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Awareness and Willingness to Pay for Private  
Health Insurance: A study of Mongolians  
working and living in South Korea

Batdavaa Byambajav

Graduate School of Public Health

Yonsei University

Department of Global Health Policy and Financing

Division of Global Health Policy and Financing Capacity

Building Program

Awareness and Willingness to Pay for Private  
Health Insurance: A study of Mongolians  
working and living in South Korea

Directed by Professor. Tae Hyun Kim

A Master`s Thesis

Submitted to the Department of Health Policy and Financing

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Master of Public Health

Batdavaa Byambajav

December 2021

This certifies that the Master's Thesis  
of Batdavaa Byambajav is approved

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Thesis Committee Member: TAE HYUN KIM

---

Thesis Committee Member: JI YOUNG LEE

---

Thesis Committee Member: JIEUN JANG

Graduate School of Public Health  
Yonsei University  
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## LIST OF ABBREVIATIONS

SHI= Social health insurance

NHI= National health insurance

PHI= Private health insurance

WTP= Willingness to pay

KRW= South Korean won

RA= Regression analysis

WHO= World Health Organization

OECD= Organization for Economic Co-operation and Development

CBHI=Community based health insurance

ILO= International labor organization

DALY= Disability adjusted life years

NHIS=National health insurance service

## CHAPTER ONE: INTRODUCTION

### 1. Background

The introductory part of this study draws the background, problem statement, significance of the study, research objectives, and hypothesis to guide the researcher to come up with relevant results. This chapter presents the absolute snapshot of mandatory health insurance and private health insurance and socio demographic of Mongolians living in Korea and contributing factors to knowledge and enrollment for Private health insurance.

#### 1.1 Health insurance, Mandatory health insurance

Health insurance is a system that financing medical costs of insurer based on agreement of policy and law. (Britannica, 21 Feb. 2021)

It is a form of protection that shields residents and patients from large medical costs and expenses incurred as a result of health-related issues.

Health insurance can cover broad range of medical cares and it can pay for some of expenses based on current policy. But some services were not included in reimbursement of health insurance. (Britannica, 21 Feb. 2021)

#### 1.2 Private health insurance

Now that many private health insurance plans are funded on a group basis, most provide individual policies as well. Private health insurance is a sort of major medical expense insurance that protects against large medical bills while avoiding the financial and administrative challenges that come with insuring smaller costs.(Britannica, 21 Feb. 2021)

Private health insurance acts as supplementary insurance when citizens are choosing insurance products as some kind of cover or protection to protect themselves to large medical bills. Because in many countries high out of pocket expense is common problem. Even though the National Health Insurance System (NHIS) is well-established in South Korea, many people opt for private health insurance.

PHI offers healthcare payments not covered by national health insurance (NHI) and protects households against health-care costs, so supplementing NHI to some extent and alleviating the financial and administrative challenges of guaranteeing lower costs.(Lee, Yoon and Choi, 2018)

In Korea, private health insurance plans grew in popularity and variety during the 1990s. Cancer insurance was introduced in 1981. Throughout the 1990s, private health insurance policies evolved to include coverage for occupational accidents, dental and rehabilitation, and long-term care, all of which attracted a large number of people. Nowadays private health insurance companies and business grew a lot and attracting lot of customers.

### **1.3 Mongolians living in South Korea**

There is a number of 42,464 Mongolians living in South Korea as of (2020). Almost 87 percent are permanent residents and living in South Korea more than 3 month. The main reason Mongolians migrate to the Republic of South Korea is economic. Unemployment, unstable low incomes, the economic crisis, poverty, inadequate work possibilities, and low living standards are all causes that lead people to migrate.(Zanabazar, Kho and Jigjiddorj, 2021)

They are searching for better living opportunity and trying to make money and migrating to South Korea. But after they migrate to South Korea most of them are working at factories and heavy industry jobs.(Zanabazar, Kho and Jigjiddorj, 2021) Healthcare is a fundamental human right that must be provided at all times and in all circumstances.

#### **1.4 Private health insurance& National health insurance for Mongolians& statements**

In Korea, Since 2006, it has been made compulsory for foreigners and overseas citizens who are employed as civil servants and faculty members or who work in workplaces subject to the acquisition of employment subscribers to subscribe to health insurance.(Park, 2021 Mar)

From 2019 any foreigner who stayed in Korea for over six months is subject to mandatory subscription to health insurance. Also National Health insurance for foreigners has the same coverage and benefit as it does for the Korean citizens.

Korean Nation health insurance system is well developed and running smoothly but there is some gaps according to the research from South Korea there is only 6.5% of the physicians were pleased with their national health insurance system but 71.5% were expressed disappointed with it. In contrast, 28.3% of the citizens were satisfied with the NHI system, and 21.4% were dissatisfied (Kim, Park and Hahm, 2012)

It suggests that even Koreans are dissatisfied with their national health insurance and are opting for private health insurance as a supplement.

Out of pocket expense is also a big issue. According to the statistics there is 150 million people suffering from high expense of medical care, and 100 million are going into poverty because of direct payments for health services.(Aregbeshola and Khan, 2018)

Also study showed us the highest workplace incident were recorded in construction, agriculture and transportation sector and men are likely to have a more accident than women. So we are guessing that Mongolians are migrant and according to the statistic their workplace are always subject to heavy industry jobs.(Rhee et al., 2013)

So, if a migrant individual is involved in an accident or event, he or she will be burdened greatly due to expensive out-of-pocket expenses and lost working time and earnings.

One of the strengths of private health insurance compared to SHI is they can cover all of medical expenses caused by catastrophic illness and accidents. It is also driving factor that making demand in public because of NHI and SHI are mostly has a limited coverage and reimbursement. Many people chose PHI because of out of pocket expense.(Shin, 2012)

In Korea National Health insurance is well established and one of the best health insurance system in world. After that South Korean economic boom and rapid development also influenced their health care system and now South Korea is one of the leading countries that can able to achieve universal health care. But people still choosing PHI over SHI and taking PHI schemes for supplementary one.

There are also private health insurance companies that provide citizens with additional health insurance coverage. According to the data of NHIS 77 percent of population have a private health insurance. It is because of that, National Health insurance covers only 60 percent of medical expenses.

According to the data of OECD the proportion of direct out of pocket payment spending as share of final household consumption South Korea is substantially higher compared to other countries.(OECD, 2021) (OECD, 2021)

### **OBJECTIVE OF THIS STUDY**

1. Find out knowledge and awareness about PHI among Mongolians living in South Korea.
2. To examine the socioeconomic characteristics that influence desire to enroll and pay for private health insurance among Mongolians living in South Korea.
3. Determine the awareness and the source of PHI of private health insurance among Mongolians living in South Korea.

The main reason for providing private health insurance is that all Mongolians living in South Korea is subject to work in heavy industries. Their chance of a workplace incident is higher, and their financial situation is less solid. Because Mongolians working and living in South Korea are going in quest of a higher wage and a better way of life.

If they are involved in an accident or require medical treatment, they may not be able to cover all of their medical expenses. Because NHI only pays 60% of total medical bills and out-of-pocket expenses will be considerable. As a result, we provide them with supplementary PHI coverage for any medical expenses.

We determine their awareness and willingness to pay and join private health insurance by giving them protection to major medical expense occurred by any incident fatal accidents and giving them opportunity to finance their medical care without pressure and out of pocket expenses.

### **HYPOTHESIS.**

For this study we will test this hypothesis to find out what socio economic factors are contributing to awareness and interest in PHI among Mongolians living in South Korea and those are: There is no link between their marital status and their willingness to pay for PHI. There is no statistically significant link between monthly income and WTP. There is no substantial link between WTP and profession. There is no significant relationship between WTP and living status or year. There is no substantial relationship between respondents' average monthly medical cost and their WTP. Their health state and awareness of private health insurance have no meaningful relationship.



## CHAPTER TWO: LITERATURE REVIEW

### 2.1 Factors influencing willingness to pay

Respondents in the Vietnam study were uninsured at the time therefore they were classed as voluntary health insurance group and the purposes and principles of SHI are not yet well understood by this portion of the population. Their knowledge of SHI was poor and the findings show that boosting enrollment in SHI requires public education.(Nguyen and Hoang, 2017)

According to the findings of a study conducted in Bangladesh, "educational interventions can be utilized to increase demand for health insurance schemes.".(Khan and Ahmed, 2013)

However, a study from Mekele, Ethiopia, found that the WTP lowers as one's educational level rises. (Mekonne et al., 2020)

Males indicated larger WTP quantities than females in Nigerian research, which could be due to the fact that males in southeast Nigeria earn more than ladies. So that means higher income lead to enrolment in private health insurance. (Dong et al., 2003)

Many research have shown that a few factors can influence one's willingness to pay. Age, education, income, dependence ratio/household size, perception, healthcare service quality, rural/urban location, and ability to pay were found to have significant relationships. There were, however, investigations that yielded contradictory outcomes. The marginal cost (the incremental price and level of utility) of a particular service or item, as well as access to health care given, are crucial elements that influence an individual's WTP for health

services. Surprisingly, the price level has little effect on WTP for health care.(Noor Aizuddin, Sulong and Aljunid, 2012)

The willingness to pay for National Health insurance Fund among public servants in Juba City was tested in this study. Awareness, alternative sources of individual income, household size, insurance coverage, and religion all influence willingness to pay. The majority of public employees were aware of the NHIF and were willing to pay a premium of up to 5% of their entire monthly income. In addition to a careful examination of other stakeholders, there is a need to raise awareness and reach out to individuals who are unaware of the scheme.(Basaza et al., 2017)

Policymakers are paying close attention to the suggestion of a social health insurance for uninsured members of the community because of the high level of out-of-pocket spending on health care by the population. The WTP for health insurance was positively connected with household heads' income, education, work status, and the number of insured family members. Family size, on the other hand, had a negative impact on WTP. It should be highlighted that the policymakers' policies have little impact on these variables that have a big impact on the household heads' WTP. Overall, the analysis implies that expanding health insurance coverage significantly will be impossible until national non-voluntary rules are introduced.(Nosratnejad et al., 2014)

Family size, education level, wealth, prior hospitalization, and perceived poor health condition were all consistently connected with higher WTP. They also discovered that those over the age of 65 had lower WTP, which is likely attributable to a lesser capacity to pay rather than a lower risk perception. They also found that a low awareness of insurance's value proposition is linked to a lower WTP.(Nosratnejad, Rashidian and Dror, 2016)

The WTP of respondents was shown to be strongly related to their age, educational status, and household income in this study. Respondents with higher household income were willing to pay more for SHI, whereas those who were older were willing to pay less.(Gidey et al., 2019)

People in metropolitan regions were more willing to engage in the planned national health insurance scheme and pay an insurance premium. 71.1 percent of those in urban areas were eager to participate, compared to 53.4 percent in suburban and rural areas. Respondents who were married were more willing to join than those who were not. Respondents from larger families were less likely to take part in the study than those from smaller homes. Those who were pleased with the quality of public healthcare services were more likely to participate than those who were not.(Al-Hanawi et al., 2018)

Other key factors impacting people's WTP for sustained NHI coverage and the addition of institutional long-term care to the current scheme are marital status and education. This is in line with the findings of the vast majority of previous investigations.(Lang and Lai, 2008)

## **2.2 Workplace incident**

The findings revealed that migrant employees had a significantly higher risk of fatal and non-fatal injuries than Korean workers, with the disadvantage being particularly pronounced in the construction industry..(Cha and Cho, 2014)

Long working hours (55 hours/week) are a common occupational risk factor, according to WHO and ILO statistics.(Pega et al., 2021)

Outdoor workers were older, had lower educational levels and income, worked longer hours, were more exposed to occupational hazards, had a higher rate of occupational injuries, a significantly higher risk of sleep disturbances, and a significantly higher rate of occupational injury due to sleep disturbances than non-outdoor workers.(Lee et al., 2020)

Employees who have been injured while working in substandard conditions are more vulnerable in the return-to-work process and require extra attention and assistance from the Korean government..(Park and Lee, 2019)

Occupational injuries and illnesses have enormous costs, despite the lack of public awareness and societal resources allocated to their prevention and treatment. Occupational injuries and illnesses represent a significant contributor to the total cost of health care in the United States, but they are underappreciated.(Leigh et al., 1997)

Although data show stagnation, the occupational fatal injury rate has reduced and the non-fatal injury rate may have declined in the last ten years. The drop in the injury rate was hampered by a number of variables. As a result, the present accident rate does not accurately reflect the current state of accidents in Korea. Korea must establish a more precise approach for calculating occupational fatal and non-fatal injury rates.(Kang and Kwon, 2011)

Construction, forest, agriculture, and service accidents all show an upward tendency. In every year, nonfatal occupational injuries in the manufacturing sector were greater than in other sectors, but fatal occupational injuries in construction workers were higher than in the manufacturing sector. Amputation-related workplace injuries, as well as slip-and-fall injuries, have increased. The number of occupational injuries among workers aged 24 and under declined, while those aged 45 and up climbed. Every calendar year, the number of

people who slip and trip or become trapped in equipment is more than the number of people who fall from a great height.(Rhee et al., 2013)

### **2.3 Korean NHI and other National health insurance**

Only 6.5 percent of physicians in Korea were satisfied with the NHI system, while 71.5 percent were dissatisfied. On the other hand, 28.3% of the population was content with the NHI system, while 21.4 percent were dissatisfied. So they need supplementary PHI. (Kim, Park and Hahm, 2012).

Private health insurance has a significant impact on inpatient health care spending, according to a Korean study. These data can be used to design a logical national health strategy for private health insurance.(Lim et al., 2007a)

More than half of Koreans have supplementary private health insurance with benefits sufficient to cover out-of-pocket costs associated with cancer treatment, there is still disparity in the purchase of such insurance..(Lim et al., 2007b)

### **2.4 Out of pocket expense**

High out-of-pocket health expenditure is a common problem for many countries. To the mission of reducing out-of-pocket expense giving and offering PHI and supplementary insurance is one of the leading options towards UHC. (Batbold and Pu, 2021).

Korea, like many other Asian countries, is dealing with an aging population and a lack of well-designed social care programs for the elderly. The goal of the Korean study was to

assess the out-of-pocket (OOP) medicine spending burden of elderly and non-elderly patients with chronic diseases, as well as to identify individuals who were particularly vulnerable to spending. In conclusion, the elderly in Korea had higher out-of-pocket prescription expenditures and were more prone to out-of-pocket medication expenditure burden than non-elderly adults. Payment policies for medications that consider the income status of the poor elderly must be introduced in countries where social security systems are not properly developed.(Park et al., 2015)

## CHAPTER THREE: RESEARCH METHODOLOGY

### 3.1. Study Design.

According to the statistics of Ministry of Foreign Affairs there is number of 42,151 Mongolians living in South Korea.

A questionnaire survey was conducted among Mongolians living and working in Seoul province and In view of the fact that in the present study Mongolian workers have been considered as a unit of investigation.

It is because of almost all of Mongolian people living in South Korea are working at heavy industries and their risk of incident in workplace is very high. Also out of pocket expense is relatively higher in Korea because National health insurance only covers 60 percent of total medical expense. The field survey and questionnaire included data of income, their living status, occupation, medical expenditure, and also self reported illness. We have used Google forms to collect a data.

### 3.2 Study Population

This cross-sectional study used a purposive sampling method to collect primary data from Mongolian people working in South Korea. There is a number of 198 Mongolian workers should be collected and analyzed. We have not considered respondents who are less than 18 years and more than 60 years old.

### **3.3 Bidding game**

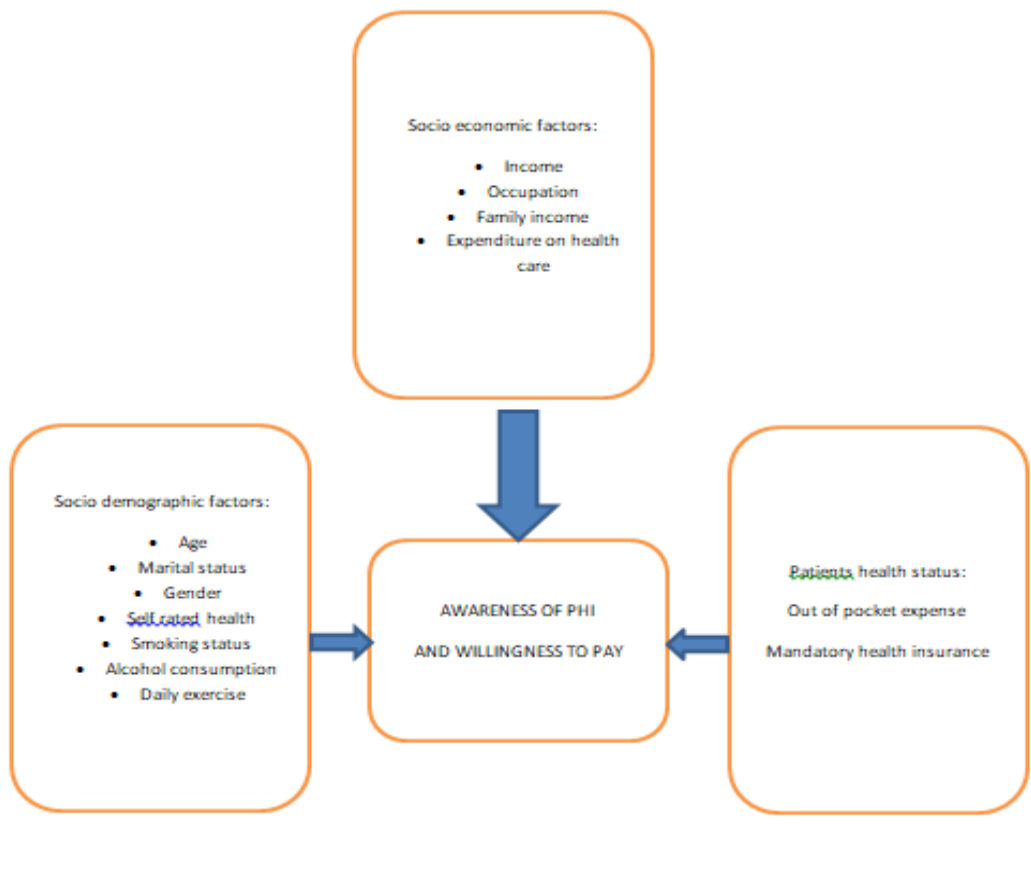
To determine WTP we are using Bidding game method. We have given one version of benefit package of private health insurance, which includes surgical treatment for any work related injury and accident and death insurance and traffic insurance.

We have chosen Samsung health insurance as an example of private health insurance scheme and this scheme insurance covers out of pocket expense of medical expense and disaster and accidents and scars to face and burn. Payment from insurance is 10 million KRW to up to 50 million KRW depends on the reason of medical care.

After describing benefits of private health insurance, respondents are engaged in Bidding game to establish WTP.



**We have chosen lowest amount of premium to pay for private health insurance in order to enrollment. Figure 1. Conceptual Framework**



Samsung Internet DIY Comprehensive Insurance (Non-dividend, Renewal) Man Woman [check my insurance >](#)

- Necessity
- Features
- Sign up review
- Warranty**
  - Basic Information
  - Example of warranty
  - Insurance premium example
  - Example of cancellation refund
  - Frequently Asked Questions

### Example of cancellation refund

※ Main insurance 10 million won, special contract 10 million won, insurance period 15 years, 40 years old male, electric payment, monthly payment, non-risk basis

term	Accumulated insurance premiums	cancellation refund	Refund rate
3 months	82,257 won	420 won	0.5%
6 months	164,514 won	860 won	0.5%
9 months	246,771 won	1,280 won	0.5%
1 year	329,028 won	1,730 won	0.5%
2 years	658,056 won	3,130 won	0.4%
3 years	987,084 won	8,680 won	0.8%
4 years	1,320,132 won	56,910 won	4.3%
5 years	1,653,180 won	145,500 won	8.8%
6 years	1,986,888 won	243,210 won	12.2%
7 years	KRW 2,326,848	339,330 won	14.5%
8 years	KRW 2,666,808	351,900 won	13.1%
9 years	3,006,768 won	349,410 won	11.6%

Samsung Internet DIY Comprehensive Insurance (Non-dividend, Renewal) Man Woman [check my insurance >](#)

- Necessity
- Features
- Sign up review
- Warranty**
  - Basic Information
  - Example of warranty
  - Insurance premium example
  - Example of cancellation refund
  - Frequently Asked Questions

### wound

※ Based on the subscription amount of 10 million won

payment name	Reason for payment	payment amount	
disaster	When the insured becomes in a state of disability corresponding to 3% or more and 100% or less of the disability payment rate specified in the disability classification table due to an accident during the insurance period of this special contract	10 million won × disability payment rate	
Guaranteed specific disaster surgery	<input type="checkbox"/> Fatal Accident Treatment Insurance When the insured underwent "cranial, open chest, or open surgery due to a disaster" during the insurance period of this special policy (per operation)	5 million won	
	<input type="checkbox"/> Accidental fracture surgery insurance After the insurance start date of the initial contract, the diagnosis is confirmed as "catastrophic fracture (excluding tooth fracture)" Time (3 times a year)	50 million won	
Disaster scars face (including head) restoration treatment cost	In the event that the head or face is in a state of leaving significant abstractions or abstractions due to a disaster	striking abstraction	abstract
		5 million won	10 million won
Image diagnosis (heart second degree or higher)	If the diagnosis is confirmed as burns (more than 2nd degree of heart failure), per accident occurrence (limited to once a year based on the insurance year)	10 million won	
Heavy burn guarantee	Diagnosed with severe burns (for the first time)	10 million won	

### **3.4 Sampling strategies/ methods**

This cross-sectional study used a purposive sampling method to collect primary data from Mongolian people working in South Korea. There is a number of 198 Mongolian workers should be collected and analyzed.

The study will have the variables which include independent variables, (Age, Gender, Marital status, Living year, Occupation, Income, Self rated health, Medical expenditure ), dependent variables (Awareness and (Willingness to pay).

This study will use the valid questionnaire adopted from the two similar published studies, one as conducted in Vietnam and another one was conducted in India, Darjeeling district.

All participants will receive one questionnaires consisting of a dependent and independent variables and the mean, percentage and standard deviation will be used to describe socio demographic factors of participants.

### **3.5 Exclusion criteria**

We have not considered respondents who are less than 18 years old and more than 60 years old.

### **3.6 Data Management**

All data pertaining to the current study will be kept in both hard and soft copies. Sources of information will be kept by the researcher and in the university library, and the main research findings will be shared with Yonsei University.

The research-related documents will be kept confidential in accordance with Yonsei University's research policies.

### **ANALYSIS OF DATA.**

We analyze the data using chi-square and multiple regression to test the hypothesis. Descriptive statistic is for used to socio demographic characteristics

In the model, WTP and Awareness for private health insurance will considered a dependent variable. Predictor variables include socio-economic characteristics (such as age, gender, marital status, living year in South Korea, occupation, self reported health, medical expenditure, and income).

The data collected will be checked for completeness before being entered, cleaned, and analyzed using the Statistical Package for SPSS version 25.0 software.

## CHAPTER FOUR: PRESENTATION OF THE RESULTS

### 4.1. Socio-demographic characteristics of the participants

This chapter presents the study findings by use of tables with a short summary of the contents. The results are presented according to research objectives, and the main objective of the study was to assess the factors contributing to awareness and willingness to pay for PHI among Mongolians living in South Korea.

The final sample was 198 citizens who completed questionnaire.

The majority of respondents in this study were between the ages of 25 and 35 (n=92), followed by 35 and 45(n=49), and single or divorced. Females made up 53% of the respondents, with the most of them having lived in Korea for 1 to 5 years and 5 to 10 years.

The majority of respondents labor in the informal sector and earn between 0 and 2,500,000 KRW per month. Only about 4% of the respondents have a monthly salary of more than 3,000,000 KRW.

According to occupation classification, 18.7% of all respondents work in a factory, 11% work in construction, and 16% work in the cleaning and housekeeping industry. And Majority of them are students living in Seoul.

Their self-perceived health is good to fair, and nearly half of them never exercise and drink only once or twice a month. Half of them don't even smoke. SHI of Korea is paid by 65 percent of all respondents, and roughly 80 percent of respondents had an average medical expense of 0-50000KRW.(see Table1.)

**Table 1. Socio-demographic characteristics of the participants**
**Source: field survey**

		<b>Numbers</b>	<b>%</b>
<b>Gender</b>	Female	105	53.0
	Male	93	47.0
	<b>Total</b>	<b>198</b>	<b>100.0</b>
<b>Marital status</b>	Single	86	43.4
	Married	19	9.6
	Divorced	93	47.0
	<b>Total</b>	<b>198</b>	<b>100.0</b>
<b>Age</b>	18-<25	33	16.7
	25-<35	92	46.5
	35-<45	49	24.7
	45-<55	22	11.1
	55-<60	2	1.0
	<b>Total</b>	<b>198</b>	<b>100.0</b>
<b>Occupation</b>	Factory	37	18.7
	Construction, Fitting, Housing	22	11.1
	Agriculture, Nature	7	3.5
	Cars, Mechanics, Technicians, Engineers	6	3.0
	Commercial, Shop, Buy and Sale	9	4.5
	Cleaning, Housekeeping, Garbage, Waste	32	16.2
	Student	64	32.3
	Unemployed	7	3.5

	Others	14	7.1
	<b>Total</b>	<b>198</b>	<b>100.0</b>
<b>Income per month</b>	0-1,800,000 KRW	73	36.9
	1,800,001-2,500,000 KRW	75	37.9
	2,500,001-3,000,000 KRW	41	20.7
	3,000,001 and above	9	4.5
	<b>Total</b>	<b>198</b>	<b>100.0</b>
<b>Self-rated health</b>	Very good	49	24.7
	Fair	129	65.2
	Poor	18	9.1
	Very poor	2	1.0
	<b>Total</b>	<b>198</b>	<b>100.0</b>
<b>Smoking status</b>	Non smoker	106	53.5
	Past smoker	22	11.1
	Current smoker	70	35.4
	<b>Total</b>	<b>198</b>	<b>100.0</b>
<b>Alcohol consumption</b>	Never	74	37.4
	One to three times a month	107	54.0
	One to four times to week	17	8.6
	<b>Total</b>	<b>198</b>	<b>100.0</b>
<b>Exercise</b>	Never	117	59.1
	Less than once a week	32	16.2
	Once a week	26	13.1
	Two or three times a week	18	9.1
	More or less every day	5	2.5
	<b>Total</b>	<b>198</b>	<b>100.0</b>
<b>Social health insurance</b>	Yes	130	65.7

	No	68	34.3
	<b>Total</b>	<b>198</b>	<b>100.0</b>
<b>Average medical expenditure per month</b>	0-50000 KRW	158	79.8
	50000-70000 KRW	17	8.6
	70000-90000 KRW	10	5.1
	90000 KRW and above	13	6.6
	<b>Total</b>	<b>198</b>	<b>100.0</b>

Out of surveyed mass only (19.7%) are somehow insured to private health insurance and (57.1%) of respondents have no aware of any Private health insurance.

Their primary sources of information about private health insurance are television, newspapers, and the internet. After hearing about the benefits of private health insurance, nearly half of the 198 respondents (58.6%) expressed interest in joining and purchasing private health insurance.

However, 17.2 percent still refuse to enroll in any type of private health insurance, and 24.2 percent are unsure of the answers. (see Table2.)

## **Table 2.Awareness of Private health insurance**

**Source: field survey**



### Willingness to pay for private health insurance

<b>Private health insurance</b>	Numbers	Percent%
Response Yes	39	19.7
se No	159	80.3
<b>Total</b>	<b>198</b>	<b>100.0</b>

### Awareness level and Source of Awareness for Private Health insurance

<b>Awareness</b>	Numbers	Percent%
Response No aware	113	57.1
se Aware but do not subscribe	76	38.4
Aware and subscribed	9	4.5
<b>Total</b>	<b>198</b>	<b>100.0</b>

<b>Source of awareness</b>	Numbers	Percent%
Response TV and news paper, online	143	72.2
se Friends and family	34	17.2
Agent or consultant	18	9.1
Doctor	3	1.5
<b>Total</b>	<b>198</b>	<b>100.0</b>

<b>Interested in PHI</b>	Numbers	Percent%
Response Yes	116	58.6
se No	34	17.2
Don't know	48	24.2
<b>Total</b>	<b>198</b>	<b>100.0</b>

### **Willingness to pay**

33.9% percent of people said they could subscribe 15000-20000KRW as a monthly premium for proposed private health insurance scheme and 15.6% percent were willing to pay 20000-25000KRW per month.

Only 0.86% percent are willing to pay 30000-35000KRW and 11.5% percent are wanted to 35000-40000KRW per month.(see Table3.)

**Table 3.Willingness to pay for PHI**

**Source: field Survey**

<b>WTP</b>	<b>Numbers</b>	<b>Percent%</b>
Amount 0-10000 KRW	15	13.04
10000-15000 KRW	17	14.7
15000-20000 KRW	39	33.9
20000-25000 KRW	18	15.6
25000-30000 KRW	12	10.4
30000-35000 KRW	1	0.86
35000-40000 KRW	13	11.5
<b>Total</b>	<b>115</b>	<b>100</b>

Hypothesis 1: There is no link between their marital status and their willingness to pay for PHI.

**Marital status \* Interested in phi Cross tabulation**

		Interested in phi			Total
		Yes	No	Don't know	
Marital status	Single	54	17	15	86
		50.4	14.8	20.8	86.0
		46.6%	50.0%	31.3%	43.4%
	Married	13	1	5	19
		11.1	3.3	4.6	19.0
		11.2%	2.9%	10.4%	9.6%
	Divorced	49	16	28	93
		54.5	16.0	22.5	93.0
		42.2%	47.1%	58.3%	47.0%
Total	116	34	48	198	
	116.0	34.0	48.0	198.0	
	100.0%	100.0%	100.0%	100.0%	

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.026 <sup>a</sup>	4	.197

Hypothesis 2: There is no statistically significant link between monthly income and WTP.

**Income per month \* Interested in phi Crosstabulation**

		Interested in phi				
			Yes	No	Don't know	Total
Income per month	0-1,800,000 KRW	Count	35	14	24	73
		Expected Count	42.8	12.5	17.7	73.0
		% within Interested in phi	30.2%	41.2%	50.0%	36.9%
	1,800,001-2,500,000 KRW	Count	44	16	15	75
		Expected Count	43.9	12.9	18.2	75.0
		% within Interested in phi	37.9%	47.1%	31.3%	37.9%
	2,500,001-3,000,000 KRW	Count	31	3	7	41
		Expected Count	24.0	7.0	9.9	41.0
		% within Interested in phi	26.7%	8.8%	14.6%	20.7%
	3,000,001 and above	Count	6	1	2	9
		Expected Count	5.3	1.5	2.2	9.0
		% within Interested in phi	5.2%	2.9%	4.2%	4.5%
Total	Count	116	34	48	198	
	Expected Count	116.0	34.0	48.0	198.0	
	% within Interested in phi	100.0%	100.0%	100.0%	100.0%	

#### Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10.664 <sup>a</sup>	6	.099

A **p-value** less than **0.05** (typically  $p \leq 0.05$ ) is **statistically** significant.

Hypothesis 3: There is no substantial link between WTP and profession.(occupation)

#### Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	23.040 <sup>a</sup>	16	.113

Hypothesis 4: There is no significant relationship between WTP and living status or year.

#### Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.280 <sup>a</sup>	6	.508

Hypothesis 5: There is no substantial relationship between respondents' average monthly medical cost and their WTP.

#### Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.440 <sup>a</sup>	6	.3716

Hypothesis 6: Their health state and awareness of private health insurance have no meaningful relationship.

#### Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.931 <sup>a</sup>	6	.128

Results of Multiple regression

#### Coefficients<sup>a</sup>

Model		Unstandardized		Standardized		95.0% Confidence		
		Coefficients		Coefficients		Interval for B		
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	1.897	.287		6.599	.000	1.330	2.464
	Marital status	.145	.064	.163	2.267	.025	.019	.271
	Occupation	.005	.024	.017	.228	.820	-.042	.053
	Income per month	-.157	.077	-.162	-2.044	.042	-.309	-.006
	Self rated health	-.035	.062	-.041	-.564	.573	-.157	.087
	How long are you living in Korea	-.077	.084	-.071	-.921	.358	-.242	.088

a. Dependent Variable: Interested in phi

Also we have used multiple regression to test the hypothesis and we found that income per month is positive that means rejecting the hypothesis and approved our chi square calculations. All other independent variables have showed that there is no association between our dependent variable.

## CHAPTER FIVE: DISCUSSION

### 5.1. Discussion of the results

In this study, we discovered that (53%) percent of our respondents are single or divorced, and the majority of them are between the ages of 25 and 35. The fact that unmarried people are less inclined to be protective than married people is a socially influenced truth. As a result, they would prefer not to pay for a private health insurance plan because they already have national health insurance. Our regression results also support that there is no significant association between marital status and WTP.  $p \leq 0.05$

After analyzing the data, we discovered that higher income levels are associated with a higher willingness to pay for private health insurance. People who earn more than 2,500,000KRW each month desire to invest in private health insurance that will protect them from a sudden health attack. In our study income level is closer to significant level than our other chosen associations.

Because nearly half of the respondents were students with lower earnings, the relationship between occupation and WTP was unaffected. As a result, we accept hypothesis in this study.  $p \leq 0.05$

In addition, 55 percent of our respondents had only lived in Korea for one to five years, and thus have little knowledge about health insurance. Out of 198 people surveyed, 57% have no knowledge of private health insurance and are unaware of any private health insurance schemes. As a result, we agree with this hypothesis.  $p \leq 0.05$

For encouraging Mongolians to enroll private health insurance they should understand that the health insurance is a way of protecting their finance and healthcare. The target

population should discuss their needs and raise education levels about health insurance to decrease their risk to sudden finance problem.

Because the focus of this study is on the impact of income levels and living status on awareness and WTP of private health insurance among Mongolians in South Korea. It cannot be readily compared to other research of a similar nature or prior investigations. Because some earlier studies found that income levels and marital status are affecting patients WTP to health insurance. Because in some situation married people are more protective than single or divorced ones. In our study most of respondents were single and their income level is not that great than Korean citizens.

## **5.2 Limitations**

Due to time frame and nature of responses there is possibility that our used data and samples was small and respondents knowledge about private health insurance is lacking. The group representing our study was mostly lower income people and half of our respondents were students. However students are not the people that aware PHI and their age and self rated health is always good. This could limit the ability to generalize the study findings.

## **5.2. Conclusion**

Knowledge and awareness about PHI is very low among Mongolians living in South Korea and the results suggest that educating Mongolians living in South Korea is essential for increasing enrollment. Information and communication strategies should be developed to increase awareness and knowledge about PHI in order to enroll PHI.



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