

# Comparison of the Health Insurance Systems of South Korea and Peru

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**Background:** The public health care system of a country is shaped and driven by its historical background as well as social, economic, and cultural structures. This study sheds light on the unique features, strengths, and weaknesses of the health insurance systems of South Korea (Korea) and Peru.

**Methods:** The capacity mapping tool was used to explore the Korean and Peruvian population and geographical structures; health insurance laws, regulations, and policies; payment systems; eligibility and contribution collection; and long-term care insurance.

**Results:** The study found that the Korean government took the lead in integrating multiple insurers into a single-payer system in an effort to reinforce and stabilize its health insurance system in 2000. Peru has been developed mixed model such based on taxes and contributions, to address a gap between different social classes. Peruvian government developed a two-axis system, one for low-income earners, financed by taxes, and another financed by contributions paid by workers and government officials in the formal sector. Peru has introduced many variations to its fee payment and insurer systems, target population, and coverage scope, and maintains its health insurance system accordingly to this day.

**Conclusion:** The current study provides observation of the Health Insurance System in two different countries and helps to understand possible ways to improve the health insurance system in both countries. Based on this study, Peru will be able to see how its system differs from Korea's and benefit from the related policy implications.

**Keywords:** Health insurance; Health policy; Universal health coverage; Republic of Korea; Peru

## INTRODUCTION

The public health care system of a country is shaped and driven by its historical background as well as social, economic, and cultural structures. With the aid of a capacity mapping tool, this study sought to compare the unique characteristics and differences between the health insurance systems of South Korea (Korea) and Peru. These countries were chosen for the study based on their fundamental differences in health insurance. The Korean system is based on a single-payer scheme supported by contribution payments. On the contrary, Peru has a multi-payer system funded by tax and some premium payments. Using a capacity mapping tool and comparing the different systems of the two countries, the research aimed to

examine their strengths and weaknesses and then address the challenges they face.

The health insurance systems of Korea and Peru are as far apart as their locations. Located in the eastern part of Asia, Korea remained a developing nation until the 1970s. Since the late 1970s, however, the country experienced rapid economic growth and quickly joined the ranks of other developed countries. Following a similar trend, Korea's health insurance system underwent vigorous changes over time. In 1977, Korea introduced a mandatory medical insurance scheme supported by contribution payments, after which the government focused on enlarging the pool of contributors with its "low-contribution, low-benefit" strategy [1]. The result was the achievement of universal health coverage 12 years later, in 1989. In 2000, Korea successfully incorporated multiple providers into a

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reinforced single-payer scheme, which remains stable to this day [2].

Located in South America, Peru developed a health insurance system that is different from that of Korea. Peru has a fragmented system involving different payers and ministries, including insurance schemes for employees in the formal sector—such as government officials, police, armed forces, and teachers—as well as schemes for low-income workers in the informal sector. While contribution is compulsory for employees in the formal sector, voluntary contribution applies to those in the informal sector. Medical services are provided to subscribers at the medical facilities of their corresponding insurer [3]. As such, the health insurance systems of Korea and Peru differ according to their social, economic, and cultural backgrounds. These differences also affect their national schemes on health and chronic disease management. Based on the comparison of the two systems, this study aimed to shed light on their unique features, strengths, and weaknesses, call attention to their institutional advantages, and propose improvements that can be shared and learned by both countries. The study aims to compare the health insurance system of two countries first, to show their fundamental differences in health insurance systems. Second, it was to extract good and strong points between the two systems, and third, to point out any tendency to converge towards a universal health insurance model.

## METHODS

In 2004, the World Health Organization developed a capacity mapping tool for health promotion. The utility of mapping can be identified in the analytical comparisons of the geography, population, healthcare, economies, and social backgrounds of different countries [4–6]. In other words, capacity mapping facilitates understanding of the unique social structures—built on social, economic, geographical, and population foundations—that play a vital role in each country.

The capacity maps of Korea and Peru include their population and geographical structures; health insurance laws, regulations, and policies; payment systems; eligibility and contribution collection; lists of benefits, drugs, disability aids and equipment, and their management; information and communication technology (ICT)–

aided health promotion; and long-term care insurance. In the present study, we discussed the elements to be included in the capacity map and then selected relevant ones based on an extensive review of literature and related documents. Subsequently, we reviewed data from relevant institutions and health insurance organizations of each country. For demographic and geographic comparison, we used the data from the Korean and Peruvian statistics portals. For information on the health insurance system, we referred to the Korean National Health Insurance Service (NHIS) publications and statistical data released between February and November 2018. As for the Peruvian health insurance system, we collected data from the Ministry of Health (MINSA), National Health Superintendence (SuSalud) under MINSA, and the insurer for formal sector employees (EsSalud<sup>1)</sup>), issued between February and November 2018.

## RESULTS

This study mapped the capacity of the health insurance systems of Korea and Peru in the following four areas: demographic and geographic profiles; acts, policies, regulations, and plans; health insurance system; and benefits list and governance.

### 1. Demographic and geographic profiles

The demographic and geographic profiles of Korea and Peru have been presented in Table 1. Note that, the population density is considerably higher in Korea than in Peru. However, despite its lower population density, Peru has a population of more than 9.3 million in its largest city and capital, Lima, which is nearly as high as that in its Korean counterpart. This indicates that Peru's population is concentrated in cities. The effects of policies can spread faster when the population is higher. Whereas Korea had an infant mortality rate of 2.8 [7], Peru's was at 16.6 [8]. The average life expectancy was 82.4 years for Koreans and 75.07 years for Peruvians, exhibiting a health gap between the two countries.

### 2. Acts, policies, regulations, and plans

The constitutions of both Korea and Peru stipulate the state's

1) EsSalud: Seguro Social de Salud (Social Health Insurance)

obligation to promote the health of its people. In 1963, Korea enacted the Medical Insurance Act, which was followed by a revision to ensure mandatory contributions in 1977. By 2000, the National Health Insurance Act came into effect. As for Peru, the General Health Law was passed in 1997 and revised in the following years to reach today's version. In 2009, Peru established the General Law of Universal Health Insurance. In Korea, the incorporation of multiple providers into the single-payer system in 2000 was followed by a transition in its approach to health care policies from cure to prevention. Accordingly, the government commenced the National Health Screening Standard Act in 2009 and specified a number of state-led health management programs. In 2008, the Long-term Care Insurance Act was brought into effect to stipulate the role of the society in the care of geriatric patients.

Peru founded the Ministry of Health pursuant to the Health Ministry Law in 1935 and enacted the General Health Law in 1997. In Korea, the National Health Promotion Act and National Health Screening Standard Act were enacted in 1995 and 2009, respectively, to provide a legal platform on which health promotion activities and health screening could be offered. Korea also passed the National Health Insurance Act in 1999. Peru has not yet passed any independent health promotion or screening laws. Instead, it approved the Essential Plan of Health Insurance (PEAS), which includes some preventive checks for children, pregnant women, adults, and seniors. Peru approved the Universal Health Insurance Law in 2009. In 2008, Korea enforced the Long-term Care Insurance Act to ensure the legal grounds for the state to provide care services to geriatric patients, whereas Peru does not have such a legal basis for any state-led health screening or geriatric patient care services (Table 2).

### 3. Health insurance system

One of the most noticeable differences between the Korean and Peruvian health insurance systems are that Korea has adopted a compulsory single-payer system supported by contributions, whereas Peru has a multi-payer system funded by taxes and some premium payments, combining both mandatory and voluntary contributions.

Since the integration of multiple payers by the NHIS in 2000, Korea has maintained a single-payer system. Peru has a multi-insurer system composed of SIS<sup>2)</sup>, the largest insurer; EsSalud, for formal sector employees and government officials; FISSAL<sup>3)</sup>; FFAS for Armed Forces; PNP for National Police; the Association of Regional or Provincial Funds against Traffic Accidents; EPS<sup>4)</sup> and other private insurers.

Health insurance revenue reaches US dollar (USD) 49.8 billion in Korea and USD 10.7 billion in Peru. In the Korean system, 84.9% of the revenue comes from contribution collection, whereas in Peru, 65.3% of funds come from premiums and taxes, and the rest comes from other sources. In Korea, contributions are collected by the NHIS, but in Peru, the National Revenue Authorities (SUNAT) deducts the premium amount from employees' salaries and pays it to the corresponding insurers. The two countries have difference in the total expenditure and its distribution. Korea spent 97% of the total on health insurance benefits, whereas Peru spent 43% on benefits and 33% on salaries and pensions (Table 3).

In Korea, the co-payment rate ranges from 5% to 60%, varying by patient status (outpatient versus inpatient), hospital classification, and other elements. In Peru, there is no co-payment unless a subscriber is under a private insurance scheme or an EPS associated with private insurance. In the Korean health insurance system, subscribers in both the formal sector employee and the self-employed pay contributions that are calculated based on wages, assets, or other such factors. Only 2.8% of the total subscribers are medical aid groups who are exempted from contributions and supported by the government with taxes. The Peruvian system only requires employees in the formal sector to make premium payments. The extensive scope of health benefits coverage for low-income earners and the poor is covered by taxes. In Peru, workers in the informal sector do pay contributions if they choose to join a health insurance scheme, but the amount is very small. One of the reasons for this is that it is difficult to accurately determine the income earned by workers in the informal sector. Unlike Korea, where all citizens are required to join the NHIS scheme, Peru allows subscribers, excluding formal sector workers, to select insurers such

2) SIS: Sistema Integral de Salud (Integral Health Insurance)

3) FISSAL (Fondo Intangible Solidario de Salud, Intangible Solidarity Health Fund) is one of the insurers (IAFAS) established by MINSA to complement the financing activities by SIS, focusing on primary care so as to finance treatment for serious diseases such as cancer, chronic renal failure, etc.

4) EPS: Entidades Prestadoras de Salud (Health Provision Entities); private insurers that offer complementary to that of EsSalud

**Table 1. Demographic and geographic profiles of Korea and Peru**

Demographic and geographic profiles	Korea	Peru
<b>Demographic characteristics</b>		
Total population	51,801,449 (2018)	32,162,184 (2018)
Urban population	46,845,000 (2016)	24,735,295 (2017)
Percentage of urban population	90.6%	77.7%
Population growth per year	0.35% (2016)	1.01% (2017)
Population density per km <sup>2</sup>	515 Persons/km <sup>2</sup> (2018)	25 Persons/km <sup>2</sup> (2018)
Population of the largest city	Seoul (9,851,767), as of January 2018	Lima (9,320,000), as of January 2018
Life expectancy at birth (yr) by sex (2016)	Female (85.4); male (79.3); average (82.4)	Female (77.76); male (72.50); average (75.07)
Birth rate	7.0 (2017)	17.88 (2016)
Infant mortality rate per 1,000 live births (2016)	2.8	16.6
Maternal mortality ratio per 100,000 live births (2015)	11	68
<b>Geographic characteristics</b>		
Country location	East Asia	South America
No. of provinces/regions	9 Provinces	25 Regions
No. of cities/districts	85 Cities	196 Districts
No. of subdistricts/towns	NA	1,720 Subdistricts
No. of villages	NA	65,535 Villages

From Korean national statistics portal [7]; Peruvian National Statistical System [8].

NA, not available.

\*Crude birth rate: the number of live births occurring during the year, per 1,000 population, estimated mid-year.

**Table 2. Acts, policies, regulations, and plans**

Regulations/Acts	Korea	Peru
State's obligation to enhance social services for citizens' right to live humanely	Constitution of the Republic of Korea, Article 34, Clause 1 and 2	Constitution of the Republic of Peru, Articles 7, 9, 11, 58, 59, 65, 192, and 195
Basic regulation	Medical Insurance Act (1963)	Law No. 8124 (1935): Creation of the Health Ministry; D.L. No. 1161 (2013): Law that approves the organization and functions of the Health Ministry
Health promotion	National Health Promotion Act (1995)	General Health Law (1997) and its modifications: Law (approved 2012, enforced 2018); Law 27657 (2002): Law of the Health Ministry, creation of the General Direction for Health Promotion; Health Ministry Resolution No. 720 (2006)
Health insurance	National Health Insurance Act (1999)	General Law of Universal Health Insurance (2009)
Long-term care	National Health Insurance Act (commenced July 1, 2000)	NA
Health screening	Long-term Care Insurance Act (2008)	NA
	National Health Screening Standard Act (2009)	NA
	The First National Health Check-up Comprehensive Plan (2011–2015)	NA
	The Second National Health Check-up Comprehensive Plan (2016–2020)	NA

NA, not available.

**Table 3. Health insurance system contributions/collection**

Type	Korea	Peru
Insurer	Single insurer (NHIS)	Multiple insurers
Types	Compulsory	Compulsory and voluntary
Subscribers	The entire population	The entire population
Subscription rate	97.1%	75.4%
Total revenue (2016)	USD 49.9 billion <sup>†</sup> ; 84.9% contribution; 9.3% government subsidy; 3.4% sin tax; 2.4% others	USD 10.7 billion <sup>†</sup> ; 65.3% contribution and taxes; 8.6% directly collected resources; 13.1% resources for official credit operations; 0.3% donations and transfers; 12.6% others
Total cost (2016)	USD 47 billion; 97% benefits; 3% administrative expenses	USD 8.3 billion; 43% benefits; 33% salaries and pensions; 19% capital expenditures; 5% others
Co-payment rate	5%–20% in-patient; 30%–60% out-patient	Almost none; 10%–30% in the case of EPS and private insurance
Types of subscriber	Employees/dependents; self-employed; medical aid	Employees/dependents; self-employed; non-employees
Contribution rate	Employees: 6.24% (2018); self-employed: calculated based on income and property owned	Employees: 9% (paid by employer); others: free
Contribution collection	NHIS	SUNAT
Insurance benefits	Same benefits	Different benefits to insurers; same benefits as FEAS
Payment	Mainly fee for service; DRG (for seven disease groups); per diem	Historical budget: EsSalud, MINSA; fee for service: EPS, private IAFAS; monthly patients: mainly EPS; surgical package: EPS, SIS, private medical services contracted by EsSalud; capitation: SIS, EsSalud, EPS (for outpatients); budget by results: MINSA, DIRESA

NHIS, National Health Insurance Service; USD, US dollar; EPS, Entidades Prestadoras de Salud (Health Provision Entities); SUNAT, National Revenue Authorities; PEAS, Essential Plan of Health Insurance; DRG, Diagnosis-Related Group; MINSA, Ministry of Health; IAFAS, Institutions for the Administration of Health Insurance Funds; SIS, Sistema Integral de Salud (Integral Health Insurance); DIRESA, Direcciones Regionales de Salud (Regional Health Direction).  
<sup>†</sup> USD=1,117.70 Korean won as of July 30, 2018. <sup>††</sup>[https://2016.export.gov/industry/health/healthcareresourceguide/eg\\_main\\_106610.asp](https://2016.export.gov/industry/health/healthcareresourceguide/eg_main_106610.asp).

**Table 4. Medical treatment/pharmaceutical/treatment materials and management**

Type of policy	Korea	Peru
Medical service provision	Mainly private sector (over 90%)	Public (42.3%) vs. private (57.7%)
Review and assessment of medical claims	HIRA	INDECOPI; Ombudsman's office in SIS, EsSalud, SuSalud
Medical care quality assessment	HIRA	SuSalud; quality offices of each health institution
Separation of prescription and dispensing of drugs	Since 2000	NA
Health care benefit listing	HIRA	SIS list (positive); EsSalud list (negative)
New health technology assessment	NECA	EsSalud (IETS) DIGEMID
Pharmaceutical listing and management	NHIS and HIRA	DIGEMID; IETS (EsSalud listing)
Treatment materials listing and management	NHIS	DIGEMID
Monitoring	MOHW	MINSA, SuSalud
Health promotion programs/project	National health checkups; metabolic syndrome management service; integrated NCD management program	Health Ministry; EsSalud
Health promotion using ICT	Gurugang-in health portal ( <a href="http://hi.nhis.or.kr">http://hi.nhis.or.kr</a> ); My Health Bank ( <a href="http://sis.nhis.or.kr/jsp">http://sis.nhis.or.kr/jsp</a> ); mobile health information system; mobile smart NCD management service	APP MINSA ( <a href="http://www.minsa.gob.pe/index.asp?op=17">http://www.minsa.gob.pe/index.asp?op=17</a> ); APP MOBILE ESSALUD ( <a href="https://play.google.com/store/apps/details?id=pe.gob.essalud.essapp">https://play.google.com/store/apps/details?id=pe.gob.essalud.essapp</a> )
Long-term care insurance	Since 2008	NA
Types of long-term care service	Homecare service; facility care service; cash allowance	PADOMI program (EsSalud)

HIRA, Health Insurance Review and Assessment Service; INDECOPI, National Institute for the Defense of Free Competition and the Protection of Intellectual Property; SIS, Sistema Integral de Salud (Integral Health Insurance); NA, not available; NECA, National Evidence-based Healthcare Collaborating Agency; IETS, Institute of Health Technology and Research Evaluation of EsSalud; DIGEMID, General Direction for Medicines, Supplies, and Drugs by MINSA; MOHW, Ministry of Health and Welfare; MINSA, Ministry of Health; NCD, noncommunicable diseases; ICT, information and communication technology; PADOMI program, patients admitted to a home care program.

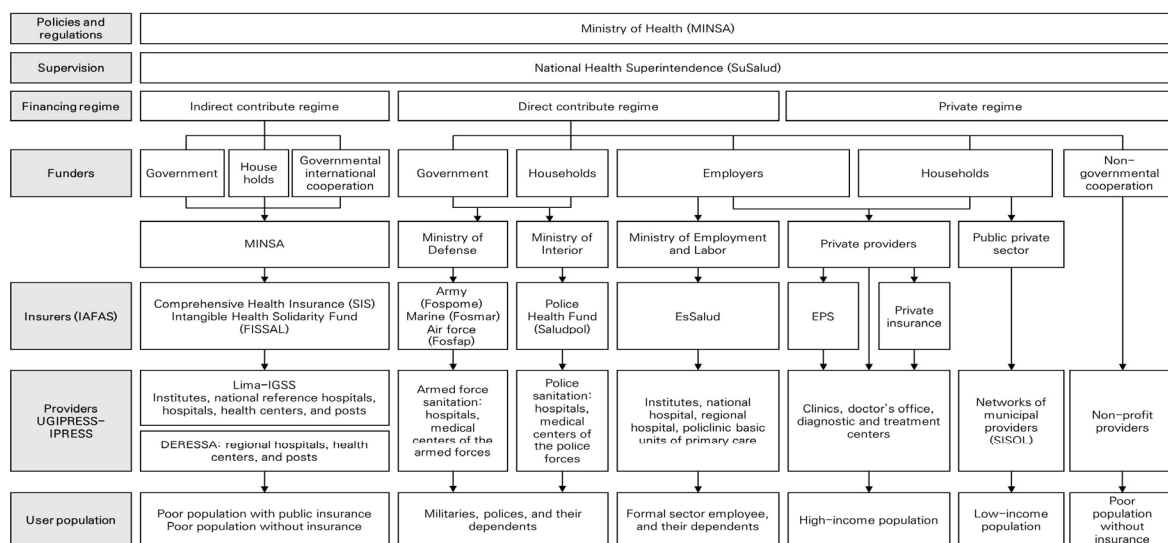
as SIS and EsSalud as needed. Moreover, in Korea, the amount contributed is calculated based on income and assets, but the amount of benefit payouts is the same. In Peru, premiums and benefits differ by insurer. Korea has adopted a “fee for service” payment system, whereas Peruvian insurers have different payment and financing systems. For instance, EsSalud, the main choice for workers in the formal sector, operates on a historical budget system of allocation based on historical budgets, and primary care institutions opt for capitation to complement the given system. The historical budget means a budget allocation based on the amount required in the previous year.

#### 4. Governance

Owing to such differences in their health insurance systems, Korea and Peru also differ in terms of their health insurance governance. In Korea, NHIS is the single insurer, responsible for various insurance-related affairs, but medical service reviews and claims are handled by an independent institution called the Health Insurance Review and Assessment Service (HIRA). A subscriber pays a monthly contribution to the NHIS; when the subscriber uses a medical service at a medical institution, the medical institution asks the HIRA for a review of and claim for the medical service. The NHIS then pays for the

medical service based on the HIRA’s review. The subscriber makes a co-payment to the medical institution for the service provided. The Korean Ministry of Health and Welfare makes major decisions relating to health insurance policies and manages and supervises the NHIS and HIRA. Korean health insurance governance is as depicted in Figure 1 [3].

In the case of the Peruvian health insurance system, the MINSA, Ministry of Defense, Ministry of Interior, Ministry of Employment and Labor, and private sectors own insurers play a managerial role in medical institution’s provision of services to subscribers. MINSA is in charge of the country’s largest insurer for low-income earners (SIS and FISSAL); the Ministry of Defense manages the FFAA insurance scheme; the Ministry of Interior is in charge of the PNP insurance scheme; and the Ministry of Employment and Labor works with EsSalud and private providers partially operate the EPS. These multiple insurer systems are collectively referred to institutions administering health insurance funds, Instituciones Administradoras de Fondos de Aseguramiento en Salud (IAFAS). Each IAFAS component has medical institutions under it, which are collectively called Health Service Providers Institutions, Instituciones Prestadoras de Servicios de Salud (IPRESS). Figure 2 shows that each IPRESS covers a different population group. The IAFAS is managed and supervised by SuSalud, a supervisory entity attached to MINSA.



**Figure 1.** Governance of Korean NHIS. Adopted from Ryu et al. Support for a health information management system for transparency and accountability: 2018 KSP-WB joint consulting project final report. Sejong: Ministry of Economy and Finance, etc.; 2018 [3]. NHIS, National Health Insurance Services; HIRA, Health Insurance Review and Assessment Service.

The Korean and Peruvian health insurance systems also differed in their respective medical service providers (Table 4). In Korea, more than 90% of medical services are provided by private sector providers, whereas, in Peru, insurers have their own medical service providers that offer services to their corresponding subscribers. In addition, HIRA is the institution in charge of reviews of and claims related to payments in Korea, whereas, in Peru, each insurer is responsible for reviews and claims, as well as payment made to IPRESS. For example, EsSalud has introduced a global budgeting scheme instead of reviewing every medical action taken by its IPRESS. Medical claims are supervised and assessed by the ombudsman of each insurer.

## DISCUSSION

In the present study, we compared the Korean and Peruvian health insurance systems with the aid of capacity mapping, which demonstrated substantial differences between the two systems. First, the most marked difference was Korea's single-payer system of compulsory contribution as opposed to Peru's multi-payer (IAFAS) system where government departments have their own insurers, combining voluntary contributions with compulsory contributions by workers in the formal sector.

Second, 90% of medical service providers are private and the main method of payment is a fee for service in Korea, which sometimes creates tension between the insurers and service providers. In Peru, however, each insurer has its own medical service providers (IPRESS) and adopts different payment systems, such as global budgeting and capitation, thus discouraging any struggle between insurers and service providers over the fee amount. It seems that the insurers have complete control over their service providers, but it is still necessary to monitor the transparency in budget execution and the quality of the medical services provided.

Third, Korea achieved near universal coverage in 1989, 12 years after introducing the health insurance system. As of 2018, 97.1% of the total population are subscribers. For Peru, the rate of subscription is 75.4%. Owing to the voluntary contributions, Peru needs to address the issue of incorporating self-employed and independent workers into the health insurance system [9–11].

Fourth, the Korean health insurance system is characterized by the

assignment of different roles to different institutions, such as the assessment of medical claims, drugs, disability aids, and new technologies. For example, HIRA is responsible for medical review and claims, and it is in charge of the management of benefit and drugs lists, whereas, the assessment of new technology is undertaken by NECA. In Peru, such roles are assigned to each insurer or are taken care of by DIGEMID (General Direction for Medicines, Supplies, and Drugs by MINSA), which is attached to MINSA.

Fifth, Korea began to offer care services to geriatric patients (e.g., dementia or stroke patients) at the national level after the Long-term Care Insurance Act came into effect in 2008. At the request of a long-term care insurance subscriber aged 65 years or older, the classification grade is analyzed and granted accordingly, based on which they are granted home care or facility care services. In cases where a patient is cared for by their family, a cash allowance is available. Peru has not yet enacted a long-term care insurance law and has yet to provide long-term care services to geriatric patients.

Sixth, Korea has launched a health management program that takes advantage of information technology to manage the ever-increasing number of patients with chronic diseases at the national level. Citizens have access to My Health Bank to review their health records, the Gungang IN portal to access their health screening results and benefit from health information, and the health information system and smart noncommunicable diseases management services via a mobile platform to follow up on health screening results. Peru has initiated health management services with the support of ICT, offering APP MINSA and APP MOBILE ESSALUD.

Lastly, the strengths of the Korean system as the single insurer system and single-payer contributed to not only achievement of universal coverage and universal access to the service provider either public or private, but also strengthen purchasing power and increase the volume and quality of healthcare service. Also, system established in Korea provided possibilities to systematic manage of the service providing, budgeting, technology, etc. In the case of Peru, the insurers keep the diversity of the insurers and simultaneously got the efficiency of management by sustaining global budgeting as a payment model and multi-insurer system. However, the quality and quantity of healthcare services such as long waiting time, make the middle class self-employed are hesitated to enroll in the social health insurance system. To get over these challenges, the Peruvian government and

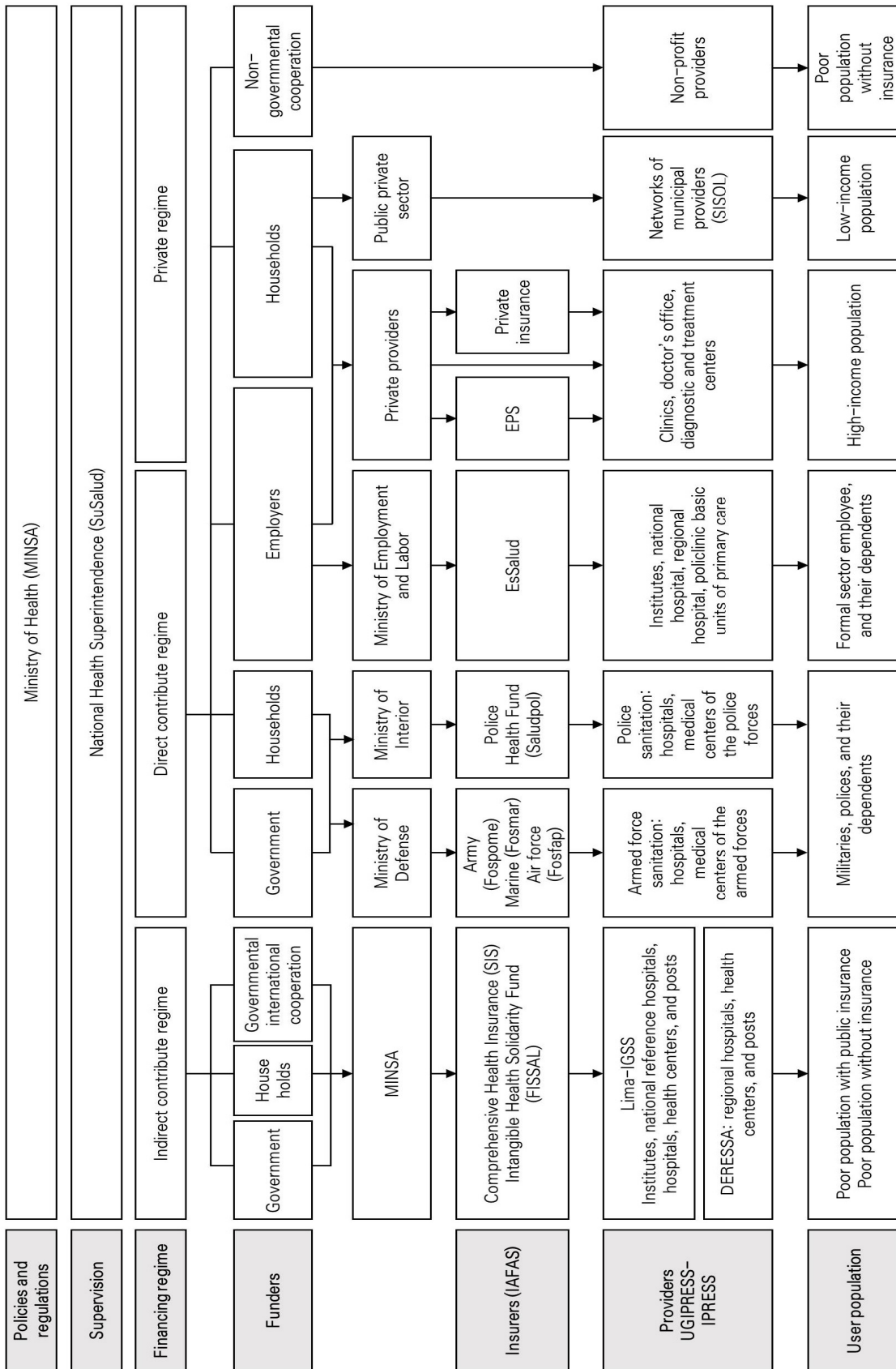


Figure 2. Governance of the Peruvian Health Insurance. Adopted from Ryu et al. Support for a health information management system for transparency and accountability: 2018 KSP-WB joint consulting project final report. Sejong: Ministry of Economy and Finance, etc.; 2018 [3]. MINSa, Ministry of Health; IAFAS, Institutions for the Administration of Health Insurance Funds; SIS, Sistema Integral de Salud (Integral Health Insurance); EPS, Entidades Prestadoras de Salud (Health Provision Entities); DIRESA, Direcciones Regionales de Salud (Regional Health Direction).



EsSalud are the insurer for formal sector employees, try to separate the insurer part (IAFAS) and the service provider part (IPRESS).

In terms of finance and service provision, it would be thought the efficient management and services would be possible when the insurer provides medical services to the subscribers directly. It rarely happens in real situations. Rather, this policy would be reduced the diversities of medical service provisions and lowered the quality of services by insurer's owning and managing the service providers directly [12]. It means the purchasing power of the insurer weakened and the quality of medical services would be lowered. That is the reason why EsSalud wants to segregate the insurer (IAFAS) and the provider (IPRESS) as the independent entities.

Another reason why EsSalud wants to separate the insurer and the provider is to solve the financial de-balancing. One of the most critical issues of EsSalud was financial de-balance. Because subscribers used medical services without out-of-pocket payments the medical expenditures grew faster than the financial revenues. The revenue and expenditures were the same at least in the account book due to EsSalud adopted global budget as the payment system. To solve the de-balance issue, EsSalud has controlled and managed the quality and quantities of medical services. That meant reducing investment to the service provider, IPRESS. As a result, it happened long waiting times, reduced treatment and surgery time and cases, reduced quality of services and were lack of monitoring and so on. Many subscribers did not trust the medical service quality of IPRESS and complained of long waiting times. Furthermore, the excessive financial allocation to the tertiary hospitals made a lack of primary health facilities. Over 80% of the health budget of EsSalud went to the tertiary hospitals, whereas only 20% was allocated to the primary and secondary clinics. It was a big burden for the insurer to manage tertiary hospitals and, on the contrary, the number and service quality of primary and secondary clinics were lacking in many communities. So, the insurer, EsSalud tries to strengthen purchasing power by separating the insurer part and the provider part. However, many stakeholders in the EsSalud system do not want to be separated, rather they are resisting the separation plan.

In conclusion, on comparing of the Korean and Peruvian health insurance systems, it was evident that the two countries have developed their systems in a manner as different as their geographic backgrounds. The present study highlighted that the health insurance

system of a country is shaped and driven by its unique geographic, political, economic, and social environments.

During its pre-modern period, Korea was a state that depended primarily on farming. However, it quickly sought state-led development plans to pursue industrialization, in the process of which Korea adopted a health insurance system funded by contributions. The Korean government also took the lead in integrating multiple insurers into a single-payer system in an effort to reinforce and stabilize its health insurance system. Meanwhile, the Peruvian government has been developed mixed models to address the gap between different social classes and developed a two-axis system; one for low-income earners, financed by taxes, and the other financed by contributions paid by workers and government officials in the formal sector. Accordingly, Peru has introduced many variations to its fee payment and insurer systems, population, and coverage scope, and it maintains its health insurance system to this day.

The significance of this study lies in its comparison of the health insurance systems of two countries, which shed light on their differences and unique features that have evolved in response to their political, social, geographic, and economic backgrounds. In some points, the Korean social health insurance system is a good example for Peruvian multi-insurers such as EsSalud. EsSalud wants to separate the insurer (IAFAS) and the provider (IPRESS) to reform the social health insurance system including strengthening the purchasing power of the insurer and reducing the fiscal deficit. And Peruvian insurers want to change the payment system from universal budget to other types of payment. Though the Korean social health insurance system was very different from that of Peru, the way the Korean system reformed can give some advice to Peruvian insurers. Thanks to this study, Peru will be able to benefit from needed policy changes to reform its social health insurance system. Similarly, Korea will learn from Peru and understand the needed policy changes to enhance its system.

## CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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## AUTHOR CONTRIBUTIONS

Yanghee Kim contributed to design the study, data collection and analyses, and writing of the first draft of the paper. Martín Tantaleán-Del-Aguila contributed to data collection, and analyzes. Yuliya Dronina and Eun Woo Nam contributed to critical revision and finalization of the manuscript.

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