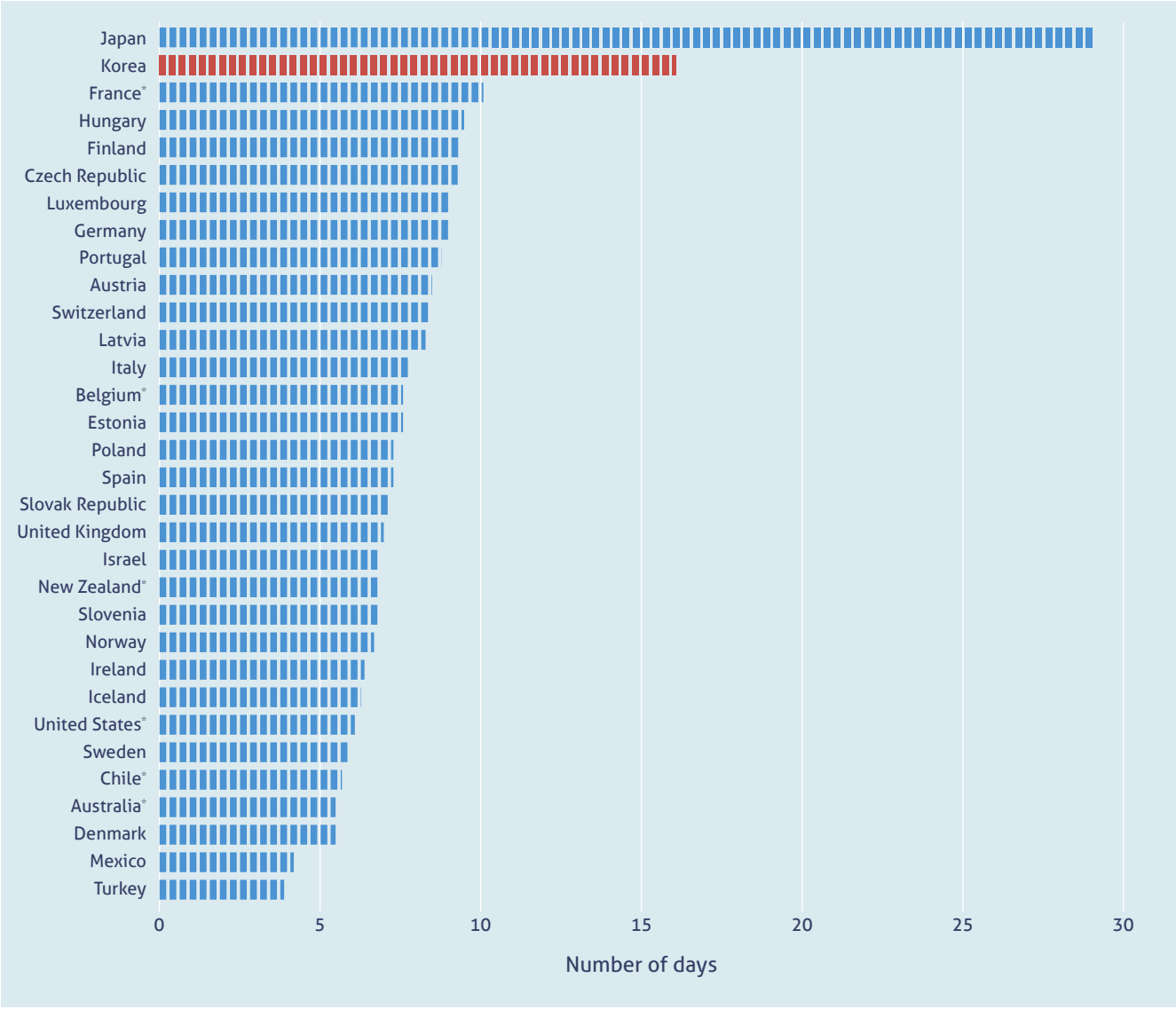
(Figure 1 and Figure 2). Korea spends almost 8% of GDP on health care, which is lower than other OECD countries (Figure 3). However, Korea has experienced the second highest (after Chile) growth rate of health expenditure in OECD countries (figure 4). The health insurance contribution has also increased rapidly.

Figure 1
Average number of outpatient visits per patient per year (2015)



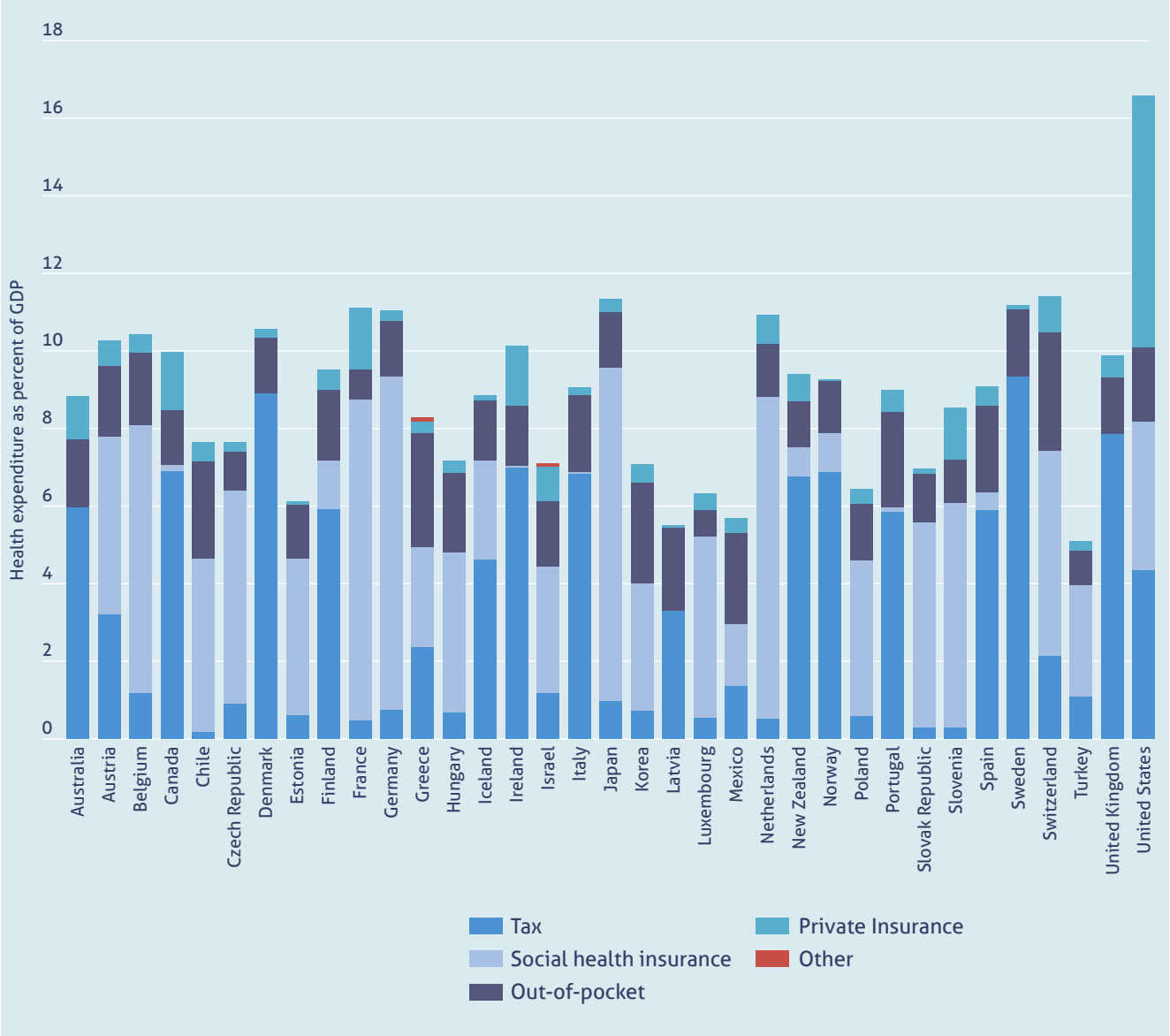
Source: OECD Health Statistics, 2016. Note:*2014.

Figure 2
Average length of stay per inpatient case (2015)



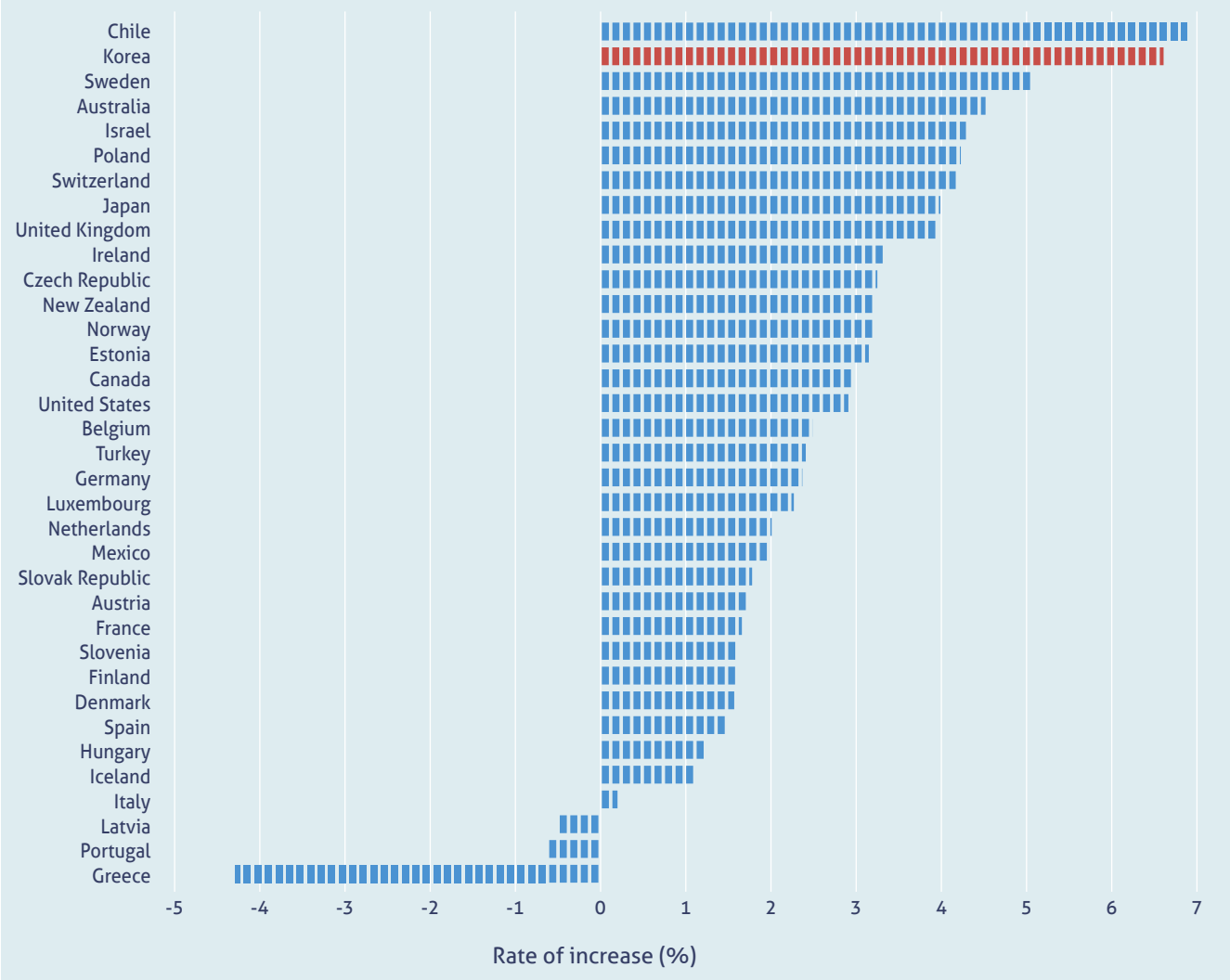
Source: OECD Health Statistics, 2016. Note:*2014.

Figure 3
Health expenditure as % of GDP



Source: OECD Health Statistics, 2016.

Figure 4
Average annual rate of increase in health expenditure (2007-2016)



Source: OECD Health Statistics, 2016.

More than 70% of the Korean population is enrolled in (supplementary) private health insurance, which covers copayment for public health insurance (i.e., NHI) and payment for uninsured services. In other words, private health insurance does not set its own prices for medical care, but rather reimburses the OOP (out-of-pocket) payment to enrollees. (Some private insurance also provides cash benefits based on the number of inpatient days.) Jeon and Kwon (2013) show that private insurance has a negative spillover effect on public insurance, as those with private coverage increase the utilization and expenditure of (public) health insurance. The government currently has a regulation that private health insurance can cover up to 80% of health expenditures, which may have to be reduced to mitigate the moral hazard effect of private health insurance. Other than that regulation, there is little coordination between NHI and private health insurance. Providers prefer private health insurance, because the enrollees use more health care and the review is not as demanding as that by NHI.

The public share (health insurance and government-funded health programs) of total health expenditure in Korea, about 57%, is still lower than other OECD countries (OECD, 2018). OOP payments and private health insurance account for 36% (19% for NHI copayment and 17% for uninsured services) and 7% of total health expenditure, respectively (NHI, 2017). About one-third of payments for uninsured services is extra pay for private wards and specialists with extra years of experience. Therefore, about two-thirds of the 17%, in other words, about 10% of total health expenditures, are related to extra billing for uninsured medical services (e.g., high-tech services such as MRI, da Vinci robot surgery, etc.). Even though the government has expanded the benefit coverage of health insurance, providers paid by FFS have rapidly increased the use of new services and technologies, which are not yet included in the benefit package. As a result, financial protection and the public share of health expenditure have been stagnant.

In theory, fee schedules can have some effect on the mix of primary versus hospital-based care, but they are not very effective at reducing the rapid increase in hospital-based care. Even a very high coinsurance rate for outpatient care in hospitals, along with higher fees, has not curbed the rapid increase in the utilization of hospital care. Strengthening the role of primary care physicians as a gatekeeper with capitation has been discussed for a long time. There is little consensus on a primary physician and gatekeeping system even in the Korean Medical Association, however, because different specialties have different interests. Specialists other than internal medicine, pediatrics, etc., are against any reform of service delivery based on primary care physicians and gatekeeping. The lack of a continuum of care among different levels of providers results in cost increase and low quality of care and poses a serious challenge, especially in an era of rapid population aging.

7
Key Lessons

Many middle-income countries (MICs) are experiencing an increase in private providers. Because the majority of health providers are private in Korea, the Korean experience of pricing of health services can provide important policy lessons for MICs. From the very beginning of NHI, Korea implemented a strict price regulation with no balance billing, and providers were not allowed to opt out of NHI. Since the merger of all insurance funds to a single insurer system in 2000, a specialized agency was introduced, which has sophisticated systems of claim review and assessment based on state-of-the-art ICT. However, a private sector-oriented health system, where providers are paid by fee-for-service and price regulation does not take volume into consideration, seems vulnerable to cost inflation.

Although fees are tightly regulated, providers have strong incentives to increase the volume and intensity of care, since there is no macro-level spending cap in Korea. FFS has been a major factor contributing to the rapid increase in health expenditures in Korea, even when it has a sophisticated review and assessment system. Monitoring and evaluating the appropriateness of the quantity and type of services provided under FFS is very costly. It is very expensive to run a claim review and assessment system for thousands of services under FFS payment. The guideline book for claim review is already excessive, and there is never-ending controversy and tension between providers and NHIS over the adequacy of the fee level and review guidelines in Korea. The financial sustainability and efficiency of Korea's NHI will hinge on the capacity of NHI to effectively use its purchasing power over providers and implement payment systems such as capitation, DRG-based payment, and a spending cap.

The dominance of the private sector in health care delivery is a barrier to payment system reform. Health care providers are willing to (and they did in the case of pharmaceutical reform in 2000) go on a strike against government policy that potentially threatens their financial interests and clinical autonomy. About 90% of Korean hospitals are private, and many of them were grown from physician clinics by entrepreneurial physicians. As a result, the Korean Hospital Association and Korean Medical Association are very strong allies against the government and the insurer. For example, they strongly criticize and are against payment system reforms, tight reviews and assessments, etc. Private hospitals also use various incentive mechanisms for their physicians, e.g., based on the profits or revenue they generate, which can further aggravate the perverse incentives for over-provision under FFS. In addition to technical capacity in terms of costing, monitoring, and evaluation, the government needs both the political will and a sophisticated strategy to implement an efficient provider payment system and pricing of services in the health sector.

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