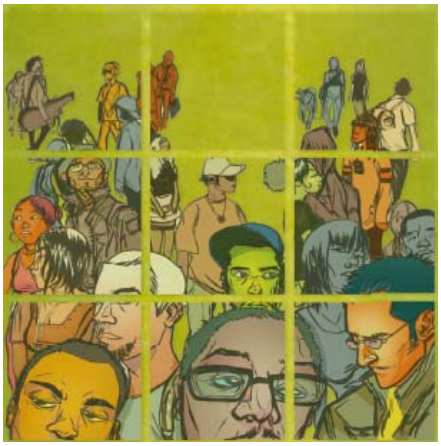

Expanding insurance coverage to informal sector populations: Experience from Republic of Korea

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1 Introduction

Expanding coverage of prepayment schemes to the informal sector is a challenge encountered by many developing countries. Because of the difficulty of collecting contributions and the administrative costs this can entail, some countries try to deal with the problem by transferring resources from general taxation to insurance funds. However, this is not always fiscally feasible when the informal sector constitutes a high proportion of the total economy, as is the case in many developing countries.

Republic of Korea is an interesting success story in this regard. Compared to other countries at a similar stage of economic development, Republic of Korea has a relatively high proportion of self-employed, representing 23.5% of the total workforce in 2009. The health insurance system of the Republic of Korea includes the National Health Insurance (NHI) scheme and the Medical Aid Program (MAP). The NHI covers 96 % of the population and is financed mainly through members' contributions. The MAP is a non-contributive scheme financed by general taxation covering the poor.

It took only twelve years from the inception of the NHI for Republic of Korea to extend coverage to the self-employed population. Contribution collection is relatively efficient and the contribution rate is linked to income and assets. The experience of the Republic of Korea is therefore of considerable interest for other countries striving to attain universal coverage (Jeong, 2010).

2 Practical steps taken by the NHI to cover the informal sector

In Republic of Korea a publicly managed social health insurance system was introduced for the first time in July 1977 (the MAP scheme for the very poor was started in January of the same year), with businesses employing 500 or more being required by law to participate. Contributions were deducted from paychecks. Needless to say this option cannot be applied to contribution collection from the self-employed. It is therefore necessary to establish a reasonable contribution rate and to find ways to collect contributions in a cost-effective manner. The challenges are considerable. Not only is it often difficult to assess the income of self-employed workers, it can be a challenge even to locate them. In 1981 pilot projects were started to work on these challenges and a functioning programme was rolled out in 1988 on the basis of the 7-year experiment (Lee et al., 2006).

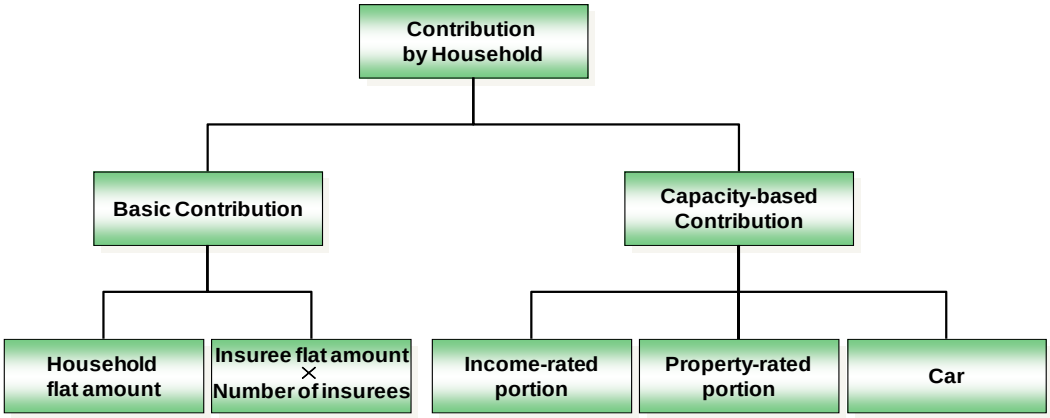
The first Pilot Project for locality (regional based) medical insurance was started in three counties in 1981, and a second, covering three more areas (including Mokpo city which was the only urban area

among the six) in 1982. The stated goals of these Pilot Projects were to develop contribution collection methods, establish insurance benefit packages and design health-care delivery models. The first objective was considered to be of the greatest importance.

Contributions were levied on a per-household basis. In the first Pilot Project, the contribution demanded of each household consisted of two portions: a flat rate payment of 1000 won (US$1.5) that was imposed on every household and a second ‘graded’ contribution determined by the Resident Autonomous Committee based on the level of taxes paid, the extent of farmland owned, the standard of living and so forth. To begin with, all households were divided into three categories, which were further broken into a total of seven categories in 1985. The portion of the ‘graded’ contribution to be paid by individuals was obtained by multiplying the per capita amount of the grade of the household by the number of the household members.

In the second Pilot Project (which was fine tuned with the introduction of objective data), a more complex ‘four-variable’ approach was taken in which insurance contributions were divided into two parts, namely: the ‘basic contribution’; and the ‘capacity-based contribution’. Included in the basic contribution were a per-household flat rate which was equally applicable to all households, and an amount obtained by multiplying the insuree flat rate by the number of insured individuals in the household. The capacity-based contribution was also subdivided into two parts: an income-rated portion and a property-rated portion. Initially, the income-rated portion comprised seven grades, determined by the level of both income and farmland taxes paid per household. The property-rated portion was also broken into seven grades depending on the level of property tax paid. This portion was further divided as the pilot project went on.
Income redistribution resulting from the fine tuning of contribution calculations started to be seen. Problems with taxation data remained unresolved and a ‘Contributions Adjustment Committee’ was established later in the second Project to try deal with them.

Figure 1. Components of contributions in the Pilot Projects



The crucial issue for the Pilot Projects was how much could be raised through contributions. The fact that the payment rate in the initial stages stood at less than 50% did not bode well for long term sustainability. While the level of insurance reimbursements was on a par with that obtained with employee insurance, the contributions were set lower by comparison and the contribution collection rate was supposed to fall below that of employee insurance, where the contributions are withheld from paychecks.

The Ministry of Health and Social Affairs looked carefully at the results of the Pilot Projects and came to the conclusion that the locality insurance societies were going to require the support of the national treasury. Up to that point national treasury support had been limited to operating and maintenance expenses only. The extent to which the national treasury was able to support the programme therefore became a determinant factor in its success.

Experiences accumulated while running the Pilot Projects proved useful when applied to the development of insurance societies in the informal sector for the farming and fishing industries in 1988, and in the informal sector for urban areas in 1989. The contribution calculation method as applied to the current insurance programme which has been in operation since 1988 is no different to that used in the Pilot Projects in basic structure, in that it is based on supposed rather than actual incomes. Problems in the estimation of the incomes of the self-employed remain unsolved, and have if anything become more pronounced with insurance for urban areas which has expanded since 1989. Because the Pilot Projects were implemented primarily in the farming and fishing sectors, it has proved difficult to apply lessons learned to urban areas where prevailing income structure and life-style are different. This therefore remains a considerable challenge for the authorities concerned.
While the payers were graded on the basis of ‘tax’ in the Pilot Projects, this ‘tax’ was switched to ‘supposed incomes and properties’ in the new system. At the same time income calculations were expanded in scope to cover ‘integrated’ incomes as estimated by the Office of National Taxation (e.g. labor incomes, business incomes, rental incomes, farmland incomes, pension incomes, other incomes etc.) Meanwhile the allocation rate for ‘basic contribution’ and ‘capacity-based contribution’ was determined based on a ‘standard allocation rate’ as calculated on the basis of the level of incomes and properties of all households.

Several difficulties in estimating income level and economic capacity remain unresolved: first, the proportion of the ‘basic contribution’ is still weighty (Table 1), putting an extra burden on households with many family members and on those in the lower-income bracket; second, employees whose income level is made available are at a disadvantage in so far as it is highly likely that some of the self-employed households underreport their incomes, and thereby avoid contribution; third, objections

continue to be raised to the inclusion of property and particularly cars in calculating contributions, some arguing that while car ownership may have been a sign of wealth in the past, today cars have become a basic necessity.

Table 1. Basic vs. capacity-based parts in contributions

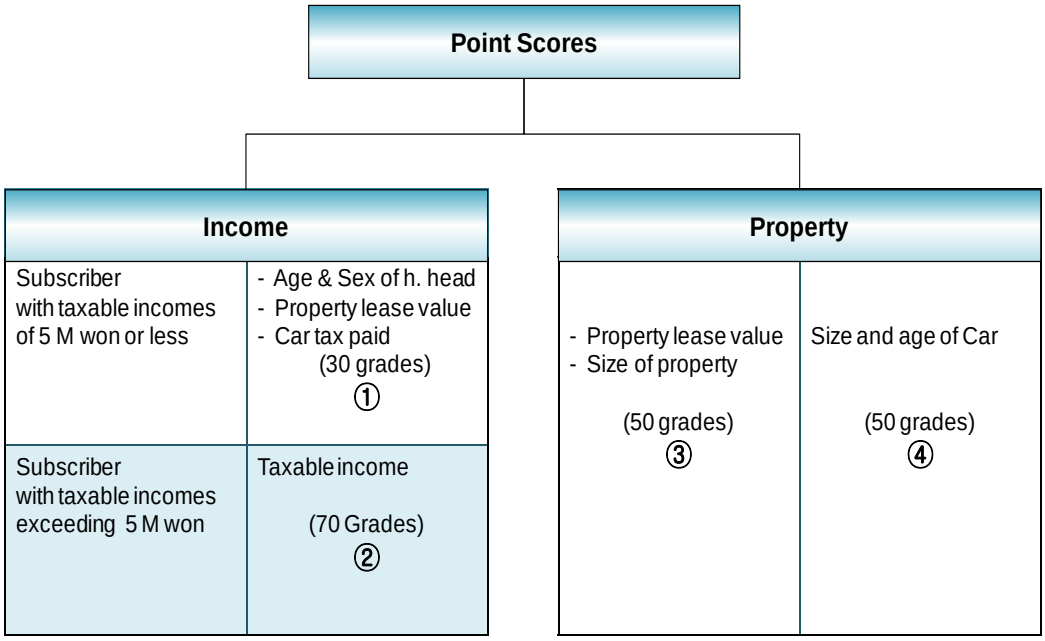
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Basic contribution	58.9	55.6	50.8	48.0	44.8	42.1	39.2	36.2	31.9	31.9
Capacity-based contribution	41.1	44.4	49.2	42.0	55.2	57.9	60.8	63.8	68.1	68.1

3 Current scheme for collecting contributions from the informal sector according to income

Efforts to arrive at a uniform method of levying contributions on the employed and self-employed have been well under way since 1998. Currently, insurance contributions are calculated on the basis of taxable income in the case of self-employed subscribers earning above 5 million Won, and ‘supposed’ income (as defined below) in the case of other self-employed subscribers. Taxable income includes income that is officially confirmed (such as business and work income, part-time work income, pensions, agricultural income, capital income, real estate income and the like) and different weightings are applied per category in calculating the total yearly taxable income. For those with a taxable income exceeding 5 million Won, the contribution amount is calculated on the basis of the aggregate point scores for income, property lease value, and assets including car – the whole multiplied by a point value.

For those with taxable income of 5 million Won or less, supposed income is estimated by allocating point scores for the age and sex of the head of the household, the property lease value and the car tax paid. This is added to the point score for the property value tax and for the size and age of the car owned. The total number of points is again multiplied by a point value. The underlying assumption of assessment rules relating to supposed income is that the car and property reflect a household’s actual income. However, even where supposed incomes are used, one grade is added per every 500,000 Won of taxable income confirmed. While the current calculation system is more detailed than the previous one, it leaves much to be desired in terms of transparency. Indeed, the calculation system is so complicated that laymen often cannot understand how their contributions are calculated.

Figure 2. Point Scores in the calculation of contribution



Note: - Individuals with a total yearly income subject to tax less than 5 million won: ①+③+④
- Individuals with a total yearly income subject to tax exceeding 5 million won: ②+③+④

There are currently 8,874 employees on the NHIC's payroll, with 1,577 in charge of contribution collection. There are 178 NHIC branches country wide with 9 employees on average in charge of collection in each branch, each employee taking charge of 10,725 locality subscribers and 7,836 employee subscribers. NHIC staff levy and collect insurance contributions on a monthly basis and are scheduled to collect the contributions of Pension insurance, Employment insurance, and Industrial Injury Compensation insurance as well as Health insurance from 2011 on in accord with the reform plan introduced in 2009.

Efforts to reduce arrears in insurance contributions account for a considerable portion of the NHIC's duties. Targets for a certain level of collection are set each year and each month, and collection results are analyzed and managed by each branch on a competitive basis. For the convenience of the payer, payment by credit cards on the internet, or at a convenience store is possible as well as payment at banks. Automatic fund transfer and payment by electronic methods are on the increase, and 60% of locality subscribers opted for automatic transfer and 9% for payment by electronic methods in 2009. Payments by means of standard optical character readers (OCR's) are on the decline, but still account for 25% of payments.

Mandatory levy through garnishment, seizure of property and so forth are enforced for delinquent contribution payers, and the arrears can be written off as lost for the insurees who are insolvent, for whom conversion to beneficiaries of the Medical Aid Program is sometimes enforced.

Table 2 The collection rate of contributions from the employed and self employed

Year	Imposition of Contributions (billion won)	Collection of Contributions (billion won)	Percentage (total)	Percentage (Self-employed)	Percentage (Employed)
2000	7,229	6,891	95.3%	89.6%	99.7%
2001	8,856	8,779	99.1%	98.5%	99.5%
2002	10,860	10,841	99.8%	99.8%	99.8%
2003	13,741	13,428	97.7%	94.4%	99.4%
2004	15,614	15,101	96.7%	91.1%	99.2%
2005	16,928	16,457	97.2%	91.7%	99.4%
2006	18,811	18,324	97.4%	92.2%	99.3%
2007	21,729	21,387	98.4%	95.1%	99.5%
2008	24,973	24,433	97.8%	93.4%	99.2%
2009	26,166	25,859	98.8%	96.3%	99.6%

4 The contribution by the informal sector and the administrative cost in collecting the contribution

Contributions from the employed and self-employed increased steadily by about 40% between 2002 and 2008. With contributions standing at 5.33% of salaries for employed insurees in 2010, the level of contribution is still considerably below that of other OECD countries.

The NHI’s revenues consist not only of contributions from the employed and self-employed, but also comprise government subsidies, financed regularly via general revenues. This reflects government's responsibility for and commitment to ensuring universal coverage and access to health care for all, independent of people's ability to pay. Table 3 shows the shares of the respective revenue categories.

Table 3. Shares of total NHI revenue by source

	Total	Contribution - employed	Contribution - self employed	General taxation	Levy on tobacco
1988	100.0%	82.3%	9.8%	7.9%	
1989	100.0%	68.5%	18.2%	13.3%	
1990	100.0%	57.0%	26.8%	16.2%	
1991	100.0%	51.0%	28.9%	20.1%	
1992	100.0%	52.1%	29.6%	18.2%	
1993	100.0%	51.2%	30.5%	18.2%	
1994	100.0%	51.7%	30.5%	17.8%	
1995	100.0%	52.3%	30.4%	17.3%	
1996	100.0%	51.5%	31.2%	17.3%	
1997	100.0%	48.6%	34.4%	16.9%	
1998	100.0%	45.0%	38.0%	17.0%	
1999	100.0%	47.9%	36.5%	15.6%	
2000	100.0%	47.0%	35.3%	17.7%	
2001	100.0%	45.6%	31.5%	22.9%	
2002	100.0%	50.9%	30.0%	19.1%	3.3%
2003	100.0%	55.5%	27.7%	16.8%	3.9%
2004	100.0%	58.6%	25.9%	15.5%	3.4%
2005	100.0%	61.5%	24.4%	14.1%	4.7%
2006	100.0%	64.1%	22.7%	13.2%	4.5%
2007	100.0%	66.9%	22.0%	11.1%	4.0%
2008	100.0%	65.6%	20.5%	10.4%	3.5%

The relative importance of contributions from the self-employed is declining over time, since even businesses with one employee on the payroll have been obliged to switch over to a worksite insurance subscription since 2003. However, another reason for the decline is the lack of data required to levy taxes and insufficient exploration of ways to expand the contribution base. Contribution revenues can be increased by expanding the contribution base such as incomes subject to tax. Another way of increasing revenues is to reduce leakage and underreporting of income, which would probably result in an increase the number of households, including those in high-income groups, who contribute to the NHI.

Table 4. The number of people contributing to NHI

Year	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Total (million)	44,0	45,9	46,4	46,7	47,1	47,4	47,4	47,4	47,8	48,2	48,6
Employed (million)	21,6	22,4	23,2	23,8	24,8	26,0	27,2	28,4	29,4	30,4	31,4
Self-employed (million)	22,5	23,5	23,2	22,9	22,3	21,4	20,2	19,0	18,4	17,7	17,2
Share of S-E (percentage)	51%	51%	50%	49%	47%	45%	43%	40%	39%	37%	35%

The rationale for government subsidy to the NHI has substantially changed over the past 15 years as has the level of government subsidy. The government was originally committed to paying half of the NHI benefits for self-employed insurees. These subsidies actually amounted to 54.5% of the total expenditure reimbursed by the areal health insurance societies in 1988, steadily decreased to 24.6% in 1999, but then increased again to 37.9% in 2001. With the amendment of rules which took place in 2002, Government subsidies began to be financed via general taxes and from a new levy on tobacco sales. Total government subsidies were supposed to constitute 50% of total NHI expenditure on the benefits and administration costs for the self-employed insurees. However, government subsidies in fact fell short of this target. With the amendment of the National Health Insurance Act in December 2006, subsidy was linked to revenue rather than to expenditure. The NHI Act currently specifies that government subsidizes 14% of estimated NHIC revenues. NHIC can receive additional government subsidies, coming from the Health Promotion Fund, amounting to 6% of estimated NHIC revenues. Total government subsidies are thus supposed to amount to around 20% of NHI contributions.

As shown in Table 5, the proportion of the administrative cost (which is meant to cover the collection of contributions, review of claims and reimbursements) paid by all insurers accounted for 8.9% of the total NHIC expenditures in 1990 (the year following July, 1989, when the goal of health-insurance-for-all was achieved). The proportion rose to 9.7% in 1992, gradually falling back to 6.2% in 1999. It should be noted that it is difficult to pinpoint the proportion devoted to the collection of contributions only, and even more so to separate the administrative cost of the collection of contributions from the self-employed in particular from the total amount.

A look at the decrease in administrative cost as a percentage of total NHIC expenditure –to 4.5% in 2001, the year right after review of claims ceased to be done through the HIRA (Health Insurance Review Agency) and was separated for independent operation, from the 6 – 7% mark previously reached suggests that the cost for the collection of contributions and reimbursements would have reached the level of about 2/3 of the total administrative cost.

In view of the fact that the administrative costs involved in reimbursements and the collection of contributions from the employed are insignificant, it would not be overstating the case to say that the bulk of administrative costs have been absorbed by the collection of contributions from the self-employed insurees. Accordingly, it appears that the portion of the cost devoted to collecting contributions from the locality insurance subscribers expressed as a percentage of total insurance expenditure stood at 6% in the first half of 1990 (the initial stage of the locality insurance implementation), thereafter falling to the 2-3% mark in 2008.

Table 5. Proportion of administrative costs of total NHIC expenditures

	Cost A	Cost B
1990	8.9%	
1991	9.3%	
1992	9.7%	
1993	9.3%	
1994	9.6%	
1995	7.6%	
1996	8.7%	
1997	8.5%	
1998	7.5%	
1999	6.2%	
2000	6.5%	
2001		4.5%
2002		4.0%
2003		4.0%
2004		4.0%
2005		3.8%
2006		3.4%
2007		2.8%
2008		2.4%

Note: Cost A includes administrative cost for collection of contributions, review of claims and reimbursement etc.
Cost B includes administrative cost for collection of contributions and reimbursement etc.

5 Lessons learned from the Republic of Korea's National Health Insurance

5.1 Main factors contributing to the success

Like most countries, the Republic of Korea has had to deal with the problem of determining and calculating income of the self-employed. Despite the challenge this presents, the Republic of Korea has been able to establish an effective contribution system for the self-employed population and insurance coverage for all within a comparatively short period. These are some of the reasons for success:

First, contribution rates were set at an affordable level. Provisions were made so that the financial burden of paying contributions was kept to a minimum by adopting a low-burden, low-reimbursement plan during the expansion phase of the NHI. When contributions were imposed on locality insurance subscribers for the first time in 1988 and 1989, there was organized resistance against it. There was also resistance later on with the introduction of 'Integration' reforms in late 1990s. However, the level of contributions was not so high as to put a burden on households to any noticeable or unbearable extent, and this allowed the programme to win general acceptance.

Second, support from the national treasury made it possible to keep the level of contributions comparatively low. Indeed most self-employed households pay contributions below those of the employed since in calculating contributions for the self-employed, it is assumed that the government will subsidize the contributions of the self-employed.

Third, sustained economic growth has also contributed to success. In spite of rising medical expenditures and the contributions required to support of them, the capacity of the nation as a whole to pay has also grown.

5.2 Emerging challenges

NHI contributions are designed to be proportional to income as stated in the contribution rules. Through exemption and reduction of contributions for the poor, NHI contribution is also intended to be progressive, the poor contributing a lower proportion of their income than the rich. In practice, there remain concerns that a certain degree of inequity has emerged from the complexity of the contribution rules for the informal sector. This becomes more of an issue in the current economic crisis which may push more people into informal work.

5.3 Ongoing efforts

Social contributions for employees are deducted from payroll, while those insured as self-employed are billed monthly. This leads to differences in compliance. More than a quarter of self-employed households are in arrears with their contribution payments, suggesting either problems in the collection mechanisms or inability to pay. Self-employed people unable to pay their contributions temporarily can apply for their contributions to be waived and about 20,000 households benefit from waivers each year - although many more apply.

The relative non-compliance of the self-employed insurees is due partly to a lack of transparency regarding their income. While the share of self-employed taxable income has been rising, a considerable amount remains hidden. Comparing national income statistics with data from the National Tax Service indicates that only about half of self-employed income is reported, compared to more than 80% of wage income (2008 OECD Economic Survey of Republic of Korea). Thus more efforts are required to develop the income registration system. Republic of Korea’s social security system has developed gradually, starting with the introduction of insurance for industrial accidents in 1964, health care in 1977, pensions in 1988, employment in 1995 and long-term care in 2008. Each insurance system has evolved independently, and in the absence of close co-ordination with the other systems, especially in terms of collecting contributions. Reform is underway to put the collection of contributions of all social insurance systems under the authority of the NHIC from 2011 on.

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