Universal Health Coverage Assessment

South Korea

Tae-Jin Lee

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Universal Health Coverage Assessment:

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Prepared by Tae-Jin Lee[1]

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[1] School of Public Health, Seoul National University, South Korea

Introduction

This document provides a preliminary assessment of the South Korean health system relative to the goal of universal health coverage, with a particular focus on the financing system and related aspects of provision.

In the 2010 World Health Report, universal health coverage is defined as providing everyone in a country with financial protection from the costs of using health care and ensuring access to the health services they need (World Health Organisation 2010). These services should be of sufficient quality to be effective.

This document presents data that provide insights into the extent of financial protection and access to needed health services in South Korea.

Key health care expenditure indicators

This section examines overall levels of health expenditure in South Korea and identifies the main sources of health financing (Table 1).[2] In 2012, total health expenditure accounted for 7.5% of the country's Gross Domestic Product (GDP), an amount that was substantially lower than the average of 12.0% for other high-income countries and the global average of 9.2%.

Public allocations to fund the health sector (including National Health Insurance)[3] were close to 14% of total government expenditure. This was lower than the average of 17% for other high-income countries but close to the 15% target set by the Organisation for African Unity's 2001 Abuja Declaration (which,

Table 1: National Health Accounts indicators of health care expenditure and sources of finance in South Korea (2012)

Indicators of the level of health care expenditure	
1. Total expenditure on health as % of GDP	7.5%
2. General government expenditure on health as % of GDP	4.1%
3. General government expenditure on health as % of total government expenditure	13.6%
4a. Per capita government expenditure on health at average exchange rate (US$)	926.7
4b. Per capita government expenditure on health (PPP $)	1,263.5
Indicators of the source of funds for health care	
5. General government expenditure on health as % of total expenditure on health*	54.4%
6. Private expenditure on health as % of total expenditure on health**	45.6%
7. External resources for health as % of total expenditure on health	0.0%
8. Out-of-pocket expenditure on health as % of total expenditure on health	36.1%
9. Out-of-pocket expenditure on health as % of GDP	2.7%
10. Private prepaid plans on health as % of total expenditure on health	5.7%

Notes:
* This includes general tax-funded health spending and payroll tax-funded mandatory health insurance
**This includes private prepaid plans and out-of-pocket payments
Source: Data drawn from World Health Organisation's Global Health Expenditure Database (http://apps.who.int/nha/database/Key_Indicators/Index/en)

[2] The data quoted in this section all derive from the 2012 data in the World Health Organisation's Global Health Expenditure Database (http://apps.who.int/nha/database/Home/Index/en). Comparisons with other countries are based on figures expressed in terms of purchasing power parity. The country's income category is determined from the World Bank's classification for the same year (http://data.worldbank.org/about/country-and-lending-groups).
[3] Different countries use the terms 'national health insurance,' 'social health insurance' and 'social security' differently to describe different types of mandatory health insurance. In each country assessment in this series, the term applied is the one commonly in use in the country in question. In South Korea, the term 'national health insurance' is used for the mandatory health insurance scheme once it achieved universal health coverage in 1989.

coincidentally, happened to be the same as the global average for 2012).

Government health expenditure translated into only 4.1% of GDP. This was much lower than the high-income country average of 7.2% for that year, and below the global average of 5.3%.

Per capita health expenditure by the South Korean government was around $1,264 (in terms of purchasing power parity) in 2012. This was half the high-income country average of $2,737 but double the global average of $652.

As would have been expected from the relatively low levels of government expenditure for its income category, out-of-pocket payments played a significant role in South Korea, at just over a third (36%) of total financing in 2012. This was high in global terms (where the average was 21%), despite the achievement of universal health coverage as long ago as 1989. It was also above the 20% limit suggested by the 2010 World Health Report to ensure that financial catastrophe and impoverishment as a result of accessing health care become negligible (World Health Organisation 2010).

Finally, in 2012, private health insurance in South Korea played a small role at only 6% of total health sector financing. All in all, private expenditure – which includes out-of-pocket payments and voluntary prepaid plans – accounted for almost one half (46%) of health financing.

Structure of the health system according to health financing functions

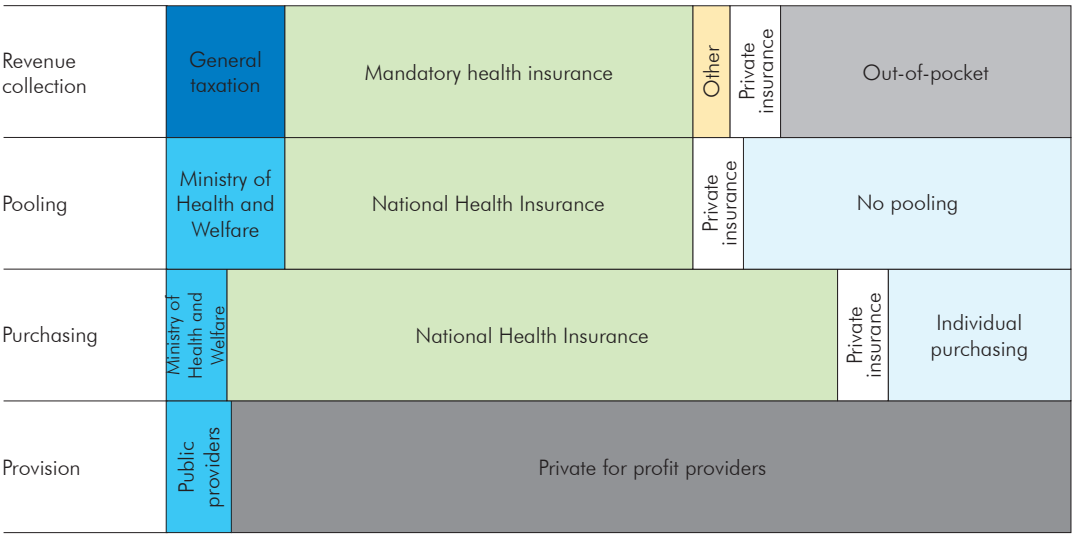
Figure 1 provides a summary of the structure of the South Korean health system, depicted according to the health care financing functions of revenue collection, pooling and purchasing, as well as health service provision. Each block represents the percentage share of overall health care expenditure accounted for by each category of revenue source, pooling organisation, purchasing organisation and health care provider.[4]

Revenue collection

South Korea achieved universal health coverage in 1989, just 12 years after mandatory health insurance was first introduced to employees of large companies. This was achieved relatively cheaply. In 2012, the contribution rate for the mandatory National Health Insurance (NHI) scheme was only 5.89% of formal sector employees' salaries: half of this was paid by employers. There is a ceiling on the amount employees have to pay under this system.

NHI contributions from the informal sector are calculated on the basis of the capacity to pay, which is assessed using information such as income and property ownership.

Figure 1: A function summary chart for South Korea (2010)



Notes: The category 'other' in the revenue collection row includes contributions from private non-profit organisations and private companies
Source: Created by the author using data from the Korean Statistical Information Service

[4] The data quoted in this section are slightly different from the previous section because they are based on more detailed disaggregation by the author of National Health Accounts data for 2010, derived from the Korean Statistical Information Service (http://kosis.kr/statisticsList/statisticsList_01List.jsp?vwcd=MT_ZTITLE&parentId=D)

Another source of revenue for NHI is a government subsidy for the self-employed. The government subsidy consists of two different sources: general taxes and an earmarked amount of tobacco tax. For example, in 2010, about 54% of the tobacco tax earmarked for the health sector accounted for 3.2% of the NHI fund (Kim and Yeo 2014).

Finally, low-income people who cannot afford to join NHI are covered by the Medical Aid Programme, which is funded by general taxes.

Subscription to private health insurance is voluntary although members still have to contribute to NHI. People purchase private health insurance to gain access to benefits that are not provided by the NHI package, as well as to cover co-payments. Although the share of private prepaid health insurance was only 6% of total funding in 2012, about 80% of the population had private insurance (Seo et al. 2014).

Beneficiaries of the Medical Aid Programme pay no, or discounted, user fees. Those beneficiaries of NHI who are elderly or have severe diseases (such as cancer) also pay low co-payments. Other beneficiaries of NHI pay the usual co-payments.

The facts that one third of health financing is derived from these out-of-pocket payments, and that the coverage of commercial insurance is high, point to the problem in the South Korean health system of inadequate financial risk protection.

Pooling

There are two financing pools in South Korea, one for NHI and the other for the Medical Aid Programme. These are effectively combined for the purpose of purchasing services, which enhances income cross-subsidies.

Private health insurance is made up of fragmented risk pools. Out-of-pocket payments, which make up a third of total financing, are not pooled at all.

Purchasing

Everyone in South Korea is entitled to the same range of service benefits, whether they belong to NHI or the Medical Aid Programme. Services that are not included in the benefit package are paid for on an out-of-pocket basis by those who can afford them. As mentioned earlier, some people purchase complementary insurance to get reimbursement for these uncovered services.

There is an explicit purchaser-provider split in South Korea. Both the National Health Insurance Service and the Health Insurance Review and Assessment Service are quasi-public agencies that are responsible for overseeing the purchasing of services under the supervision of the Ministry of Health and Welfare.

The National Health Insurance Service collects and pools contributions for NHI and receives funds for the Medical Aid Programme separately. Although there are two separate pools, purchasing decisions apply to them equally. In this sense, the National Health Insurance Service is a single purchaser. It meets each group of providers (such as hospitals, clinics and dentists) annually for fee negotiations and uses its market power to control cost increases to some extent.

The Health Insurance Review and Assessment Service routinely reviews provider performance, not only for payment of claims but also for quality assurance. It penalizes poor performance and incentivises good performance by publishing information on provider behaviour. For example, South Korea is well known for its high Caesarean section and antibiotic prescription rates. These rates for individual providers are disclosed every year so that patients can make an informed choice. The Health Insurance Review and Assessment Service provides incentives for those providers that reduce expenditure on prescribed medicines. Depending on the extent of providers' contributions to the reduction of expenditure, 10% to 50% of the reduced amount is paid to the individual provider.

The main method of paying providers is fee-for-service, which encourages them to increase the intensity of services. From July 2013, case payment methods, such as Diagnosis-Related Groups (DRGs), were introduced to pay for inpatient services for seven diseases (e.g. cataract surgery, appendectomy, Caesarean section etc.) across all types of providers. Prior to that date, providers had signed up for DRG-based reimbursement only on a voluntary basis, which meant that only clinics that anticipated economic gains chose to participate. From July 2013, however, the South Korean government made participation in DRG payment mandatory to increase efficiency in the utilization of inpatient services, at the same time as maintaining service quality.

There is no explicit rationing mechanism to limit the utilisation of services. As there is no gate-keeping at the

primary health care level, patients have no limits on their access to higher levels of care. For example, patients with flu can directly visit outpatient departments at tertiary hospitals as long as they are willing to pay higher co-payments. In addition, providers tend to actively introduce uncovered services, which are usually very expensive because there are no fee controls.

These problems lead to an inefficient allocation of resources and the persistent expansion of uncovered services, making it difficult for the National Health Insurance Service to improve the financial protection offered by the system.

Provision

There is no difference in the service providers to which patients have access under NHI and the Medical Aid Programme.

Health services are predominantly provided by the private sector, although health financing depends mainly on public sources such as mandatory health insurance and general tax, as already described. About 90% of hospital beds belong to private hospitals (Ministry of Health and Welfare 2013). Some services are provided by public providers, but it is difficult to estimate the relative utilisation of public and private providers.

In terms of utilisation by type of service, in 2010 outpatient and inpatient utilisation made up equal shares (35%), followed by medicines (25%), according to the Korean Statistical Information Service.

In terms of levels of care, 42% of health expenditure was on hospitals while 27% was on clinics in 2010. Recently, South Korea has experienced a rapid increase in hospital beds due to the emergence of big, enterprise-type hospitals. Considering that most health needs can be met at the primary care level, too many health resources are consumed at the secondary and tertiary levels in South Korea.

Financial protection and equity in financing

A key objective of universal health coverage is to provide financial protection for everyone in the country. Insights into the existing extent of financial protection are provided through indicators such as the extent of catastrophic payments and the level of impoverishment due to paying for health services. This section analyses these indicators for South Korea and then moves on to assess the overall equity of the health financing system.

Catastrophic payment indicators

Using the 40% threshold of non-food household expenditure for assessing catastrophic payments, Table 2 shows that less than 2% of the population incurred catastrophic spending in South Korea in 2000 as a result of accessing health care. However, it is agreed in the international literature that this method is difficult to interpret as it can understate the actual problem. This is because it may not capture the reality that there are people who do not utilise health services when needed because they are unable to afford out-of-pocket payments at all (Wagstaff and van Doorslaer 2003).

A slightly lower weighted headcount indicates that high-income households experienced catastrophic payment more frequently than low-income households. The catastrophic payment gap index shows that the average amount by which out-of-pocket payments as a percentage

Table 2: Catastrophic payment indicators for South Korea (2000)*

Catastrophic payment headcount index (the percentage of households whose out-of-pocket payments for health care as a percentage of household consumption expenditure exceeded the threshold)	1.9%
Weighted headcount index**	1.7%
Catastrophic payment gap index (the average amount by which out-of-pocket health care payments as a percentage of household consumption expenditure exceed the threshold)	0.3%
Weighted catastrophic gap index**	0.2%

Notes:
* Financial catastrophe is defined as household out-of-pocket spending on health care in excess of the threshold of 40% of non-food household expenditure.
** The weighted headcount and gap indicate whether it is the rich or poor households who mostly bear the burden of catastrophic payments. If the weighted index exceeds the un-weighted index, the burden of catastrophic payments falls more on poorer households.
Source: van Doorslaer et al. (2007)

of household expenditure exceeded the threshold was 0.27%, and that the gap was concentrated on the rich rather than the poor. These results may reflect that richer patients utilised expensive, uncovered services on a voluntary basis while poorer patients were not able to afford those services.

It should be borne in mind, however, that these estimates are based on data that are fifteen years old.

Impoverishment indicators

While the extent of catastrophic payments indicates the relative impact of out-of-pocket payments on household welfare, the absolute impact is shown by the impoverishment effect. Taking account of the economic status of South Korea, it is not appropriate to use international poverty lines in calculating impoverishment. Instead, South Korea's national poverty line, defined as minimum living costs, was used to measure the impoverishing impact of out-of-pocket payments.

In South Korea, about 11% of the population lived below the national poverty line per day in 2000 (see Table 3). An extra 2% dropped into poverty as a result of paying out-of-pocket when accessing health services. This translated into as much as 800,000 people per year falling into poverty because of out-of-pocket expenditure on health care.

The normalised poverty gap (also shown in Table 3) measures the percentage of the poverty line necessary to raise an individual who is below the poverty line to that line. The difference between the prepayment and the post-payment poverty gaps was relatively low at 0.5% in 2000. This proportion might have been low partly due to the fact that the methodology only captures those who access health care services: it may have excluded those already very poor individuals who forgo health care services because they cannot afford high out-of-pocket payments.

Again, it should be borne in mind that these estimates are based on data that are fifteen years old.

Equity in financing

Equity in financing is strongly related to financial protection (as described by the indicators above) but is a distinct issue and health system goal. It is generally accepted that financing of health care should be according to the ability to pay.

A 'progressive' health financing mechanism is one in which the amount richer households pay for health care represents a larger proportion of their income. Progressivity is measured by the Kakwani index: a positive value for the index means that the mechanism is progressive; a negative value means that poorer households pay a larger proportion of their income and that the financing mechanism is therefore regressive. Table 4 provides an overview of the distribution of the burden of financing the South Korean health system across different socio-economic groups (i.e. the financing incidence) as well as the Kakwani index for each financing mechanism.

As expected, in 2000 direct tax was progressive while indirect tax was slightly progressive or proportional. Since the share of direct tax was slightly larger than that of indirect tax, overall tax revenue was slightly progressive.

Mandatory health insurance, which comprised 34% of total health financing, was regressive, implying that the poor bear a larger financial burden compared to their ability to pay. Poor households are seldom totally exempt from financial contributions in the South Korean NHI system, which explains its regressivity.

Out-of-pocket payments, the largest financing source, were progressive in 2000. This is because many expensive health services are excluded from the benefit package and paid for by high-income households on an out-of-pocket basis.

Table 3: Impoverishment indicators for South Korea (using the national poverty line of $14 per day (in terms of 2000 purchasing power parity)) (2000)

Pre-payment poverty headcount	10.8%
Post-payment poverty headcount	12.5%
Percentage point change in poverty headcount (pre- to post-payment)	1.7%
Pre-payment normalised poverty gap	2.3%
Post-payment normalised poverty gap	2.8%
Percentage point change in poverty gap (pre- to post-payment)	0.5%

Source: Lee et al. (2003)

Overall, total health financing was slightly regressive in South Korea in 2000. Further research is required to understand how the situation may have changed over the intervening 15 years.

Equitable use of health services and access to needed care

This section considers how benefits from using different types of health services are distributed across socio-economic groups. One measure of this is a concentration index, which shows the magnitude of socioeconomic-related inequality in the distribution of a variable. In Table 5, if the concentration index has a positive (or negative) value, the distribution of the use of the health service is considered to benefit the richest (or poorest) respectively.

Table 5 shows that, regardless of the type of health facility or service, utilisation was pro-poor. It was more pro-poor in hospitals than in non-hospitals, reflecting that the poor had greater access than the rich. In addition, service utilisation was more pro-poor in public hospitals than in private hospitals, reflecting that the poor might have been inclined to choose public hospitals where out-of-pocket payments are lower. Overall, inpatient services were more pro-poor than outpatient visits.

Nonetheless, there are equity issues around access to uncovered services, as low-income households often have to forgo those services.

It is generally agreed that individuals' use of health services should be in line with their need for care. The universal coverage goal of promoting access to needed health care can be interpreted as reducing the gap between the need for care and actual use of services, particularly differences in use relative to need across socio-economic groups. The benefit incidence results discussed above do not allow one to draw a categorical conclusion about whether the distribution is equitable or not: the distribution of benefits first needs to be compared to the distribution of need for health care.

Table 4: Incidence of different domestic financing mechanisms in South Korea (2000)

Financing mechanism	Percentage share	Kakwani index
General government revenues	16.2%	0.16
Direct taxes	8.3%	0.27
Indirect taxes	7.9%	0.04
Mandatory health insurance contributions	33.9%	-0.16
Total public financing sources	**50.1%**	-
Commercial voluntary health insurance	-	-
Out-of-pocket payments	49.9%	0.01
Total private financing sources	**49.9%**	-
TOTAL FINANCING SOURCES	100.0%	-0.02

Note: Estimates are based on per adult equivalent expenditures; - = data not available.
Source: O'Donnell et al. (2008)

Table 5: Concentration indexes for benefit incidence of health service use in South Korea (2005)

Type of Service	Outpatient visits	Inpatient visits
Public facilities		
Hospital	-0.2385	-0.2225
Non-hospital	-	-
Private for-profit facilities		
Hospitals	-0.1014	-0.1305
Non-hospital facilities	-0.0865	-0.0560
TOTAL	-0.0918	-0.1251

Note: Estimates are based on adult-equivalent adjusted per capita household expenditure; - = data not available
Source: Author's calculation using data from the Korea National Health and Nutrition Examination Survey of 2005

Accordingly, after adjusting the need for health care according to the number of chronic diseases and self-assessed health, Kim et al. (2008) found that, in 2005, outpatient visits and inpatient services remained pro-poor.

Conclusion

South Korea achieved universal health coverage rapidly. To do so, the government chose a 'low contribution–limited benefit coverage' strategy, combined with high co-payments at the time of service utilisation. This inevitably resulted in high out-of-pocket payments, which had implications for financial protection and access to health services.

Currently, mandatory National Health Insurance contributions, the largest source of health financing, are regressive, mainly because of a contribution ceiling. This means that low-income households bear a higher financial burden compared to their ability to pay.

Consequently, almost 2% of households experienced catastrophic payments at a threshold of 40% of non-food household expenditure in 2000. The impoverishing impact of high out-of-pocket payments was a two-percentage point increase in poverty, affecting around 800,000 Koreans.

In addition, many expensive services are not covered under National Health Insurance. Low-income households have to pay for uncovered services on an out-of-pocket basis, or forgo those services. Considering that out-of-pocket payments are progressive, and that high-income households experienced catastrophic payment more frequently than low-income households, it is likely that low-income households have limited access to uncovered services, whether needed or not, compared to their high-income counterparts.

Currently, there is much debate on how to expand benefit coverage in South Korea, which is crucial to improving the level of financial protection, increasing the size of the single risk pool, promoting cross-subsidisation and strengthening the purchasing power of government. This requires enhanced revenue collection and an increase in the share of total health expenditure made up by mandatory prepayment, while reducing the share of out-of-pocket payments.

For the expansion of benefit coverage, especially to low-income households, it is also necessary to exert purchasing power more actively so as to include additional services that are effective in meeting the health care needs of the population. The National Health Insurance Service needs to pay attention not only to the effectiveness of services but also the cost-effectiveness.

Primary care is a good example of a cost-effective set of services. Because the primary care level does not have a gate-keeping function in South Korea, many patients access higher levels unnecessarily and a significant amount of health resources are utilised inefficiently, with no extra health benefit. By re-vitalising the functions of primary care, efficiency in health service utilisation could be improved.

Lastly, under the fee-for-service payment system in South Korea, providers have incentives to induce demand for more services than are necessary. Supplier-induced demand threatens the financial sustainability of the single risk pool and could result in reduced financial protection and access in the long run. In order for National Health Insurance to be sustainable, provider reimbursement reform – such as the introduction of an expenditure cap for providers through a global contract - is urgently required in South Korea.

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GNHE is a partnership formed by three regional health equity networks – SHIELD (Strategies for Health Insurance for Equity in Less Developed Countries Network in Africa), EQUITAP (Equity in Asia-Pacific Health Systems Network in the Asia-Pacific, and LANET (Latin American Research Network on Financial Protection in the Americas). The three networks encompass more than 100 researchers working in at least 35 research institutions across the globe.

GNHE is coordinated by three institutions collaborating in this project, namely: the Mexican Health Foundation (FUNSALUD); the Health Economics Unit of the University of Cape Town in South Africa; and the Institute for Health Policy based in Sri Lanka.

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