# Health Insurance and Financing in Korea: Achievements and Challenges

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### **ROAD MAP**

- 1. Financing and Benefits
- 2. Governance and Provider Payment
- 3. Pharmaceutical Policy
- 4. Long-term Care Insurance

# I. Financing and Benefits

### 1. Source of Health Care Financing

- Contribution of the employed: proportional to income, and shared equally by the employer and employee (Employees in small business with less than 5 workers were enrolled in self-employee scheme until 2000)
- Contribution of the self-employed
  - Property part: property and vehicle
  - Income part: taxed income or estimated income (property, vehicle, age, sex)

### Mixed systems of health care financing in Korea

- Partial subsidy to the self-employed (started with the half of their contribution, but reduced incrementally)
  - -> Pure contribution scheme for the informal sector is rare in the world
- Full subsidy to the poor: Medical Aid Program

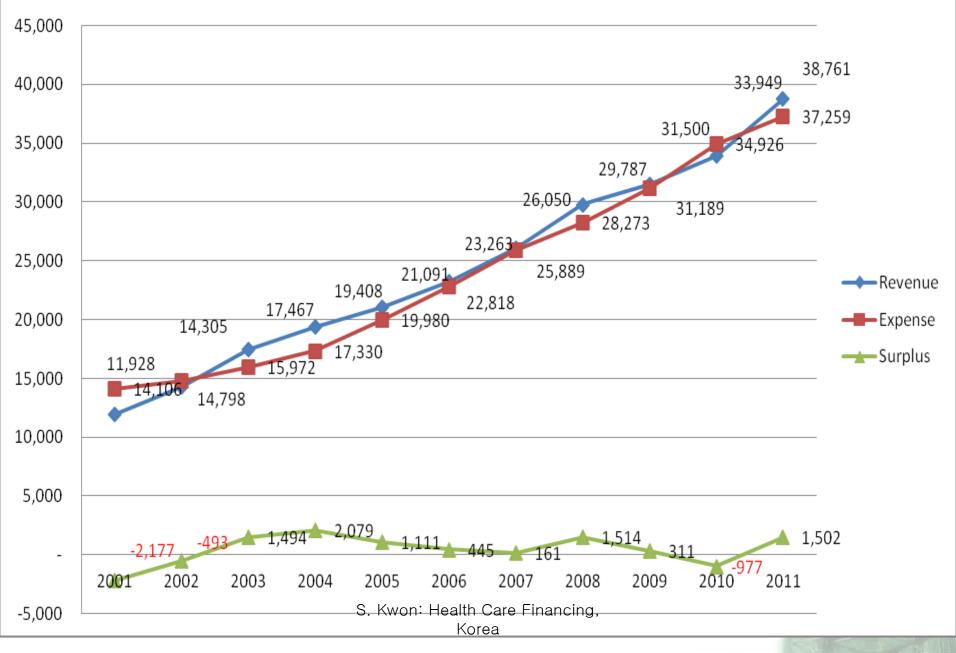
### Mixture of SHI and NHS in Korea

- Single payer (uniform benefits, uniform payment to providers and centralized claim review)
- Contribution regarded as an ear-marked proportional income tax, with exemption for the poor

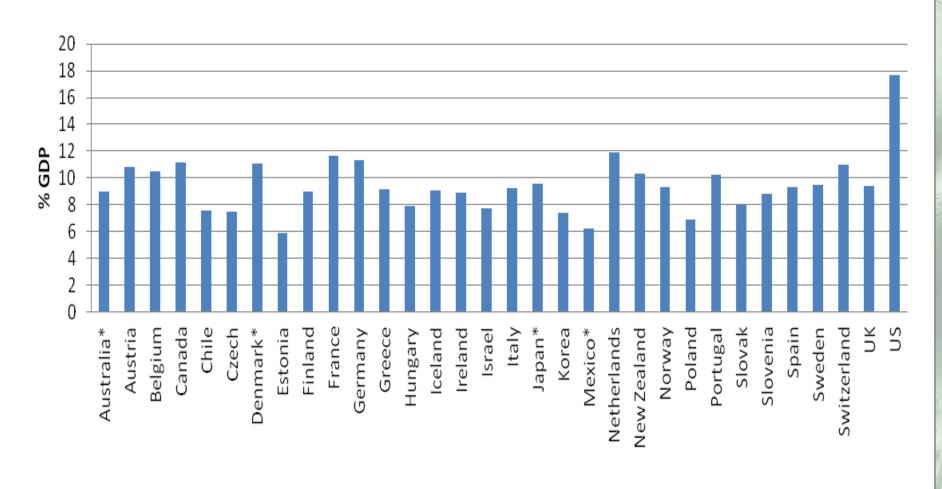
# Revenue for National Health Insurance, Korea

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
HI Contribution (%)	76	76	78	80	81	82	84	85	83	84	85
Government Subsidy (%)	23	22	20	19	18	17	15	14	15	14	13
Others (%)	1	2	2	1	1	1	1	1	2	2	2
Total (%)	100	100	100	100	100	100	100	100	100	100	100

# Fiscal Status of NHI (Unit: Billion won)



### Health expenditure, total (% of GDP), 2011



\*: 2010

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# Health Insurance Contribution Rate, Korea

The state of the s		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
ŀ	HI Cont. Rate (%)	4.21	4.31	4.48	4.77	5.08	5.08	5.33	5.64	5.80	5.89

### 2. Benefit Coverage in Korea

Policy Priority on extending population coverage in Korea: too extensive benefit coverage and high premium can be a barrier to the extension of population coverage

### Some Protection Mechanisms

- Discounted copayment: elderly, patients with chronic conditions (e.g., renal dialysis)
- 5% OOP pay for catastrophic conditions: e.g., cancer
- Exemptions of copayment: the poor (Medical Aid)
- Ceiling on out-of-pocket payment for covered services:
  - 3 different ceilings for 3 income groups (lower 50%, middle 50-80%, upper 80-100%) -> will be further segmented based on income

### Why OOP is still high in Korea?

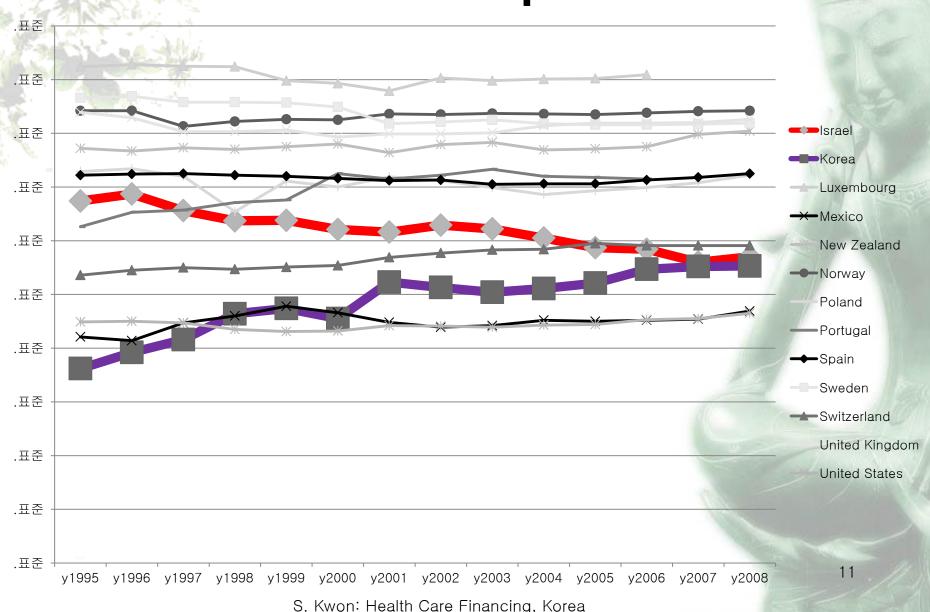
Out-of-pocket payment is about 30-35% of total health expenditure, greater than the co-insurance rate (20%) for inpatient care

Full payment for un-insured (un-covered) services is still high

Providers have strong incentive to increase the provision of un-covered services

- Perverse financial incentive by fee-for-service payment
- No price regulation of un-covered services
- Rapid adoption of new medical technology and medicines

# Share of Public Expenditure (Tax+SHI) in Total Health Expenditure



### 3. Private Health Insurance (PHI)

Current regulation: PHI coverage of maximum 90% of the OOP payment under NHI (to minimized moral hazard)

More than half of population purchase PHI in Korea, and Taiwan (Kwon, Lee, and Ikegami, forthcoming, 2011)

- Over-insurance in the private insurance market, in general (e.g., very popular life insurance, which often provide coverage for health)
- People with higher socio-economic status tend to buy PHI

Recent study in Korea (Jeon and Kwon, 2011)

- Control selection bias by propensity score matching
- People with PHI show higher utilization of outpatient care, in volume and expenditure
- Little effect of PHI in the inpatient care



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### Health Policy





### Effect of private health insurance on health care utilization in a universal public insurance system: A case of South Korea

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#### ABSTRACT

This study examined the effect of private health insurance (PHI) on health care utilization in South Korea using a nationally representative sample of 9512 adults participating in Korea Health Panel Survey (KHPS). We compared the health care utilization and subsequent expenditure according to whether or not and how many PHIs are purchased, controlling for the endogeneity of insurance purchase by propensity score matching method and Heckman-type treatment effect model. The results of this study show that the probability of any health care utilization, both outpatient care and inpatient care, is higher for the people who have PHI. For those who utilize health care, PHI has a positive impact on outpatient expenditure, but not on the number of outpatient visits. The effect of PHI on the number of inpatient days and expenditure is not statistically significant among the users of inpatient care. These results imply a need for policy options to mitigate the moral hazard effect of PHI in the outpatient care sector. S. Kwon: Health Care Financing,

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# **II. Governance and Provider Payment**

### 1. Accountability and Governance

- Social health insurer, National Health Insurance Service (NHIS), is an independent quasi-public organization, under strong supervision by the Ministry of Health and Welfare (MOHW)
- From 2011, contribution collection of all social security programs (pension, unemployment insurance, workplace injury) is done by NHIS
- b. Social health insurer is divided into two organizations based on their functions
- NHIS (Nat H Insurance Service): premium collection, fund management, reimbursement to providers
  - HIRA (H Ins Review and Assessment): claim review, assessment of appropriateness of health care

### c. Health Insurance Policy Committee

- Major decision making (by voting) on premium contribution, reimbursement pricing, benefit packages
- 25 members, Vice Minister of HW as the chair:
- 8 from payers (labor unions, employer associations, civic groups),
- 8 from providers (medical assoc., hospital assoc., dental assoc., nursing assoc., etc)
- 8 from the public interests (MoHW, MoPF, NHIS, HIRA, 4 experts)

### 2. Provider Payment Systems

- a. Regulated fee-for-service system is still inefficient because of its volume effect
- Especially in a health care system where private providers are dominant, such as in Korea

# Fee for Service Payment and RBRV (Resource-Based Relative Value)

Fee = conversion factor \* Relative Value

Negotiation between NHIS (Nat H Insurance Service) and provider organization over the conversion factor

-> Setting of the conversion factor should take into account the expenditure or volume (or based on whether actual expenditure exceeds the target expenditure)

### 2. Provider Payment Systems (continued)

b. Need payment system reform, such as DRG payment and global budgeting (macro-level spending cap)

Pilot programs of DRG-based prospective payment system showed positive results

- But, strong oppositions by providers has been a stumbling block to the extension of DRG payment for more than 10 years
- DRG for 6 disease categories for all physician clinics implemented on July 1, 2012

# Thirty years of national health insurance in South Korea: lessons for achieving universal health care coverage

Soonman Kwon\*

#### Accepted 2

21 June 2008

South Korea introduced mandatory social health insurance for industrial workers in large corporations in 1977, and extended it incrementally to the self-employed until it covered the entire population in 1989. Thirty years of national health insurance in Korea can provide valuable lessons on key issues in health care financing policy which now face many low- and middle-income countries aiming to achieve universal health care coverage, such as: tax versus social health insurance; population and benefit coverage; single scheme versus multiple schemes; purchasing and provider payment method; and the role of politics and political commitment. National health insurance in Korea has been successful in mobilizing resources for health care, rapidly extending population coverage, effectively pooling public and private resources to purchase health care for the entire population, and containing health care expenditure. However, there are also challenges posed by the dominance of private providers paid by fee-for-service, the rapid aging of the population, and the public-private mix related to private health insurance.

Keywords

Health care financing, health insurance, universal coverage, Korea



# Health Care Financing in Asia: Key Issues and Challenges

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#### **Abstract**

This article examines the major elements of health care financing such as financial risk protection, resource generation, resource pooling, and purchasing and payment; provides key lessons; and discusses the challenges for health care financing systems of Asian countries. With the exception of Japan, Korea, Taiwan, and Thailand, most health care systems of Asia provide very limited financial risk protection. The role of public prepaid schemes such as tax and social health insurance is minimal, and out-of-pocket payment is a major source of financing. The large informal sector is a major challenge to the extension of population coverage in many low-income countries of Asia, which must seek the optimal mix of tax subsidy and health insurance for universal coverage. Implementation of effective payment systems to control the behavior of health care providers is also a key factor in the success of health care financing reform in Asia.

#### Keywords

health care reforms, heath economics and financing, Figalthingsurance, health systems, health care services

### **III. Pharmaceutical Policy**

### 1. Issues

- Pharmaceutical expenditure accounts for a large share of total health expenditure
- (Health care and pharmaceutical) cost containment is a challenge in an era of rapid aging of population
- Appeal to the national interest by domestic manufacturers: from industrial policy perspective
- Request transparent policy process by global manufacturers (e.g., FTA)
- Unclear business practice: e.g., rebates, difference between insurance reimbursement and actual price of transaction

# **Expenditure on Pharmaceuticals and other Medical Non-durables in Korea**

(OECD Health Data)

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	% total expenditure on health	/capita, US\$ PPP
1996	23	124.9
1997	23.4	135.5
1998	21.8	123.6
1999	21.4	142.1
2000	24.3	187.1
2001	24.3	223.2
2002	25.1	242.7
2003	25.1	262.9
2004	25.5	289.5
2005	24.9	321.8
2006	24.5	360.2
2007	23.4	386.2
2008	23.2	402.9
2009	S. K <b>ഉഉ</b> n <b>5</b> Health Care Financing, Korea	<b>422.7</b> 21
	1/0164	

### 2. Originator Medicines

Positive listing and benefit package decisions based on economic evaluation: Pros and cons

Benefit package (listing of medicines) decisions by HIRA with data submitted by pharmaceutical manufacturers

-> then price negotiation between NHIS and pharm manufacturers with *price-volume* consideration

(previously, external reference pricing and cost-plus pricing: Average of manufacturing prices (65% of list price) in 7 countries (USA, UK, Germany, France, Italy, Swiss, Japan) plus VAT and distributors' margin)

### 3. Pricing of Generic Medicines

- With patent expiration, 20% reduction in the price of originator
- 1<sup>st</sup> -5<sup>th</sup> generic medicine: 85% of the reduced price of originator drug (68% of the price of originator before patent expiration)
- 6<sup>th</sup>-: 90% of the lowest price of the existing generic

### **Changes in Generic Pricing (from 2013)**

- First year after patent expiration: 30% reduction in the price of originator, 85% of which (59.5%) is the generic price
- From the second year after patent expiration:
  - 53.5% originator price (10% reduction from the year 1) for all generic medicines, regardless of the order of entry

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# International Price Comparisons of Generics: Price Index (1) (Kim, Kwon, et al., 2010)

			US	D			USD-F	PPP	
	No M/P/ S	Laspeyre s	Paasch e	Walsh	Fisher	Laspeyre s	Paasch e	Walsh	Fisher
USA	62	0.539	0.418	0.446	0.475	0.381	0.295	0.315	0.335
Norway	46	0.540	0.304	0.366	0.405	0.233	0.131	0.158	0.175
Sweden	47	0.628	0.275	0.370	0.415	0.312	0.136	0.184	0.206
UK	62	0.760	0.301	0.415	0.479	0.437	0.173	0.239	0.275
Spain	65	0.768	0.435	0.628	0.578	0.486	0.275	0.397	0.366
Germany	67	0.784	0.496	0.603	0.624	0.439	0.277	0.338	0.349
Belgium	53	0.895	0.638	0.711 on: Health (	0.755	0.471	0.336	0.374	0.397

Korea

# International Price Comparisons of Generics: Price Index (2) (Kim, Kwon, et al., 2010)

	No		US	D		USD-PPP			
	M/P/ S	Laspeyre s	Paasch e	Walsh	Fisher	Laspeyre s	Paasch e	Walsh	Fisher
Italy	57	0.901	0.628	0.742	0.752	0.515	0.359	0.424	0.430
Netherlan									411
ds	59	0.919	0.490	0.576	0.671	0.500	0.267	0.313	0.365
Australia	50	0.993	0.845	0.915	0.916	0.555	0.472	0.511	0.512
Austria	59	1.130	0.726	0.902	0.905	0.607	0.390	0.485	0.487
France	54	1.131	0.881	1.024	0.998	0.590	0.460	0.535	0.521
Swiss	44	1.205	1.098	1.141	1.150	0.559	0.509	0.530	0.534
Japan	33	1.477	1.086	1.109	1.267	0.924	0.679	0.693	0.792

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### 4. Challenges

- a. Pharmaceutical expenditure keeps rising in spite of various policy interventions
- Why pharmaceutical expenditure is so high in Korea?:

  Not only price but more driven by quantity and the mix of originator and generic medicines
- -> need payment system reform for physicians/prescribers
- b. Independent Review Process (IRP)
- Started in 2012, as a result of Korea-USA FTA
- Manufactures (of medicines and device) can request the review of benefits decisions
- Potential impact on benefit package and pricing?

# Decomposition of Pharmaceutical Expenditure (Laspeyres Index)

	2008.10- 2009.9	2009.10- 2010.9	2010.10-2011.9 (No Margin for Providers)	2012.4-2013.3 (Price Cut)
Pharm Expenditure	1.110	1.191	1.237	1.082
Quantity Change	1.056	1.102	1.131	1.171
Price Change	0.970	0.954	0.930	0.754
Mixed effects (substitution)	1.083	1.133	1.177	1.226

Reference period: 2007.10-2008.9

Source: Soonman Kwon, et<sub>s.a. wo</sub> Impact Evaluation, of the "No Margin Policy" and Price Cut, HIRA, 2013.

Korea

#### Soonman Kwon

s patients age and financial barriers to use are removed, the resultant growth of drug consumption and spending can negatively impact the financial sustainability of a nation's health-care system (Davis 1997). South Korea (hereafter Korea) is facing these challenges and more. Before 2000, physicians and pharmacists were allowed to both prescribe and dispense drugs; driven by economic incentives, this resulted in drug overuse and overspending. But despite an urgent need, the strong opposition of physicians and pharmacists was a critical and longtime barrier to reform.

On July 1, 2000, the Korean government mandated the separation of drug prescription and dispensation. The reform aimed to fundamentally change the inefficient pattern of pharmaceutical provision and consumption, reduce the resultant overuse and misuse of drugs, and contain pharmaceutical expenditures. But the reform triggered severe physician strikes, since profits from drug prescriptions had been a major source of physicians' income. These strikes distorted the contents of the pharmaceutical reform and reduced the social benefits from the policy change, which in turn affected government plans for other health-care reforms.

In this chapter, I examine the pharmaceutical reform in Korea—including the separation of drug prescribing from dispensing—and evaluate its impacts. I analyze several aspects of the reform, including its context, contents, policy formulation, implementation, and evaluation. I also evaluate the impact of the pharmaceutical reform on physician behavior and the pharmaceutical market. In particular, I look at how the new policy affected vested economic interests and thus changed the pharmaceutical sector—and the entire health-care system—in Korea. I also address more recent changes to Korean pharmaceutical policy such as pharmaceutical pricing and economic evaluation.

#### The Pharmaceutical Reform: Context and Contents

Korea's national health insurance provides universal coverage of its population. Rapid expansion of population coverage was made at the expense of limited-benefit coverage with low contributions. Despite social insurance for health care, public financing accounts for less than 60 percent of total health-care expenditures in Korea. Health-care providers are reimbursed on a fee-for-service basis. Since fees are strictly regulated, physicians have strong incentives to provide more profitable services and higher-margin products (that is, drugs)—in other words, those services and products for which the difference between the government reimbursement and actual cost is the greatest.

# IV. Long-term Care (LTC) Insurance

### 1. Structure of LTC Insurance

Covers LTC of 65+ and (only) age-related LTC of the others (<65)

### Contribution rate:

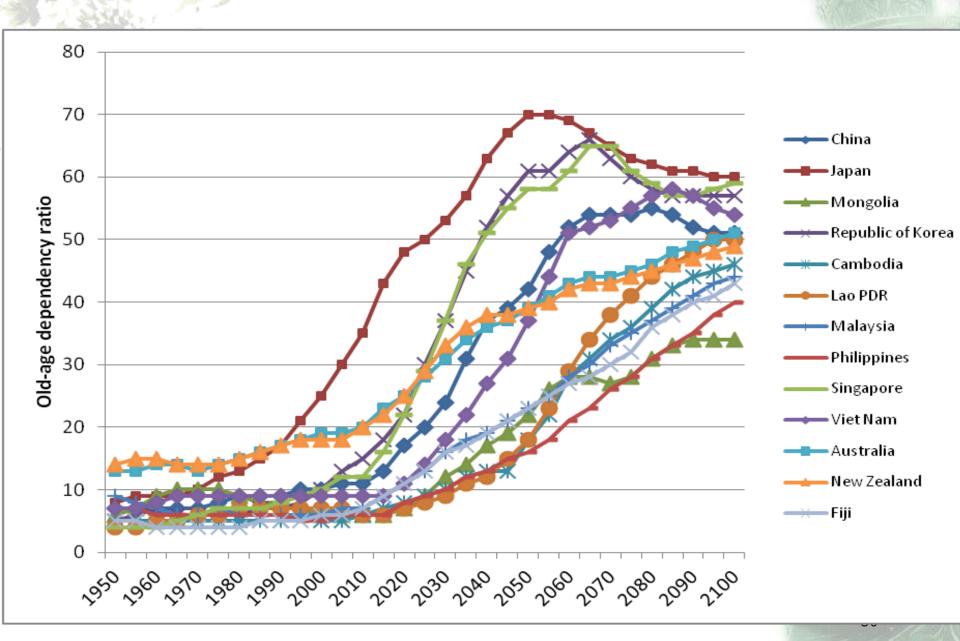
4.05% of health insurance contribution (2008)

-> 4.78% (2009) -> 6.55% (2010, 2011)

### Financing mix

- Government: 20%; Contribution: 60-65%;
- Copayment: 20% (institution), 15% (home-based)
  - -> exemption or discount for the poor

### **Old-Age Dependency (65+/(20-64))**



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# 2. Population Coverage

	July 2008	July 2009	May 2010	April 2011	June 2012
No. Certified to					
be Eligible	146,643	268,000	308,000	318,000	327,766
(% of the	(2.9%)	(5.2%)	(5.7%)	(5.8%)	(5.7%)
Elderly)					
No. Used					
Services	78,000	184,000	245,000	280,000	318,266
(% of Those	(53%)	(69%)	(79%)	(88%)	(97%)
Eligible)					

Source: NHIS, LTC insurance statistics

### 3. Type of Benefits

Service benefit in principle, cash benefit in exceptional cases (e.g., when no service providers in the region)

 Cash benefit can promote consumer choice and the role of family, but potential abuse?

### Payment to providers

- pay per hour: visiting care, visiting nursing
- pay per visit: visiting bath
- pay per day: institutional care, day/evening care

Ceiling on benefit coverage for non-institutional care: depending on the (three) levels of functional status

### 4. Assessment

Visiting team from NHIS (National Health Insurance Service) branch offices,

- Annual assessment, 56 evaluation items

3 levels of functional status:

Level 1 (very severe), Level 2 (severe), Level 3 (moderate)

- Level 3 is eligible only for visiting/home-based care

As of June 2012

- Among those who are certified to be eligible: 12% level 1 (most severe), 22% level 2, 66% level 3

(in April 2011: 14% level 1, 23% level 2, 63% level 3)

### 5. Key Issues/Challenges of LTC Insurance

- Assessment of functional status (3 levels): defines eligibility and benefit levels for LTC insurance, but not fully accounts for health and long-term care needs of older people
- Cost containment: compared with health insurance?
- Types of benefits: cash benefit vs. service benefit
- Balance between institutional care and communitybased (CB) care: Current benefits for community-based care are mainly provided by visiting LTC providers
  - -> need to expand the outpatient care of LTC facilities

### **Labor Market for LTC Providers**

Excess supply of training programs and LTC workers

-> Problems associated with quality of care and work conditions of care workers: low pay, job stress, non-regular workers (e.g., more than half of care workers in ambulatory LTC providers)

Number of LTC workers certified:

70,355 (June 2008) -> 1,200,000 (May 2013), Number employed, about 260,000

-> Need to tighten the requirement for licensure and training institutions

Shortage is not an issue yet, but how about in the future?

- Typical 3D jobs

### Coordination between H Ins and LTC Ins

Health insurance covers long-term care hospitals (LTCH)

Long-term care (LTC) insurance covers long-term care (residential) facilities (LTCF)

Types of patients in the LTCH and LTCF are not clearly differentiated

- Excess competition due to low entry barrier (e.g., low requirement for personnel and building, etc.)
- Limited enforcement due consumer choice in the insurance system
- Reduced fee (as provider incentive) for over 180 days of stay in LTCH: consumer incentives to stay longer

# The introduction of long-term care insurance in South Korea

Soonman Kwon

#### Background

In July 2008, Korea introduced a new social insurance scheme for long-term care (LTC). Several important demographic and social changes have contributed to the introduction of LTC insurance, including the rapid ageing of the population as a result of the increase in life expectancy and the sharp decline in fertility which fell below 1.1 in 2005.1 The proportion of older people (those over sixty-five) in Korea was 9% in 2005, but is forecast to increase at an unprecedented rate. Older people are expected to account for 16% of the population by 2020 and 38% by 2050, resulting in an old-age dependency ratio of 70%.1

With population ageing the demand for LTC has increased. Family structures have also contributed; the proportion of older people living with adult children had decreased to 38% by 2004. The availability of informal or family caregivers is diminishing, given that female labour participation is increasing and thus they are less willing to provide care. Only 36% of those who receive LTC also receive care from their spouse. However there are difficulties in obtaining residential care because the supply of LTC facilities is limited and, unlike health care which is covered by the health insurance programme, there had been no similar system for LTC.

In response to these challenges, the government established a Planning Committee for Long-Term Care for Older People in 2000, and President Kim DJ formally suggested the need to introduce LTC insurance in 2001. In 2003, President Rho MH decided to launch a LTC insurance scheme in 2007. Legislation was

Soonman Kwon is Professor of Health Economics and Policy, School of Public Health, Seoul National University, South Korea. Email: kwons@snu.ac.kr passed in April 2007, but its implementation was delayed by a year, with the scheme finally coming into operation in July 2008. LTC insurance had been proposed, and indeed was ultimately implemented, by a series of progressive governments that strongly supported the expansion of the welfare state. The government's reluctance to expand the public assistance programme for long-term care of (poor) older people has also contributed to the rather early adoption of a universal financing scheme based on premium contributions.

#### Social Insurance for long-term care

Tax-based financing was never given serious consideration from the beginning of discussions on a possible LTC financing system. Contribution-based social insurance financing was adopted because the Korean welfare state is based on various social insurance schemes such as health insurance, pensions, unemployment insurance, and workplace injury compensation. By making use of the existing administrative structure of the health insurer, the National Health Insurance Corporation (NHIC), LTC insurance can minimise administrative costs.

Path dependency also affects the financing mix: LTC insurance in Korea is not a pure social insurance, but financing from contributions has a greater role than tax subsidies. As in the case of health insurance, the Ministry of Health Welfare and the Family (MHWF) will play a key role in the policy for LTC insurance and tightly monitor the insurer. The NHIC, the single payer of health insurance, also strongly supports LTC insurance as an opportunity to extend its own operation and mitigate against the pressure of downsizing/employment adjustment within its own organisation.

LTC insurance, separate from health insurance, also has the potential benefit of

being able to the 'de-medicalise' LTC. It is also easier for the government to persuade the public to pay contributions which are exclusively for LTC. However, the separation of LTC financing from health insurance may be a barrier to coordination between health and LTC if the two different financing schemes try to offload their financial burdens on each other.

#### Population coverage

The new LTC insurance scheme provides coverage for all those over the age of sixty-five, as well as age-related LTC needs for younger people. As a result, the Korean LTC insurance scheme does not provide coverage for disability-related care needs. The government has prioritised population ageing and related problems, rather than aiming to solve problems related to LTC. Thus the new LTC insurance, targeted to cover only aged-related care needs, will have a limited effect on social solidarity.

In contrast to health insurance, individuals need to obtain prior approval for services through an assessment of functional limitations. In order to determine eligibility, a visit team from the local branch office of the NHIC assesses the functional status of individuals using a fifty-six item evaluation. There are three levels of functional status/limitations, each with different benefit levels. Local assessment committees comprise no more than fifteen members, including a social worker and medical doctor (or traditional medical doctor). All decisions of the committee are based on the assessment of ability to perform activities of daily living (ADL) undertaken by the visit team, alongside a doctor's report.

The difference in entitlements compared to health care may not immediately be understood by older people. Initially there may be many appeals for reassessment of eligibility (functional status) as the LI37 scheme is rolled out. The current

# THANK YOU!



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