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The Financial Burden of Healthcare
in Taiwan and South Korea: A Comparative Study

台灣與韓國醫療財務負擔之比較

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中文摘要



背景：台灣和韓國在東亞地區發展了相似的醫療體系。隨著兩國醫療支出不斷增加，審視是否能因應預期的成本上升是至關重要的。兩國的醫療改革，由不同的政治及文化背景所推進，包括健保收費制度，藉由深入理解可獲得參考數據及洞悉出革新方向。

目的：本研究比較台灣和韓國醫療體系的財務負擔，著重於全民健康保險收費制度和醫療保健支出。研究重點是以兩國的家庭為中心試算出保費、部分負擔以及健保不涵蓋的自費部分。這解釋了制定保費和計算醫療費用上的差異，進而統計數據的詳細分析。

方法：本研究主要運用文獻比較法對相關資料進行深入探討。透過蒐集及彙整全民健康保險統計、醫療保健支出和家庭收支調查，並予以歸納及分析。

結果：2011 年，韓國的經常性醫療保健支出（Current Health Expenditure）占國內生產毛額（GDP）的比重從 6% 大幅增至 2021 年的 9.3%。台灣同期的增長相對較為溫和，只從 6.5% 上升至 6.8%，主要是由於其較高的 GDP 增長率。兩國的醫療保健支出比重維持在 OECD 國家平均值之下（從 2011 年的 8.7% 至 2021 年的 9.7%）。2021 年，韓國的每人平均醫療保健支出為 3,266 美元，而台灣則為 2,239 美元。

① **全民健康保險保費：**兩國在收費方面存在差異。在 2021 年，台灣的一般受僱者（第 1 類別第一到第三項目）平均保費率是月薪的 2.37%，比韓國的 3.43% 低。保費總額中，台灣被保險人的補充保費比例是 4.3%。韓國則是 7.5%（1% 為職場投保人的月薪以外所得，6.5% 為地區投保人的財產和汽車徵收）。此外，台灣的眷屬

需繳納保費，韓國則不收取。



② **家庭自費（自費、部分負擔）：**在台灣，經常性醫療保健支出中的家庭自費占比是 30.72%，其中包含 28.12%的非健保自費和 2.6%的部分負擔。韓國的占比是 29.1%，包含 15.98%的非健保的自費和 13.11%的部分負擔。由此推算出韓國的個人自費比台灣高出 1.2 到 1.6 倍，其中部分負擔為 6.2 到 8.6 倍，而健保不納入的自費與台灣相比為 0.7 到 1 倍。

結論：本研究採用政府公開的報告和研究數據，但在可得性限制下會影響精確度。台灣的健保保障率較高，保費和部分負擔比例較低，這使得醫療服務更加便利，唯獨自費部份些許高於韓國。近年來，韓國在保費收取方面也不斷實施相關改革，回應民眾的要求。醫療體制的有效及效率性關乎著民眾的健康，因此需要政府的密切監督和及時調整。

關鍵字：醫療體系、全民健康保險、醫療保健支出、保費、自費、部分負擔、台灣和韓國、比較研究

Abstract



Background: Taiwan and South Korea (Korea hereafter) have developed similar healthcare systems in East Asia. With health expenditures continuously increasing, reviewing whether these systems can handle the anticipated rise in costs is essential. Their healthcare reforms, shaped by unique political and cultural contexts, provide valuable insights and primary data for future health policy and system improvements, including reforms in insurance premium collection.

Objective: The study compares the financial burden of healthcare systems in Taiwan and Korea, focusing on national health insurance (NHI) premium collection and health expenditures. The core of the study is to calculate and estimate the financial burden of households and individuals in both countries on premiums, copayments, and out-of-pocket expenses. It also explains how health insurance premiums and medical costs are calculated in both countries and compares statistical data.

Methods: This study conducted a literature review and data analysis (archival analysis). It primarily uses official government reports, such as NHI statistics, national health accounts (national health expenditure), and household income and expenditure surveys.

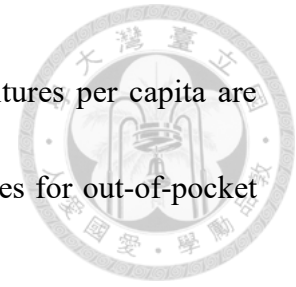


Results: Korea's current health expenditure (CHE) as a percentage of GDP surged from 6.0% in 2011 to 9.3% in 2021. Taiwan's increase was more modest, from 6.5% to 6.8% during the same period, primarily due to its higher GDP growth rate. Both countries maintain relatively lower proportions than the OECD countries average (from 8.7% in 2011 to 9.7% in 2021). In 2021, CHE per capita was 3,266 USD in Korea and 2,239 USD in Taiwan.

① **NHI premium:** The main difference in premium collection between Taiwan and Korea is that Taiwan collects premiums from dependents, while Korea does not. As of 2021, Taiwanese workers (Category 1 Items 1-3) paid an average of 2.37% of their monthly salary as premiums, while Korean workers paid 3.43%. As of 2021, supplementary premiums for the insured accounted for 4.3% of the total premiums in Taiwan. In Korea, supplementary premiums for the insured comprised 7.5% of total premiums (1% for employees and 6.5% for the self-employed).

② **Household out-of-pocket (out-of-pocket, copayment):** In Taiwan, the household out-of-pocket (OOP) share of total current health expenditures was 30.72%, of which 28.12% was out-of-pocket (non-insurance), and 2.6% was copayments. The household out-of-pocket share in Korea was 29.1%, with 15.98% out-of-pocket (non-insurance)

and 13.11% copayments. Korea's household out-of-pocket expenditures per capita are 1.2 to 1.6 times that of Taiwan's. Broken down, it is 0.7 to 1.0 times for out-of-pocket (non-insurance) and 6.2 to 8.6 times for copayment.



Conclusion: This study employed publicly available government reports and research data; there were limitations in data availability and level of precision. Taiwan's NHI offers extensive coverage with lower premiums and copayments, ensuring a high level of accessibility to medical services despite slightly higher OOP expenses than Korea. Meanwhile, Korea has consistently implemented relevant reforms in premium collection in recent years. The effectiveness and efficiency of healthcare systems affect people's health, which requires vigilant government monitoring and prompt adjustments in both countries.

Keywords: Healthcare system, National Health Insurance, Health expenditure, Premium, Out-of-pocket, Copayment, Taiwan and South Korea, Comparative study

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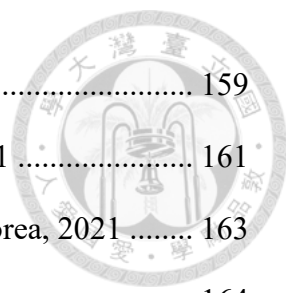


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Chapter 1 . Introduction



1.1 Research Background and Motivation

According to the World Health Organization, universal healthcare coverage means everyone can access the full range of quality health services they need anytime, anywhere, without financial difficulties. The 2030 Agenda for Sustainable Development Goals (SDGs) includes:

Financial risk protection, access to quality essential healthcare services, and access to safe, effective, high-quality, and affordable essential medicines and vaccines (WHO).

The kind of healthcare system each country pursues for universal health coverage depends on its ideology, political context, and various factors, including historical traditions, values, and culture (Chang-Hyun Kang, 2011). Many countries are continuing their efforts to reform health care, and Taiwan and South Korea (Korea hereafter) are no exception. Taiwan and Korea share many similarities in developing political power, democratization, and industrialization (Chang-Hyun Kang, 2011). The two countries' healthcare systems have attracted attention as an East Asian development model. Both countries' unique achievements and challenges will be essential references for future health policy and healthcare system improvement.

Table 1-1 shows the national profiles of Taiwan and Korea, reflecting demographic characteristics, medical resources, and economic indicators.



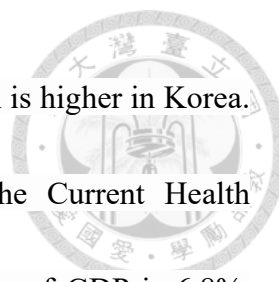
Table 1-1. National profiles and health indicators: Taiwan and Korea, 2021

	Taiwan	Korea
Population (millions)	23.4	51.7
% of seniors aged 65 or older	16.9	16.6
Life expectancy (years)	80.9	83.6
Male	77.9	80.6
Female	84.3	86.6
Physicians (per 1,000 population)	2.2	2.6
Hospital beds (per 1,000 population)	7.3	12.8
Physician visits (per capita per year)	11.4	15.7
GDP (million USD)	775,838	1,817,690
GDP per capita (USD)	33,059	35,128
Current Health Expenditure (CHE) (million USD)	52,536	168,990
Current Health Expenditure (CHE) per capita (USD)	2,239	3,266
Current Health Expenditure (CHE) as % of GDP	6.8	9.3

Source: Taiwan; (MOHW (Taiwan), annually(a); MOHW (Taiwan); NHE, annually; MOI (Taiwan), 2022(a), 2022(b); National Statistics (Taiwan), 2023; NDC (Taiwan), 2022; NHIA (Taiwan), annually(a), annually(b); NHIC (Taiwan), annually)

Korea; (KOSIS, annually; KOSIS; CHE, annually; MOHW (Korea), annually(a)), (MOHW (Taiwan); NHE, annually)

As of 2021, the number of physicians per 1,000 people is similar, with 2.2 in Taiwan and 2.6 in Korea. The number of hospital beds per 1,000 persons is 7.3 in Taiwan and 12.8 in Korea, with more hospital beds in Korea. The number of outpatient

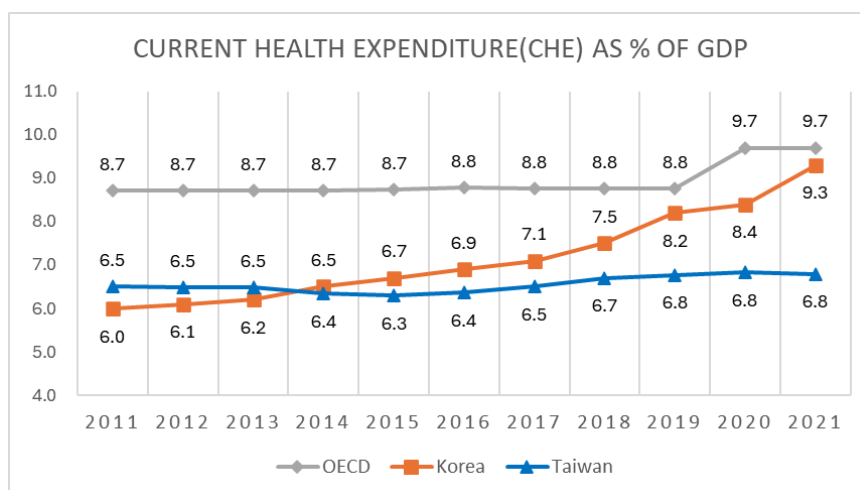


visits per person per year is 11.4 in Taiwan and 15.7 in Korea, which is higher in Korea.

As of 2021, Taiwan's GDP per capita is 33,059 USD, and the Current Health Expenditure (CHE) per capita is 2,239 USD; CHE as a percentage of GDP is 6.8%.

Korea's GDP per capita is 35,128 USD, and CHE per capita is 3,266 USD; CHE as a percentage of GDP is 9.3%. CHE as a percentage of GDP is higher in Korea.

Generally, the ratio of current health expenditure to GDP is one criterion for comparing the scale of national health expenditure (KOSIS; CHE, annually). Countries use this data to assess whether their health expenditures are appropriate, excessive, or insufficient compared to other nations and to review the associated background (Bong-Min Yang, 2022).



Source: Taiwan; (MOHW (Taiwan); NHE, annually)

OECD, Korea; (MOHW (Korea), annually(a); OECD, 2022)

Figure 1-1. Current Health Expenditure (CHE) as a percentage of GDP, 2011-2021

Korea's health expenditure growth rate is known to be the fastest among OECD member countries (MOHW (Korea), annually(a)). Figure 1-1 shows Korea's rapid

growth of CHE as a percentage of GDP over the past decade, increasing by 3.3 percentage points from 2011 to 2021, rising from 6.0% to 9.3%. However, compared to OECD countries, Taiwan and Korea still have a relatively low share of health expenditures as a percentage of GDP.

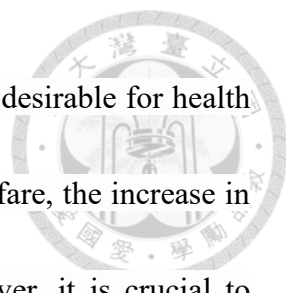
In Table 1-2, CHE per capita in Taiwan also increased 1.7 times from 1,345 USD in 2011 to 2,239 USD in 2021 (In Korea, it increased 2.2 times during the same period). However, Taiwan's GDP growth rate has been relatively high, so there is little change in CHE as a percentage of GDP.

Table 1-2. CHE and GDP: Taiwan and Korea, 2011-2021

		2011	2016	2021	Change (2011-2021)
CHE (million USD)	Taiwan	31,197	34,608	52,536	21,339
	Korea	75,303	103,035	168,990	93,687
CHE per capita (USD)	Taiwan	1,345	1,472	2,239	894
	Korea	1,508	2,012	3,266	1,758
GDP (million USD)	Taiwan	483,957	543,002	775,838	291,881
	Korea	1,253,430	1,500,030	1,817,690	564,260
GDP per capita (USD)	Taiwan	20,866	23,091	33,059	12,193
	Korea	25,100	29,287	35,128	10,128
GDP growth (annual %)	Taiwan	3.7	2.2	6.5	2.8%p
	Korea	3.7	2.9	4.3	0.6%p
CHE as % of GDP	Taiwan	6.5	6.4	6.8	0.3%p
	Korea	6.0	6.9	9.3	3.3%p

Source: Taiwan; (MOHW (Taiwan); NHE, annually; National Statistics (Taiwan), 2023)

Korea; (KOSIS, annually; KOSIS; CHE, annually), calculation using (MOHW (Taiwan); NHE, annually) data



There is no standard for what percentage of national income is desirable for health expenditure. In fact, from the perspective of improving national welfare, the increase in national health expenditure itself is not a significant issue. However, it is crucial to review whether the structure of the healthcare system can endure the anticipated rise in healthcare costs in the future. In countries with a high household out-of-pocket rate, such as Korea, an increase in health expenditure means an increase in individual healthcare financial burden and may make it more difficult for low-income families to use healthcare (Bong-Min Yang, 2022).

Taiwan and Korea implemented National Health Insurance (NHI) in 1995 and 1989, respectively. The NHI has prevented many people from falling into poverty due to illness and has improved access to health care. This enhancement of public health services for universal coverage has undoubtedly strengthened both countries' physical, mental, and economic well-being (Teh-wei Hu, 2020).

There have been many changes in the past 30 years since the implementation of NHI, and health expenditures continue to rise due to factors such as the aging population, the development of new medical technologies, and the expansion of health insurance coverage (Byung-Joon Yoon, Joon-Hyeop Lee, 2023). The aging population significantly burdens the income and expenditure aspects of health insurance finances (Teh-wei Hu, 2020). Table 1-3 shows that as of 2021, the number of people aged 65 and

over in Taiwan and Korea exceeded 16%, and the ratio of health insurance expenditure was more than 40%.



Table 1-3. % of aged 65 or older and NHI expenditure: Taiwan and Korea, 2011-2021

		2011	2016	2021
% of seniors aged 65 or older	Taiwan	10.9	13.2	16.9
	Korea	10.5	12.7	16.2
% of NHI expenditure for seniors aged 65 or older	Taiwan	33.0	36.6	41.4
	Korea	33.3	38.7	43.4

Source: Taiwan; (NHIA (Taiwan), annually(a))

Korea; (MOHW (Korea), annually(b))

Maintaining financial soundness is paramount to ensure the sustainability of the health insurance system. Since Taiwan and Korea's health insurance systems operate using a social insurance method, not a tax method, most insurance benefits should be covered by premium income for health insurance (Jae-Kwon Yoo, 2017). The increase in health insurance expenditures in Taiwan and Korea leads to the financial burden of the health insurance insureds.

The method of financing medical security and financial management varies from country to country, and it is determined differently depending on socioeconomic conditions and applications, so it has its characteristics, advantages, and disadvantages (Byung-Joon Yoon, Joon-Hyeop Lee, 2023). This study compares Taiwan's and Korea's healthcare systems, focusing on the NHI financial scheme, premium collection, and health expenditure.

1.2 Research Purpose and Importance



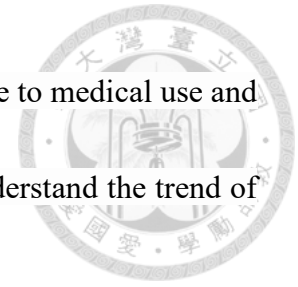
This study aims to compare Taiwan and Korea, focusing on the financial burden of the healthcare system in Taiwan and Korea.

Along with understanding the current health insurance systems in Taiwan and Korea, this study primarily compares the health insurance financing schemes, characteristics, sources, and calculations of premiums. This study compares the trend of the financial burden for the NHI insured in Taiwan and Korea over the past ten years and can also explain how much the insurance burden is.

Although there have been comparative studies of the overall health insurance system in Taiwan and Korea, these studies were conducted long ago and needed to study the details of the recently changed system in more detail. Over the past decade, there have been significant changes in Taiwan, called second-generation NHI reform. In Korea, the premium collection systems have recently been reorganized twice in 2018 and 2022, so it will be essential to look at the changes.

Next, this study compares health expenditure trends in Taiwan and Korea using data such as national health accounts, household income and expenditure surveys, etc., over the past ten years. Identify health expenditures in addition to NHI premiums and compare the financial burden on them.

Since the high financial burden on healthcare can be an obstacle to medical use and further affect household debt (C. Lee, 2022), it is meaningful to understand the trend of health expenditures in both countries.



According to a report by the Korea Enterprises Federation (KEF) 2012, wages are raised every year in Korea, so even if the premium rate is constant, premium income is bound to increase, but the rapid increase in premium rate is essentially due to increased health insurance expenditure. In particular, since health insurance does not accumulate and spend a large amount of reserves but instead spends them based on collected insurance premiums that year, a rapid increase in NHI expenditure appears as an increase in the premium rate. Health insurance spending will continue to increase, and under the current premium collection system, the premium burden on existing insured will also increase (KEF (Korea), 2012). The premium collection system policy, an essential part of the healthcare system, must be continuously improved to increase equity and fairness.

In this study, by identifying the current financial burden of health care and analyzing trends, it will be possible to see how the government's gradual system improvement has affected Taiwan and the Korean people. The findings can serve as primary data for future discussions on healthcare system reform, including reorganizing the insurance premium collection system, etc.

1.3 Research Design



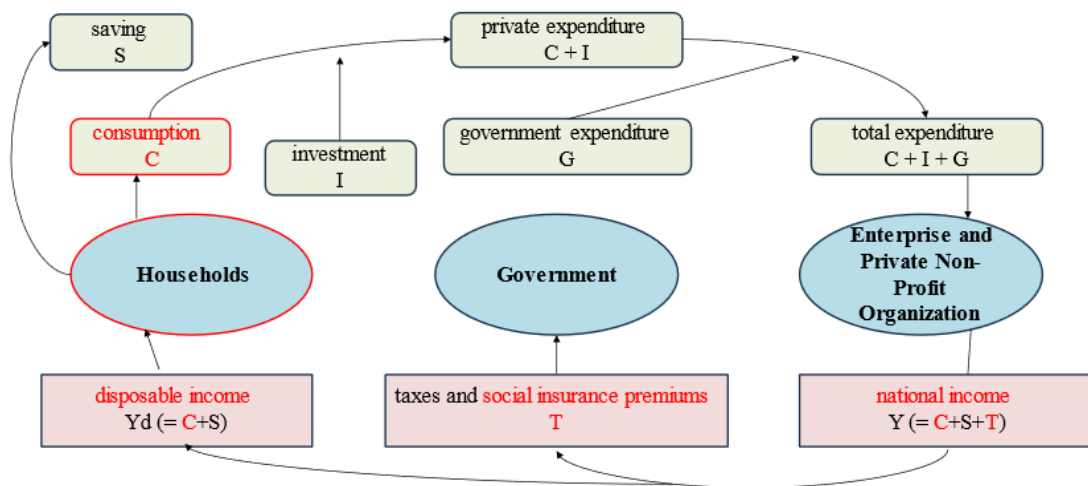
The main focus of this study is the health care system, including the national health insurance system in Taiwan and Korea.

The classification of healthcare systems can vary depending on their purpose and standards. Generally, they are divided based on financing methods into the German-style National Health Insurance (NHI) and the British-style National Health Service (NHS). Unlike the NHS, a system where the state directly provides medical care to all citizens with tax funds, the NHI relies on insurance premiums individuals pay as its primary resources. Taiwan and Korea are representative countries that utilize NHI systems (HIRA (Korea), 2022).

The two countries' health insurance systems are similar, making comparative studies efficient and easy. The overarching framework of this study uses a literature comparison method (archival analysis) and the most similar system design. Archive analysis studies socio-cultural phenomena by collecting necessary information through existing literature data (Dooopedia). The reason for selecting a similar system is to keep as many exogenous variables as consistent as possible. Although it is difficult to compare all potential factors, the logic is that differences between systems can be explained by several differences when other conditions are similar. The variables that

determine the differences between systems and the interactions between these variables at any point can explain the differences between systems (Chang-Hyun Kang, 2011).

To delve into the financial burden, the focal point of this study, it is necessary to understand the circulation process of national income and health expenditures (Figure 1-2).



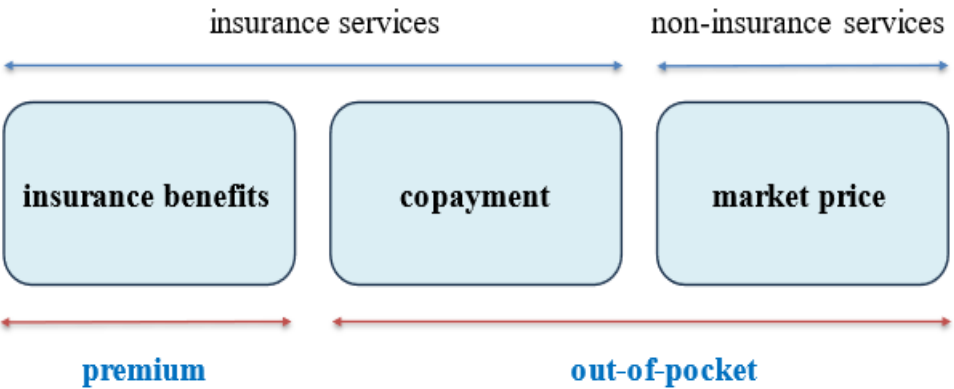
Source: (Bong-Min Yang, 2022)

Figure 1-2. The cycle of national income, national health expenditure

A company pays earned income (Y) to workers contributing to production, and a portion of this income takes the form of taxes and social insurance premiums (T), serving as government revenue. The remaining income becomes disposable (Yd) for the workers' households. Households can allocate disposable income for household consumption (C) and savings (S). They can also use disposable income to spend on private insurance premiums and out-of-pocket medical expenses (C). The government

spends taxes and social insurance premiums on public health care administration, health care projects, and social insurance management (G). Meanwhile, the government and private institutions are spending on investment in the healthcare sector (I). The total expenditure (C+I+G) is equal to the national income ($Y=C+S+T$) (Bong-Min Yang, 2022).

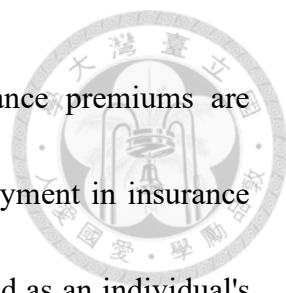
Among them, this study aims to examine the burden of healthcare expenses, focusing on households, and to summarize it again, it is as follows. Figure 1-3 below shows the structure of health expenditures from the consumers' perspective, that is, the general public.



Source: Edited using (Bong-Min Yang, 2022) data

Figure 1-3. Composition of household health expenditures

Healthcare services encompass both insurance services and non-insurance services. Insurance services are charged based on amounts set by the government, which include premiums and copayments. Non-insurance services, on the other hand,



are subject to provider-determined market prices. Health insurance premiums are mandatory, and in terms of consumer burden, out-of-pocket (copayment in insurance services and out-of-pocket in non-insurance services) can be viewed as an individual's financial burden (Bong-Min Yang, 2022).

In summary, this study compares the financial burden of healthcare systems in Taiwan and Korea, as summarized in Table 1-4.

First, the study describes and compares the systems in the two countries, focusing on the health insurance system and financing, particularly the health insurance premium collecting system. It is possible to examine the differences in systems, such as collecting health insurance premiums and the premiums burden rate between the two countries, and to explain the degree of financial burden caused by insurance premiums.

Secondly, data on health expenditures, distinct from health insurance services, will be collected to compare the two countries. This part includes copayments required for utilizing health insurance services. This comparison makes it possible to explain the financial burden beyond NHI premiums, precisely the degree of out-of-pocket in the current healthcare systems.

The study collects and compares as much comparable data as possible based on official government statistics to draw lessons from the respective healthcare systems of Taiwan and Korea.

Table 1-4. Research conceptual framework



1) Data collection - Literature review - Collect official statistics and periodic reports (data as comparable as possible)
2) Comparative analysis: Taiwan and Korea - German-style NHI model
Healthcare systems in both countries NHI premium collection systems in both countries: premium Health expenditure in both countries: out-of-pocket
3) Conclusion and suggestion

1.4 Data Collection and Analysis



This study mainly focuses on literature review and data analysis.

This study collects, organizes, and analyzes data based on official statistics accumulated in Taiwan and Korea over the past ten years (2011-2021). A lot of data is produced annually in both countries to be used as primary data for establishing the health sector and health insurance policies. Due to the nature of national health insurance, the role of the government and the public sector is vital. Examples of empirical data to determine the current status of health expenditures for Taiwanese and Korean citizens include health insurance statistics (annual insurance premium status, etc.) and household income and expenditure surveys (health expenditure).

The main statistics officially prepared annually by the Taiwanese and Korean governments (including public institutions in Korea) are presented in Table 1-5 below. The publication timing varies slightly. The study, in addition to the annual publications, gathered government press releases and policy promotion materials through the official websites of both governments. Furthermore, this study collected and used various books, academic journals, research reports, and legal materials for comparative analysis.

Table 1-5. Official statistical publication: Taiwan and Korea

Taiwan	Korea
1. Ministry of Health and Welfare (MOHW) 1) National Health Expenditure (annually) 2) Taiwan Health and Welfare Report (annually) 3) National Health Expenditure 2021 (annually) 4) Annual Report of Medical Care Institution and Hospital Utilization (annually) 5) National Health Insurance Act 2. National Health Insurance Administration (NHIA) 1) National Health Insurance annual report (annually) 2) National Health Insurance Annual Statistical Report (annually) 3) Reference indicators for NHI global budget negotiation (annually) 4) Trends in national health insurance statistics (biennially) 3. National Statistics 1) Designated statistics, General statistics (annually) 4. Directorate General of Budget, Accounting and Statistics, Executive Yuan 1) The Survey of Family Income and Expenditure (annually)	1. Ministry of Health and Welfare (MOHW) 1) National Health Accounts (annually) 2) OECD Health Statistics (annually) 3) Health and Welfare Statistical Yearbook (annually) 4) The Health and Welfare White Paper (annually) 5) National Health Insurance Act 2. National Health Insurance Service (NHIS), Health Insurance review and assessment service (HIRA) 1) NHI statistical yearbook (annually) 3. National Health Insurance Service (NHIS) 1) Health Insurance Key Statistics (annually) 4. Health Insurance Review and Assessment Service (HIRA) 1) Health Insurance Review and Assessment Service Functions and Roles (annually) 5. Korean statistical information service (KOSIS) 1) Designated statistics, General statistics (annually) 2) Household Income and Expenditure Survey (annually)

Taiwan and Korea have relatively well-established statistics on health care and health insurance. Nevertheless, since each country has many statistics generated by different standards and units, finding and organizing comparable policy and statistical data from the two countries takes much effort. Unlike many international comparative

studies that have primarily reviewed literature limited to languages such as English, this study features reviewing prior research and materials written in Chinese and Korean—the official languages of Taiwan and Korea, in addition to English materials. It also makes the most of each country's official statistics to achieve its research objectives.

This study uses the national health expenditure reports, household income and expenditure survey data to identify out-of-pocket expenses other than insurance premiums, so additional explanations are needed.

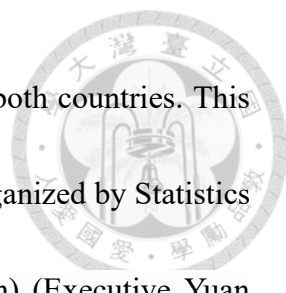
National health expenditure is a comprehensive indicator of national health care. According to the "SHA 2011 (System of Health Accounts 2011)" manual, an international standard presented by the OECD, the total amount of health expenditures paid at the final consumption stage is prepared according to the classification by financing, provider, and function. It is used as data to identify and compare the size of health income and expenditures between countries. It also serves as the foundation for policy decisions and judgments in healthcare (KOSIS; CHE, annually).

The National Health Expenditure Report comprehensively summarizes government financial statements, national income statistics, household income and expenditure surveys, and national health insurance and life insurance industry statistics. Government sectors mainly include health-related current and capital expenditures by health

administrative units, affiliated medical institutions, and other government units; the insurance sector includes national health insurance expenditure, et al. The private sector comprises health expenditure and capital formation (investment) by households, businesses, and private nonprofit organizations (MOHW (Taiwan); NHE, annually).

The classification by health financing schemes identifies where the payments to providers come from, such as the government, compulsory contributory health financing schemes, voluntary healthcare payment schemes, and household out-of-pocket payments. The classification by health provider distinguishes which providers receive the health expenditures, such as hospitals, residential long-term care facilities, and pharmacies. The classification by health function is the expenditures by type of service provided, consisting of personal and collective health expenditures (Hyung-Sun Jung et al., 2022).

In general, the concept of health expenditure includes National Health Expenditure (NHE) and Current Health Expenditure (CHE, excluding capital formation from NHE) (KOSIS; CHE, annually). In the official report released by both countries, Taiwan presents detailed expenditure items with NHE and Korea with CHE, so be careful when comparing. Taiwan's government presents a separate CHE ratio, so some data can directly compare the CHE ratio with Korea.



The following is the household income expenditure survey of both countries. This interview survey has been conducted yearly since 1963 in Korea (organized by Statistics Korea) and since 1972 in Taiwan (organized by Executive Yuan) (Executive Yuan (Taiwan); Household survey, annually; KOSIS; Household survey, annually). This survey includes changes in various incomes and expenditures of the people and is valuable as primary data for establishing government policies by systematically grasping the actual situation. Expenditure includes non-consumption expenditure and consumption expenditure. Non-consumption expenditure includes taxes, interest, and social insurance (including national health insurance). Table 1-6 below shows the components of consumption expenditure, and the survey components of Taiwan and Korea are almost similar.

However, there are differences in the detailed survey items; for example, in Korea, health items (No. 6) do not include health-related private insurance expenditures, and other items (No. 12) include all insurance. In Taiwan, there are insurance-related items in health items (No. 6) and other items (No. 12). Differences in health expenditure items can make it difficult to compare health expenditures in both countries directly.

Nevertheless, it will be a good data source to look at the trend of health expenditures in each country over the past decade. This survey also shows the current status of spending by income quintile.

Table 1-6. Expenditure components in the household survey: Taiwan and Korea, 2021

	Taiwan	Korea
Non-consumption expenditure	Tax, interest, social insurance, etc	
Consumption expenditure	1. Food and non-alcoholic beverages 2. Tobacco, alcoholic beverages, and betel nuts 3. Clothing and footwear 4. Housing, water, electricity, gas and other fuels 5. Furnishings, household equipment, and routine household maintenance 6. Health (1) Therapeutic equipment (2) Outpatient and hospital services (3) Pharmaceutical and other medical products (4) Life and casualty insurance (5) Medical consumption of NHI 7. Transport 8. Communication 9. Recreation and culture 10. Education 11. Restaurants and hotels 12. Miscellaneous goods and services (1) Jewelry, clocks, watches, and other personal effects (2) Financial services (3) Appliances, articles and products for personal care (4) Hairdressing salons and personal grooming establishments (5) Expenses of marriage, birth, and funeral (food excl.) (6) Other miscellaneous expenses (7) Non-saving insurance (8) Social protection	1. Food and soft drinks 2. Alcoholic beverages and cigarette 3. Clothing and footwear 4. Housing, water, electricity, gas and other fuels 5. Household equipment and housekeeping services 6. Health (1) Medicines (2) Medical Consumables (3) Health and medical supplies and appliances (4) Outpatients service (5) Dental care Services (6) Other Medical Services (7) Inpatient Services 7. Transportation 8. Communication 9. Entertainment and culture 10. Education 11. Restaurants and hotels 12. Other miscellaneous goods and services (1) Hairdressing, beauty service (2) Hairdressing, beauty appliances (3) Sanitary, hairdressing and cosmetic products (4) Watches and accessories (5) Other personal items (6) Welfare facilities (7) Insurance: life· pension· loss compensation· health-related insurance (death· accident· disease· long-term nursing insurance, etc) (8) Other finance services (9) Other services

Source: Taiwan; (Executive Yuan (Taiwan); Household survey, annually)

Korea; (KOSIS; Household survey, annually)

The structure of this study is as follows: Table 1-7.



Table 1-7. Research structure

Chapter	Contents
Chapter 1. Introduction	Research motivation and purpose, Research method (research design, data collection and analysis)
Chapter 2. Healthcare resources system in Taiwan and Korea	Healthcare resources, NHI and performance
Chapter 3. Healthcare utilization and expenditure in Taiwan and Korea	Healthcare utilization, Healthcare expenditure
Chapter 4. Comparison of NHI Premium in Taiwan and Korea	NHI Premium collection system: Premium * NHI statistics data, etc, official data → Findings, Discussion
Chapter 5. Comparison of Out-of-pocket in Taiwan and Korea	Health expenditure: Out-Of-Pocket * National health expenditure * Household income and expenditure survey → Findings, Discussion
Chapter 6. Conclusions	Conclusions, suggestions

Chapter 2 . Healthcare Resources System in Taiwan and Korea



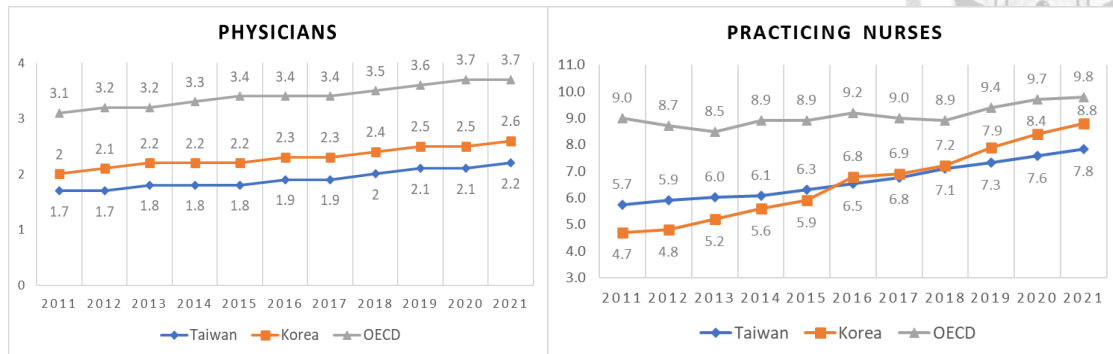
2.1 Healthcare Resources

This section describes the current status of healthcare resources in both countries.

According to Table 2-1, the number of doctors (physicians) per 1,000 people in Taiwan increased from 1.7 in 2011 to 2.2 in 2021. In Korea, it rose from 2.0 to 2.6 during the same period. Both countries saw an increase in doctors per 1,000 people of about 30% over the past decade, but that figure remains low compared with the OECD average of 3.7 doctors per 1,000 people in 2021.

In Taiwan, the number of practicing nurses per 1,000 people increased from 5.7 in 2011 to 7.8 in 2021, and in Korea, it rose from 4.7 to 8.8 during the same period. Both countries witnessed a significant increase in the number of practicing nurses per 1,000 people over the past decade, with Taiwan experiencing a 36.6% increase and Korea an 87.2% increase. The average number of practical nurses in OECD countries was 9.8 in 2021, up 8.9% from 2011. Despite high growth rates in Taiwan and Korea, the number of practical nurses per 1,000 population is below the average for OECD countries (Table 2-1).

Table 2-1. Healthcare workforce: Taiwan and Korea, 2011-2021

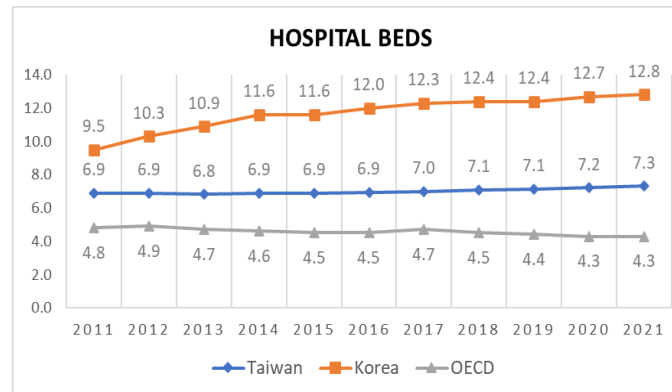


Year	Physicians (per 1,000 population)			Practicing nurses (per 1,000 population)		
	Taiwan	Korea	OECD	Taiwan	Korea	OECD
2011	1.7	2.0	3.1	5.7	4.7	9.0
2012	1.7	2.1	3.2	5.9	4.8	8.7
2013	1.8	2.2	3.2	6.0	5.2	8.5
2014	1.8	2.2	3.3	6.1	5.6	8.9
2015	1.8	2.2	3.4	6.3	5.9	8.9
2016	1.9	2.3	3.4	6.5	6.8	9.2
2017	1.9	2.3	3.4	6.8	6.9	9.0
2018	2.0	2.4	3.5	7.1	7.2	8.9
2019	2.1	2.5	3.6	7.3	7.9	9.4
2020	2.1	2.5	3.7	7.6	8.4	9.7
2021	2.2	2.6	3.7	7.8	8.8	9.8
Change% (2011- 2021)	29.4%	30.0%	19.4%	36.6%	87.2%	8.9%

Source: Taiwan; (MOHW (Taiwan), annually(b); NHIC (Taiwan), annually)
Korea, OECD; (MOHW (Korea), annually(a))

Next, the number of hospital beds, one of the significant healthcare resources, will be examined (Table 2-2).

Table 2-2. Healthcare resources (hospital beds): Taiwan and Korea, 2011-2021



Year	Hospital beds (per 1,000 population)			Acute hospital beds (per 1,000 population)		
	Taiwan	Korea	OECD	Taiwan	Korea	OECD
2011	6.9	9.5	4.8	3.5	6.8	3.8
2012	6.9	10.3	4.9	3.5	7.0	3.8
2013	6.8	10.9	4.7	3.4	7.1	3.8
2014	6.9	11.6	4.6	3.4	7.3	3.7
2015	6.9	11.6	4.5	3.4	7.0	3.9
2016	6.9	12.0	4.5	3.4	7.1	3.8
2017	7.0	12.3	4.7	3.4	7.1	3.6
2018	7.1	12.4	4.5	3.5	7.1	3.6
2019	7.1	12.4	4.4	3.5	7.1	3.5
2020	7.2	12.7	4.3	3.5	7.2	3.5
2021	7.3	12.8	4.3	3.6	7.3	3.5
Change % (2011- 2021)	5.8%	34.7%	-10.4%	2.9%	7.4%	-7.9%

Source: Taiwan; ; (MOHW (Taiwan), annually(b); NHIC (Taiwan), annually)
Korea, OECD; (MOHW (Korea), annually(a))

The number of beds per 1,000 people increased 5.8% in Taiwan from 6.9 in 2011 to 7.3 in 2021 and 34.7% in Korea from 9.5 to 12.8. However, during the same period, the average number of hospital beds per 1,000 people in OECD countries decreased by 10.4%. As of 2021, the average number of beds per 1,000 people in Korea is about three

times the OECD average, the highest among OECD countries (MOHW (Korea), annually(a)).

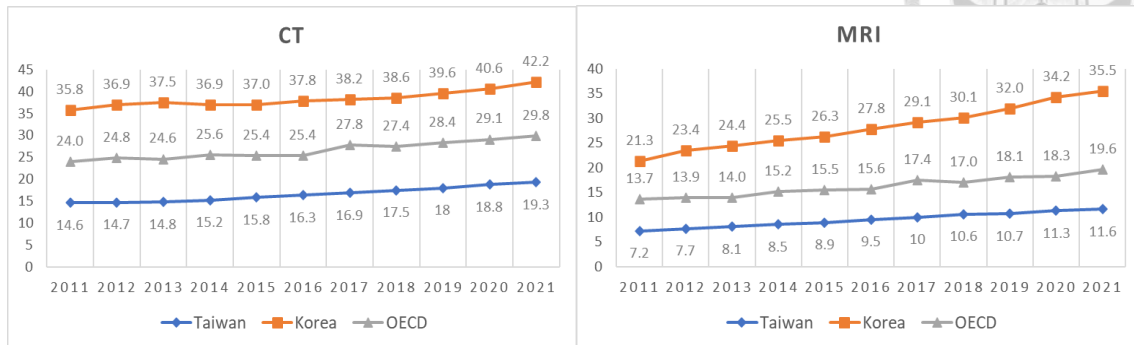


The number of acute beds per 1,000 people has increased by 2.9% in Taiwan and 7.4% in Korea over the past decade, while it has decreased by 7.9% on average in OECD countries.

Finally, concerning data related to healthcare resources in both countries, this study presents the number of high-tech medical devices. The number of CT (Computerized Tomography) and MRI (Magnetic Resonance Imaging) equipment, classified as high-tech medical devices, is on the rise in Taiwan, Korea, and OECD countries (Table 2-3). Korea has 42.2 CT equipment per million people, far higher than Taiwan's 19.3 and the OECD average of 29.8. When examining the growth rate of CT equipment over the past decade, Taiwan recorded 32.2%, followed by OECD countries average at 24.2%, and Korea at 17.9%.

The number of MRI equipment per million people was 35.5 in Korea, 19.6 in OECD countries on average, and 11.6 in Taiwan. The growth rate of MRI equipment owned per million people over the past decade was 61.1% in Taiwan and 66.7% in Korea. OECD countries saw an average increase of 43.1%.

Table 2-3. High-tech medical device resources: Taiwan and Korea, 2011-2021



Year	CT scanners (per million population)			MRI machines (per million population)		
	Taiwan	Korea	OECD	Taiwan	Korea	OECD
2011	14.6	35.8	24.0	7.2	21.3	13.7
2012	14.7	36.9	24.8	7.7	23.4	13.9
2013	14.8	37.5	24.6	8.1	24.4	14.0
2014	15.2	36.9	25.6	8.5	25.5	15.2
2015	15.8	37.0	25.4	8.9	26.3	15.5
2016	16.3	37.8	25.4	9.5	27.8	15.6
2017	16.9	38.2	27.8	10.0	29.1	17.4
2018	17.5	38.6	27.4	10.6	30.1	17.0
2019	18.0	39.6	28.4	10.7	32.0	18.1
2020	18.8	40.6	29.1	11.3	34.2	18.3
2021	19.3	42.2	29.8	11.6	35.5	19.6
Change % (2011- 2021)	32.2%	17.9%	24.2%	61.1%	66.7%	43.1%

Source: Taiwan; (NHIC (Taiwan), annually)
Korea, OECD; (MOHW (Korea), annually(a))

2.2 Medical Institutions



This section mainly compares medical institutions and the number of hospital beds in both countries.

Table 2-4. Number of hospitals and clinics: Taiwan and Korea, 2011-2021

(Unit: Number)

Year	Hospital		Clinic	
	Taiwan	Korea	Taiwan	Korea
2011	507	3,064	20,628	55,396
2012	502	3,298	20,935	56,186
2013	495	3,450	21,218	57,402
2014	497	3,672	21,544	59,970
2015	494	3,678	21,683	59,710
2016	490	3,788	21,894	61,183
2017	483	3,887	22,129	62,718
2018	483	3,924	22,333	63,902
2019	480	4,020	22,512	65,079
2020	479	4,106	22,653	66,027
2021	478	4,192	22,800	67,214
Change % (2011-2021)	-5.7%	36.8%	10.5%	21.3%

Source: Taiwan; (MOHW (Taiwan), annually(b))
Korea; (MOHW (Korea), annually(c))

In Table 2-4, the total number of hospitals in Taiwan decreased by 5.7%, from 507 in 2011 to 478 in 2021, while the total number of clinics increased by 10.5%, rising from 20,628 to 22,800 during the same period. In Korea, the total number of hospitals increased by 36.8%, from 3,064 in 2011 to 4,192 in 2021, and the total number of

clinics increased by 21.3%, from 55,396 in 2011 to 67,214 in 2021.

Table 2-5 shows the number of hospital beds by type, excluding specialized beds.

In Taiwan, hospital beds increased by 5.8%, rising from 144,997 in 2011 to 153,353 in 2021. In 2021, the proportion of hospital beds by medical institution type represented 65.7% for general hospitals, 16.0% for hospitals, and 18.3% for clinics. Over the past decade, the proportion of clinic beds in all medical institutions increased from 15.9% (23,008) in 2011 to 18.3% (28,049) in 2021.

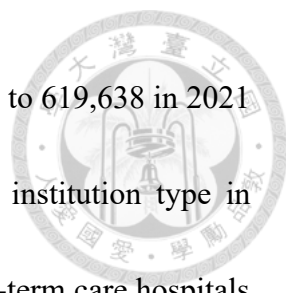
Table 2-5. Medical institution and hospital beds: Taiwan, 2011-2021

(Unit: Number)

Year	Total		General hospital		Hospital		Clinic	
	No.	Beds	No.	Beds	No.	Beds	No.	Beds
2011	11,250	144,997	156	97,249	279	24,740	10,815	23,008
%		100		67.1		17.1		15.9
2012	11,427	145,169	147	96,211	283	25,152	10,997	23,806
2013	11,529	143,618	148	96,183	276	24,278	11,105	23,157
2014	11,704	145,039	150	95,520	277	24,184	11,277	25,335
2015	11,740	145,564	151	95,787	276	23,852	11,313	25,925
2016	11,821	146,156	150	95,467	276	24,345	11,395	26,344
2017	11,919	147,290	151	96,749	269	23,700	11,499	26,841
2018	12,002	149,708	153	98,327	269	23,785	11,580	27,596
2019	12,085	150,379	155	98,416	267	23,690	11,663	28,273
2020	12,145	152,058	153	99,302	268	24,619	11,724	28,137
2021	12,254	153,353	152	100,719	267	24,585	11,835	28,049
%		100		65.7		16.0		18.3
Change % (2011-2021)	8.9%	5.8%	- 2.6%	3.6%	- 4.3%	- 0.6%	9.4%	21.9%

Source: (MOHW (Taiwan), annually(b))

Note: Except for oriental medicine, dentistry, mental hospital, etc, specialized hospital



Korea's hospital beds increased by 22.7% from 505,124 in 2011 to 619,638 in 2021 (Table 2-6). In 2011, the proportion of hospital beds by medical institution type in Korea, general hospitals accounted for 27.3%, hospitals 28.8%, long-term care hospitals 26.8, and clinics 17.1%. By 2021, there was a shift in the proportion distribution, with general hospitals representing 25.3%, hospitals 21.3%, long-term care hospitals 44.6%, and clinics 8.7%. In Korea, the number of hospital beds in long-term care hospitals has more than doubled from 135,294 to 276,654 over the past decade. Long-term care hospitals are one of the types of medical institutions established by the Medical Service Act, and they provide hospital beds to offer medical services to inpatients in need of long-term care.

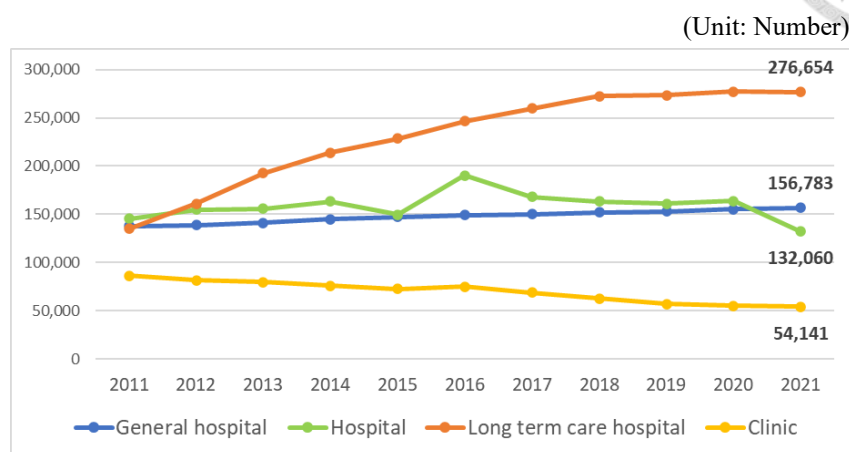
In summary, Taiwan's hospital bed occupancy by medical institutional type 2021 was 65.7%, with the majority in general hospitals, followed by 18.3% for clinics and 16.0% for hospitals. On the other hand, Korea's hospital bed occupancy by medical institution type was 44.6%, with the majority in long-term care hospitals, followed by 25.3% for general hospitals, 21.3% for hospitals, and 8.7% for clinics.

The following Table 2-7 shows the proportion of public hospitals and beds. As of 2021, the proportion of public hospitals in Taiwan was 16.9%, and public hospital beds were 32.4%. In Korea, the proportion of public hospitals was 5.3%, and public hospital beds were 9.6%. The proportion of beds in public hospitals in Taiwan is 3.4 times that

of Korea.



Table 2-6. Medical institution and hospital beds: Korea, 2011-2021



Year	Total		General hospital		Hospital		Long term care hospital		Clinic	
	No.	Beds	No.	Beds	No.	Beds	No.	Beds	No.	Beds
2011	30,448	505,124	319	137,728	1,245	145,525	975	135,294	27,909	86,577
%		100		27.3		28.8		26.8		17.1
2012	31,499	536,793	323	138,850	1,327	155,020	1,087	161,054	28,762	81,869
2013	31,699	569,586	324	141,425	1,331	155,861	1,228	192,659	28,816	79,641
2014	33,750	598,680	321	144,982	1,436	163,574	1,304	213,986	30,689	76,138
2015	32,527	598,511	337	147,445	1,492	149,630	1,335	228,765	29,363	72,671
2016	33,394	660,686	341	149,018	1,510	190,125	1,386	246,373	30,157	75,170
2017	34,188	646,664	344	150,160	1,464	167,970	1,422	259,730	30,958	68,804
2018	34,935	650,944	353	152,104	1,462	163,608	1,448	272,469	31,672	62,763
2019	35,752	644,330	356	152,977	1,487	160,929	1,468	273,284	32,441	57,140
2020	36,377	651,573	361	155,210	1,513	164,072	1,471	277,035	33,032	55,256
2021	37,044	619,638	365	156,783	1,394	132,060	1,467	276,654	33,818	54,141
%		100		25.3		21.3		44.6		8.7
Change% (2011-2021)	21.7%	22.7%	14.4%	13.8%	12.0%	- 9.3%	50.5%	104.5%	21.2%	- 37.5%

Source: (MOHW (Korea), annually(c))

Note: Except for oriental medicine, dentistry, mental hospital, etc, specialized hospital

Table 2-7. % of public medical hospitals and beds: Taiwan and Korea, 2011-2021



Year	Taiwan		Korea	
	No.	Beds	No.	Beds
2011	16.2	33.7	6.2	12.4
2012	16.3	33.7	6.1	11.7
2013	16.4	33.6	5.8	10.8
2014	16.3	33.3	5.7	10.7
2015	16.4	32.9	5.7	10.5
2016	16.5	32.8	5.8	10.5
2017	16.6	32.2	5.7	10.2
2018	16.8	32.2	5.7	10.0
2019	17.1	32.2	5.5	9.7
2020	17.1	32.2	5.4	9.7
2021	16.9	32.4	5.3	9.6

Source: Taiwan; Using (MOHW (Taiwan), annually(a)) data

Korea; (KOSIS, annually; NMC (Korea), annually)

Note: Hospital basis (except for clinic)

Table 2-8 shows the number of public medical institutions and the number of hospital beds. In 2021, the number of hospital beds in Taiwan's public medical institutions decreased by 1.8% at the hospital level and 29.8% at the clinic level compared to 2011. Among public medical institutions in Korea, hospital-level beds increased by 7.4% compared to 2011, and clinic-level beds decreased by 21%. Taiwan and Korea exhibit a declining trend in public hospital beds at the clinic level.

Table 2-8. Public medical institutions and hospital beds: Taiwan and Korea, 2011-2021

(Unit: Number)

Year	Taiwan				Korea			
	Hospital		Clinic		Hospital		Clinic	
	No.	Beds	No.	Beds	No.	Beds	No.	Beds
2011	82	45,603	454	637	191	59,196	3,468	453
2012	82	45,549	447	563	200	60,005	3,469	403
2013	81	45,134	444	546	201	59,650	3,470	409
2014	81	44,524	446	545	201	62,943	3,481	383
2015	81	43,881	443	520	211	62,276	3,477	366
2016	81	43,827	440	486	220	64,735	3,477	365
2017	80	43,187	436	492	221	64,385	3,475	375
2018	81	43,606	429	475	224	63,924	3,478	349
2019	82	43,542	428	475	221	62,240	3,478	341
2020	82	44,114	426	464	222	63,417	3,476	341
2021	81	44,796	423	447	221	63,547	3,475	358
Change % (2011-2021)	-1.2%	-1.8%	-6.8%	-29.8	15.7%	7.4%	0.2%	-21.0%

Source: Taiwan; (MOHW (Taiwan), annually(a))

Korea; (KOSIS, annually; MOHW (Korea), annually(d); NHIS (Korea), HIRA (Korea), annually)

2.3 Healthcare System Performance



Table 2-9 displays the primary health indicators of both countries. These indicators signify an enhancement in the quality and accessibility of health services attributable to the introduction of the health insurance system and the development of medical infrastructure. In both countries, life expectancy and infant mortality indicators continued to improve. In particular, since 2010, Korea's indicators have improved significantly compared to Taiwan. In addition, the proportion of the population aged 65 and over is steadily increasing in parallel with the increase in average life expectancy in both countries.

Table 2-9. Trends in health indicators: Taiwan and Korea, 1970-2021

		1970	1980	1990	2000	2010	2011	2016	2021
Population (millions)	Taiwan	14.7	17.9	20.2	22.4	23.2	23.2	23.5	23.4
	Korea	32.2	38.1	42.9	47.0	49.6	49.9	51.2	51.7
% of seniors aged 65 or older	Taiwan	2.9	4.3	6.2	8.6	10.7	10.9	13.2	16.9
	Korea	3.1	3.8	5.1	7.2	10.8	11.0	13.2	16.6
Infant mortality rate (per 1,000 population)	Taiwan	16.9	9.8	5.1*	5.8	4.2	4.2	3.9	4.1
	Korea	48.3	29.8	10.6	6.5	3.5	3.0	2.8	2.4
Life expectancy (years)									
Male	Taiwan	66.8	69.5	71.6	72.6	76.2	76.0	76.8	77.7
	Korea	58.7	61.9	67.5	72.3	76.8	77.3	79.3	80.6
Female	Taiwan	71.6	74.8	76.8	76.8	82.7	82.6	83.4	84.3
	Korea	65.8	70.4	75.9	79.7	83.6	84.0	85.4	86.6

*1991

Source: Taiwan; (MOHW (Taiwan), annually(b); MOI (Taiwan), 2022(a), 2022(b); NDC (Taiwan), 2022) Korea; (KOSIS, annually)

Chapter 3 . Healthcare Utilization and Expenditure in Taiwan and Korea



3.1 Healthcare Utilization

This section compares healthcare utilization in both countries.

In Table 3-1, the average number of physician (doctor) visits per capita in Taiwan increased from 12.2 in 2011 to 13.2 in 2019, then decreased slightly to 11.4 in 2021.

During the same period, the average number of physician visits per capita in Korea increased from 12.5 in 2011 to 17.2 in 2019 and then decreased to 15.7 in 2021. In 2020 and 2021, both countries were affected by COVID-19, resulting in fewer doctor visits.

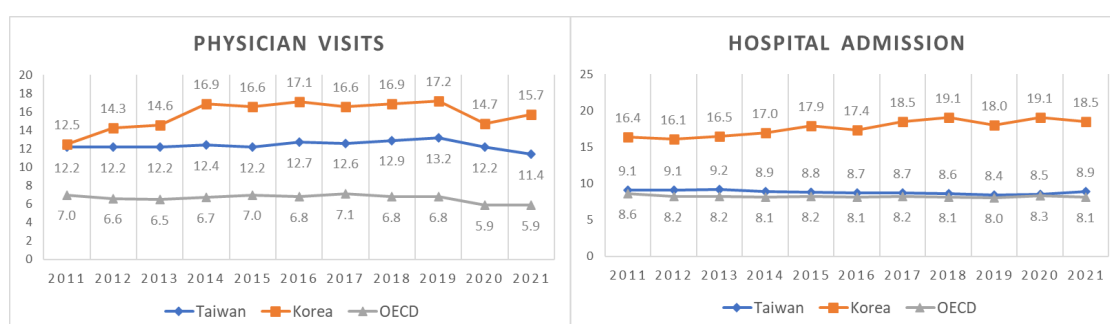
The average number of physician visits per capita in OECD countries declined from 7.0 in 2011 to 5.9 in 2021.

The average number of dentist visits per capita has remained similar over the past decade. As of 2021, the average number of dentist visits per capita was 1.4 in Taiwan, 1.6 in Korea, and 1.1 in OECD countries (Table 3-1).

The average hospital admission per capita in Taiwan decreased by 2.2%, from 9.1 days in 2011 to 8.9 days in 2021. In contrast, Korea's hospital admission per capita increased by 12.8% during the same period, from 16.4 days to 18.5 days. As of 2021,

Japan had the most extended hospital admission per capita among OECD countries, with 27.5 days, and Korea was the second longest (MOHW (Korea), annually(a)). Meanwhile, during the same period, the average hospital admission in OECD countries decreased by 5.8% from 8.6 to 8.1 days (Table 3-1).

Table 3-1. Healthcare utilization: Taiwan and Korea, 2011-2021

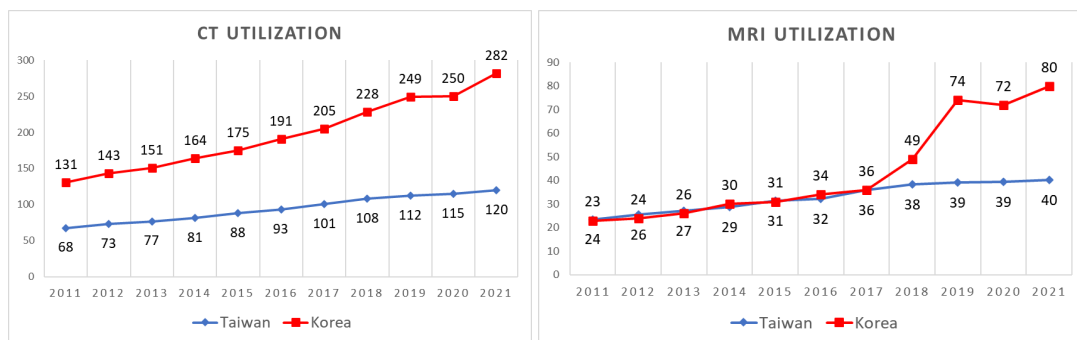


Year	Physician visits (per capita)			Dentist visit (per capita)			Hospital admission (per capita)		
	Taiwan	Korea	OECD	Taiwan	Korea	OECD	Taiwan	Korea	OECD
2011	12.2	12.5	7.0	1.3	1.6	1.2	9.1	16.4	8.6
2012	12.2	14.3	6.6	1.3	1.7	1.2	9.1	16.1	8.2
2013	12.2	14.6	6.5	1.4	1.9	1.2	9.2	16.5	8.2
2014	12.4	16.9	6.7	1.4	1.3	1.1	8.9	17.0	8.1
2015	12.2	16.6	7.0	1.4	1.4	1.2	8.8	17.9	8.2
2016	12.7	17.1	6.8	1.4	1.4	1.2	8.7	17.4	8.1
2017	12.6	16.6	7.1	1.4	1.5	1.3	8.7	18.5	8.2
2018	12.9	16.9	6.8	1.5	1.5	1.2	8.6	19.1	8.1
2019	13.2	17.2	6.8	1.5	1.6	1.2	8.4	18.0	8.0
2020	12.2	14.7	5.9	1.4	1.5	1.0	8.5	19.1	8.3
2021	11.4	15.7	5.9	1.4	1.6	1.1	8.9	18.5	8.1
Change% (2011-2021)	-6.6	25.6	-15.7	7.7	0.0	-8.3	-2.2	12.8	-5.8

Source: Taiwan; (NHIC (Taiwan), annually)
Korea, OECD; (MOHW (Korea), annually(a))

Table 3-2 shows the number of CT and MRI utilizations. In 2021, the number of CT utilization per 1,000 people was 120 in Taiwan and 282 in Korea, with Korea having 2.4 times the number. In the same year, the number of MRI utilization per 1,000 people was 40 in Taiwan and 80 in Korea. Since August 2017, when the health insurance expansion policy was implemented (Brain, cerebrovascular, and specialty MRIs in 2018; head and neck, abdominal, and chest MRIs in 2019), the utilization of MRI has increased significantly in Korea (MOHW (Korea), annually(d)).

Table 3-2. High-tech medical device utilization: Taiwan and Korea, 2011-2021



Year	CT utilization (per 1,000 population)		MRI utilization (per 1,000 population)	
	Taiwan	Korea	Taiwan	Korea
2011	68	131	24	23
2012	73	143	26	24
2013	77	151	27	26
2014	81	164	29	30
2015	88	175	31	31
2016	93	191	32	34
2017	101	205	36	36
2018	108	228	38	49
2019	112	249	39	74
2020	115	250	39	72
2021	120	282	40	80
Change % (2011-2021)	77.6	115.3	70.5	247.8

Source: Taiwan; Using (MOHW (Taiwan), annually(a)) data
Korea; (MOHW (Korea), annually(a); OECD, 2023)

Note: (Taiwan) Utilization= medical device utilization / population × 1,000

3.2 Healthcare Expenditure

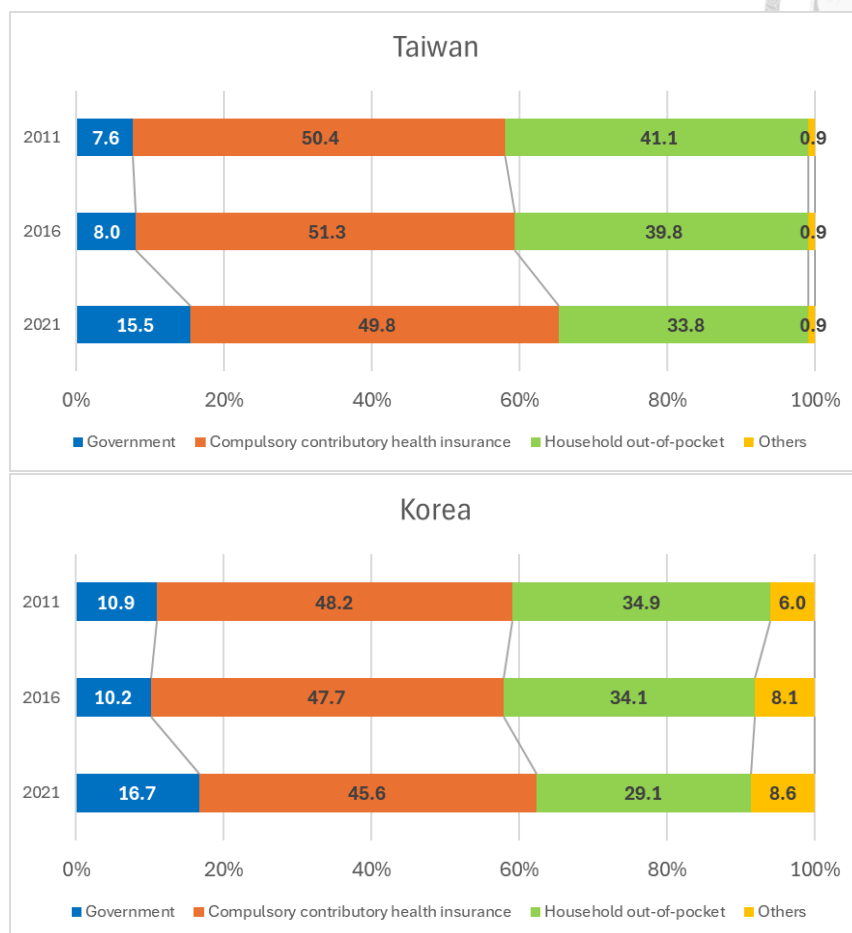


This section compares healthcare and social health insurance expenditures in both countries.

Table 3-3 shows current health expenditure (CHE) in the public and private sectors. In the case of Taiwan, the proportion of current health expenditure was 58.0% in the public sector and 42.0% in the private sector in 2011. The household out-of-pocket was 41.1%. In 2021, the distribution changed to 65.3% in the public sector (15.5% in government, 49.8% in compulsory insurance) and 34.7% in the private sector. The household out-of-pocket expenditure decreased to 33.8%, marking a 7.3 percentage point decrease from the 2011 figure.

In the case of Korea, the proportion of current health expenditure was 59.1% in the public sector and 40.9% in the private sector in 2011. The household out-of-pocket was 34.9%. In 2021, the distribution changed to 62.3% in the public sector (16.7% in government, 45.6% in compulsory insurance) and 37.7% in the private sector. The household out-of-pocket expenditure decreased to 29.1%, reflecting a 5.8 percentage point decrease from the 2011 figure.

Table 3-3. Source of funding as % of CHE: Taiwan and Korea, 2011-2021



		2011	2016	2021	Change (2011-2021)
Public sector (%)	Taiwan	58.0	59.3	65.3	7.3%p
	Korea	59.1	57.9	62.3	3.2%p
- Government	Taiwan	7.6	8.0	15.5	7.9%p
	Korea	10.9	10.2	16.7	5.8%p
- Compulsory contributory health insurance	Taiwan	50.4	51.3	49.8	-0.6%p
	Korea	48.2	47.7	45.6	-2.6%p
Private sector (%)	Taiwan	42.0	40.7	34.7	-7.3%p
	Korea	40.9	42.1	37.7	-3.2%p
- Household out-of-pocket	Taiwan	41.1	39.8	33.8	-7.3%p
	Korea	34.9	34.1	29.1	-5.8%p
- Others*	Taiwan	0.9	0.9	0.9	-
	Korea	6.0	8.1	8.6	2.6%p

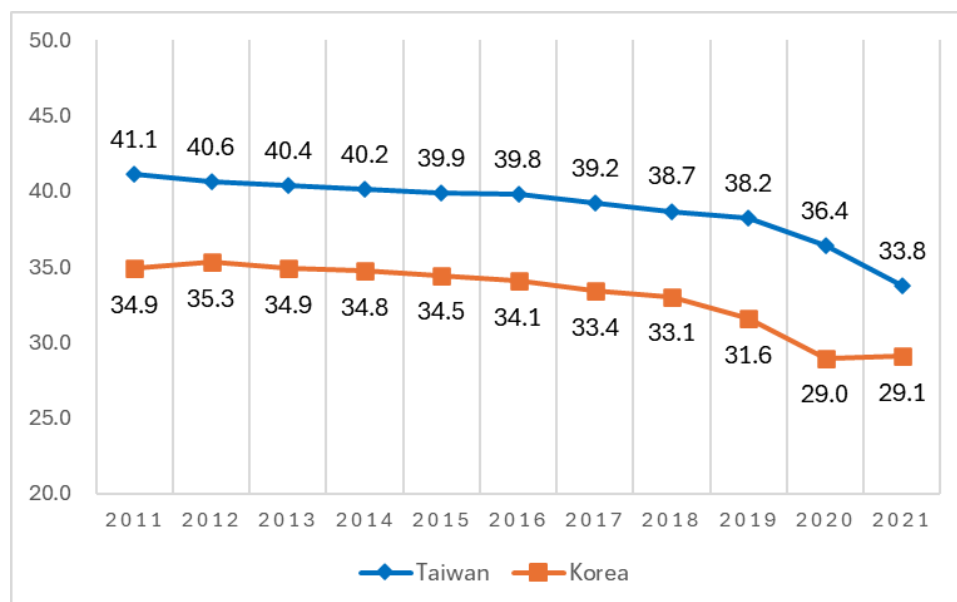
* Others: Voluntary health insurance, Non-profit institutions, Enterprises

Source: Taiwan;(MOHW (Taiwan); NHE, annually)

Korea; (KOSIS; CHE, annually)

Among the share of health expenditures, the public sector is directly affected by government policies. For example, in August 2017, the Ministry of Health and Welfare announced measures in Korea to expand health insurance coverage, aiming to alleviate the burden of medical expenses. These measures included expanding insurance benefits and increasing subsidies for the vulnerable, with an investment reaching 30.6 trillion KRW by 2022 (MOHW (Korea), annually(d)).

In Taiwan and Korea, over the past decade, the share of the public sector has increased while the share of the private sector has decreased. In particular, both countries witnessed a significant decrease in the proportion of household out-of-pocket (Figure 3-1).

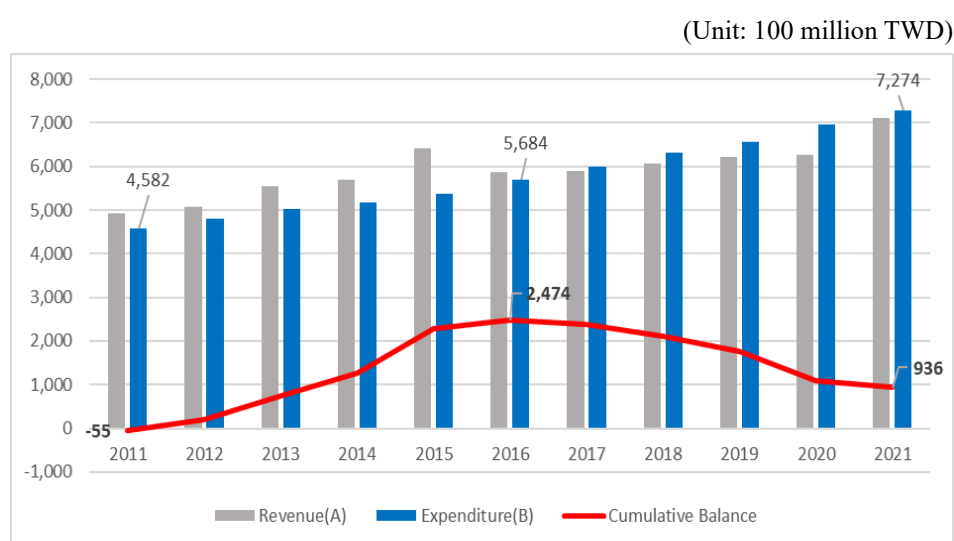


Source: Taiwan; (MOHW (Taiwan); NHE, annually)
Korea; (KOSIS; CHE, annually)

Figure 3-1. Out-of-pocket as of CHE: Taiwan and Korea, 2011-2021

Meanwhile, social insurance, including health insurance, accounts for a large portion of health expenditure in the public sector. As health expenditures surged, making various efforts to stabilize health insurance finances in the long run has become an essential task for the government.

Table 3-4. NHI revenue and expenditure: Taiwan, 2011-2021



Year	Revenue(A)	Expenditure(B)	Annual Balance(A-B)	Cumulative Balance
2011	4,924	4,582	342	-55
2012	5,072	4,806	265	210
2013	5,557	5,021	536	746
2014	5,695	5,181	514	1,260
2015	6,410	5,381	1,029	2,289
2016	5,869	5,684	186	2,474
2017	5,900	5,998	- 98	2,376
2018	6,061	6,328	- 266	2,109
2019	6,224	6,566	- 342	1,767
2020	6,278	6,954	- 676	1,091
2021	7,119	7,274	- 155	936

Source: (NHIA (Taiwan), annually(a))

Note: Accrual basis

Table 3-4 displays Taiwan's NHI revenue, expenditure, and cumulative balance over the past ten years. In Taiwan, NHI expenditure increased 1.6 times from 458.2 billion TWD in 2011 to 727.4 billion TWD in 2021. The cumulative balance rose from -5.5 billion TWD in 2011 to 247.4 billion TWD in 2016 and gradually decreased to 93.6 billion TWD as of 2021.

With the implementation of second-generation health insurance since 2013, the cumulative balance has improved significantly. Implementing supplementary premiums and increasing the proportion of government subsidies both helped stabilize NHI finances. Overall, however, health expenditures have grown much faster than premium income (NHIA (Taiwan), annually(a)).

Table 3-5 shows the financial status of NHI in Korea; health insurance expenditures increased from 37.3766 trillion KRW in 2011 to 77.6692 trillion KRW in 2021. The cumulative balance increased from 1.56 trillion KRW in 2011 to 20.7733 trillion KRW in 2017 and gradually decreased to 20.241 trillion KRW as of 2021.

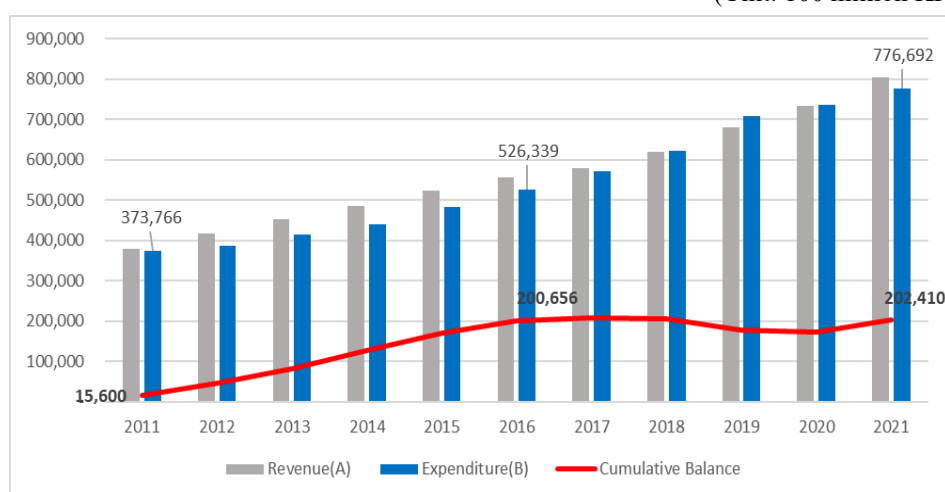
For Korea, in 2012, insurance premiums began to be collected on employees insured with a comprehensive income of 72 million KRW or more, in addition to their salaries. In 2013, the cumulative balance increased with the implementation of a system converting dependents with an annual income of 40 million KRW or more to self-employed insured. Meanwhile, temporary spending has increased since 2017 due to

the expansion of health insurance coverage. In addition, medical use and expenditure decreased due to the impact of MERS in 2015 and COVID-19 infectious diseases in 2021 (MOHW (Korea), annually(d)).



Table 3-5. NHI revenue and expenditure: Korea, 2011-2021

(Unit: 100 million KRW)



Year	Revenue(A)	Expenditure(B)	Annual Balance(A-B)	Cumulative Balance
2011	379,774	373,766	6,008	15,600
2012	418,192	388,035	30,157	45,757
2013	451,733	415,287	36,446	82,203
2014	485,024	439,155	45,869	128,072
2015	524,009	482,281	41,728	169,800
2016	557,195	526,339	30,856	200,656
2017	579,990	572,913	7,077	207,733
2018	621,159	622,937	- 1,778	205,955
2019	680,643	708,886	- 28,243	177,712
2020	734,185	737,716	- 3,531	174,181
2021	804,921	776,692	28,229	202,410

Source: (MOHW (Korea), annually(d))

Note 1. Cash basis. It's different from NHIS's accounting report (Accrual basis).

2. In the case of the NHIS's accounting report, since 2013 (Korean-International Financial Reporting Standards applied year), the legal reserves (cumulative balance) are reflected in the year in which the board of directors (February of the following year) belongs, making it difficult to compare the cumulative balance for the year.

In Taiwan, all citizens, including those from low-income households, are included in the national health insurance system. In contrast, Korea has a separate medical support system for low-income families, individuals of national merit, and military service personnel. As of 2021, the number of medical aid system beneficiaries was about 1.52 million, and the total medical expenses, including copayments, amounted to 9.7679 trillion KRW (Table 3-6).

Table 3-6. Medical aid beneficiaries and total medical expenses: Korea, 2011-2021

(Unit: people, 100 million KRW)

Year	Beneficiaries (people)	Total medical expenses (100 million KRW)
2011	1,609,481	51,423
2012	1,507,044	51,949
2013	1,458,871	53,037
2014	1,440,762	56,404
2015	1,544,267	59,823
2016	1,509,472	67,375
2017	1,485,740	71,157
2018	1,484,671	78,070
2019	1,488,846	85,900
2020	1,526,030	90,489
2021	1,516,525	97,679

Source: (MOHW (Korea), annually(d))

In addition to health insurance, Korea has Long-Term Care (LTC) insurance as social insurance. The LTC insurance system, which has been in effect since July 2008, covers all citizens. Those eligible for the benefits are those aged 65 or older and citizens

with senile diseases, even under the age of 65, who have difficulty living alone for more than six months. The financial resources required for LTC insurance include insurance premiums, government subsidies, and out-of-pocket expenses. Multiplying the LTC insurance premium rate by the NHI insurance premium calculates the LTC insurance premium. As shown in Table 3-7, the scheme benefits 953,511 people as of 2021, accounting for 10.7% of the elderly population (MOHW (Korea), annually(d)).

Table 3-7. LTC insurance beneficiary: Korea, 2011-2021

(Unit: people, %)

Year	Population aged 65 or older (A)	Beneficiary (B)	% (B/A)
2011	5,644,758	324,412	5.7
2012	5,921,977	341,788	5.8
2013	6,192,762	378,493	6.1
2014	6,462,740	424,572	6.6
2015	6,719,244	467,752	7.0
2016	6,940,396	519,850	7.5
2017	7,310,835	585,287	8.0
2018	7,611,770	670,810	8.8
2019	8,003,418	772,206	9.7
2020	8,480,208	857,984	10.1
2021	8,912,785	953,511	10.7

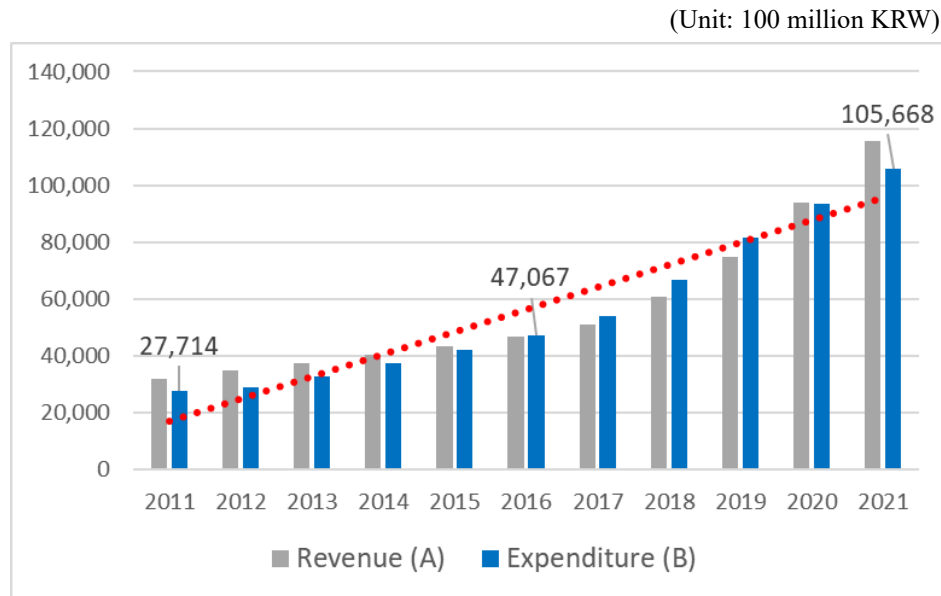
Source: (MOHW (Korea), annually(d))

As can be seen in Table 3-8, expenditures are also increasing every year due to the rapid increase in the elderly population and the increase in the use of long-term care services. LTC insurance expenditures increased 3.8 times from 2,771.4 billion KRW in

2011 to 10.5668 trillion KRW in 2021. In 2021, the total income of LTC insurance finances was 11.5414 trillion KRW, a surplus of 974.6 billion KRW.



Table 3-8. LTC insurance revenue and expenditure: Korea, 2011-2021

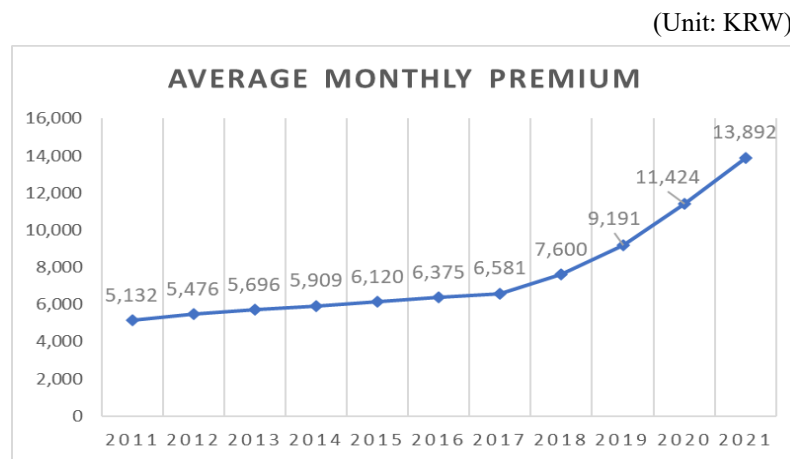


Year	Revenue (A)	Expenditure (B)	A-B
2011	31,732	27,714	4,018
2012	34,706	29,113	5,593
2013	37,472	32,915	4,557
2014	40,439	37,399	3,040
2015	43,253	42,344	909
2016	46,635	47,067	- 432
2017	50,846	54,139	- 3,293
2018	60,657	66,758	- 6,101
2019	74,977	81,579	- 6,602
2020	94,001	93,436	565
2021	115,414	105,668	9,746

Source: (MOHW (Korea), annually(d))

LTC insurance's premium rate remained 6.55% from 2010 to 2017 before rising to 7.38% in 2018. Since then, it has increased gradually yearly, reaching 11.52% in 2021. The average monthly premium per household rose 2.7 times from 5,132 KRW in 2011 to 13,892 KRW in 2021 (Table 3-9).

Table 3-9. LTC insurance premium rate, average monthly premium: Korea, 2011-2021



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Premium rate (%)	6.55	6.55	6.55	6.55	6.55	6.55	6.55	7.38	8.51	10.25	11.52
Average monthly premium by household (KRW)	5,132	5,476	5,696	5,909	6,120	6,375	6,581	7,600	9,191	11,424	13,892

Source: (MOHW (Korea), annually(d))

For Taiwan, The Long-Term Care Plan 1.0 (10-year) was implemented in 2008, followed by the Long-Term Care Plan 2.0 in 2017, which expanded the number of people eligible for long-term care and services (MOHW (Taiwan), annually(b)).

Table 3-10. LTC beneficiary: Taiwan, 2011-2021



1) the age of people receiving LTC services: 2021

(Unit: people, %)

Age	Population	%
Total	388,866	100
-19	5,263	1.4
20-49	13,198	3.4
50-64	32,965	8.5
65-74	73,845	19
75-	263,594	67.8
missing value	1	0.0

2) the number of people receiving LTC services: 2011-2021

(Unit: people)

Year	Total (adjusted)	Care services	Professional services	Transportation services	Assisting instruments (purchase, rental), barrier-free environments (household) (number of times)	Respite care services
2011	-	34,463	30,633	37,436	6,845	12,296
2012	-	39,578	34,024	46,171	6,240	18,598
2013	-	42,640	42,458	51,137	6,817	32,629
2014	-	45,821	49,516	54,284	6,773	33,356
2015	83,295	48,375	49,065	57,618	7,016	37,346
2016	90,603	51,007	49,596	59,588	9,663	46,339
2017	113,706	86,556	21,983	10,351	8,008	21,270
2018	180,660	130,214	49,234	66,440	20,841	49,053
2019	284,208	177,741	84,794	105,538	75,442	71,286
2020	357,457	230,243	87,351	130,325	106,391	93,445
2021	388,866	266,860	57,507	144,521	105,088	121,891

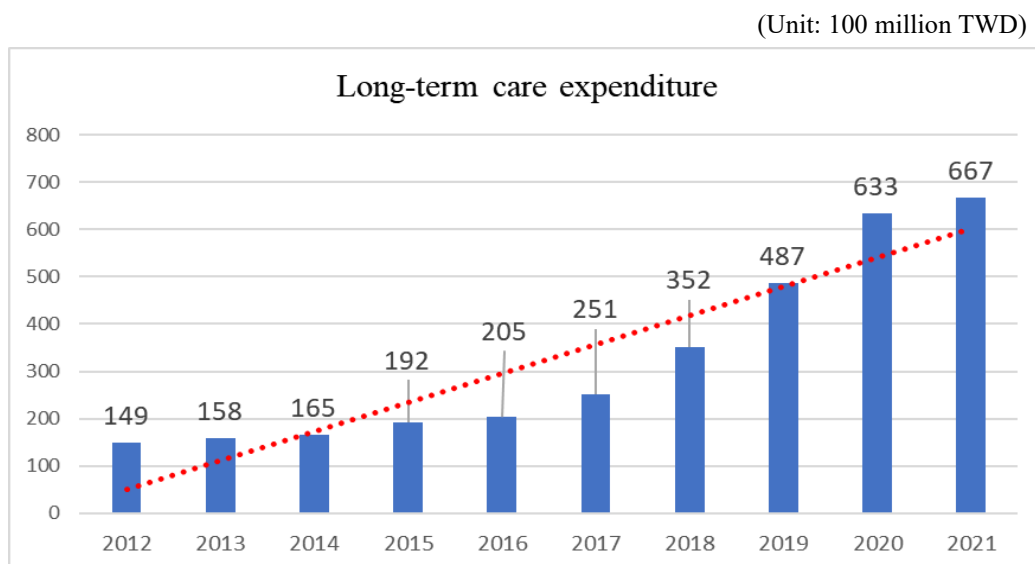
Source: (MOHW (Taiwan), annually(b); MOHW (Taiwan), NHRI (Taiwan), 2022)

Note 1. With new long-term care payment standards in 2018, professional services incorporate home nursing care and home-based rehabilitation.

2. Based on the 2022 Taiwan Health and Welfare Report items, it does not include nutritional food delivery services.

Table 3-10 represents the long-term care beneficiaries in Taiwan. As of 2021, there were 388,866 beneficiaries (337,439 aged 65 and older), representing 9.9% of the total population of 3,939,033 seniors aged 65 (MOHW (Taiwan), NHRI (Taiwan), 2022) and older (The percentage of beneficiaries aged 65 and older is 8.6%). The number of beneficiaries increased 4.7 times in 2021 compared to 2015.

Figure 3-2 presents Taiwan's government (public sector) expenditures on long-term care. They increased from 14.9 billion TWD in 2012 to 66.7 billion TWD in 2021, marking a 4.5-fold rise. Private sector expenditures, including out-of-pocket costs for long-term care and home nursing, amounted to 105.1 billion TWD in 2021 (MOHW (Taiwan); NHE, annually). Total expenditures on long-term care reached 171.8 billion TWD in 2021, with spending continuing to rise.



Source: (MOHW (Taiwan); NHE, annually)

Note: Government subsidies, long-term care expenditures from the NHI (including administrative costs)

Figure 3-2. LTC expenditure: Taiwan, 2012-2021

Chapter 4. Comparison of NHI Premium in Taiwan and Korea



4.1 NHI Beneficiary

Chapter 4 focuses on both countries' NHI premium collection systems and health insurance premiums. To avail of Taiwan's NHI benefits, individuals must fulfill the specific criteria outlined in the National Health Insurance Act (refer to Table 4-1).

Table 4-1. NHI beneficiary's requirements: Taiwan, 2023

1. Those who have previously insured within the last two years and have a registered domicile in Taiwan or have established a registered domicile for at least six consecutive months in the Taiwan area prior to insurance.
2. The following individuals have established a registered domicile in the Taiwan area at the time of becoming insured. (1) Civil servants or full-time and regularly paid personnel in governmental agencies and public/private schools; (2) Employees of publicly or privately owned enterprises or institutions; (3) Employees other than the insured prescribed in the preceding two items but are otherwise employed by particular employers; (4) Newborns in the Taiwan area; (5) Spouse and offspring of government officials assigned abroad

Source: (NHI Act (Taiwan))

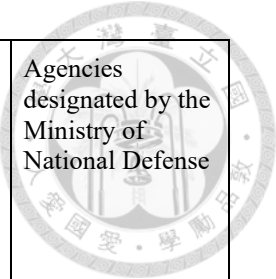
The insured is classified into six categories in Taiwan, as shown in Table 4-2. The NHI covers new immigrants, long-term foreign residents, overseas Chinese and international students, and military personnel. Second-generation NHI included inmates in correctional facilities as beneficiaries as well. To re-enroll in the NHI program, ROC



nationals who have lived abroad for an extended period must have participated in the Universal Coverage and Financial Sustainability Scheme in the past two years or have lived in Taiwan for at least six months. Foreigners must obtain a certificate of alien residence (ARC) and must reside in the Taiwan area for at least six consecutive months (NHIA (Taiwan), annually(b)).

Table 4-2. Classification of NHI enrollees and group insurance applicants: Taiwan, 2023

Category	Item	NHI Enrollees		Group insurance applicants
		the insured	dependents	
1	1	Civil servants or full-time and regularly paid personnel in governmental agencies and public/private schools	1. The insured's spouse who is not employed. 2. The insured's lineal blood ascendants who are not employed. 3. The insured's lineal blood descendants within second degree of relationship who are either minor and not employed, or majority but incapable of making a living, including those who are in school without employment.	Agencies, schools, companies, groups, or individuals
	2	Employees of publicly or privately owned enterprises or institutions		
	3	Employees other than the insured prescribed in the preceding two items but are otherwise employed by particular employers		
	4	Employers or self-employed owners of business		
	5	Independently practicing professionals and technicians		
2	1	Members of an occupational union who have no particular employers, or who are self-employed	Same as the dependent in Category 1	Occupational unions, the Master Mariners Associations, the National Chinese Seamen's unions
	2	Seamen serving on foreign vessels, who are members of the National Seamen's Union or the Master Mariners' Association.		
3	1	Members of the Farmers' Association or the Irrigation Association, or workers aged over fifteen who are actually engaged in agricultural activities.	Same as the dependent in Category 1	Farmers' associations, fishermen's associations
	2	Class A members of the Fishers Association who are either self-employed or have no particular employers, or workers aged over fifteen who are actually engaged in fishery activities		

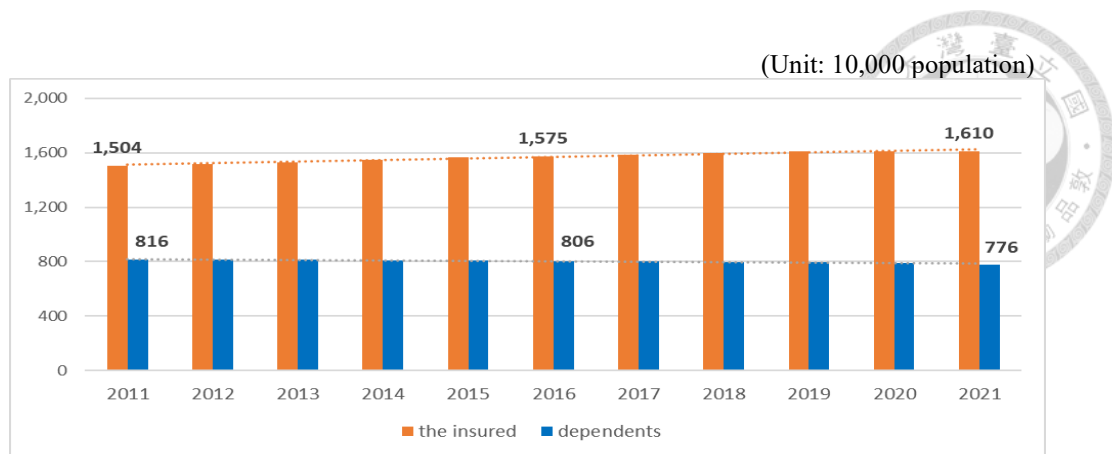


4	1	Military servicemen whose compulsory service terms are over two months or who are summoned to serve in military for more than two months, military school students who receive grants from the government, military servicemen's dependents who lost their support recognized by the Ministry of Defense, and military decedent's families who are receiving pensions due to the death of their decedents.	None	Agencies designated by the Ministry of National Defense
	2	Men at age for enlisting in the military, who are currently in military-substitute service.	None	Agencies designated by the Ministry of the Interior
	3	Those who are serving sentences in correctional institutions or receiving punishments from police and military court-martial. However, this is not applicable to those who are serving sentences of less than two months or are under parole.	None	Agencies designated by the Ministry of Justice and Ministry of National Defense
5		Members of a household of low-income families as defined by the Social Support Law	None	Administrative office of the household is registered
6	1	Veterans, household representatives of survivors of veterans	1. Unemployed spouse 2. Unemployed lineal blood 3. Lineal blood descendants within 2 nd degree of kinship who are either minors and not employed or adults incapable of making a living, including those who are in school without employment	Administrative office of the household is registered
	2	Representatives or heads of household other than the insured or their dependents prescribed in subparagraphs 1 to 5 and the preceding item of this subparagraph	Same as the dependent in Category 1	

Source: (NHI Act (Taiwan); NHIA (Taiwan), annually(b))

Notes: Being unemployed is a prerequisite for an insured to qualify as a dependent or a member of Category 6.

In Taiwan, the proportion of NHI insured increased from 64.9% (15.04 million) in 2011 to 67.5% (16.1 million) in 2021, and the proportion of dependents decreased from 35.1% (8.16 million) in 2011 to 32.5% (7.76 million) in 2021 (Figure 4-1).



Source: (NHIA (Taiwan), annually(a))

Figure 4-1. Beneficiaries of NHI: Taiwan, 2011-2021

Table 4-3. Number of NHI beneficiary by category: Taiwan, 2011-2021

(Unit: 10,000 population)

		2011		2016		2021	
Grand Total	Grand Total	2,320	100%	2,381	100%	2,386	100%
	the insured	1,504		1,575		1,610	
	dependents	815		806		776	
Category 1	Total	1,247	53.8%	1,360	57.1%	1,433	60.0%
	the insured	780		870		934	
	dependents	467		491		499	
Category 2	Total	396	17.1%	372	15.6%	362	15.2%
	the insured	257		242		239	
	dependents	139		131		123	
Category 3	Total	275	11.9%	237	9.9%	201	8.4%
	the insured	179		158		139	
	dependents	96		79		62	
Category 4	Total	16	0.7%	16	0.7%	10	0.4%
	the insured	16		16		10	
	dependents	-		-		-	
Category 5	Total	31	1.3%	32	1.4%	29	1.2%
	the insured	31		32		29	
	dependents	-		-		-	
Category 6	Total	354	15.3%	363	15.3%	352	14.7%
	the insured	241		257		260	
	dependents	113		106		92	

Source: Edited using (NHIA (Taiwan), annually(b)) data

Of the 23.86 million NHI beneficiary as of 2021, the number of people by category was 14.33 million (60.03%) in Category 1, 3.62 million (15.18%) in Category 2, 2.01 million (8.43%) in Category 3, 100,000 (0.41%) in Category 4, 290,000 (1.20%) in Category 5, and 3.52 million (14.74%) in Category 6. Category 1 represents the highest share, from 53.8% in 2011 to 60.0% in 2021, while the rest of the categories are on the decline (Table 4-3).

Table 4-4 shows the proportion of NHI beneficiaries by age, with the proportion of people under the age of 45 decreasing over the past decade and the proportion of people over the age of 45 increasing. Specifically, the percentage of people over 65 and over increased from 10.8% to 16.3%.

Table 4-4. Beneficiaries by age: Taiwan, 2011-2021

(Unit: 10,000 population)

Age	2011		2016		2021	
	Beneficiaries	%	Beneficiaries	%	Beneficiaries	%
Total	2,320	100%	2,381	100%	2,386	100%
0-14	343	14.8%	308	12.9%	285	11.9%
15-29	510	22.0%	485	20.4%	432	18.1%
30-44	580	25.0%	589	24.7%	570	23.9%
45-64	637	27.5%	693	29.1%	710	29.8%
65-	250	10.8%	306	12.9%	389	16.3%

Source: Edited using (NHIA (Taiwan), annually(a)) data

Korean health insurance covers all citizens living in Korea, except those who receive medical aid, and qualifications are the employee-insured, dependents, and the self-employed insured. Workers and employers of all workplaces, public officials, and

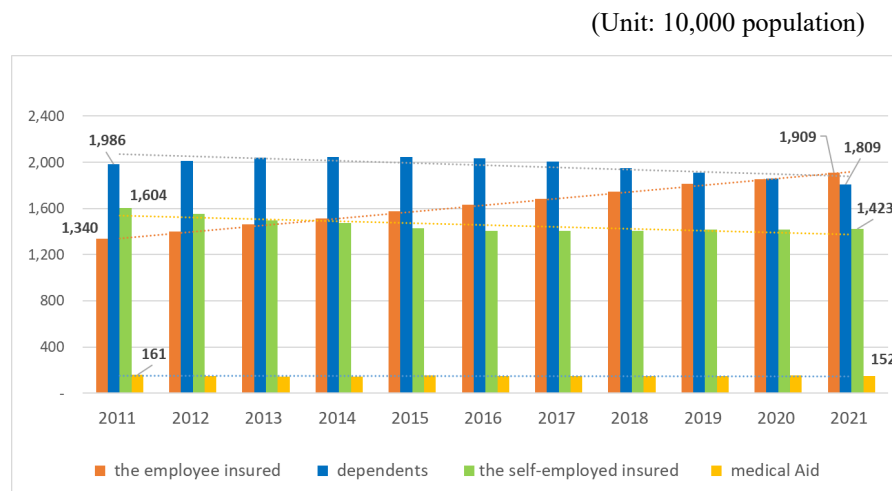
school employees shall become NHI's employee-insured. A dependent is a person who relies mainly on an employee for a living and must meet the requirements for recognition of a dependent (basic requirements, income, and property standards). Table 4-5 shows the insured's types, including the dependents' qualifications. Those who are not employee-insured or dependents are the self-employed insured.

Table 4-5. Types of NHI beneficiaries: Korea, 2023

The employee insured	Workers and employees of all workplaces, employers, public officials, and schools are eligible; provided, however, that those excluded are as follows. - Daily paid workers employed for less than one month; Part-time worker or a part-time worker whose prescribed working hours for one month are less than 60 hours; Part-time faculty members; Workers and employers at workplaces where the location is not constant; Soldiers in active service (including staff sergeants appointed without volunteering), secondment personnel, and candidates for military officers; Public officials who assume office by winning an election
Dependents of the employee-insured	Dependents are supported mainly by the employee insured, and income or property falls below the standards. 1) basic eligibility requirements - the employee-insured spouses, lineal ascendants, lineal descendants, and spouses. - siblings (only, over 65 years of age, under 30 years of age, persons with disabilities, national merit, veterans service) 2) income standard - The total amount of income shall be less than 20 million KRW per year - Where there is no business income (except when there is no business registration), persons with disabilities, persons of national merit, wounded, and persons eligible for veterans shall have an annual business income of 5 million KRW or less - Suspension of business due to closure, etc. Where there is no income other than business income generated from housing reconstruction projects under the Urban and Residential Environment Improvement Act 3) property standard - Spouse, child, parent, direct ascendant, and descendant: one of the following conditions. (1) The total amount of property exceeds 540 million KRW and is less than 900 million KRW, and the total amount of income is less than 10 million KRW per year (2) The total amount of property is less than 540 million KRW - Siblings: The total amount of property is less than 180 million KRW
The self-employed insured	Persons who are neither the employee insured nor their dependents

Source: (NHI Act (Korea); NHIS (Korea))

Since July 1, 1989, National Health Insurance (NHI) has been implemented in Korea, covering all citizens. As of 2021, 97.1% (51.41 million) of the total population was NHI-enrolled, and the remaining 2.9% (1.52 million) used the medical aid system as recipients of basic living security (Figure 4-2).



Source: Using (NHIS (Korea), HIRA (Korea), annually) data

Figure 4-2. Beneficiaries of NHI and medical aid: Korea, 2011-2021

Of the 51.41 million NHI beneficiaries in 2021, the employee-insured beneficiaries accounted for 72.3% with 37.18 million (the insured 19.09 million, dependent 18.09 million), while the self-employed accounted for 27.7% with 14.23 million. The number of employee-insured increased from 13.4 million in 2011 to 19.09 million in 2021, while the number of dependents and self-employed decreased (Table 4-6).

Table 4-7 shows the share of NHI beneficiaries over the past ten years. The proportion of people aged 65 and over has increased from 10.5 % to 16.2 %.

Table 4-6. Beneficiaries of medical coverage (NHI, medical aid): Korea, 2011-2021

(Unit: 10,000 population)

Year	Total	Total	NHI				Medical Aid
			The employee insured			The self-employed insured	
			Total	The insured	Dependents		
2011	5,091	4,930	3,326	1,340	1,986	1,604	161
	%	100	67.5			32.5	
2012	5,117	4,966	3,411	1,399	2,012	1,556	151
2013	5,145	4,999	3,501	1,461	2,040	1,498	146
2014	5,176	5,032	3,560	1,514	2,046	1,472	144
2015	5,203	5,049	3,623	1,576	2,047	1,427	154
2016	5,227	5,076	3,668	1,634	2,034	1,409	151
2017	5,243	5,094	3,690	1,683	2,007	1,404	149
2018	5,256	5,107	3,699	1,748	1,951	1,408	149
2019	5,288	5,139	3,723	1,812	1,910	1,416	149
2020	5,287	5,135	3,715	1,854	1,861	1,420	153
2021	5,293	5,141	3,718	1,909	1,809	1,423	152
	%	100	72.3			27.7	

Source: (NHIS (Korea), HIRA (Korea), annually)

Table 4-7. Beneficiaries by age: Korea, 2011-2021

(Unit: 10,000 population)

Age	2011		2016		2021	
	Beneficiaries	%	Beneficiaries	%	Beneficiaries	%
Total	4,930	100%	5,076	100%	5,141	100%
0-14	760	15.4%	680	13.4%	608	11.8%
15-29	1,013	20.6%	985	19.4%	911	17.7%
30-44	1,278	25.9%	1,186	23.4%	1,105	21.5%
45-64	1,360	27.6%	1,582	31.2%	1,686	32.8%
65-	518	10.5%	645	12.7%	832	16.2%

Source: Edited using (NHIS (Korea), HIRA (Korea), annually) data

Note: Except for medical aid



4.2 NHI Premium Collection

4.2.1 NHI Premium Collection in Taiwan

Taiwan National Health Insurance's general premium rate has changed periodically and has remained at 5.17% since 2021. The premium rate is allowed up to 6% under the current NHI Act as of 2024 (NHI Act (Taiwan)). From 2013, 2.00% of supplementary premiums began to be collected, and as of 2023, the current supplementary premium rate is 2.11% (Table 4-8).

Table 4-8. Annual insurance premium rate: Taiwan. -2023

	-2002.8	2002.9 -2010.3	2010.4 -2012	2013 -2015	2016 -2020	2021 -2023
General premium rate	4.25%	4.55%	5.17%	4.91%	4.69%	5.17%
Supplementary premium rate	-	-	-	2.00%	1.91%	2.11%

Source: (Hsien-Ming Lian et al., 2019; NHIA (Taiwan), annually(b))

If the following events occur, the insurer will readjust the premium rate. The adjustments will be reported and approved by the National Health Insurance Committee (NHIC), the Ministry of Health and Welfare (MOHW), and the Executive Yuan.

1. The reserve fund of this Insurance drops below the total insurance benefit amount for a month
2. Any addition to or reduction in benefit items, contents, or payment schedules

that affects the financial balance of this Insurance (NHI Act (Taiwan)).



Table 4-9. Formulas for NHI general premiums: Taiwan, 2023

Wage earners	The insured	Premium ratable wage $\times$ general premium rate $\times$ contribution ratio $\times$ (1 + number of dependents)
	Group insurance applicant or the government	Category 1 (subcategories 1-3): premium ratable wage $\times$ general premium rate $\times$ contribution ratio $\times$ (1 + average number of dependents)
		Categories 2 and 3: premium ratable wage $\times$ general premium rate $\times$ contribution ratio $\times$ actual number of people insured
Non-wage earning individuals	The insured	Average premium $\times$ contribution ratio $\times$ (1 + number of dependents)
	The government	Average premium $\times$ contribution ratio $\times$ actual number of people insured

Source: (NHIA (Taiwan), annually(b))

Notes: 1. Dependents: The maximum number of dependents is three, even if the number is higher.

2. Average number of dependents: 0.57 as of 2023

3. Average premium for Categories 4-5 insureds: Fully subsidized by the government, premium from 2022 is 1,839 TWD.

4. Average premium for Category 6 insureds: 1,377 TWD from 2021. With the government contributing 40%, each insured shall pay 60% or 826 TWD.

In Taiwan's national health insurance, insureds, employers, and the government jointly contribute to premiums. Premiums for individuals in categories 1 to 3, as specified in Table 4-9, are calculated by multiplying the premium ratable wage by the general premium rate. Meanwhile, premiums for categories 4 to 6 are determined based on the average premium derived from the total number of beneficiaries in categories 1 to 3. The insurance premium for dependents is borne by the insured, and if the number of dependents exceeds three, the premium is calculated up to three. The number of dependents in Category 1 Items 1-3, for whom the group insurance applicants or the government subsidizes premium, shall be the average number of the dependents that the

insured individuals in Category 1 Items 1-3 have (NHI Act (Taiwan)).



Table 4-10. NHI premium contribution ratio: Taiwan, 2023

Classification of enrollees			Contribution ratio (%)		
			The insured	Group insurance applicant	The government
Category 1	Civil servants, public office holders, volunteer military personnel	the insured, dependents	30	70	0
	Private school teachers and staffers	the insured, dependents	30	35	35
	Employees of public/private enterprises and organizations	the insured, dependents	30	60	10
	Employers or the self-employed	the insured, dependents	100	0	0
	Independent professionals and technical specialists	the insured, dependents	100	0	0
Category 2	Occupational union members, foreign crew members	the insured, dependents	60	0	40
Category 3	Members of farmers' and fishermen's associations	the insured, dependents	30	0	70
Category 4	Military conscripts, military academy students who receive grants from the government, dependents of military personnel on pensions, substitute service draftees, inmates in correctional facilities	the insured	0	0	100
Category 5	Low-income households	Household members	0	0	100
Category 6	Veterans, household representatives of survivors of veterans	the insured	0	0	100
		dependents	30	0	70
	Other individuals	the insured, dependents	60	0	40

Source: (NHIA (Taiwan), annually(b), www.nhi.gov.tw)

Table 4-10 shows the premium contribution rate. The NHI provides various premium support and exempts the burden of premiums to reduce the economic burden on the socially and economically underprivileged. For example, the government

subsidizes each of the premiums:

40% are to occupational union members and foreign crew members, 70% are to farmers and fishermen's associations, and 100% are to low-income households (Tung-Liang Chiang et al., 2014).

Table 4-11. Income brackets for premium calculation: Taiwan, 2023

Bracket	Income tier	Monthly premium ratable wage (TWD)	Actual monthly wage (TWD)	Bracket	Income tier	Monthly premium ratable wage (TWD)	Actual monthly wage (TWD)
Bracket 1 1,200 TWD	1	26,400	26,400 or less	Bracket 7 4,500 TWD	28	92,100	87,601-92,100
	2	27,600	26,401-27,600		29	96,600	92,101-96,600
	3	28,800	27,601-28,800		30	101,100	96,601-101,100
Bracket 2 1,500 TWD	4	30,300	28,801-30,300		31	105,600	101,101-105,600
	5	31,800	30,301-31,800	Bracket 8 5,400 TWD	32	110,100	105,601-110,100
	6	33,300	31,801-33,300		33	115,500	110,101-115,500
	7	34,800	33,301-34,800		34	120,900	115,501-120,900
Bracket 3 1,900 TWD	8	36,300	34,801-36,300		35	126,300	120,901-126,300
	9	38,200	36,301-38,200		36	131,700	126,301-131,700
	10	40,100	38,201-40,100		37	137,100	131,701-137,100
	11	42,000	40,101-42,000		38	142,500	137,101-142,500
	12	43,900	42,001-43,900		39	147,900	142,501-147,900
Bracket 4 2,400 TWD	13	45,800	43,901-45,800		40	150,000	147,901-150,000
	14	48,200	45,801-48,200	Bracket 9 6,400 TWD	41	156,400	150,001-156,400
	15	50,600	48,201-50,600		42	162,800	156,401-162,800
	16	53,000	50,601-53,000		43	169,200	162,801-169,200
	17	55,400	53,001-55,400		44	175,600	169,201-175,600
	18	57,800	55,401-57,800		45	182,000	175,601-182,000
Bracket 5 3,000 TWD	19	60,800	57,801-60,800	Bracket 10 7,500 TWD	46	189,500	182,001-189,500
	20	63,800	60,801-63,800		47	197,000	189,501-197,000
	21	66,800	63,801-66,800		48	204,500	197,001-204,500
	22	69,800	66,801-69,800		49	212,000	204,501-212,000
	23	72,800	69,801-72,800		50	219,500	212,001 or more
Bracket 6 3,700 TWD	24	76,500	72,801-76,500				
	25	80,200	76,501-80,200				
	26	83,900	80,201-83,900				
	27	87,600	83,901-87,600				

Source: (NHIA (Taiwan), www.nhi.gov.tw)

Note: Effective from 2023



Effective since 2023, Table 4-11 consists of 50 income brackets. The Ministry of Health and Welfare formulates a grading table that determines the payroll-related amount for individuals in categories 1 to 3, which the Executive Yuan then approves. The minimum in the said grading table of the insured payroll-related amount shall equal the base salary promulgated by the central competent authority in charge of labor affairs (NHI Act (Taiwan)).

Beginning 2023, the minimum premium ratable wage for Category 2-insureds with no particular employers and the premium ratable wage for Category 3-insureds—farmers and fishermen—are both 26,400 TWD. The amount at the top level of the grading table of the insured payroll-related amount has to be kept fivefold higher than the amount at the bottom level, and the grading table has to be revised one month after the basic salary is adjusted. In case the number of the insured applicable to the highest level of insured payroll-related amount exceeds three percent of the total number of the insured for twelve consecutive months, the Ministry of Health and Welfare shall readjust the grading table of the insured payroll-related amount to advance to a higher level starting the following month (NHI Act (Taiwan)).

Taiwan introduced supplementary premiums in 2013 through the second-generation health insurance reform to stabilize the income base of health insurance and increase the equity of the premium burden based on actual income among

the insured. Supplementary premiums include high bonuses (bonuses exceeding four times the insured's monthly salary basis), part-time job income, professional practices income, dividends on stock holding, interest income, and rental income in the calculation (Table 4-12). However, low-income households are not subject to supplementary premiums.

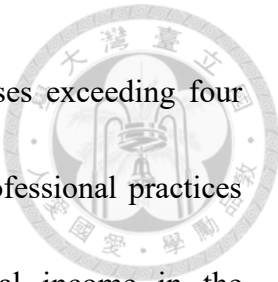


Table 4-12. Premiums for second-generation NHI: Taiwan, 2023

Premiums for second-generation NHI = general premiums + supplementary premiums	
Subject to supplementary premium payment: Category 1-4 and 6 insured	
General premiums	Categories 1-3: Premium ratable wage × General premium rate × Contribution ratio × (1 + Number of dependents) * Contribution ratio: with Category 1 taken as an example, the individual contribution ratio is 30% * Number of dependents: The number is capped at three, even if the number is higher. Categories 4-6: Fixed premium
Supplementary premiums	Big-bonuses Professional service income Part-time income Dividend income Interest income Rental income × Supplementary premium rate

Source: (NHIA (Taiwan), annually(b))

Notes: Part-time income: Income other than wages paid by the group insurance applicant.

Table 4-13 shows the types of income subject to supplementary premiums and the lower and upper limits of insurance premium collection.

Table 4-13. Upper and lower limits of supplementary premiums: Taiwan, 2023

Type of income	Lower limit	Upper limit
Annual bonuses exceeding four times the insured's monthly salary basis	None	10 million TWD more than four times the salary basis for that month, received in a single payment
Wages from part-time jobs	Single payments equal to or above the national minimum wage	10 million TWD (received in one payment)
Fees from professional practices	20,000 TWD (received in one payment)	
Stock dividend income	1. Those insured as employers or self-employed; single payments amounting to 20,000 TWD higher than the salary basis registered to calculate insurance premiums 2. Those not insured as employers or self-employed; single payments of at least 20,000 TWD	1. Those insured as employers or self-employed; single payments amounting to 10 million TWD more than the salary basis registered to calculate insurance premiums 2. Those not insured as employers or self-employed; single payments limited to 10 million TWD
Interest income	20,000 TWD (received in one payment)	10 million TWD (received in one payment)
Rental income		

Source: (NHIA (Taiwan), 2019)

Note 1. When income subject to the supplementary premium exceeds the minimum threshold, the supplementary premium is calculated based on the total amount of income. If it exceeds the upper limit for income subject to the supplementary premium, then the upper limit amount is used to calculate the premium.

2. Members of low and middle-income households, low- and middle-income seniors, disadvantaged children and adolescents receiving living subsidies, individuals with disabilities receiving living subsidies, individuals subsidized due to particular family circumstances, and individuals facing economic hardship by NHI Act are exempt from supplementary insurance premiums on fees from professional practices, dividend income, interest income, or rental income, provided single payments do not reach the statutory minimum wage.

One of the most significant aspects of the current second-generation NHI system reform was restructuring the insurance premium collection system. Let us explore the changes that have occurred.

Taiwan's NHI began to suffer financial imbalance in 1998, and the government



commissioned the National Health Research Institutes (NHRI) in 2000 to form a team to review health insurance, including sustainability. The subsequent year, 2001, saw the establishment of a second-generation NHI planning task force to assess various health insurance issues. The process of reforming the NHI system proved challenging, taking nearly 13 years to revise the law since the formation of the NHRI team tasked with reviewing the NHI system (Teh-wei Hu, 2020).

As shown in Table 4-14, the task force recommended calculating premiums based on household income, which means using items specified in the Income Tax Act. Still, the Executive Yuan did not accept the proposal because it was expensive to collect insurance premiums. As an alternative, the revised law collected supplementary premiums. Since this is a collection of data other than income tax, there has also been an increase in management costs (Teh-wei Hu, 2020).

In any case, the objective of the second-generation NHI reform was to achieve equity in the burden of insurance premiums based on solvency and to secure insurance finances stably by restructuring the collection system. While the current insurance premium collection system for each applicable group remains unchanged, supplementary premiums can be calculated and collected on insured individuals who are more financially capable with additional income (Gye-Hyeon Kim, Han-Na Kim, 2013).

The health insurance-related committee underwent reorganization, merging the

Supervisory Committee, which handled total income considerations, with the Medical Expenditure Negotiation Committee responsible for expenditure decisions. This integration ensures efficiency in managing insurance finances by considering income and expenditure (Gye-Hyeon Kim, Han-Na Kim, 2013).

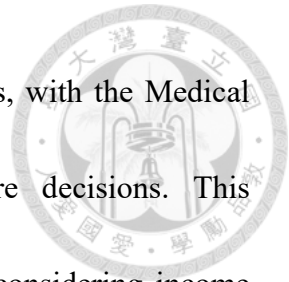


Table 4-14. Comparison of the NHI before and after reform: Taiwan

Primary reform items	First-generation NHI (until 2012)	Task force recommendations	Amended NHI Act, Second-generation NHI (2013~present)
Balancing finances and increasing service purchase efficiency	1. Premium calculations based on individual income 2. The insured is divided into 6-categories and 14 subcategories.	1. Premium calculations based on household income 2. Elimination of categories for insured	1. Premium calculations based on individual income + supplementary premiums 2. The insured is still in 6 categories and 15 subcategories. Since 2013, inmates in correctional facilities have been eligible for category-4 beneficiaries.
Expanding public participation in NHI policies	Fee schedule for medical services and reference list for drugs, to be established jointly by the Insurer and contracted medical care institutions and reported to the Ministry of Health and Welfare for approval	1. Expanded public participation in NHI policies 2. Inclusion of social welfare groups (such as patient groups) 3. Establishment of diverse decision participation and negotiation model 4. Promoting public knowledge and capabilities for participation in policy-making 5. Addition of deliberatively democratic civil participation to necessary procedures in the making of significant policies	Addition of representatives of insurance payers (insured and employers), relevant authorities, and experts in negotiations
Constructing health care organization system with matching responsibilities	Revenues and expenditures, respectively, are controlled by the Supervisory Committee and Medical Expenditure Negotiation Committee.	Merging two committees into NHIC	Merging of Supervisory Committee and Medical Expenditure Negotiation Committee into NHIC

Source: (NHIA (Taiwan), www.nhi.gov.tw; Teh-wei Hu, 2020)

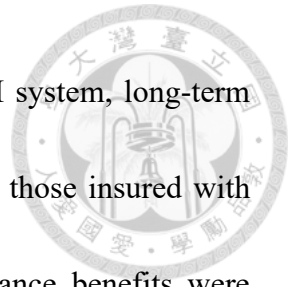


Additionally, the Taiwan government enhanced its financial commitment to the health insurance system. Even under the old NHI system, the government's financial support was more than 30%, but the second-generation NHI system reform specified the government's financial responsibility in law. Consequently, the Taiwanese government now shoulders over 36% of the total insurance finances, excluding levies such as tobacco taxes and lottery profits. This move addresses public concerns about the potential decline in government subsidies and reflects the government's strong commitment to sustaining and advancing the health insurance system (Gye-Hyeon Kim, Han-Na Kim, 2013).

In addition, there have also been changes in insurance qualification requirements, such as expanding government support for the underprivileged but tightening the criteria for obtaining qualifications. Insurance benefits should not be restricted for the vulnerable (people in economic difficulties, victims of domestic crimes under protection, and those who cannot stand on their own feet), and the insured living in areas where medical resources are scarce will be reduced or exempted from their contributions (Soo-Ra Seo et al., 2022).

Meanwhile, insurance benefits for migrants and long-term overseas residents were restricted. In the case of the first-generation NHI system, those previously insured with health insurance could immediately receive insurance benefits even if they stayed

abroad for a long time. However, under the second-generation NHI system, long-term overseas residents would receive health insurance benefits only for those insured with health insurance for the past two years. In addition, health insurance benefits were allowed only after six months for those who had their first residence in Taiwan (The first-generation system can benefit after four months) (Soo-Ra Seo et al., 2022).



4.2.2 NHI Premium Collection in Korea



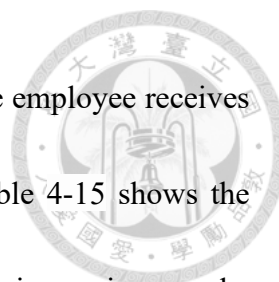
Korea's health insurance established a single financial system by integrating employee and self-employed health insurance in 2003. However, insurance collecting premiums segregate them between employee-insured and self-employed insured individuals.

For premiums, the income-proportional rate system applies to employee-insured individuals who are wage workers. The self-employed insured, such as farmers, fishermen, and urban self-employed, not only have a wide range of targets but also have various types of income, making it difficult to identify income accurately; instead of the income proportional rate system, the amount calculated by multiplying the insurance premium point (income, property, and automobile) by the unit price per point is applied (MOHW (Korea), annually(d)).

[the employed insured] First, examine the calculation of insurance premiums for the employee insured. The insurance premiums collection relies on the income capacity of the employee, and the total amount of remuneration for the current year is reported and settled after imposing insurance premiums on the monthly salary reported in the previous year. The following is an insurance premium calculation formula.

The employee-insured premium = monthly average wage × premium rate*

* 7.09 % (as of 2023)



The monthly average wage is the total remuneration (salary) the employee receives in the current year divided by the number of working months. Table 4-15 shows the change in premium rates from 2011 to 2023, which is steadily increasing yearly. Presidential Decree shall determine the insurance premium rates for employee-insured individuals within the limit of 80/1,000 following a resolution by the Health Insurance Policy Deliberative Committee (NHI Act (Korea)).

Table 4-15. Annual premium rate: Korea, 2011-2023

2011	2012	2013	2014	2015	2016-2017	2018	2019	2020	2021	2022	2023
5.64%	5.80%	5.89%	5.99%	6.07%	6.12%	6.24%	6.46%	6.67%	6.86%	6.99%	7.09%

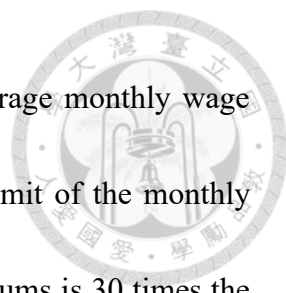
Source: (NHIS (Korea), www.nhis.or.kr)

Table 4-16 shows the contribution ratio of insurance premiums. For the total insurance premium that applies the premium rate to the monthly remuneration calculated based on the compensation received by the worker for a certain period, the employer (or government) and the insured pay 50% each.

Table 4-16. Premium contribution ratio: Korea, 2023

Classification	Total	The insured	Employer	Government
Employee	7.09% (100%)	3.545% (50%)	3.545% (50%)	
Public official	7.09% (100%)	3.545% (50%)		3.545% (50%)
Private school employee	7.09% (100%)	3.545% (50%)	2.127% (30%)	1.418% (20%)

Source: (NHIS (Korea), www.nhis.or.kr)



The lower limit of monthly premiums is about 8% of the average monthly wage premium for the employee insured two years ago, and the lower limit of the monthly premium in 2023 is 19,780 KRW. The upper limit of monthly premiums is 30 times the average monthly wage premium for the employee insured two years ago, and the upper limit of monthly premiums in 2023 is 7,822,560 KRW. The difference between the lower and upper limits of the monthly wage premium is about 396 times (Table 4-17).

Table 4-17. Lower and upper limit of monthly wage premium: Korea, 2023

The lower limit of monthly wage premiums	The upper limit of monthly wage premiums
about 8% of the average monthly wage premium two years ago	30 times the average monthly wage premium two years ago
19,780 KRW (As of 2023) The lower limit of monthly remuneration is 279,266 KRW, obtained by calculating the lower limit of monthly premiums in reverse.	7,822,560 KRW (As of 2023) The upper limit of monthly remuneration is 110,332,300 KRW, obtained by calculating the upper limit of monthly premiums in reverse.

Source: Edited using (MOHW (Korea); Public notice; NHIS (Korea), www.nhis.or.kr) data

Note: The average monthly wage premium for 2021 is 260,752 KRW

In addition to monthly wage premiums, starting in September 2012, if the employee insured has more than a certain amount of income, they will have to pay additional monthly income premiums. Initially, those whose gross income exceeded 72 million KRW a year had to pay monthly income insurance premiums. However, the standard was subsequently reduced to 34 million KRW (median income level based on two-person households, as of 2017) starting from July 2018 and further lowered to 20

million KRW (60% of the median income for a two-person household, as of 2017) per year from September 2022 (MOHW (Korea), annually(d)).



Before September 2012, the insurance premium collection standard was only employee remuneration (earned income). However, with the diversification of income sources for the employee insured, a problem arose where premiums were collected only on remuneration, even if there was a substantial amount of comprehensive income beyond remuneration. In particular, there were cases in which wealthy individuals, disguising themselves as employees, evaded insurance premium obligations, or affluent individuals with significant rents, business income, and dividend income paid insurance premiums at a rate similar to ordinary employees. To address these issues and enhance fairness in premium collection, the government introduced a monthly income premium system for employees, placing the responsibility for premium payments on the workers (MOHW (Korea), annually(d)).

The formula for calculating monthly income insurance premiums is as follows.

The employee-insured monthly income premium = [(annual non-wage income – 20 million KRW*) ÷ 12 months] × income evaluation rate × premium rate**

* Deductible amount

** 7.09% (as of 2023)

Monthly income premiums are collected by dividing the remaining amount after deducting 20 million KRW from non-wage income by 12 and multiplying it by the ratio

of the amount according to the type of income, etc. The income evaluation rate is 100% of the income under the Income Tax Act for interest, dividends, business, and other income, and earned income and pension income are 50% of the total income under the Income Tax Act (NHIS (Korea), HIRA (Korea), annually). As of 2023, the monthly income premium range for the insured is 19,780 KRW to 3,911,280 KRW (MOHW (Korea); Public notice).

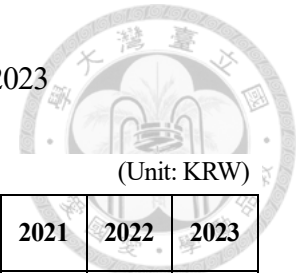
[the self-employed insured] The following is how to calculate health insurance premiums for self-employed insured persons. Premiums for self-employed insureds are calculated and charged per household (MOHW (Korea), annually(d)). And are the total premium points of the insured's income, property, and auto multiplied by the amount per point. The formula for calculating the health premium for the self-employed insured is as follows.

The self-employed insured premium = premium point × amount per premium point*

* 208.4 KRW (as of 2023)

The Presidential Decree shall prescribe the monetary value per premium point for each self-employed insured after deliberation by the Health Insurance Policy Deliberative Committee (NHI Act (Korea)). Table 4-18 shows the annual amount per premium point.

Table 4-18. Amount per premium point: Korea, 2011-2023



(Unit: KRW)

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
165.4	170.0	172.7	175.6	178.0	179.6	179.6	183.3	189.7	195.8	201.5	205.3	208.4

Source: (NHIS (Korea), HIRA (Korea), annually)

The income point, one of the three criteria for the premium points, is the total amount of interest, dividends, business, earned, pension, and other income under the Income Tax Act.

For households with an annual income of 3.36 million KRW or less, the monthly insurance premium is 19,780 KRW, the lower limit. Households with a yearly income exceeding 3.36 million KRW are charged a premium according to the income point calculation method (fixed rate system), as shown in Table 4-19.

Table 4-19. Income points calculation method: Korea, 2023

Amount of income	points
3,360,000 KRW or less	No point : lower limit of monthly premiums (19,780 KRW, as of 2023)
3,360,000 KRW over - 661,990,000 KRW or less	95.25911708 points + 2,835.0928 / 10,000 points per 10,000 KRW when it exceeds 3,360,000 KRW
661,990,000 KRW over	18,768.13 points

Source: Edited using (NHIS (Korea), HIRA (Korea), annually) data

Property points are divided into 60 ratings, as shown in Table 4-20, and include land, houses, buildings, ships, aircraft, monthly rent, and more.

Table 4-20. Point by property rating: Korea, 2023

(Unit: 10,000 KRW, point)

Rating	Property amount (10,000 KRW)	Point	Rating	Property amount (10,000 KRW)	Point
1	450 or less	22	31	38,800 over - 43,200 or less	757
2	450 over - 900 or less	44	32	43,200 over - 48,100 or less	785
3	900 over - 1,350 or less	66	33	48,100 over - 53,600 or less	812
4	1,350 over - 1,800 or less	97	34	53,600 over - 59,700 or less	841
5	1,800 over - 2,250 or less	122	35	59,700 over - 66,500 or less	881
6	2,250 over - 2,700 or less	146	36	66,500 over - 74,000 or less	921
7	2,700 over - 3,150 or less	171	37	74,000 over - 82,400 or less	961
8	3,150 over - 3,600 or less	195	38	82,400 over - 91,800 or less	1,001
9	3,600 over - 4,050 or less	219	39	91,800 over - 103,000 or less	1,041
10	4,050 over - 4,500 or less	244	40	103,000 over - 114,000 or less	1,091
11	4,500 over - 5,020 or less	268	41	114,000 over - 127,000 or less	1,141
12	5,020 over - 5,590 or less	294	42	127,000 over - 142,000 or less	1,191
13	5,590 over - 6,220 or less	320	43	142,000 over - 158,000 or less	1,241
14	6,220 over - 6,930 or less	344	44	158,000 over - 176,000 or less	1,291
15	6,930 over - 7,710 or less	365	45	176,000 over - 196,000 or less	1,341
16	7,710 over - 8,590 or less	386	46	196,000 over - 218,000 or less	1,391
17	8,590 over - 9,570 or less	412	47	218,000 over - 242,000 or less	1,451
18	9,570 over - 10,700 or less	439	48	242,000 over - 270,000 or less	1,511
19	10,700 over - 11,900 or less	465	49	270,000 over - 300,000 or less	1,571
20	11,900 over - 13,300 or less	490	50	300,000 over - 330,000 or less	1,641
21	13,300 over - 14,800 or less	516	51	330,000 over - 363,000 or less	1,711
22	14,800 over - 16,400 or less	535	52	363,000 over - 399,300 or less	1,781
23	16,400 over - 18,300 or less	559	53	399,300 over - 439,230 or less	1,851
24	18,300 over - 20,400 or less	586	54	439,230 over - 483,153 or less	1,921
25	20,400 over - 22,700 or less	611	55	483,153 over - 531,468 or less	1,991
26	22,700 over - 25,300 or less	637	56	531,468 over - 584,615 or less	2,061
27	25,300 over - 28,100 or less	659	57	584,615 over - 643,077 or less	2,131
28	28,100 over - 31,300 or less	681	58	643,077 over - 707,385 or less	2,201
29	31,300 over - 34,900 or less	706	59	707,385 over - 778,124 or less	2,271
30	34,900 over - 38,800 or less	731	60	778,124 over	2,341

Source: (NHIS (Korea), HIRA (Korea), annually)

There are seven ratings of automobile points (Table 4-21). It applies only to passenger cars with less than nine years of usage and a residual value exceeding 40 million KRW (excluding vehicles used for livelihood) (NHIS (Korea), HIRA (Korea), annually).

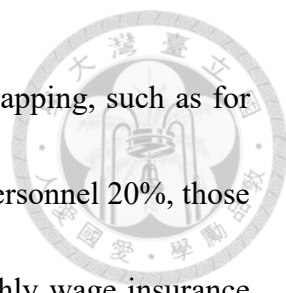
Table 4-21. Point by automobile rating: Korea, 2023

Rating	Engine	Point by years of use		
		less than 3 years	3 - 6 years	6 - 9 years
1	800cc or less	18	14	11
2	800cc over - 1,000cc or less	28	23	17
3	1,000cc over - 1,600cc or less	59	47	35
4	1,600cc over - 2,000cc or less	113	90	68
5	2,000cc over - 2,500cc or less	155	124	93
6	2,500cc over - 3,000cc or less	186	149	111
7	3,000cc over -	217	173	130

Source: (NHIS (Korea), HIRA (Korea), annually)

Reduction and exemption are also applied when paying insurance premiums, and the main targets and insurance reduction rates are as follows. In case of duplication, the maximum reduction rate is 50% (excluding those on parental leave) (NHI Act (Korea)).

- Reduction of health insurance premiums: persons who work abroad (if they have dependents in Korea) 50%, residents of an island or a remote area 50%, residents of farming and fishing villages 22% (a farming and fishing worker 28%), specific



households (application of a single favorable ratio in cases of overlapping, such as for the elderly, disabled, and single-parent families.) 10-30%, military personnel 20%, those on leave of absence 50% (parental leave is the lower limit of monthly wage insurance premiums), disaster 30-50%, the voluntary continuing employee insured 50% (Where a person whose relationship with the employer has ended intends to pay the employee insured's premium for a certain period. The aim is to ease the financial burden on the unemployed.)

- Exemption from health insurance premiums is granted for a stay abroad lasting at least three months (for individuals without dependents in Korea). Furthermore, proven overseas workers are eligible for an exemption more than one month. This exemption applies to military personnel and individuals detained in a prison or equivalent facility (NHIS (Korea), www.nhis.or.kr).

A closer examination of the premium collection system reforms in 2018 and 2022 is more helpful in understanding the government's direction and purpose behind collecting insurance premiums.

The reason for collecting premiums on property and automobile in addition to income for the self-employed is due to the different income structures of employee and self-employed insured and the relatively low rate of income capture for the self-employed (Shim-Myung Moon, 2021).

In the premium collection system before July 2018, self-employed individuals paid insurance premiums based on their estimated income—gender, age, income, property, the standard of living, and economic activity participation (Shim-Myung Moon, 2021).

There were also criticisms that it was unfair and unreasonable because the properties and cars of self-employed insured individuals were counted twice, both as estimated income and premium points (MOHW (Korea), annually(d)). The National Health Insurance Service committed significant resources in workforce and administrative expenses to address tens of millions of complaints related to insurance premiums each year (Seung-Ji Lim et al., 2022).

Additionally, the tragic incident of a mother and two daughters' suicide in Songpa in February 2014 not only highlighted welfare blind spots but also brought attention to concerns regarding the health insurance collection system (Seung-Ji Lim et al., 2022). They were classified as at-risk households but could not benefit from the national basic livelihood security system due to loss of contact and unknown whereabouts. They also could not afford the insurance premiums. However, due to their estimated income, such as their relatively young age and room rent, they had to pay monthly premiums of around 50,000 KRW.

There was continued criticism that the insurance premium for the self-employed based on estimated income was excessive compared to the actual income. Collecting

premiums based on sex and age led to unreasonable premium increases when a child was born, or a child's age increased, even if the income was the same (MOHW (Korea), annually(d)).



Employed insured individuals pay premiums based on their monthly wage, not their actual income. Consequently, workers with high non-wage incomes pay less premiums than their actual income. Even if workers earned a significant amount from interest, dividends, and rental income, they would only pay supplementary premiums when their income exceeded 72 million KRW (an average of 6 million KRW per month) (MOHW (Korea), annually(d)).

In the case of dependents, they did not pay insurance premiums even if they could afford it because the criteria for recognizing dependents were broad, and the criteria for income and property requirements were lax. The range of dependents was widely recognized, including non-cohabitant families and siblings. Even with an annual income of up to 40 million KRW in each income category (financial, pension, earned + other income), they became dependents, so they did not pay a single penny in insurance premiums, even if they earned 120 million KRW annually. In the case of a couple, even if the total assets of the couple amount to 1.8 billion KRW with an individual property value of 900 million KRW, they were recognized as dependents. Disabled people were identified as dependents, no matter how much property they had. The dependents ratio

before the reorganization of the collection system was 1.20 as of January 2018, the highest among major social insurance countries (Seung-Ji Lim et al., 2022).



In July 2013, the government established a task force to enhance the collection system. Subsequently, the National Health Insurance Act, debated and agreed upon by the National Assembly, was amended in March 2017 to implement an income-based premium collection system in two phases, the first in 2018 and the second in 2022 (MOHW (Korea), 2022(a)).

The direction of the first phase of the collecting system reorganization, which took effect in July 2018, is to lower premiums for low-income families and ensure that high-income families pay appropriate premiums (Table 4-22). The previously collected pension income and earned income have been increased from 20% to 30% to expand the income-oriented collection (NHIS (Korea), HIRA (Korea), annually).

Previously, workers with annual non-wage income exceeding 72 million KRW paid monthly additional income premiums. In the first stage of reform, however, the standard for non-wage income became 34 million KRW, and after deducting this amount, the workers paid insurance premiums for the excess.

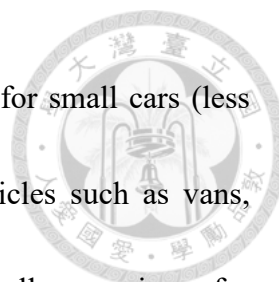
To solve the problem of not charging insurance premiums to dependents despite having income and property, the government has gradually phased in high-income and high-property dependents as self-employed insured. In the first stage of reform,

dependents whose comprehensive income standard exceeds the median income level (34 million KRW per year) of a two-person household will be the self-employed insured.

In addition, adjusting the existing high property standard (900 million KRW for the property), if the property exceeds 540 million KRW and the income exceeds 10 million KRW per year, it had improved to be converted to the self-employed insured and pay premiums. Narrow the scope of dependent eligibility criteria to exclude siblings by default. Siblings who cannot stand independently, such as those aged 65 or older, those under 30, those disabled, and those with national merit, can maintain their status as dependents (MOHW (Korea), 2018).

The government abolished the estimated income premium for self-employed insured and introduced the minimum premium. Since the estimated income increases premiums as the number of household members increases, there is a problem of rising premiums for low-income and multi-family vulnerable households (Seung-Ji Lim et al., 2022). It even collected minimum premiums for self-employed insured below a certain level (annual income of less than 1 million KRW).

The government has introduced a deductible system for property premiums, thereby reducing the proportion of property and lowering auto premiums. Before the reform, premiums were collected for all cars under 15 years old except for business use. However, after the reform, the government collected premiums only for passenger cars

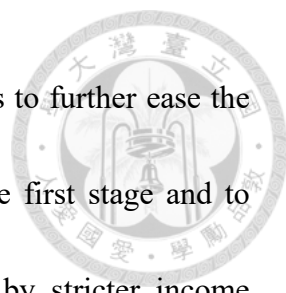


worth more than 40 million KRW. There is no insurance premium for small cars (less than 1,600cc, less than 40 million KRW), livelihood-purpose vehicles such as vans, cargoes, specialized cars, and cars older than nine years. Additionally, premiums for 1600cc-3000cc vehicles (valued at less than 40 million KRW) are reduced by 30%.

Table 4-22. Contents of 2018 premium collection system reform (step 1): Korea

◎ The 1st stage of reform will commence in July 2018, with the 2nd stage scheduled for execution in 2022 following an evaluation of the effectiveness of the initial implementation. 1. The employee insured: Out of 16.89 million households with the employee insured, 150,000 households raise premiums, and 16.74 million households without change in premium. - 1% of workers (150,000 households) with high income outside salary pay a supplementary premium. 2. Dependents: Out of the 2,003 million dependents, 300,000 households turned to the self-employed insured, 19.68 million maintained dependents - 70,000 households with high-income dependents switched to the self-employed insured. - In principle, the employee-insured brothers and sisters (230,000 households) are turned to the self-employed insured. (Provided, however, that those under 30 years of age, 65 years of age or older, disabled people, etc., maintain dependents when they meet income and property standards) - 30% reduction in premium burden in case of becoming self-employed insured. 3. The self-employed insured: Out of 7.63 million households with the self-employed insured, 5.89 million households reduced premiums, 390,000 households raised premiums, and 1.35 million households without change in premium. - Estimated income premiums collected on sex, age, etc., were abolished after 18 years. - 61% (11.8 million households) of the insured who have paid automobile premiums now do not have to pay automobile premiums. - 31% (1.91 million households) of the insured who have paid property premiums now do not have to pay property premiums. - 77% of the self-employed insured (5.89 million households) will see their premiums reduced by 21% (22,000 KRW).

Source: (MOHW (Korea), 2018)



The second stage of the premium collection system reform was to further ease the burden of premiums on the self-employed insured compared to the first stage and to collect an appropriate premium burden on income and property by stricter income standards for dependents and non-wage income. Table 4-23 is the main contents of the second stage of the reform plan announced in 2022. In line with the plans to overhaul the collection system announced in March 2017, the government has revised the details to reflect recent inflation and real estate growth (Seung-Ji Lim et al., 2022).

The criteria for collecting non-wage income for the employee-insured have been strictly changed from 34 million KRW in the first stage to more than 20 million KRW in the same way as the improvement plan announced in 2017. For dependents, the property threshold was to be adjusted from 540 million KRW to 360 million KRW under the March 2017 premium reform plan. Still, with the recent significant increase in home prices, the property requirement remains unchanged (MOHW (Korea), 2022(a)). And, as the income standards for dependents become stricter, premiums will be reduced differentially for four years for households whose premiums have risen more than before. The reduction rate is applied differentially to 80% in the first year, 60% in the second year, 40% in the third year, and 20% in the fourth year.

In the case of the self-employed insured, the income premium system will transition to a fixed premium rate. And it links the minimum monthly remuneration

amount with the minimum premium. After the reform, self-employed insured individuals will see an expansion of the property deduction to 50 million KRW, and the housing financial debt deduction will also be applied. And cars under 40 million KRW don't have to pay insurance. The government has decided to implement a total reduction for two years and a 50% reduction for the next two years for households whose insurance premiums have risen more than before.

Table 4-23. Contents of the 2022 premium collection system reform (step 2): Korea

© Following the first reform (July 2018) under the agreement of the ruling and opposition parties, the second reform scheduled for September 2022 will take place. 1. The employee insured: Among the employee-insured (19.09 million), 450,000 people saw increased insurance premiums, and 18.64 million remained unchanged. - Premiums for workers of 2% (450,000 people) with high non-wage income will increase, and most premiums for 98% of workers remain unchanged. 2. Dependents: Of the 18.09 million dependents, 180,000 households (273,000 people) became self-employed insured, and 17.817 million (98.5%) remained dependent. - Dependents (270,000 people) who can pay premiums become self-employed insured and receive a temporary reduction in some insurance premiums for four years. 3. The self-employed insured: Out of 8.59 million households with the self-employed insured, 5.61 million households (65%) reduced premiums by 24% (36,000 KRW), 230,000 households increased premiums, and 2.75 million households remained unchanged. - Property premiums decreased by 24.5% due to the expansion of property premium deduction (50 million KRW). - Introduction of the same income premium rate system as the employee insured instead of the rating point system - Reduction of automobiles subject to insurance premiums (1.79 million cars → 120,000 cars) - Unify minimum premiums to the same level as the insured employee. Households with an increase in premiums (average 4,000 KRW per month) will receive a temporary reduction due to the change in the minimum premium standard.

Source: (MOHW (Korea), 2022(a))

Table 4-24 summarizes the data, reflecting recent changes in the first and second stages of the premium collection system reform.



Table 4-24. Comparison of the NHI before and after reform: Korea

Primary reform items	Before the premium collection system reform (Until 2018.6)	Reform of the premium collection system (Step 1) (2018.7~2022.8)	Reform of the premium collection system (Step 2) (2022.9~ Present)
I. Whole (common)			
Pension, earned income premium reflection rate	20%	30%	50%
II. The employee insured			
Monthly wage premium upper limit	4,873,440 KRW (monthly wage 78.1 million KRW)	30 times the average monthly premium of the employee insured two years ago * 6,193,140 KRW (as of 2018)	30 times the average monthly premium of the employee insured two years ago
Scope of collection of non-wage income (monthly income premium)	Additional insurance premiums if it exceeds 72 million KRW per year * [(Total amount of non-wage income / 12 months) × 50% of premium rate	Additional insurance premiums if it exceeds 34 million KRW per year * [(Total amount of non-wage income - deductible amount; 34 million) / 12 months] × premium rate	Additional insurance premiums if it exceeds 20 million KRW per year * [(Total amount of non-wage income - deductible amount; 20 million) / 12 months] × premium rate
Monthly income premium upper limit	2,436,720 KRW (monthly income 78.1 million KRW)	15 times the average monthly premium of the employee insured two years ago * 3,096,570 KRW (as of 2018)	15 times the average monthly premium of the employee insured two years ago
III. Dependents			
Criteria for dependents (siblings)	Recognize brothers and sisters as dependents. (Each type of income is 40 million KRW or less, property is 300 million KRW or less)	Siblings are not dependents in principle. Provided that only those who meet property and income requirements among persons under the age of 30, 65, or older, and persons with disabilities are recognized. (Annual income of less than 34 million KRW, property of less than 180 million KRW)	Siblings are not dependents in principle. Provided that only those who meet property and income requirements among persons under the age of 30, 65, or older, and persons with disabilities are recognized. (Annual income of less than 20 million KRW, property of less than 180 million KRW)
Income standard	Each type of income 40 million KRW or less (Financial, pension, earned + other income)	Annual income of less than 34 million KRW	Annual income of less than 20 million KRW
Property standard	900 million KRW or less * Siblings: 300 million KRW or less	540 million KRW or less * If the property exceeds 540 million KRW and is less than 900 million KRW, converted to the self-employed insured only if their annual income exceeds 10 million KRW.	
If the dependent becomes a self-employed insured	-	30% reduction ratio for four years	The step-by-step reduction ratio for four years (80% → 60% → 40% → 20%)

IV. the self-employed insured			
Income premium	Estimated income such as sex, age, etc (Households with an annual income of 5 million KRW or less)	Abolition of estimated income	Abolition of the rating system
Income points, premium rate	Rating system * taxable income 75 rating, 5 - 499 million KRW	Income point system *97 rating, 1 million - 1.14 billion KRW	Premium rate system * apply the same as the employee-insured (6.99%, as of 2022)
The monthly premium upper limit	2,324,240 KRW (12,680 premium points)	15 times the average monthly premium of the employee insured two years ago * 3,096,570 KRW (as of 2018)	15 times the average monthly premium of the employee insured two years ago
The monthly premium lower limit	3,660 KRW (20 premium points)	Introduction of minimum premiums * Annual income of less than 1 million KRW (13,100 KRW as of 2018)	Annual income of 3.36 million KRW or less (19,500 KRW, as of 2022)
Minimum income premium reduction		If the current premium is lower than the minimum, it will remain at the current level. * Full reduction of the increase for four years	Reduction for households whose premiums have risen more than before. * Full reduction of the increase over two years, then a 50% reduction over the next two years
Property deduction	No deduction *Exceptional deduction of 5 million KRW for lease deposit	Differential deduction from 5 to 12 million KRW	50 million KRW deduction
Property rating	50 rating (1 million to 3 billion KRW) * Property + [(monthly rent – basic deduction) × 30%]	60 rating (1 to 7.78124 billion KRW) * [Property + (monthly rent × 30%)]- Basic deduction	60 rating (1 to 7.78124 billion KRW) * [Property + (monthly rent × 30%)] - 50 million KRW basic deduction - Financial liabilities deduction
Financial liabilities	-	-	Purchase of a house for the actual residence (Property of 300 million KRW or less, evaluation rate 60%), rent-a-home loan (Monthly rent valuation of 150 million KRW or less, evaluation rate 30%)
Automobile premiums	All cars under 15 years or less	Vehicles exceeding 40 million KRW pay insurance premiums. * Reduction: 30% in mid-sized cars under 1600-3000cc * Exemption: small cars (less than 1600cc); vans, freight, and special vehicles used for a living; Car for more than nine years	Only vehicles exceeding 40 million KRW pay insurance premiums.

Source: Edited using (MOHW (Korea), 2018, 2022(a); NHIS (Korea), HIRA (Korea), annually; Seung-Ji Lim et al., 2022; Shim-Myung Moon, 2022) data

4.3 Source of NHI Revenues



Since integrating Taiwan's various social insurance systems in 1995, the National Health Insurance (NHI) has operated based on the principles of financial self-sufficiency and maintaining a balance between income and expenditure (NHIA (Taiwan), annually(b)). Taiwan's health insurance resources comprise insurance premiums, government subsidies, and other income. Other insurance income includes tobacco health and welfare surcharges (tax), public welfare lottery income distributed as reserve funds by law, overdue charges for insurance premiums, and net investment income (Po-Chang Lee et al., 2022).

Table 4-25 shows the sources of health insurance income on a cash-flow basis. As of 2021, insurance premiums accounted for 65.9%, government subsidies 31.5%, lottery income, and contribution for tobacco tax 2.3%. Compared to 2011, the proportion of insurance premiums remained almost unchanged, the proportion of government subsidies increased (from 28.9% to 31.5%), and the proportion of other imports, such as tobacco tax, decreased (from 5.3% to 2.3%).

Taiwan stipulated in the NHI Act that the government should shoulder at least 36% of the remaining annual insurance budget, excluding promulgated revenues, through the second-generation health insurance reform. In this regard, the Ministry of Health and

Welfare is responsible for formulating a budget to cover the deficit (NHI Act (Taiwan)).



Table 4-25. Source of NHI revenues: Taiwan, 2011-2021

(Unit: 100 million TWD)

	Total	Premium (the insured, employers)	Government Subsidies	Lottery income, Contribution for tobacco	Others
2011	4,858	3,195	1,406	257	-0.27
%	100	65.8	28.9	5.3	-
2012	5,282	3,321	1,708	248	5.7
2013	5,710	3,759	1,672	267	12
2014	5,725	3,926	1,531	248	20
2015	5,947	3,975	1,714	231	28
2016	5,898	3,873	1,808	184	33
2017	6,004	3,946	1,836	183	40
2018	6,185	4,095	1,914	151	25
2019	6,376	4,221	1,987	151	16
2020	6,468	4,243	2,051	158	16
2021	7,134	4,703	2,246	161	24
%	100	65.9	31.5	2.3	0.3

Source: (NHIA (Taiwan), annually(a))

Note: Cash basis

Table 4-26 shows the status of general premiums, and as of 2021, premiums are 566.2 billion TWD. That's up 1.21 times from 468.8 billion TWD in 2011. Among them, the contribution rate is 37.8% of beneficiaries (26.2% of the insured, 11.6% of dependents), 41.3% of employers, and 20.9% of government subsidies. Government and public enterprises as an employer (8.3 %) and government subsidies (20.9 %) combined account for 29.1%. The proportion of the private sector increased from 28.7% in 2011 to 33.1% in 2021, and the proportion of government subsidies decreased from 25.2% in

2011 to 20.9% in 2021. Table 4-26 does not include the minimum government burden and overdue fees under the National Health Insurance Act.



Table 4-26. General premium: Taiwan, 2011-2021

(Unit: 100 million TWD)

Year	Grand total	Contribution of beneficiaries			Contribution of group insurance applicants				Government subsidies
		Total	the Insureds	Dependents	Total	Government	Public enterprises	Private sector	
2011	4,688	1,765	1,184	581	1,742	340	56	1,345	1,182
	%	100	37.6	(25.3)	(12.4)	37.2	(8.4)	(28.7)	25.2
2012	4,824	1,800	1,216	584	1,822	350	56	1,416	1,202
2013	4,663	1,755	1,184	571	1,804	353	54	1,396	1,104
2014	4,769	1,789	1,212	577	1,868	357	53	1,458	1,112
2015	4,799	1,827	1,242	585	1,845	346	50	1,449	1,126
2016	4,692	1,791	1,223	568	1,815	339	47	1,430	1,086
2017	4,788	1,821	1,247	575	1,886	344	46	1,496	1,080
2018	4,934	1,874	1,286	588	1,966	359	47	1,561	1,094
2019	5,038	1,904	1,311	593	2,043	370	47	1,626	1,091
2020	5,074	1,925	1,328	597	2,066	373	47	1,646	1,083
2021	5,662	2,141	1,484	657	2,341	418	50	1,873	1,181
	%	100	37.8	(26.2)	(11.6)	41.3	(8.3)	(33.1)	20.9

Source: (NHIA (Taiwan), annually(a))

Notes : The premium receivables in this table are premium receivables of the current bills. They do not include supplementary premiums, 36% of the annual health insurance budget shortage, the lowest amount the government should burden according to law, and delinquent charge receivables.

Table 4-27 is the detailed version, showing the burden ratio of the insured and dependents, employers, and the government by insurance premium category. In the case of Category 1, as of 2021, the insured burden ratio is 33.4%, the employer's burden ratio

is 57.98%, and the government burden is 8.62%. In the case of Category 2, the insured burden ratio is 59.59%, and the government burden is 40.41%. In the case of Category 3, the insured burden ratio is 29.78%, and the government burden is 70.22%.

Table 4-27. General premium by categories: Taiwan, 2021

(Unit: 100 million TWD)

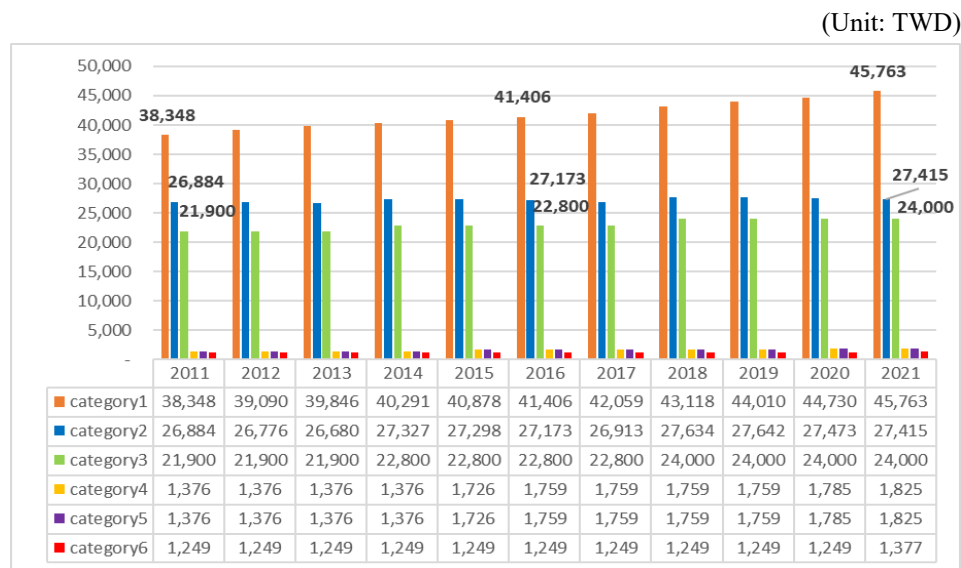
		Grand total	Contribution of beneficiaries			Contribution of group insurance applicants				Government subsidies
			Total	Insureds	Dependents	Total	Government	Public enterprises	Private sector	
Grand Total		5,662	2,141	1,484	657	2,341	418	50	1,873	1,181
	%	100	37.81	(26.20)	(11.60)	41.34	(7.38)	(0.88)	(33.09)	20.85
Category 1		4,037	1,349	917	432	2,341	418	50	1,873	348
	%	100	33.40	(22.71)	(10.69)	57.98	(10.35)	(1.23)	(46.40)	8.62
Category 2		592	353	242	111	-	-	-	-	239
	%	100	59.59	(40.84)	(18.75)	0	0	0	0	40.41
Category 3		302	90	62	27	-	-	-	-	212
	%	100	29.78	(20.70)	(9.08)	0	0	0	0	70.22
Category 4		19	-	-	-	-	-	-	-	19
	%	100	0	0	0	0	0	0	0	100
Category 5		62	-	-	-	-	-	-	-	62
	%	100	0	0	0	0	0	0	0	100
Category 6		650	350	263	87	-	-	-	-	300
	%	100	53.80	(40.42)	(13.38)	0	0	0	0	46.20

Source: (NHIA (Taiwan), annually(a))

Note: The premium receivables do not include supplementary premiums, the shortfall of 36 percent of the annual health insurance budget, the minimum amount the government should cover according to the law, and delinquent charge receivables.

Figure 4-3 shows the average insured payroll-related amounts by category, which have steadily increased over the past decade. The average insurance premium for Category 1 to 3 insured is 40,119 TWD as of 2021. As of 2021, the average general

premium for the category-1 insured is 45,763 TWD, the category-2 insured is 27,415 TWD, and the category-3 insured is 24,000 TWD. Compared to 2011, the average general premium in 2021 increased 1.19 times for Category 1, 1.02 times for Category 2, and 1.1 times for Category 3.



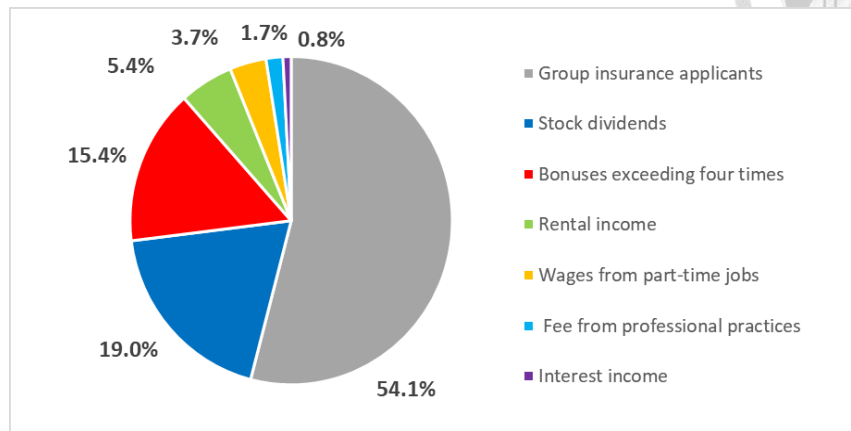
Source: (NHIA (Taiwan), annually(a))

Note: Calculating premiums based on the insured payroll-related amount does not apply to those insured in categories 4, 5, and 6. Their premiums are the average premiums for all beneficiaries. The average premiums are 1,825 TWD for categories 4 and 5 and 1,377 TWD for Category 6.

Figure 4-3. Average insured payroll-related amounts: Taiwan, 2011-2021

The amount of supplementary insurance premiums paid, which have been in effect since 2013, is also rising. As of 2021, supplementary premiums were 58.1 billion TWD, with employers paying 31.4 billion TWD (54.1%) and the insured paying 26.7 billion TWD (45.9%). The supplementary premiums for the insured were in the order of stock dividends (19.0%), bonuses exceeding four times the insured payroll-related amount (15.4%), rental income (5.4%), wages from second or part-time jobs (3.7%),

professional service income (1.7%), and interest income (0.8%) (Figure 4-4).



Source: Using (NHIA (Taiwan), annually(a)) data

Figure 4-4. Supplementary premium: Taiwan, 2021

Table 4-28. Supplementary premium: Taiwan, 2013-2021

(Unit: 100 million TWD)

Year	Grand total	Group insurance applicants	Contribution of beneficiaries							
			Total	Stock divide nds	Bonuses exceeding four times	Rental income	Wages from part-time jobs	Fee from professional practices	Interest income	
2013	403	200	204	89	40	28	25	8	14	
	%	100	49.5	50.5	(22.1)	(9.9)	(7.0)	(6.1)	(1.9)	(3.4)
2014	468	218	250	116	48	30	23	8	25	
2015	474	234	240	105	55	31	18	8	24	
2016	444	228	216	90	53	27	17	6	23	
2017	450	241	208	92	56	27	17	6	10	
2018	464	253	211	91	60	28	17	7	8	
2019	476	258	217	95	61	28	18	8	6	
2020	472	260	212	88	64	28	18	8	5	
2021	581	314)	267	110	89	31	21	10	5	
	%	100	54.1	45.9	(19.0)	(15.4)	(5.4)	(3.7)	(1.7)	(0.8)

Source: (NHIA (Taiwan), annually(a))

Looking at the proportion of increase and decrease compared to 2013, the difference between big bonuses and interest income was relatively significant, with big bonus premiums increasing from 9.9% to 15.4% and interest income premiums decreasing from 3.4% to 0.8% (Table 4-28).

Korea's health insurance, operated by the social insurance scheme, is also funded by insurance premiums collected from the insured and employers and government subsidies such as national treasury and health promotion funds. At the time of the introduction of local medical insurance in 1988, government support for health insurance began with the aim of supporting 50% of the premium for the self-employed insured, whose employers do not exist separately, unlike the employee insured (MOHW (Korea), annually(d)).

There was a flat-rate support system until the revision of the National Health Insurance (NHI) Act at the end of 2006. After revising the NHI Act from 2007 to 2011, the government subsidized 14% of the estimated income from insurance premiums for the year, and the National Health Promotion Fund provided 6% (MOHW (Korea), annually(d)). Furthermore, following the expiration of the temporary clause in 2011, the bill underwent several revisions to sustain the prevailing method of government subsidies for NHI. The provision for government subsidy support under the current NHI Act remains effective until 2027 (NHI Act (Korea)).

Table 4-29. Source of NHI revenues: Korea, 2011-2021

(Unit: 100 million KRW)

Year	Grand Total	Premium	Total	Government		Others
				Government subsidies	Tobacco tax	
2011	379,774	323,995	51,697	42,129	9,568	4,082
%	100	85.3	13.6	(11.1)	(2.5)	1.1
2012	418,192	358,535	55,053	44,980	10,073	4,604
2013	451,733	386,117	60,179	50,193	9,986	5,437
2014	485,024	412,404	65,956	55,765	10,191	6,664
2015	524,009	440,476	73,864	58,679	15,185	9,669
2016	557,195	473,065	70,974	52,060	18,914	13,156
%	100	84.9	12.7	(9.3)	(3.4)	2.4
2017	579,990	500,099	67,839	48,828	19,011	12,052
2018	621,159	536,415	70,802	52,001	18,801	13,942
2019	680,643	587,428	77,803	59,721	18,082	15,412
2020	734,185	624,849	92,283	73,482	18,801	17,053
2021	804,921	692,270	95,720	76,554	19,167	16,931
%	100	86.0	11.9	(9.5)	(2.4)	2.1

Source: (MOHW (Korea), annually(d))

Note: Cash basis

As shown in Table 4-29, as of 2021, the sources of NHI financing are contributions (premiums) made by the insured and employers (86.0%), government subsidies (9.5%), tobacco tax (2.4%), and others. Compared to 2011, insurance premiums increased 2.14 times, and government subsidies (including tobacco tax) increased 1.85 times in 2021. In addition, compared to 2011, the premium contribution rate in 2021 increased slightly from 85.3% to 86%, and the government subsidies ratio (including tobacco tax) decreased slightly from 13.6% to 11.9%.

Table 4-30. Annual premium: Korea, 2011-2021

(Unit: 100 million KRW)

Year	Grand total	The employee insured					The self-employed insured	
		Total	Employee	Public official, Private school employee	The voluntary continuing insured	Monthly income (non-wage)		
2011	329,221	261,416	220,278	41,137	-	-	67,806	
	%	100	79.40	(66.91)	(12.50)		20.60	
2012	363,900	293,796	249,041	44,756	-	-	70,103	
2013	390,319	318,751	271,260	47,491	-	-	71,568	
2014	415,938	343,865	294,427	46,104	1,040	2,293	72,073	
2015	443,298	369,548	318,233	47,841	1,158	2,316	73,750	
2016	475,931	399,446	345,497	50,280	1,184	2,485	76,485	
2017	504,168	424,486	367,748	52,868	1,166	2,705	79,682	
2018	538,965	459,221	398,588	55,353	1,370	3,909	79,744	
2019	591,328	507,712	441,791	58,604	1,558	5,758	83,616	
2020	631,114	540,194	469,246	63,036	1,658	6,253	90,921	
2021	694,869	594,666	519,071	66,346	1,982	7,267	100,202	
	%	100	85.58	(74.70)	(9.55)	(0.29)	(1.05)	14.42

Source: (NHIS (Korea), 2022)

Note 1. Accounting settlement basis

2. the employee insured premiums (general workplaces employee, government, private school employee) include user (employer) charges

3. Monthly income premium included from 2012

4. Monthly income premium and the voluntary continuing employee insured premium have been separated since 2014 (previously included in general workers)

Looking at annual insurance premiums, 2021 increased 2.1 times compared to 2011 (Table 4-30). In 2021, the employee-insured premiums amounted to 59.4666 trillion KRW, accounting for 85.6%. This amount includes 726.7 billion KRW in

non-wage income premiums. As shown in Table 4-30, non-wage income premiums for workers are shown separately from 2014 onwards and show a steady increase in non-wage income premiums. The insurance premium for the self-employed insured is 10 trillion 20.2 billion, accounting for 14.4% of the total collection.

Table 4-31. Average monthly premium per capita: Korea, 2011-2021

(Unit: KRW)

Year	Average monthly premium per capita	The average monthly premium per employee insured					The average monthly premium per self-employed insured	
		Total		Monthly wage premium		Monthly income premium		
		per household	per capita	per household	per capita	per household	per household	per capita
2011	33,670	82,802	33,009	79,299	32,346		72,139	35,022
2012	36,536	89,028	36,156	85,386	35,471		75,209	37,357
2013	38,622	92,565	38,239	88,732	37,478		77,783	39,503
2014	40,819	97,046	40,816	95,764	40,277	537,133	78,629	40,825
2015	43,003	100,510	43,085	99,261	42,550	529,540	80,876	42,798
2016	45,763	104,507	45,874	103,219	45,308	538,239	84,531	45,473
2017	48,152	107,449	48,266	106,092	47,656	536,021	87,458	47,847
2018	50,979	112,635	52,085	110,739	51,208	322,125	85,546	48,011
2019	55,488	120,152	57,527	117,465	56,240	262,522	86,160	50,027
2020	59,218	124,629	61,109	121,785	59,715	257,951	90,864	54,165
2021	65,211	133,591	67,392	130,376	65,771	253,450	97,221	59,414

Source:(NHIS (Korea), 2022; NHIS (Korea), HIRA (Korea), annually)

Note 1. An individual's premium burden standard

2. Monthly income premium included from 2012

3. Monthly income premium and the voluntary continuing employee insured premium have been separated since 2014 (previously included in general workers)

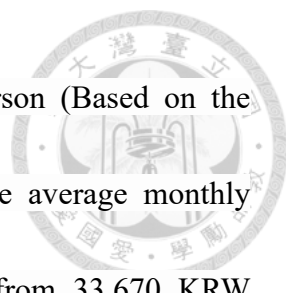
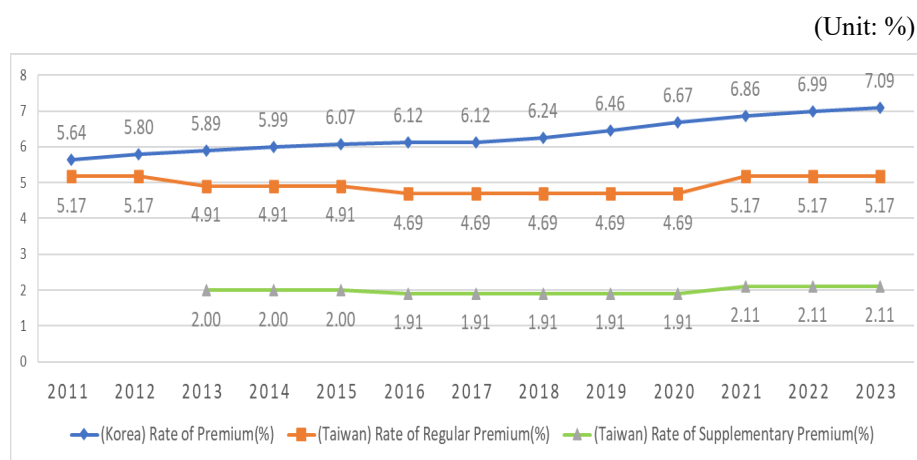


Table 4-31 represents the average monthly premium per person (Based on the insured's insurance premiums, excluding employer's charges). The average monthly premium for all health insurance insured increased 1.94 times from 33,670 KRW monthly in 2011 to 65,211 KRW in 2021. As of 2021, the average monthly premium per household for the employee insured is 133,591 KRW (average monthly premium per capita is 67,392 KRW), and the average monthly premium per household for the self-employed insured is 97,221 KRW (average monthly premium per capita is 59,414 KRW).

4.4 Comparison of NHI Premiums in Taiwan and Korea



Although there are differences in the financing and operation of health insurance in Taiwan and Korea, the premium collection system has changed over the past decade to strengthen income-oriented collection.



Sources: Taiwan; (Hsien-Ming Lian et al., 2019; NHIA (Taiwan), annually(b))
Korea; (NHIS (Korea), www.nhis.or.kr)

Figure 4-5. Rate of premium: Taiwan and Korea, 2011-2023

Both countries steadily adjust premium rates for the financial stability of their health insurance. Figure 4-5 illustrates the premium rates in Taiwan and Korea based on the employee. The premium rate in Korea increased from 5.64% in 2011 to 7.09% in 2023. In Taiwan, although there were slight changes in the premium rate, which was 5.17% in 2011, it remains the same at 5.17% in 2023. Insured people in Taiwan will have to pay general and supplementary premiums starting in 2013. In Korea, since September 2012, if an employee has earned a certain amount other than wages, they

must pay monthly income (non-wage) insurance premiums. Taiwan's supplementary premium and Korea's monthly income (non-wage) premium have a similar concept, and both countries implemented changes to their premium collection systems around the same time.

Table 4-32. Lower and upper limits of ratable wage (income): Taiwan and Korea, 2021

	The insured	Premium	Standards	The lower limit of premiums	The upper limit of premiums	Differences
Taiwan	Category 1-3	General premium	Monthly premium ratable wage	24,000 TWD *Monthly wage/income: 26,400 TWD or less ※ Category 1 Items 4-5: 30,300 TWD	182,000 TWD *Monthly wage/income: 175,601 TWD or more	7.6 times difference (-101.2 times difference),
			Premium (the insured)	(differences by category) - Category 1 Items 1-3, Category 3 (30%): 372 – 1,488 TWD - Category 1 Items 4-5 (100%): 1,567 – 4,701 TWD - Category 2 (60%): 744 - 2,976 TWD ※ Category 6 Item 2: 826 - 3,304 TWD	(differences by category) - Category 1 Items 1-3 (30%): 2,823 – 11,292 TWD - Category 1 Items 4-5 (100%): 9,409 – 37,636 TWD - Category 2 (60%): 5,646 - 22,584 TWD	category, dependents, contribution ratio
	All	Supplementary premium	Premium	(differences by type of income)	211,000 TWD (upper limit for each kind of income) *Income 10,000,000 TWD (received in one payment)	type of income
Korea	The employee insured	Monthly wage premium	Monthly wage	279,010 KRW or less (≒6,643 TWD)	102,739,070 KRW or more (≒2,466,168 TWD)	368.2 times difference, contribution ratio (50%)
			Premium (the insured)	9,570 KRW (≒228 TWD) ※ Contribution rate 50%	3,523,950 KRW (≒83,904 TWD) ※ Contribution rate 50%	
	The self-employed insured	Monthly income premium	Premium	None	3,523,950 KRW (≒83,904 TWD)	
	The self-employed insured	Premium point (the insured)	Premium (the insured)	14,380 KRW (≒342 TWD)	3,523,950 KRW (≒83,904 TWD)	245.1 times difference

Source: Taiwan; Edited using (NHIA (Taiwan), www.nhi.gov.tw) data

Korea; Edited using (MOHW (Korea); Public notice; NHIS (Korea), www.nhis.or.kr) data

Note 1. 1 TWD = 42 KRW

2. (Korea) Average monthly wage premium for 2019 is 234,930 KRW.

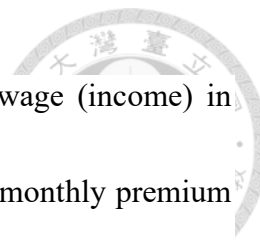


Table 4-32 summarizes the lower and upper limits of ratable wage (income) in Taiwan and Korea as of 2021. For Taiwan, the Category 1-3 insured monthly premium ratable wage is from 24,000 TWD to 182,000 TWD, with a difference of 7.6 times.

There are differences in contribution rates by category and subcategory, and the number of dependents also affects insurance premiums. For Category 1 Items 1-3, Category 3 insured, the premium contribution rate is 30%, and the minimum premium paid by the insured is 372 TWD. For Category 1 Items 4-5 insured, the premium contribution rate is 100%, and the maximum premium is 37,636 TWD. In other words, the premium can be 101 times different.

Unlike Taiwan, Korea's upper monthly wage is estimated by inverse calculating the upper limit of the monthly premium. The upper limit of the monthly premium is 30 times the average premium for employees insured of 234,930 KRW in 2019 (two years ago). In 2021, the monthly wage upper limit was 102,739,070 KRW ($\approx$ 2,466,168 TWD), and the premium upper limit was 3,523,950 KRW ($\approx$ 83,904 TWD). When calculating employee insurance premiums, the contribution rate is 50%. The lower and upper premiums for employee-insured are 9,570 KRW and 3,523,950 KRW, respectively, which are 368 times different. In the case of the self-employed insured, the premium contribution rate is 100%, and the difference between the upper and lower premiums is 245 times.

The difference between the lower and upper limits of insurance premiums in Korea is greater than in Taiwan.



In the case of employers, there is a slight difference in how premiums are applied compared to employees. In Taiwan, employers follow the highest monthly premium ratable wage, except for those who self-declare the insured amount. The monthly premium ratable salary reported by the employer must be higher than that of their workers. As of 2021, an employer with five or more employees should not have the reported amount lower than the highest grade (45,800 TWD) of the labor insurance premium ratable wage. The reported income amount of employers with fewer than five employees should be at least the average premium ratable wage (34,800 TWD). If there is no remunerated worker, employers may apply for the minimum amount (30,300 TWD) (NHIA (Taiwan), www.nhi.gov.tw).

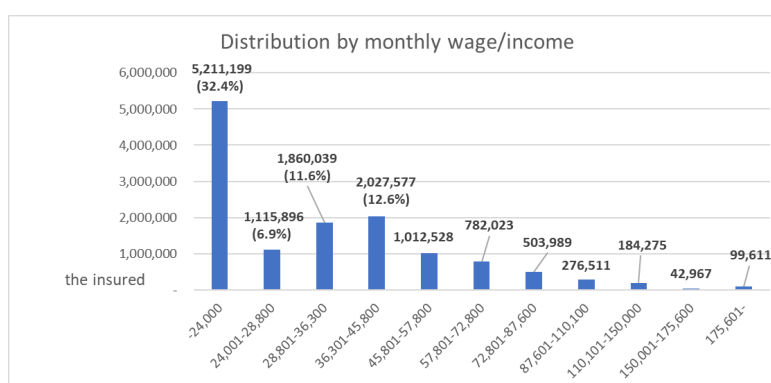
Employers such as corporate representatives in Korea are employee-insured when they receive salaries like workers. However, if the employer does not receive separate salaries, they are self-employed insured and should pay insurance premiums based on income and property (NHIS (Korea), www.nhis.or.kr).

The difference in premiums between the upper and lower limits and how much you pay is separate. Table 4-33 and Table 4-34 show the distribution of wage or income corresponding to the actual premiums paid in Taiwan and Korea using premium data

from statistical yearbooks of both countries. This distribution shows the difference in the design of the premium collection system in both countries. In Korea, very few people pay the upper limit of premiums for the insured.



Table 4-33. Distribution by monthly wage/income: Taiwan, 2021

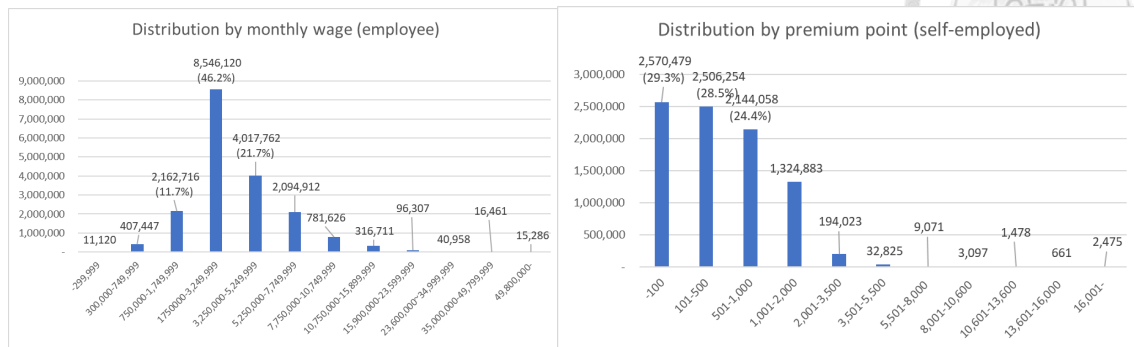


Bracket	Monthly premium ratable wage (TWD)	Actual monthly wage (TWD)	The insured (person)	%
			16,102,302 (except for 2,985,687) → 13,116,615	100
1	24,000	-24,000	5,211,199	32.36
	25,200-28,800	24,001-28,800	1,115,896	6.93
2	30,300-36,300	28,801-36,300	1,860,039	11.55
3	38,200-45,800	36,301-45,800	2,027,577	12.59
4	48,200-57,800	45,801-57,800	1,012,528	6.29
5	60,800-72,800	57,801-72,800	782,023	4.86
6	76,500-87,600	72,801-87,600	503,989	3.13
7	92,100-110,100	87,601-110,100	276,511	1.72
8	115,500-150,000	110,101-150,000	184,275	1.14
9	156,400-175,600	150,001-175,600	42,967	0.27
	182,000	175,601-	99,611	0.62

Source: Calculated using (NHIA (Taiwan), annually(a)) data

Note: Only those categories 1-3 insured, excluding 2,985,687 people in categories 4-6 insured.

Table 4-34. Distribution by monthly wage, premium point: Korea, 2021



Employee			Self-employed		
Monthly wage (KRW)	The insured (person)	%	Premium point	The insured (households)	%
Total	18,507,426	100	Total	8,789,304	100
- 299,999	11,120	0.06	- 100	2,570,479	29.25
300,000 - 749,999	407,447	2.20	101 - 500	2,506,254	28.51
750,000 - 1,749,999	2,162,716	11.69	501 - 1,000	2,144,058	24.39
1,750,000 - 3,249,999	8,546,120	46.18	1,001 - 2,000	1,324,883	15.07
3,250,000 - 5,249,999	4,017,762	21.71	2,001 - 3,500	194,023	2.21
5,250,000 - 7,749,999	2,094,912	11.32	3,501 - 5,500	32,825	0.37
7,750,000 - 10,749,999	781,626	4.22	5,501 - 8,000	9,071	0.10
10,750,000 - 15,899,999	316,711	1.71	8,001 - 10,600	3,097	0.04
15,900,000 - 23,599,999	96,307	0.52	10,601 - 13,600	1,478	0.02
23,600,000 - 34,999,999	40,958	0.22	13,601 - 16,000	661	0.01
35,000,000 - 49,799,999	16,461	0.09	16,001 -	2,475	0.03
49,800,000 -	15,286	0.08			

Source: Calculated using (NHIS (Korea), HIRA (Korea), annually) data

Note: This study arbitrarily divided the interval between monthly wage and premium points.

In this study, for example, insurance premiums for Taiwan and Korea are directly calculated and compared. In Taiwan, NHI premiums are collected for dependents, so the number of insured with dependents in each category was investigated (Table 4-35). The Category 1-insured and Category 6-insured were divided in more detail because there were differences in the insured contribution rate by subcategory. Of the total insured,

71.54% had no dependents, 15.33% had one dependent, 8.71% had two dependents, and 4.42% had three or more dependents. By category, the percentage of the insured without dependents was lowest at 68.5% in Category 1 Items 1-3 and the highest at 89.21% in Category 1 Items 4-5.

Table 4-35. Number of dependents in Taiwan's insured, 2021

(Unit: person, %)

Number of dependents	The insured (person)	%	Category 1 Items 1-3	%	Category 1 Items 4-5	%	Category 2	%	Category 3	%
Total	16,102,302	100	8,772,424	100	567,622	100	2,388,167	100	1,388,402	100
0 person	11,519,964	71.54	6,008,993	68.50	506,391	89.21	1,665,854	69.75	972,908	70.07
1 person	2,468,123	15.33	1,341,802	15.30	39,069	6.88	387,051	16.21	275,029	19.81
2 persons	1,401,742	8.71	946,854	10.79	15,211	2.68	222,052	9.30	92,000	6.63
3 or more persons	712,473	4.42	474,775	5.41	6,951	1.22	113,210	4.74	48,465	3.49
Number of dependents			Category 4	%	Category 5	%	Category 6 Item 1	%	Category 6 Item 2	%
Total			98,233	100	287,491	100	324,355	100	2,275,608	100
0 person			98,233	100	287,491	100	224,878	69.33	1,755,216	77.1
1 person							83,341	25.69	341,831	15.0
2 persons							11,500	3.55	114,125	5.0
3 or more persons							4,636	1.43	64,436	2.8

Source: Edited using (NHIA (Taiwan), annually(a)) data

The following is a specific example comparing the premiums of employees and self-employed individuals in both countries.

Example 1. The employee insured

Bill works at the company and makes 45,763 TWD ($\approx$ 1,923,600 KRW) monthly.

This amount corresponds to the average insured payroll-related amounts in Category 1 insured. Bill owns a property worth 3.33 million TWD ($\approx$ 140 million KRW) and a 2,500cc car he bought three years ago. He has four dependents: a full-time housewife and three children (Table 4-36).

[Taiwan] The monthly premium ratable wage used to calculate his premium based on Bill's salary (45,763 TWD) is 45,800 TWD. Property and automobiles do not affect the calculation of premiums. He has four dependents, but the premium calculation is capped at three if you have three or more dependents. The contribution ratio to premiums is 30% for employees (individuals), 60% for companies, and 10% for government. As of 2021, the average number of dependents is 0.58. Employers and the government use this figure to calculate premiums. Bill's premium is 2,840 TWD, accounting for 6.21% of his salary.

If Jane, Bill's co-worker, has the same salary and property as Bill but no dependents, Jane's premium is 710 TWD. This amount accounts for 1.55% of her salary. If there is only one dependent, the premium is 3.1% of the monthly wage; if there are two dependents, the premium is 4.65%. Bill receives an equivalent salary to Jane, but his premiums are four times higher due to coverage for three dependents.

Table 4-36. The premium for a typical employee insured, 2021 (1)

	Taiwan	Korea
Monthly wage	45,763 TWD ※ Category 1 average insured payroll-related amount	1,923,600 KRW (≡ 45,763 TWD)
Monthly premium ratable wage/income	45,800 TWD	
The insured (contribution ratio)	Category 1 Items 1-3 (30%)	The employee insured (50%)
A. employee	There is a difference in premiums depending on the # of dependents.	It doesn't matter if you have a dependent or not.
(no dependents)	710 TWD (≡ 29,820 KRW) = [45,800 TWD × 5.17% × 30%] [1.55% of monthly wage]	65,970 KRW (≡ 1,571 TWD) = 1,923,600 KRW × 6.86% × 50% [3.43% of monthly wage]
(1 dependent)	1,420 TWD (≡ 59,640 KRW) = [45,800 TWD × 5.17% × 30%] × (1 + 1) [3.10% of monthly wage]	
(2 dependents)	2,130 TWD (≡ 89,460 KRW) = [45,800 TWD × 5.17% × 30%] × (1 + 2) [4.65% of monthly wage]	
(3 or more dependents)	2,840 TWD (≡ 119,280 KRW) = [45,800 TWD × 5.17% × 30%] × (1 + 3) [6.21% of monthly wage]	
B. employer (company)	2,245 TWD (≡ 94,290 KRW) = [45,800 TWD × 5.17% × 60% × (1 + 0.58)]	65,970 KRW (≡ 1,571 TWD) = 1,923,600 KRW × 6.86% × 50%
C. government	374 TWD (≡ 15,708 KRW) = [45,800 TWD × 5.17% × 10% × (1 + 0.58)]	
Total premium [A + B + C]		
(no dependents)	3,329 TWD (≡ 139,828 KRW) [7.27% of monthly wage]	131,940 KRW (≡ 3,141 TWD) [6.86% of monthly wage]
(1 dependent)	4,039 TWD (≡ 169,638 KRW) [8.83% of monthly wage]	
(2 dependents)	4,749 TWD (≡ 199,458 KRW) [10.38% of monthly wage]	
(3 or more dependents)	5,459 TWD (≡ 229,278 KRW) [11.93% of monthly wage]	

Note 1. 1 TWD = 42 KRW

2. Monthly premium ratable wage: as of 2021
3. Premium rate: (Taiwan) 5.17%, (Korea) 6.86% (7.09% as of 2023)
4. (Taiwan) average number of dependents is 0.58 (0.57 as of 2023)

[Korea] If Bill and Jane are Korean workers, they don't have to pay insurance premiums even if they have dependents, so if their salaries are the same, the premiums are the same. Property and automobiles do not affect the calculation of premiums like Taiwanese employees. The premium contribution ratio is 50% each for the employees and the company. So Bill and Jane pay the same premium of 65,970 KRW ($\approx$ 1,571 TWD), which is 3.43% of their salary.

Table 4-37. The premium for a typical employee insured, 2021 (2)

Number of dependents	The insured (person)	%	Category 1 Items 1-3	%	
Total	16,102,302	100	8,772,424	100	
0 person	11,519,964	71.54	6,008,993	68.50	83.8%
1 person	2,468,123	15.33	1,341,802	15.30	
2 persons	1,401,742	8.71	946,854	10.79	16.2%
3 or more persons	712,473	4.42	474,775	5.41	

	Taiwan	Korea
Employee	There is a difference in premiums depending on the # of dependents.	It doesn't matter if you have a dependent or not.
The insured (contribution ratio)	Category 1 Items 1-3 (30%)	The employee insured (50%)
(no dependents)	1.55% of monthly wage	3.43% of monthly wage
(1 dependent)	3.10% of monthly wage	
(2 dependents)	4.65% of monthly wage	
(3 or more dependents)	6.21% of monthly wage	
	2.37% of monthly wage $= 1.55\% \times 68.50\%$ $+ 3.10\% \times 15.30\%$ $+ 4.65\% \times 10.79\%$ $+ 6.21\% \times 5.41\%$	

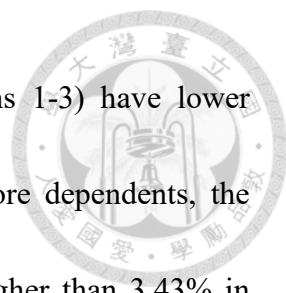


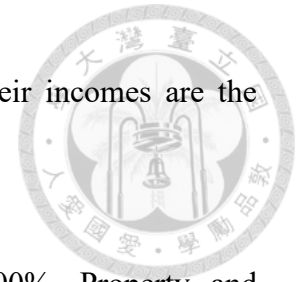
Table 4-37 shows that Taiwanese workers (Category 1 Items 1-3) have lower premiums than Korean workers. However, if there are two or more dependents, the premium in Taiwan is more than 4.65% of the monthly salary, higher than 3.43% in Korea. Considering the percentage of dependents in Taiwan's Category 1 Items 1-3 insured, 83.8% of insured, without dependents or with only one dependent, will pay lower premiums than those in Korea. Meanwhile, 16.2% of insured, with two or more dependents will incur higher individual premiums than their counterparts in Korea.

Calculating the overall average based on the insured's dependents ratio and the premium ratio to monthly wage, the total individual premium for workers in Taiwan is 2.37% of the monthly salary. Taiwan's employees (Category 1 Items 1-3) pay less premiums than Korean employees (3.43% of monthly wage).

Example 2. The self-employed insured

Table 4-38 compares Taiwan's Category 1 Items 4-5 insured and Korea's self-employed insured premiums. In Korea, self-employed insured encompasses all insured individuals except employee-insured. However, in Taiwan, Category 1 Items 4-5 insured do not represent all insured apart from employees. In Taiwan, the contribution rate varies significantly for each category and subcategory (item) except for the employee category. Therefore, this study uses the example of a Category 1 Items 4-5 insured with a 100% contribution rate to illustrate the premium calculation.

Suppose Bill and Jane are self-employed, not employees; their incomes are the same at 100,000 TWD ($\approx$ 4,200,000 KRW).



[Taiwan] The individual premium contribution rate is 100%. Property and automobiles still do not affect the premiums. The way dependents calculate their premiums is the same as for employees. Bill calculates premiums by adding up to three dependents, while Jane has no dependents, so there is a difference in premiums. Bill pays 20.91% of monthly income, and Jane pays 5.23% in premiums.

[Korea] The premium contribution rate is 100%. Unlike employee insureds, self-employed insured pay premiums for property and auto in addition to income, all counted together as premium points. Earlier, Bill assumed that he owned property worth 3.33 million TWD ($\approx$ 140 million KRW) and a 2,500cc car he purchased three years ago, a figure in the section where the median of each premium point belongs. The number of dependents does not affect the premium because per household bears the premium.

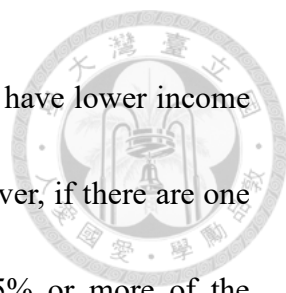
Assuming that Bill and Jane have the same income, property, and car, the premium is the same at 409,850 KRW, accounting for 9.76% of their income.

Table 4-38. Example of premium for the self-employed insured, 2021 (1)

	Taiwan	Korea
Monthly income	100,000 TWD	4,200,000 KRW ($\approx$ 100,000 TWD) ※ The average premium point for the interval to which each median belongs: Property 515 points, Automobile 85 points
Monthly premium ratable income	101,100 TWD	-
The insured (contribution ratio)	Category 1 Items 4-5 (100%)	The self-employed insured (100%)
A. income	There is a difference in premiums depending on the # of dependents.	Per households pay premiums.
(no dependents)	5,227 TWD ($\approx$ 219,534 KRW) = [101,100 TWD $\times$ 5.17% $\times$ 100%] [5.23% of monthly income]	4,200,000 KRW $\Rightarrow$ 1,431 premium points ※ Premium: 288,340 KRW ($\approx$ 6,865 TWD) = 1,431 premium points $\times$ 201.5 KRW [6.865% of monthly income]
(1 dependent)	10,454 TWD ($\approx$ 439,068 KRW) = [101,100 TWD $\times$ 5.17% $\times$ 100%] $\times$ (1 + 1) [10.45% of monthly income]	
(2 dependents)	15,681 TWD ($\approx$ 658,602 KRW) = [101,100 TWD $\times$ 5.17% $\times$ 100%] $\times$ (1 + 2) [15.68% of monthly income]	
(3 or more dependents)	20,908 TWD ($\approx$ 878,136 KRW) = [101,100 TWD $\times$ 5.17% $\times$ 100%] $\times$ (1 + 3) [20.91% of monthly income]	
B. property	-	
C. automobile	-	133,000,000-148,000,000 KRW $\Rightarrow$ 516 premium points
Total premium [A + B + C]		2,001-2,500cc car (3 or more – less than six years) $\Rightarrow$ 87 premium points
(no dependents)	5,227 TWD ($\approx$ 219,534 KRW) [5.23% of monthly income]	2,034 premium points = (1,431 + 516 + 87) premium points ※ Premium: 409,850 KRW ($\approx$ 9,758 TWD) = 2,034 premium points $\times$ 201.5 KRW [9.76% of monthly income]
(1 dependent)	10,454 TWD ($\approx$ 439,068 KRW) [10.45% of monthly income]	
(2 dependents)	15,681 TWD ($\approx$ 658,602 KRW) [15.68% of monthly income]	
(3 or more dependents)	20,908 TWD ($\approx$ 878,136 KRW) [20.91% of monthly income]	

Note 1. 1 TWD = 42 KRW

2. Monthly premium ratable wage: as of 2021
3. (Taiwan) premium rate 5.17%
4. (Korea) income premium point: 1,431 premium points (1,428.887 premium points as of 2023)
5. (Korea) amount per premium point 201.5 KRW (208.4 KRW as of 2023)



According to Table 4-39, Taiwan Category 1 Items 4-5 insured have lower income insurance premiums than the self-employed insured in Korea. However, if there are one or more dependents, the premium for Taiwanese insured is 10.45% or more of the monthly income, higher than 9.76% for Korean insured. Considering the percentage of dependents in Taiwan's Category 1 Items 4-5, 89.2% of the insured who do not have a dependent will pay fewer premiums than in Korea, and 10.8% of the insured who have one or more dependents will pay more individual premiums than in Korea.

Calculating the overall average by the ratio of Taiwan's dependents rate and premium rate to monthly wage, the average total premiums for Category 1 Items 4-5 individuals amount to 6.06% of monthly income. In Korea, self-employed individuals pay 9.76% of their income as premiums. It is essential to note that premiums in Korea may also change based on factors other than income, such as property and automobile conditions. In this example, Taiwan's Category 1 Items 4-5 insured pay less health insurance premiums than Korean self-employed insured.

As a side note, Categories 2 and 3 (occupational group, farmer association, and fisherman association) in Taiwan are also equivalent to self-employed people in Korea. They pay less premium than those in Category 1 items 4-5, so the premium calculation may differ.

Table 4-39. Examples of premium for the self-employed insured, 2021 (2)



Number of dependents	the insured (person)	%	Category 1 Items 4-5	%	
Total	16,102,302	100	567,622	100	
0 person	11,519,964	71.54	506,391	89.21	89.2%
1 person	2,468,123	15.33	39,069	6.88	
2 persons	1,401,742	8.71	15,211	2.68	10.8%
3 or more persons	712,473	4.42	6,951	1.22	

	Taiwan	Korea
The self-employed	There is a difference in premiums depending on the # of dependents.	Per households pay premiums.
The insured (contribution ratio)	Category 1 Items 4-5 (100%)	The self-employed insured (100%)
(no dependents)	5.23% of monthly income	9.76% of monthly income (6.865% of monthly income + property premium point + automobile premium point)
(1 dependent)	10.45% of monthly income	
(2 dependents)	15.68% of monthly income	
(3 or more dependents)	20.91% of monthly income	
	6.06% of monthly wage $= 5.23\% \times 89.21\%$ $+ 10.45\% \times 6.88\%$ $+ 15.68\% \times 2.68\%$ $+ 20.91\% \times 1.22\%$	

In the above examples, even if the income is the same in Taiwan, it can vary four times depending on the number of dependents. However, in Korea, having or not having dependents does not affect how much you pay for insurance premiums amount. Calculate premiums for self-employed in Korea, factoring for property and automobiles, along with income.

Table 4-40 shows the data obtained by dividing all the insured into 20 equal parts based on the amount of individual premiums.

Table 4-40. Distribution of individual premium: Taiwan and Korea, 2021

Taiwan			Korea			
Average insured payroll-related amounts	- Average insured payroll-related amounts: 40,119 TWD - Category 1: 45,763 TWD - Category 2: 27,415 TWD - Category 3: 24,000 TWD - Category 6 item 2: 1,377 TWD		※ Average premium: 120,603 KRW (≅ 2,872 TWD)			
The insured contribution ratio (%)	- Category 1 Items 1-3 (30%) ⇒ 710 TWD - Category 1 Items 4-5 (100%) ⇒ 2,366 TWD - Category 2 (60%) ⇒ 850 TWD - Category 3 (30%) ⇒ 372 TWD - Category 6 Item 2 ⇒ 826 TWD		- the employee insured (50%) ⇒ 127,046 KRW (≅ 3,025 TWD) - the self-employed insured (100%) ⇒ 106,699 KRW (≅ 2,540 TWD)			
Interval	The insured (person)	Premium range (TWD)	Households	Population (person)	Average premium (KRW)	Maximum premium (KRW)
Total	16,102,302 (except for 710,079) ⇒ 15,392,223	na	27,083,098	49,924,719	120,603 (≅ 2,872 TWD)	3,523,950 (≅ 83,904 TWD)
1	769,612	0	1,354,154	1,937,389	19,988 (≅ 476 TWD)	34,300 (≅ 817 TWD)
2	769,612	0-399	1,354,155	1,943,917	32,428	50,900
3	769,612	300-399	1,354,154	2,114,567	42,479	61,600
4	769,611	300-399	1,354,156	1,963,396	47,191	63,450
5	769,611	300-399	1,354,155	1,858,768	49,046	67,170
6	769,611	300-499	1,354,154	1,990,563	52,336	70,310
7	769,611	400-499	1,354,156	2,040,970	57,014	75,460
8	769,611	400-599	1,354,154	2,025,946	63,378	81,310
9	769,611	500-599	1,354,155	2,140,221	70,856	86,650
10	769,611	500-699	1,354,156	2,219,156	79,747	94,250
11	769,611	600-799	1,354,154	2,299,634	90,047	102,880
12	769,611	700-799	1,354,155	2,378,198	100,771	111,130
13	769,611	700-799	1,354,154	2,519,309	113,596 (≅ 2,705 TWD)	122,100 (≅ 2,907 TWD)
14	769,611	700-899	1,354,156	2,544,311	126,216	135,910
15	769,611	800-899	1,354,155	2,813,608	141,917	151,740
16	769,611	800-899	1,354,154	2,996,763	161,804	176,110
17	769,611	800-1,099	1,354,156	3,227,406	186,349	209,150
18	769,611	1,000-1,399	1,354,154	3,509,594	219,472	254,090
19	769,611	1,300-1,799	1,354,155	3,675,956	268,217	326,830
20	769,611	1,700-	1,354,156	3,725,047	489,211 (≅ 11,648 TWD)	3,523,950 (≅ 83,904 TWD)

Source: Taiwan; calculation using (NHIA (Taiwan), annually(a)) data

Korea; (NHIS (Korea), HIRA (Korea), annually)

Note 1. 1 TWD = 42 KRW

2. (Taiwan) Based on individual premiums, not reflecting the dependents' premiums

3. (Korea) Except: recently retired individuals' premiums, monthly income premiums for workers

For Taiwan, this study excluded 710,079 insured in Category 4, 5 and Category 6 Item 1 who are 100% government-subsided and have no real individual burden. The average insured payroll-related amount in Taiwan as of 2021 is 40,119 TWD, which varies by category. Category 1 is 45,763 TWD, Category 2 is 27,415 TWD, Category 3 is 24,000 TWD, and Category 6 Item 2 is 1,377 TWD.

When calculating average individual insurance premiums by considering the contribution rate by category insured, Category 1 Items 1-3 is 710 TWD, Category 1 Items 4-5 is 2,366 TWD, Category 2 is 850 TWD, Category 3 is 372 TWD, Category 6 Item 2 is 826 TWD. The premium in Table 4-40 is an individual premium charged to the insured, and the dependent premium is not reflected, so in Taiwan, it is undervalued compared to the actual premium.

The average premium in Korea is 120,603 KRW ($\doteq$ 2,872 TWD) as of 2021. For employees, individual premiums have an average of 127,046 KRW ($\doteq$ 3,025 TWD); for self-employed, individual premiums have an average of 106,699 KRW ($\doteq$ 2,540 TWD). Korea's average premium of 120,603 KRW is in the 13th interval.

This study subdivided the premium distribution by category for a more detailed comparison (Tables 4-41 and 4-42). Table 4-41 shows the distribution of premiums for workers in both countries. For Taiwan, Category 1 Items 1-3 insured's average individual premium was 710 TWD in 2021; this amount falls in the 13th-15th interval.

The average monthly premium for employees in Korea is 127,046 KRW, which is in the 14th interval.



Table 4-42 shows the distribution of premiums for the insured, excluding employees (for Taiwan, Category 1 Items 1-3 insured) in both countries. In Korea, they are so-called self-employed insured. In particular, since Category 1 Items 4-5 insured have higher premiums, Table 4-42 shows them separately from those of other categories 2, 3, and 6 Items 2 insured. The average individual premium for Taiwan Category 1 Items 4-5 insured in 2021 is 2,366 TWD, which falls in the 10-16th intervals. The average premium for Category 2, 3, and 6 Items 2 insured falls in the 3-7th and 13-19th intervals. The average monthly premium for self-employed in Korea as of 2021 is 106,699 KRW, which is in the 13th interval.

However, the premiums for Taiwan in Tables 4-41 and 4-42 do not include dependent premiums. As a result, the actual premium is higher than the amount shown in Tables 4-41 and 4-42. More detailed data on dependent premiums in Taiwan is needed to make a direct comparison with Korea. However, due to data limitations, this study presents an approximate distribution of individual premiums in both countries.

Table 4-41. Distribution of individual premium (employee): Taiwan and Korea, 2021

	Taiwan - Category 1 Items 1-3		Korea - The employee insured			
Classification	1. Civil servants, public office holders, volunteer military personnel 2. Private school teachers and staffers 3. Employees of public/private enterprises and organizations		Workers and employers of all workplaces, Public officials and school employees			
Average insured payroll-related amounts	Category 1: 45,763 TWD		※ Average premium (50%): 127,046 KRW (≅ 3,025 TWD)			
The insured contribution ratio (%)	Category 1 Items 1-3 (30%) ⇒ 710 TWD		50%			
Interval	The insured (person)	Premium range (TWD)	The insured (person)	Population (person)	Average premium (KRW)	Maximum premium (KRW)
Total	8,772,424	na	18,507,426	35,900,466	127,046 (≅ 3,025 TWD)	3,523,950 (≅ 83,904 TWD)
1	438,622	0-399	925,371	1,368,034	26,168 (≅ 623 TWD)	34,300 (≅ 817 TWD)
2	438,622	300-399	925,371	1,407,176	42,646	50,900
3	438,622	300-399	925,371	1,456,352	56,384	61,600
4	438,622	300-399	925,372	1,457,199	62,394	63,450
5	438,621	300-399	925,371	1,429,984	65,108	67,170
6	438,621	300-499	925,371	1,439,608	68,657	70,310
7	438,621	400-499	925,372	1,426,744	72,737	75,460
8	438,621	400-499	925,371	1,436,870	78,053	81,310
9	438,621	400-599	925,371	1,465,413	84,193	86,650
10	438,621	500-599	925,372	1,513,085	90,493	94,250
11	438,621	500-599	925,371	1,577,559	98,272	102,880
12	438,621	500-699	925,371	1,651,439	106,271	111,130
13	438,621	600-799	925,371	1,755,460	116,586	122,100
14	438,621	700-799	925,372	1,881,823	128,819 (≅ 3,067 TWD)	135,910 (≅ 3,236 TWD)
15	438,621	700-899	925,371	2,007,284	143,301	151,740
16	438,621	800-999	925,371	2,165,090	161,457	171,500
17	438,621	900-1,099	925,372	2,366,083	183,806	197,770
18	438,621	1,000-1,299	925,371	2,606,415	214,431	233,280
19	438,621	1,200-1,499	925,371	2,732,469	259,907	295,690
20	438,621	1,400-2,899	925,372	2,756,379	481,229 (≅ 11,458 TWD)	3,523,950 (≅ 83,904 TWD)

Source: Taiwan; calculation using (NHIA (Taiwan), annually(a)) data

Korea; (NHIS (Korea), HIRA (Korea), annually)

Note 1. 1 TWD = 42 KRW

2. (Taiwan) Based on individual premiums, not reflecting the dependents' premiums

3. (Korea) Except: recently retired individuals' premiums, monthly income premiums for workers

Table 4-42. Distribution of individual premium (self-employed): Taiwan and Korea

	Taiwan				Korea			
	- Category 1 Items 4-5, Category 2, Category 3, Category 6 Item 2				- The self-employed insured			
Classification	Category 1 Items 4-5		Category 2, Category 3, Category 6 Item 2		Persons who are neither the employee insured, such as farmers, fishermen, and the self-employed, etc			
Average insured payroll-related amounts	- Category 1: 45,763 TWD		- Category 2: 27,415 TWD - Category 3: 24,000 TWD - Category 6 Item 2: 1,377 TWD		※ Average premium: 106,699 KRW (≅ 2,540 TWD)			
The insured contribution ratio (%)	- Category 1 Items 4-5 (100%) ⇒ 2,366 TWD		- Category 2 (60%) ⇒ 850 TWD - Category 3 (30%) ⇒ 372 TWD - Category 6 Item 2 (60%) ⇒ 826 TWD		100%			
Interval	The insured (person)	Premium range (TWD)	The insured (person)	Premium range (TWD)	Household	Population (person)	Average premium (KRW)	Maximum premium (KRW)
Total	567,622	na	6,052,177	na	8,575,672	14,024,253	106,699 (≅ 2,540 TWD)	3,523,950 (≅ 83,904 TWD)
1	28,382	0-1,499	302,609	0	428,783	569,355	6,652 (≅ 158 TWD)	10,070 (≅ 240 TWD)
2	28,382	1,400-1,799	302,609	0	428,784	536,741	10,376	11,220
3	28,381	1,700-1,799	302,609	0-399	428,783	658,215	12,468	14,380
4	28,381	1,700-1,799	302,609	300-399	428,784	506,197	14,380	14,380
5	28,381	1,700-1,799	302,609	300-399	428,784	428,784	14,380	14,380
6	28,381	1,700-1,799	302,609	300-399	428,783	550,955	17,114	18,810
7	28,381	1,700-1,799	302,609	300-599	428,784	614,226	23,080	27,280
8	28,381	1,700-1,799	302,609	500-799	428,783	589,076	31,707	35,460
9	28,381	1,700-2,299	302,609	700-799	428,784	674,808	42,072	49,160
10	28,381	2,200-2,399	302,609	700-799	428,784	706,071	56,555	65,480
11	28,381	2,300-2,399	302,609	700-799	428,783	722,075	72,297	80,380
12	28,381	2,300-2,399	302,609	700-799	428,784	726,759	88,902	97,270
13	28,381	2,300-2,399	302,609	700-899	428,783	763,849	107,143 (≅ 2,551 TWD)	117,470 (≅ 2,797 TWD)
14	28,381	2,300-2,399	302,609	800-899	428,784	662,488	120,598	127,950
15	28,381	2,300-2,399	302,609	800-899	428,784	806,324	138,932	150,310
16	28,381	2,300-2,699	302,609	800-899	428,783	831,673	162,553	176,110
17	28,381	2,600-3,199	302,609	800-899	428,784	861,323	191,839	209,150
18	28,381	3,100-	302,608	800-899	428,783	903,179	230,351	254,090
19	28,381	3,500-	302,608	800-1,199	428,784	943,487	286,151	326,830
20	28,381	3,500-	302,608	1,100-	428,784	968,668	506,437 (≅ 12,058 TWD)	3,523,950 (≅ 83,904 TWD)

Source: Taiwan; calculation using (NHIA (Taiwan), annually(a)) data

Korea; (NHIS (Korea), HIRA (Korea), annually)

Note 1. 1 TWD = 42 KRW

2. (Taiwan) Based on individual premiums, not reflecting the dependents' premiums



Next, this study compares the supplementary premiums in both countries.

There is a clear distinction between general and supplemental premiums in Taiwan, whereas, in Korea, the two premiums are somewhat blended, leading to a less distinct separation. There is a distinction between monthly wages and non-wage income premiums for Korean workers. However, for the self-employed insured, the premium is calculated by summing the premium points for income, property, and automobiles. Therefore, for comparison, it is necessary to subdivide the premium amount. It's important to note that interest, dividends, pension income, etc., are already included when calculating self-employed income. Consequently, in this study, property and automobile premiums other than income premiums are considered supplementary premiums for the self-employed.

In Taiwan, there have been fewer complaints concerning the fairness of premiums after collecting supplementary premiums in the second-generation reform. On the contrary, NHI premiums based on property for the self-employed in Korea remain controversial. Property premiums were introduced in 1982 due to the difficulty of assessing income, yet they are criticized for assigning excessive financial burdens on the self-employed. In particular, many people experience premium burdens due to property, such as a house they own, even when their income declines after retirement (MOHW (Korea), 2024).



Collecting premiums on the property is not common. Japan also has a partial property premium collecting system. In Japan's community-based insurance schemes, individual municipalities usually determine their contributions (N. Ikegami et al., 2011), which may include some property-based premiums. Approximately fifty percent of the premium is determined by income or assets, with the remaining half being a set of fees per participant or household (N. Ikegami et al., 2011). The insurance premium system is primarily implemented in rural areas to calculate premiums based on income, assets, etc. In the case of assets, the premium is calculated based on a specific percentage related to land and house values (Soo-Yeon Lee et al., 2021).

According to the Korean government, the wages of office workers are transparent, but 73% of the self-employed report an annual income of less than 5 million KRW (420,000 KRW per month), and there is a limit to accurate income verification. For the self-employed, after deducting necessary expenses (average 85%, up to 90% or more), premiums are charged for income (MOHW (Korea), 2018). It also explains that it would be more fair to charge an appropriate level of premiums for the insured with low incomes but many assets, considering the reality of Korea, which tends to have tangible assets (MOHW (Korea), 2017). However, reflecting the actual income identification rate situation, the government plans to gradually reduce premiums for property and automobile items for self-employed individuals (MOHW (Korea), 2018).

In the case of supplementary premiums, there is limited publicly available data from both countries; therefore, this study compares them with the total premiums. In addition, in the case of premiums for self-employed individuals in Korea, they pay based on aggregated points, making it challenging to determine the specific premiums for each category. Therefore, this study estimates the amount of each premium point.

Table 4-43. Premium point: Korea, 2011-2021

Year	Households	Income		Property		Automobile	
		Households	Point	Households	Point	Households	Point
2011	7,897,892	807,808	622,769,516	1,069,897	723,505,665	855,458	92,890,374
2012	7,831,251	868,226	684,992,826	1,120,873	759,500,648	892,895	94,324,379
2013	7,717,811	1,721,894	1,118,029,289	3,526,553	1,471,509,120	3,266,944	230,125,359
2014	7,741,480	1,823,001	1,191,464,708	3,504,493	1,482,870,592	2,962,959	201,240,454
2015	7,665,402	1,911,246	1,267,408,458	3,481,883	1,500,639,642	2,949,891	203,574,646
2016	7,680,471	2,015,091	1,352,717,500	3,523,565	1,558,248,446	2,981,371	211,463,509
2017	7,796,909	2,166,814	1,478,292,553	3,586,304	1,619,001,861	3,016,856	219,382,387
2018	8,057,627	7,972,259	2,235,323,330	3,533,618	1,715,471,999	1,237,891	110,275,119
2019	8,396,191	8,150,110	2,323,169,920	3,628,360	1,789,137,184	1,270,837	112,554,276
2020	8,533,341	8,310,424	2,495,158,372	3,755,099	1,878,277,118	1,301,388	115,557,437
2021	8,789,304	8,502,437	2,589,521,048	3,892,484	1,991,855,754	1,331,101	118,305,524
Year		Living standard, economic activity rate		Housing rent			
		Households	Point	Households	Point		
2011		316,582	107,456,935	44,623	6,812,244		
2012		315,027	106,361,160	49,941	8,100,549		
2013		5,993,815	1,032,482,512	2,703,798	160,579,697		
2014		5,916,871	1,005,158,793	2,545,731	157,360,421		
2015		5,752,161	977,683,967	2,520,216	163,209,357		
2016		5,663,038	967,148,940	2,508,125	175,457,208		
2017		5,626,595	929,571,637	2,520,960	191,085,313		

Source: (NHIS (Korea), HIRA (Korea), annually)

Note: In 2018, the premium collection system underwent reform, removing points related to living standards, economic activity rate, and housing rent.

Table 4-43 shows the premium points for the self-employed insured in Korea. Although each premium point does not represent the premium amount, this study estimates the premium amount as a percentage of each premium point.

Table 4-44 shows the general and supplementary premiums for both countries. As of 2021, the total premium in Taiwan is 624.3 billion TWD. General premiums constitute 90.7% (566.2 billion TWD) of the total premiums (The insured contributes 34.3%, group insurance applicants contribute 37.5%, and the government contributes 18.9%). The supplementary premium amounts to 58.1 billion TWD, representing 9.3% of the total premium (The insured contributes 4.3%, while group insurance applicants contribute 5%).

As of 2021, the total premium in Korea is 69.4869 trillion KRW. Of the total premiums, 85.6% or 59.4666 trillion KRW is the employee-insured premium, and 14.4% or 10 trillion 20.2 billion KRW is the self-employed insured premium. The non-wage monthly income premium of the employee-insured accounts for 1% (726.7 billion KRW) of the total premium, and the insured pays the full amount without any burden from the employer. The estimated income premium of the self-employed insured accounts for 7.9% of the total premium. The estimated premiums for property and automobiles are 6.1% and 0.4% of the total premium, respectively, totaling 6.5%.

Table 4-44. The premium categories: Taiwan and Korea, 2011-2021

(Unit: 100 million TWD, 100 million KRW)

Taiwan (100 million TWD)									
Year	Grand Total	General premium				Supplementary premium			
		Total	Beneficiaries	Group Insurance Applicants	Government	Total	Beneficiaries	Group Insurance Applicants	
2011	4,688	4,688	1,765	1,742	1,182	-	-	-	
%	100	100	(37.6)	(37.2)	(25.2)				
2012	4,824	4,824	1,800	1,822	1,202	-	-	-	
2013	5,066	4,663	1,755	1,804	1,104	403	204	200	
%	100	92.0	(34.6)	(35.6)	(21.8)	8.0	(4.0)	(3.9)	
2014	5,238	4,769	1,789	1,868	1,112	468	250	218	
%	100	91.0	(34.2)	(35.7)	(21.2)	8.9	(4.8)	(4.2)	
2015	5,273	4,799	1,827	1,845	1,126	474	240	234	
2016	5,136	4,692	1,791	1,815	1,086	444	216	228	
2017	5,237	4,788	1,821	1,886	1,080	450	208	241	
2018	5,399	4,934	1,874	1,966	1,094	464	211	253	
2019	5,514	5,038	1,904	2,043	1,091	476	217	258	
2020	5,546	5,074	1,925	2,066	1,083	472	212	260	
2021	6,243	5,662	2,141	2,341	1,181	581	267	314	
%	100	90.7	(34.3)	(37.5)	(18.9)	9.3	(4.3)	(5.0)	
Korea (100 million KRW)									
Year	Grand Total	The employee insured			The self-employed insured				
		Total	Monthly wage	Monthly Income (non-wage)	Total	Income	Property	Automobile	Others*
						calculated as contribution ratio compared to total premium points			
2011	329,221	261,416	261,415	-	67,806	27,190	31,598	4,068	5,018
%	100	79.4	(79.4)		20.6	(8.3)	(9.6)	(1.2)	(1.5)
2012	363,900	293,796	293,797	na	70,103	29,023	32,177	3,996	4,837
2013	390,319	318,751	318,751	na	71,568	19,967	26,265	4,079	21,256
%	100	81.7	(81.7)		18.3	(5.1)	(6.7)	(1.0)	(5.4)
2014	415,938	343,865	341,571	2,293	72,073	21,262	26,451	3,604	20,757
%	100	82.7	(82.1)	(0.6)	17.3	(5.1)	(6.4)	(0.9)	(5.0)
2015	443,298	369,548	367,232	2,316	73,750	22,715	26,919	3,688	20,429
2016	475,931	399,446	396,961	2,485	76,485	24,246	27,917	3,824	20,498
2017	504,168	424,486	421,782	2,705	79,682	26,534	29,084	3,904	20,160
2018	538,965	459,221	455,311	3,909	79,744	43,859	33,652	2,153	-
2019	591,328	507,712	501,953	5,758	83,616	45,989	35,370	2,258	-
2020	631,114	540,194	533,940	6,253	90,921	50,552	38,005	2,364	-
2021	694,869	594,666	587,399	7,267	100,202	55,211	42,486	2,505	-
%	100	85.6	(84.5)	(1.0)	14.4	(7.9)	(6.1)	(0.4)	

* Others: living standard and economic activity rate, rent for house

Source: Taiwan; (NHIA (Taiwan), annually(a))

Korea; calculation using NHIS (NHIS (Korea), 2022; NHIS (Korea), HIRA (Korea), annually) data

Note 1. (Taiwan) The premium receivables in this table are premium receivables of the current bills. They do not include the shortage of 36% of the annual health insurance budget, the lowest amount that the government should burden according to law, and delinquent charge receivables.

2. (Korea) Monthly income premiums have been included since 2012 and shown separately since 2014.

3. (Korea) The employee insurance includes employer premiums.

4. (Korea) The self-employed insured: The calculated amount considers the contribution ratio of premium points.

In summary, the supplementary premiums paid by the insured in Taiwan account for 4.3% of the total insurance premiums. In Korea, the insured's supplementary premium is 7.5% of the total insurance premium (1% for employees and 6.5% for self-employed). When calculating income premiums for the self-employed, it can be more than 7.5%, considering that premiums were calculated, including interest, dividends, pension income, etc.

The insured contributes 38.6% (general premium 34.3% + supplementary premium 4.3%) of the total NHI premiums collected in Taiwan. And in Korea, the insured contributes 57.7% of the total NHI premiums, comprising the employee-insured wage at 42.3% (equivalent to half of 84.5%), the employee-insured non-wage at 1%, and the self-employed premium at 14.4%.

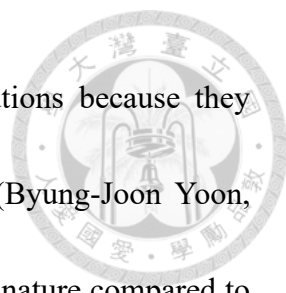
One difference between Taiwan and Korea is that in addition to the employer contribution (public officials, etc.), the Taiwan government also contributes premiums



for some categories of insureds, which accounts for 18.9% of the total premiums (Table 4-44). That means that the actual government contribution to health insurance premiums is high. For instance, the government covers 10% of the employee premium, 40% for occupational union members, and 70% for farmers and fishermen associations.

Furthermore, unlike Taiwan, where the government has explicitly stipulated its financial responsibility for the NHI system in legislation, the current laws governing government subsidies for NHI in Korea are temporary provisions. In Korea, there exists a difference in opinion between the Ministry of Economy and Finance (MOEF), which handles fiscal matters, and the Ministry of Health and Welfare (MOHW), which oversees policy regarding the government's financial support for health insurance. The MOEF opposes expanding government support for health insurance, arguing that it would violate the principle of individual responsibility in social insurance systems. On the other hand, the MOHW advocates for expansion, citing the anticipated increase in medical expenses due to population aging and the need to enhance the guaranteed level of health insurance (Soo-Yeon Lee et al., 2021).

The 2021 study by Soo-Yeon Lee et al. found that in Belgium, France, Germany, Japan, and the Netherlands, there is a common trend of increasing proportion of government support for health insurance financing and a growing reliance on tax-based funding sources (Soo-Yeon Lee et al., 2021). From the perspective of the insured, health



insurance premiums inherently have the nature of social contributions because they cannot claim insurance benefits equivalent to the premiums paid (Byung-Joon Yoon, Joon-Hyeop Lee, 2023). However, premiums are less progressive in nature compared to taxes (Soo-Yeon Lee et al., 2021) in Korea. The type and size of government funding for health insurance significantly impact the sustainability of the health insurance system and the insured's premium burden. A thorough discussion is needed to achieve social consensus among various stakeholders when determining policy directions.

Chapter 5. Comparison of Out-Of-Pocket in Taiwan and Korea



5.1 Copayments

To receive medical care, the insured must bear some expenses (copayments) other than premiums, which is a way to utilize NHI's medical resources appropriately (Po-Chang Lee et al., 2022). The copayment system helps reduce the financial burden incurred when insurers cover the total cost of benefits and prevent unnecessary medical expenditure abuse, such as the practice of frequenting multiple doctors.

Even if copayment systems are necessary to prevent abuse and deterioration of insurance finances and maintain a sense of community in social insurance, the excessive burden may weaken trust in health insurance and make it difficult to protect the economically vulnerable. Therefore, it is tough to determine an appropriate level of copayments. Still, it is necessary to reasonably determine the level of copayments by comprehensively considering specific conditions, such as the degree of pressure on insurance finances and the tendency of the insured (HIRA (Korea), 2022). Copayment does not aim to hinder individuals from receiving necessary treatment. The adjustments to copayments for both outpatients and inpatients have occurred multiple times since the

inception of NHI. These adjustments guide the utilization of medical resources and ensure that hospitals and clinics at various levels fulfill their respective roles (NHIA (Taiwan), annually(b)).



According to Taiwan's NHI Act, the beneficiaries must pay 20 % of the expenses of either ambulatory or emergency care and 5 % of home nursing care expenses; 30 %, 40 %, and 50 % of the costs if they visit outpatient departments of district hospitals, regional hospitals, and medical centers respectively without referral. In addition, if the insured has any of the following reasons, they shall be exempted from copayments.: Severe illness and injury; Child delivery; Receiving medical services in mountainous areas and remote islets (NHI Act (Taiwan)).

Table 5-1 below is the basic copayment for outpatient visits. If people seek medical care directly at a medical center, regional hospital, or district hospital without a referral, they must pay higher copayments. Dental care and traditional Chinese medicine have an unchanging 50 TWD copayment regardless of the level of care (NHIA (Taiwan), annually(b)). An outpatient rehabilitation copayment, including Chinese medicine traumatology, of 50 TWD is charged for each subsequent course of treatment, starting from the second time (excluding rehabilitation physical therapy, etc) (Po-Chang Lee et al., 2022).

Table 5-1. NHI copayments for outpatient visits: Taiwan, 2023

(Unit: TWD)

Type of institution	Basic copayment					
	Western medicine outpatient care		Emergency care		Dentistry	Traditional Chinese medicine
	With referral	Without referral	General	Middle- and low- income / disabled		
Medical center	170	420	750	550	50	50
Regional hospital	100	240	400	300	50	50
District hospital	50	80	150	150	50	50
Clinic	50	50	150	150	50	50

Source: (NHIA (Taiwan), annually(b), www.nhi.gov.tw)

Note 1. Regardless of the level of medical institution, all persons bearing proof of physical and mental disability must pay a basic copayment fixed at the clinic-level fee of 50 TWD for outpatient care.

2. Patients' subsequent follow-up visits after outpatient or emergency surgery, within six weeks after giving birth, or within 30 days after hospitalization shall be a referral, and hospitals shall provide patients proof of the need for a follow-up.

3. This copayment schedule took effect on April 15, 2017. Emergency care copayment is effective from July 1, 2023.

Table 5-2 illustrates the copayment for medicines. There is no copayment for prescriptions under 100 TWD. An additional charge of 20 TWD is applied for each additional 100 TWD of prescription costs, with a maximum ceiling of 300 TWD. Continuous prescriptions for chronic diseases (prescribed for more than 28 days), dental care, and case payment items are exempt from medicine copayments (Po-Chang Lee et al., 2022).

Table 5-2. Copayments for medicines: Taiwan, 2023

(Unit: TWD)

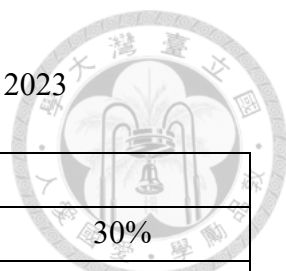
Prescription costs	Copayments for medicines	
	District hospital / Clinic / Traditional Chinese medicine	Medical center / Regional hospital
100 or less	0	10
101-200	20	20
201-300	40	40
301-400	60	60
401-500	80	80
501-600	100	100
601-mohw0	120	120
701-800	140	140
801-900	160	160
901-1,000	180	180
1,001-1,100	200	200
1,101-1,200		220
1,201-1,300		240
1,301-1,400		260
1,401-1,500		280
1,501 or over		300
		Middle- and low- income / disabled 200

Source: (NHIA (Taiwan), www.nhi.gov.tw)

Note: This copayment schedule took effect on July 1, 2023.

Table 5-3 shows the copayment rate for inpatient treatment. By Article 47 of the NHI Act, the inpatient copayment will charge 5–30% of hospitalization medical expenses according to the acute and chronic wards and the length of hospital stay (Po-Chang Lee et al., 2022). The copayment rate for acute wards is higher than that for chronic wards, aiming to encourage individuals to either return home for recovery or transition to chronic wards after the acute phase when hospitalized due to illness (NHIA (Taiwan), www.nhi.gov.tw).

Table 5-3. Copayment rates for inpatient care: Taiwan, 2023



Ward	Copayment rate			
	5%	10%	20%	30%
Acute		30 day or less	31-60 days	61 days or more
Chronic	30 day or less	31-90 days	91-180 days	181 days or more

Source: (NHIA (Taiwan), annually(b))

Table 5-4. Copayment ceiling: Taiwan, 2011-2023

(Unit: TWD)

Year	Copayment ceiling per hospitalization	Copayment ceiling for the whole year
2011	28,000	47,000
2012	31,000	52,000
2013	31,000	52,000
2014	32,000	53,000
2015	33,000	56,000
2016	36,000	59,000
2017	37,000	62,000
2018	38,000	64,000
2019	39,000	65,000
2020	39,000	65,000
2021	41,000	69,000
2022	43,000	72,000
2023	48,000	80,000

Source: (NHIA (Taiwan), www.nhi.gov.tw)

Table 5-4 shows the maximum amount to be borne by the insured for hospitalization in an acute ward for not more than thirty days or in the chronic ward for not more than one hundred and eighty days for the same illness and the maximum amount for the accumulated (NHI Act (Taiwan)). The upper limit of copayments is adjusted every year, and a person who has paid more than the upper limit may apply for a refund before the end of June of the following year (NHIA (Taiwan), 2019).

Table 5-5. Medical benefit payment and copayment: Taiwan, 2011-2021

(Unit: 100 million TWD)

Medical expenses	Year	Grand Total	Medical institution and Community health agency			Medicine
			Total	Outpatient	Inpatient	
Medical benefit payment	2011	4,715	4,481	2,987	1,494	233
	2012	4,911	4,673	3,135	1,538	238
	2013	5,028	4,757	3,217	1,540	271
	2014	5,195	4,902	3,317	1,585	293
	2015	5,357	5,053	3,400	1,653	304
	2016	5,688	5,359	3,622	1,737	329
	2017	6,041	5,690	3,882	1,808	351
	2018	6,328	5,955	4,075	1,881	372
	2019	6,661	6,264	4,307	1,956	397
	2020	6,972	6,517	4,456	2,061	455
	2021	6,725	6,247	4,237	2,010	478
Copayment	2011	361	358	286	72	2.60
	2012	362	360	287	73	2.45
	2013	365	362	287	75	2.72
	2014	375	372	292	80	2.77
	2015	379	377	294	82	2.72
	2016	392	389	301	88	2.81
	2017	404	402	309	93	2.94
	2018	418	415	317	98	3.12
	2019	425	422	321	101	3.30
	2020	409	405	305	100	3.45
	2021	389	385	286	100	3.66

Source: (NHIA (Taiwan), annually(a))

Note 1. Due to the COVID-19 pandemic, the Taiwanese government has changed the payment method for medical benefits. Approved medical benefit payments could not be categorized into outpatient and inpatient services, preventing the finalization of the 2021 expense in this table. The preliminary total expense in 2021 was 723,839 million TWD.

2. This study has separately classified the medication expenses, initially grouped under outpatient costs.



Table 5-5 shows Taiwan's medical benefits and copayments from 2011 to 2021. Total medical expenditure was 711.4 billion TWD as of 2021, 672.5 billion TWD (94.5%) in medical benefits, and 38.9 billion TWD (5.5%) in copayment. Of medical benefits (672.5 billion TWD), outpatient care is 423.7 billion TWD, inpatient care is 201 billion TWD, and medicine is 47.8 billion TWD. Of the copayments (38.9 billion TWD), outpatient care is 28.6 billion TWD, inpatient care is 10 billion TWD, and medicine is 366 million TWD. The proportion of copayment among the total medical expenses was 6.3% for outpatient care, 4.7% for inpatient care, and 0.01% for medicine, respectively.

In Korea, outpatient copayments of 30% for the insured and 40% for dependents were introduced in 1977, regardless of the type of healthcare institution, and a fixed rate system for clinic outpatient copayments was implemented in 1986. Since then, from August 2007, the fixed rate system has been implemented in principle, except for flat medical expenses for individuals aged 65 or older (HIRA (Korea), www.hira.or.kr). Currently, in outpatient care, the copayment rates are applied differently, ranging from 30% to 60%, depending on the type of healthcare institution (Table 5-6).

Table 5-7 shows the medicine's copayments (including the Korean Orphan and Essential Drug Center).

Table 5-6. Copayment rates for outpatient care: Korea, 2023

Type of institution	Copayment rate
Tertiary hospital	Doctor's consultation fee + 60% of medical expenses, excluding doctor's fee
General hospital	Dong region: 50% Eup, Myeon region: 45%
Hospital	Dong region: 40% Eup, Myeon region: 35%
Clinic	30% (However, if you are 65 or older and the medical expenses are less than 15,000 KRW, a flat rate of 1,500 KRW will be applied.)

Source: (HIRA (Korea), www.hira.or.kr)

Note 1. This data is based on general patient criteria. Pregnant women and those under the age of 1 have a lower copayment rate than general patients.

2. 70% of the adult's copayment applies to children under six.

Table 5-7. Copayments for medicines: Korea, 2023

Classification	Age and Total amount		Copayment rates and amount	
Prescription medicine	less than 65 years old		30% of the care benefit expense	
	65 years of age or older	10,000 KRW or less	1,000 KRW	
		10,000 KRW over - 12,000 KRW or less	20% of the care benefit expense	
		12,000 KRW over	30% of the care benefit expense	
Direct preparation of medicine	-	4,000 KRW or less	for a 1 day	1,400 KRW
			for 2 days	1,600 KRW
			for 3 days or more	2,000 KRW
	-	4,000 KRW over	40% of the care benefit expense	

Source: (HIRA (Korea), www.hira.or.kr)

The inpatient copayment rate started with 20% of the insured and 30% of the dependents in the early stages of the medical insurance system in 1977. Then, from 1979 to the present, all healthcare institutions have maintained a 20% copayment rate

regardless of the patient's qualifications (Table 5-8). Those eligible for exemption from copayments include medical care benefits for natural childbirth and inpatient treatment such as newborns, and even in this case, the amount equivalent to 50% of the meal expenses during the hospitalization period is not exempted (HIRA (Korea), 2022).

Table 5-8. Copayment rates for inpatient care: Korea, 2023

	Copayment rate and amount	
	Care benefit expense	Cost of meal
General patient	20% of the care benefit expense	50% of the total cost of meals (basic cost of meals + extra cost of meals)
15 years old or less (excluding newborns)	5% of the care benefit expense	
Newborn (within 28 months)	exemption	
Natural delivery	exemption	
A high-risk pregnant woman	10% of the care benefit expense	
Cesarean delivery	5% of the care benefit expense	
Selective inpatient group (long-term care hospital)	40% of the care benefit expense	exemption
Organs etc. donor's extraction	exemption	

Source: (HIRA (Korea), www.hira.or.kr)

In addition, copayment is reduced and exempted for specific beneficiaries.

- Cancer, cerebrovascular, heart disease, severe burns, severe trauma patients: 5% copayment;
- Patients with rare diseases, severe incurable diseases, and severe dementia: 10% copayment;
- Tuberculosis and latent tuberculosis infection: copayment exemption (MOHW (Korea), annually(d)).

If the copayments exceed the annual upper limit, the insurer shall bear the excess cost (Table 5-9). This policy reduces the burden of high medical expenses for chronic and severe diseases (HIRA (Korea), 2022).

Table 5-9. Copayment ceiling: Korea, 2004-2023

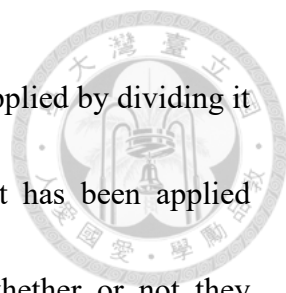
(Unit: 10,000 KRW)

Year	The length of stay	NHI contribution deciles (low income → high income)						
		1	2-3	4-5	6-7	8	9	10
2004.7		300 for six months						
2007.7		200 for six months						
2009.1		200 for year (lower 50%)			300 for year (middle 30%)		400 for year (upper 20%)	
2014		120	150	200	250	300	400	500
2015		121	151	202	253	303	405	506
2016		121	152	203	254	305	407	509
2017		122	153	205	256	308	411	514
2018	up to 120 days	80	100	150	260	313	418	523
	over 120 days	124	155	208				
2019	up to 120 days	81	101	152	280	350	430	580
	over 120 days	125	157	211				
2020	up to 120 days	81	101	152	281	351	431	582
	over 120 days	125	157	211				
2021	up to 120 days	81	101	152	282	352	433	584
	over 120 days	125	157	211				
2022	up to 120 days	83	103	155	289	360	443	598
	over 120 days	128	160	217				
2023	up to 120 days	87	108	162	303	414	497	780
	over 120 days	134	168	227	375	538	646	1,014

Source: (MOHW (Korea), annually(d); NHI Act (Korea))

Note: over 120 days; long-term care hospital

Initially, the copayment maximums were applied uniformly without regard to income level, resulting in the lower-income class experiencing a lower reduction effect than the high-income class. Therefore, the government differentiated the annual



copayment maximum starting in 2009, and starting in 2014, it was applied by dividing it into seven income segments. Since 2018, the upper limit amount has been applied differently from the 1st to 5th income quartiles depending on whether or not they exceed 120 days of hospitalization at long-term care hospitals, and from 2023, this policy covered the entire range (MOHW (Korea), annually(d)). The upper limit of the current copayment is determined by dividing the level of insurance premium burden into the tenth quintile section. As of 2023, if the copayment of patients in the first quintile exceeds 870,000 KRW within 120 days or exceeds 1,340,000 KRW for more than 120 days (long-term care hospital), the NHIS (insurer) will compensate for the excess.

Table 5-10 shows Korea's medical benefits and copayments from 2011 to 2021. The total medical expenditure was 95 trillion 480.2 billion KRW as of 2021; 71 trillion 598.7 billion KRW (75%) was medical benefits, and 23 trillion 881.5 billion KRW (25%) came from copayment. Of medical benefits (71 trillion 598.7 billion KRW), outpatient care is 29 trillion 64.4 billion KRW, inpatient care is 28 trillion 742 billion KRW, and medicine is 13 trillion 792.4 billion KRW. Of the copayments (23 trillion 881.5 billion KRW), outpatient care is 12 trillion 20.1 billion KRW, inpatient care is 6 trillion 658.4 billion KRW, and medicine is 5 trillion 203 billion KRW. The proportion of copayment among the total medical expenses was 29.3% for outpatient care, 18.8%

for inpatient care, and 27.4% for medicine, respectively.



Table 5-10. Medical benefit payment and copayment: Korea, 2011-2021

(Unit: 100 million KRW)

Medical expenses	Year	Grand Total	Medical institution and community health agency			Pharmacy
			Total	Outpatient	Inpatient	
Medical benefit payment	2011	346,632	259,052	132,312	126,740	87,580
	2012	361,308	276,811	140,581	136,229	84,497
	2013	381,199	294,750	150,197	144,552	86,449
	2014	411,476	320,278	163,355	156,923	91,198
	2015	439,851	344,709	171,722	172,987	95,142
	2016	486,708	382,367	188,225	194,142	104,341
	2017	528,739	417,849	206,043	211,806	110,890
	2018	586,963	466,967	231,321	235,646	119,996
	2019	648,410	519,683	258,208	261,475	128,727
	2020	652,452	524,046	257,391	266,655	128,405
	2021	715,987	578,064	290,644	287,420	137,924
Copayment	2011	115,985	82,731	54,991	27,740	33,254
	2012	121,199	88,774	58,522	30,252	32,425
	2013	127,631	94,659	62,469	32,190	32,972
	2014	136,530	101,820	67,172	34,648	34,709
	2015	147,307	110,943	72,553	38,391	36,363
	2016	164,132	124,254	81,068	43,186	39,878
	2017	177,306	134,957	87,709	47,248	42,349
	2018	191,204	145,754	93,280	52,474	45,450
	2019	211,867	163,002	103,744	59,258	48,865
	2020	213,979	165,381	103,582	61,798	48,599
	2021	238,815	186,785	120,201	66,584	52,030

Source: (NHIS (Korea), HIRA (Korea), annually)

5.2. Out-Of-Pocket



This section mainly deals with out-of-pocket (OOP) expenditure comparisons, including health insurance and non-insurance services. The NHI scheme generally provides health insurance benefit services to the public for the prevention, diagnosis, treatment, rehabilitation, maternity, death, and health promotion of illness and injury (NHI Act (Korea)). Table 5-11 describes non-insurance services in both countries in detail.

OOP payments link an individual's or household's economic capabilities to medical use (A. Tandon, K. S. Reddy, 2021). In addition to the copayments of the NHI, some services are out-of-insurance sectors, so people must pay OOP. High OOP payments can substantially burden the general public, especially low-income households (T. J. Lee et al., 2021). Given the general unpredictability of health spending and the financial burden of excessive expenditure, out-of-pocket (OOP) payments should not be used as a critical mechanism for generating revenue for healthcare but only to manage the overutilization of medical resources and reduce waste (A. Tandon, K. S. Reddy, 2021).

Table 5-11. Non-insurance service: Taiwan and Korea, 2023

< Taiwan > 1. Medical service items on which each level of government shall bear the expenses according to other laws or regulations; 2. Immunization and other medical services on which the government shall bear the expenses; 3. Treatment of drug addiction, cosmetic surgery, non-post-traumatic orthodontic treatment, preventative surgery, artificial reproduction, and sex conversion surgery; 4. Over-the-counter drugs and non-prescription drugs which should be used under the guidance of a physician or pharmacist; 5. Services provided by specially designated doctors, specially registered nurses, and senior registered nurses; 6. Blood, except for blood transfusion, is necessary for emergent injury or illness according to the diagnosis by the doctor; 7. Human-subject clinical trials; 8. Hospital daycare, except for psychiatric care; 9. Food other than those which are to be tube feeding and balance billing for wards; 10. Transportation, registration fee, and certificate for the patient; 11. Dentures, artificial eyes, spectacles, hearing aids, wheelchairs, canes, and other treatment equipment not required for positive therapy; 12. Other treatments and drugs stipulated by the Insurer, reviewed by the NHIC, and promulgated by the Competent Authority.
< Korea > 1. Medical care (acts), medicines, materials for medical treatment implemented or used when there is no obstacle to work or daily life - skin diseases such as hair loss due to fatigue and aging, urologic diseases such as insensitivity and snoring, etc. 2. Medical care (acts), medicines, materials for medical treatment implemented or used when the purpose is not to improve essential functions of the body - cosmetic surgery for cosmetic purposes and subsequent treatment, surgery for improving appearance, not for improving vision, orthodontic treatment, jaw and face correction for improving appearance, etc., procedures aimed at enhancing appearance. 3. Medical care (acts), medicines, and materials for medical treatment implemented or used in cases where treating diseases or injuries is not directly aimed. - a medical examination according to one's wishes (excluding a medical exam conducted by the NHIS), vaccination (except for therapeutic purposes), dental scaling, fluoride coating, medical treatment for smoking cessation, etc., genetic testing, and medical treatment to issue various certificates, etc., preventive medical treatment. 4. Where it is difficult to recognize medical care benefits under the insurance benefit policy or where it does not comply with the principle of health insurance benefits - advanced inpatient room costs, diagnosis for paternity test - materials for treatment or treatment such as examination, treatment, surgery, etc., in which the economic feasibility of medical practice, such as cost effect, is unclear. 5. Where it is difficult to recognize medical care benefits due to the conditions of the health insurance system - oriental medicine, physical therapy, and herbal medicine determined and Announced by the Minister of Health and Welfare, oriental herbal medicine based on the prescription of established oriental medicine books, etc.

Source: Taiwan; (NHI Act (Taiwan))

Korea; (NHI Act (Korea); NHI Rules (Korea))

Note: Competent Authority; Ministry of Health and Welfare

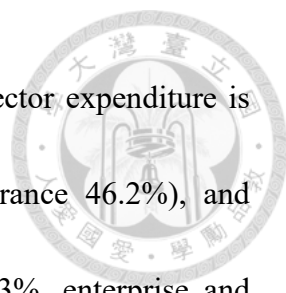
5.2.1 Private Sector Health Spending



This section analyzes the health expenditure data of Taiwan and Korea. This study explicitly focuses on healthcare's financial burden, encompassing household out-of-pocket expenditures. Household financial burden comprises the copayments for insurance benefits services and the out-of-pocket expenses for non-insurance services.

National health expenditure data primarily relies on official statistics and administrative data. However, statistics on information from the private sector, such as household out-of-pocket spending, are often insufficient and challenging to estimate or calculate. Opinions between countries need to be unified for various reasons, sometimes using different indicators or lacking data for classification. Determining the scope of health expenditures is not an absolute criterion but a consensus between countries for international comparison. Countries should use the reliable data that best serves the purpose of national health accounts, and the reliability of out-of-pocket spending statistics is the most critical factor in the accuracy of overall health spending (Hyung-Sun Jung et al., 2022).

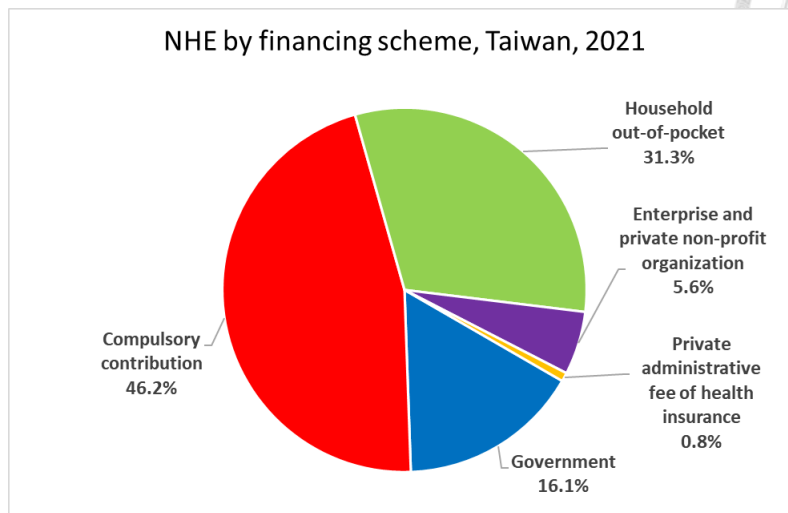
As mentioned in the research method, Taiwan prepares and reports health expenditures based on NHE (National Health Expenditure) and Korea based on CHE (Current Health Expenditure), so care should be taken when comparing directly.



Of Taiwan's national health expenditure in 2021, the public sector expenditure is 62.3% (government 16.1%, compulsory contributory health insurance 46.2%), and private sector expenditure is 37.7% (household out-of-pocket 31.3%, enterprise and private non-profit organization and voluntary health insurance 6.4%). Public sector expenditure increased from 55.4% in 2011 to 62.3% in 2021, and the private sector expenditure decreased from 44.6% in 2011 to 37.7% in 2021. The household OOP burden decreased from 38.1% in 2011 to 31.3% in 2021 (Table 5-12).

In 2021, Taiwan's household out-of-pocket (OOP) expenditure totaled 497 billion TWD. Households spent TWD 308.4 billion (62.1%) on medical care services, of which 11.1% was spent on inpatient care, 31.7% on outpatient care, and 19.3% on other care. The rest of the expenses went to medicine (7.5%), health goods and others (24.5%), and medical equipment and instruments (5.8%). Compared to 2012, the proportion of medical care services in OOP expenditure decreased from 67.9% to 62.1% (Particularly, the ratio of outpatient care decreased from 38.5% to 31.7%). Medical articles and healthy goods increased from 32.1% to 37.9% (Particularly, the ratio of healthy goods and others rose from 16.9% to 24.5%) (Table 5-13).

Table 5-12. NHE by financing scheme: Taiwan, 2011-2021



(Unit: 100 million TWD)

Year	Grand Total	Public Sector			Private Sector		
		Total	Government	Compulsory contributory health insurance	Total	Household Out-of-Pocket	Others*
2011	9,908	5,489	853	4,636	4,419	3,780	639
%	100	55.4	(8.6)	(46.8)	44.6	(38.1)	(6.5)
2012	10,085	5,685	825	4,860	4,400	3,861	539
2013	10,558	5,949	873	5,076	4,610	3,995	614
2014	11,033	6,235	997	5,239	4,797	4,147	650
2015	11,459	6,495	1,059	5,436	4,964	4,282	682
2016	12,060	6,796	1,057	5,739	5,263	4,455	808
2017	12,565	7,199	1,146	6,053	5,366	4,593	773
2018	13,309	7,669	1,286	6,383	5,640	4,764	876
2019	13,771	8,033	1,413	6,620	5,739	4,892	846
2020	14,746	8,820	1,813	7,008	5,925	4,950	975
2021	15,868	9,883	2,556	7,327	5,985	4,970	1,015
%	100	62.3	(16.1)	(46.2)	37.7	(31.3)	(6.4)

Source: (MOHW (Taiwan); NHE, annually)

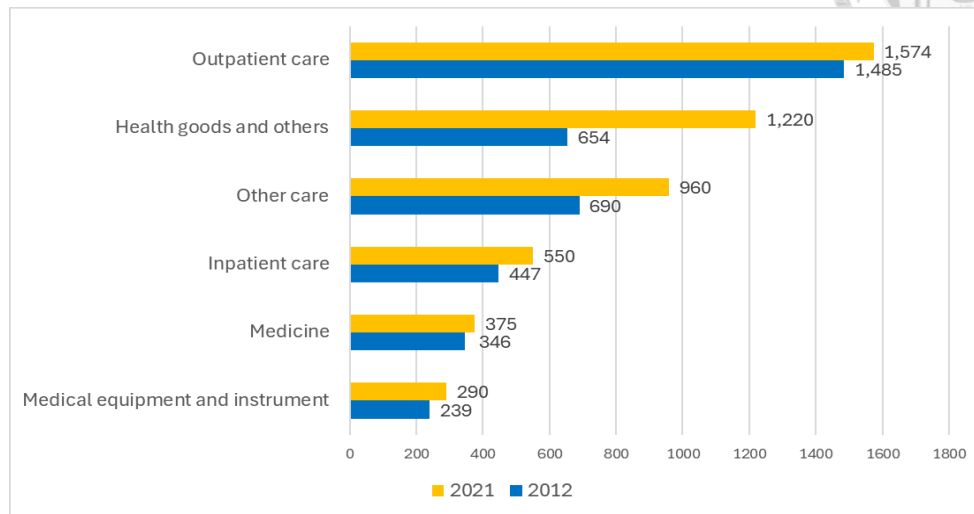
* Others: Enterprise, private non-profit organization, private administrative fee of health insurance

Note: 1. Compulsory contributory health insurance: The table only keeps National Health Insurance.

2. Out-of-pocket: 1) household expenditure on medical equipment and instruments; 2) household expenditure on medical care (including outpatient and inpatient care, dental prosthesis and orthopedics, sanatorium, nursing homes, postpartum nursing care center, traditional medical treatments, etc.; 3) household expenditure on health care appliance (including over-the-counter western, traditional Chinese and herbal medicines, healthy foods, and other medical non-durable goods).

Table 5-13. Household out-of-pocket expenditure: Taiwan, 2011-2021

(Unit: 100 million TWD)



Note: This chart compared data from 2012 and 2021 because detailed 2011 data is not publicly available.

Year	Grand Total	Medical care service				Medical article and healthy goods			Medical equipment and instrument
		Total	In patient care	Out patient care	Other care	Total	Medicine	Healthy goods and others	
2011	3,780	-				-			
2012	3,861	2,622	447	1,485	690	1,239	346	654	239
%	100	67.9	(11.6)	(38.5)	(17.9)	32.1	(9.0)	(16.9)	6.2
2013	3,995	2,725	522	1,476	727	1,270	348	668	254
2014	4,147	2,832	530	1,508	794	1,315	340	699	276
2015	4,282	2,884	553	1,549	783	1,398	357	771	270
2016	4,455	3,005	615	1,558	832	1,449	342	817	290
2017	4,593	3,075	636	1,583	856	1,519	347	864	308
2018	4,764	3,195	638	1,651	905	1,570	351	913	306
2019	4,892	3,248	614	1,662	972	1,643	348	963	332
2020	4,950	3,114	582	1,543	989	1,836	380	1,173	283
2021	4,970	3,084	550	1,574	960	1,885	375	1,220	290
%	100	62.1	(11.1)	(31.7)	(19.3)	37.9	(7.5)	(24.5)	5.8

Source: (MOHW (Taiwan); NHE, annually)

Note 1. Detailed data was not publicly available for 2011.

2. Other care: Sanatorium, home nursing center and postpartum nursing care center, medical laboratory and medical care radiological clinics, traditional medical

3. Medicine: western medicine, Chinese medicine

Table 5-14. Medical benefits of NHI by provider scheme: Taiwan, 2011-2021

(Unit: 100 million TWD)

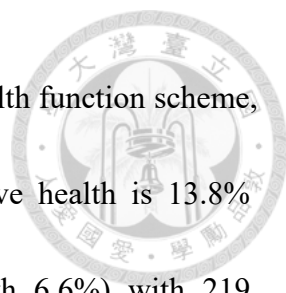
Year	Total	Medical institution	Pharmacies	Other institutions	Others
2011	4,582	4,337	212	29	3
%	100	94.7	4.6	0.6	0.1
2012	4,804	4,547	221	33	3
2013	5,021	4,728	256	35	3
2014	5,181	4,864	277	37	3
2015	5,381	5,051	285	42	3
2016	5,683	5,322	311	32	17
2017	5,997	5,618	328	33	19
2018	6,326	5,924	349	35	19
2019	6,564	6,111	394	39	20
2020	6,951	6,437	453	41	21
2021	7,270	6,683	517	46	25
%	100	91.9	7.1	0.6	0.3

Source: (MOHW (Taiwan); NHE, annually)

Note 1. Medical institution: western medicine, dentistry, Chinese medicine

2. Other institutions: nursing institutions, psychiatric rehabilitation institutions, other medical institutions, etc.

Table 5-14 shows the medical benefits of NHI by provider scheme. Of the total NHE of 1.5868 trillion TWD, 727 billion TWD was distributed to each provider through the medical benefits of NHI. When looking at the share of health insurance medical benefits by provider, healthcare institutions accounted for 94.7%, and pharmacies accounted for 4.6%, respectively, in 2011. As of 2021, there was a change of 91.9% (668.3 billion TWD) for healthcare institutions and 7.1% (51.7 billion TWD) for pharmacies.



As shown in Table 5-15, as of 2021, according to NHE by health function scheme, personal health is 86.2% with 1.3678 trillion TWD, and collective health is 13.8% (capital formation 7.2%, general administration and public health 6.6%) with 219 billion TWD. In 2012, personal health accounted for 88.3% and collective health accounted for 11.7% (capital formation 5.7%, general administration and public health 5.9%).

Table 5-15. NHE by function scheme: Taiwan, 2011-2021

(Unit: 100 million TWD)

Year	Total	Personal health	Capital formation	General administration and public health
2011	9,908	-	-	-
2012	10,085	8,909	577	598
	%	100	88.34	5.72
2013	10,558	9,280	669	609
2014	11,033	9,635	709	689
2015	11,459	9,988	732	739
2016	12,060	10,482	871	707
2017	12,565	10,975	855	735
2018	13,309	11,568	998	743
2019	13,771	12,090	971	710
2020	14,746	12,766	1,141	838
2021	15,868	13,678	1,147	1,043
	%	100	86.20	7.23

Source: (MOHW (Taiwan); NHE, annually)

Note: Detailed data was not publicly available for 2011.

Regarding personal health expenditures in 2021, the public sector accounted for 869.2 billion TWD (63.5%), and the private sector accounted for 498.6 billion TWD

(36.5%). In terms of functional standards for personal health expenditures in 2021, medical care accounted for 1 trillion 121.5 billion TWD (82.0%), and medicine accounted for 82.8 billion TWD (6.1%) (Table 5-16).

Table 5-16. Personal health by function, financing scheme: Taiwan, 2011-2021

(Unit: 100 million TWD)

Year	Personal health	Total	Public Sector		Private Sector	
			Govern ment	Compulsory contributory health insurance	Household out-of- pocket	Others*
2012	Total	8,909 (100%)	232 (2.6%)	4,804 (53.9%)	3,872 (43.5%)	
	Outpatient care	4,616 (51.8%)	62	3,064	1,490	
	Inpatient care	1,903 (21.4%)	44	1,411	448	
	Medical articles and healthy goods, medical equipment, and instruments	1,435 (16.1%)	7	185	1,242	
	Other specialty institutions, Xenopayment of NHI	956 (10.7%)	119	144	692	
2021	Total	13,678 (100%)	1,422 (10.4%)	7,270 (53.2%)	4,970 (36.3%)	16 (0.1%)
	Outpatient care	6,668 (48.7%)	595	4,493	1,574	5
	Inpatient care	2,734 (20.0%)	96	2,086	550	2
	Specialty institutions and other	1,814 (13.3%)	611	239	960	3
	Healthcare appliances and healthy goods	1,333 (9.7%)	109	-	1,220	4
	Medicine	828 (6.1%)	1	450	375	1
	Medical equipment and instrument	301 (2.2%)	10	-	290	1
	Xenopayment of NHI	1	-	1	-	-

Source: (MOHW (Taiwan); NHE, annually)

* Others: Enterprise, private non-profit organization, private administrative fee of health insurance

Note 1. Detailed data was not publicly available for 2011.

2. Other specialty institutions: Psychiatric and specialty institutions, chronic and long-term nursing institutions, traditional medical institutions, etc.

Table 5-17 below summarizes Taiwan's 2021 health expenditure by financing, provider, and function.



Table 5-17. Financing scheme of Taiwan's health expenditure, 2021

(Unit: 100 million TWD)

Financing	Total	Amount	%
		15,868	100.0
	Compulsory contributory health insurance	7,327	46.2
	Household out-of-pocket	4,970	31.3
	Government	2,556	16.1
	Others (Enterprise, private non-profit organization, private administrative fee of health insurance)	1,015	6.4



Provider	Total	Amount	%
		15,868	100.0
	Medical benefits (insurance services)	7,270	45.8
	- Medical institution	(6,683)	(42.1)
	- Pharmacies	(517)	(3.3)
	- Other institutions, etc	(46)	(0.4)
	Others (non-insurance services, etc)	8,598	54.2



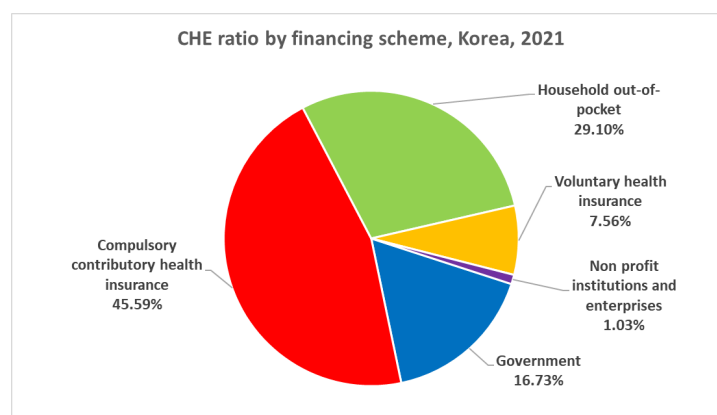
Function	Total	Amount	%
		15,868	100.0
	Personal health	13,678	86.2
	Capital formation	1,147	7.2
	General administration and public health	1,043	6.6

Source: Edited using (MOHW (Taiwan); NHE, annually) data

Of Korea's current health expenditure in 2021, the public sector expenditure (government 16.7%, compulsory contributory health insurance 45.6%) is 62.3%, and private sector expenditure (household out-of-pocket 29.1%, enterprise, and private non-profit organization and voluntary health insurance 8.6%) is 37.7%. Public sector expenditure increased from 59.1% in 2011 to 62.3% in 2021, and the private sector expenditure decreased from 40.9% in 2011 to 37.7% in 2021. The household OOP burden decreased from 34.9% in 2011 to 29.1% in 2021 (Table 5-18).

The medical aid system in Korea is part of government funding because it operates differently from health insurance. Korea's compulsory contributory health insurance includes NHI, long-term care, industrial accident, and automobile insurance. Automobile insurance is the only one that falls under mandatory private health insurance. Automobile insurance belongs to compulsory insurance because it is legally mandated to serve a specific social purpose, even if private companies run it (Hyung-Sun Jung et al., 2022).

Table 5-18. CHE by financing scheme: Korea, 2011-2021



(Unit: 100 million KRW)

Year	Grand Total	Public Sector			Private Sector		
		Total	Government	Compulsory contributory health insurance	Total	Household Out-Of-Pocket	Others*
2011	821,493	485,297	89,303	395,994	336,196	286,965	49,230
%	100	59.1	(10.9)	(48.2)	40.9	(34.9)	(6.0)
2012	868,747	505,330	91,239	414,090	363,418	306,935	56,482
2013	923,109	537,776	96,253	441,523	385,333	322,212	63,121
2014	1,000,950	578,426	104,200	474,226	422,524	347,921	74,603
2015	1,092,513	632,247	115,543	516,704	460,265	376,558	83,707
2016	1,196,002	692,218	121,808	570,410	503,784	407,292	96,493
2017	1,293,694	756,127	133,765	622,362	537,568	432,614	104,954
2018	1,421,974	837,244	142,432	694,812	584,730	470,024	114,705
2019	1,573,238	934,411	158,348	776,064	638,826	497,320	141,507
2020	1,620,462	994,395	198,654	795,742	626,067	469,730	156,337
2021	1,933,158	1,204,634	323,384	881,250	728,524	562,526	165,998
%	100	62.3	(16.7)	(45.6)	37.7	(29.1)	(8.6)

Source: (KOSIS; CHE, annually)

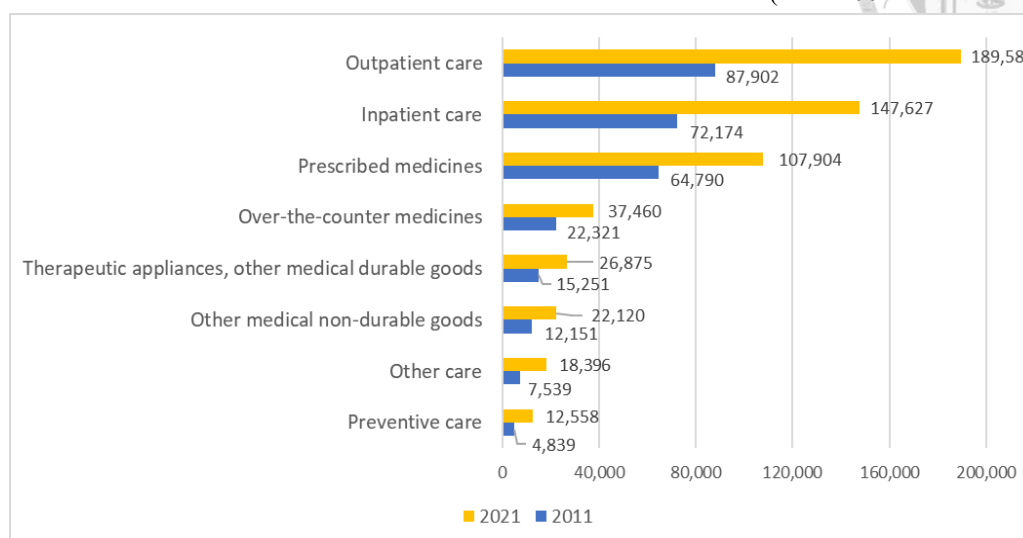
* Others: Voluntary health insurance, non-profit institutions, enterprises

Note: Compulsory contributory health insurance; NHI, long-term care insurance, industrial accident insurance, automobile insurance

Korea's household out-of-pocket (OOP) expenditure in 2021 was 56.2526 trillion KRW, with spending on medical care services amounting to 35.5610 trillion KRW, accounting for 63.2% (outpatient care 33.7%, inpatient care 26.2%). Medical goods (34.6%) and preventive care (2.2%) followed. Compared to 2011, the proportion of OOP expenditure allocated to medical care services increased from 58.4% to 63.2% (with outpatient care rising from 30.6% to 33.7%), while spending on medical goods decreased from 39.9% to 34.6% (Table 5-19).

Table 5-19. Household out-of-pocket expenditure: Korea, 2011-2021

(Unit: 100 million KRW)



Year	Grand total	Medical care service				Medical goods			Preventive care
		Total	Inpatient care	Outpatient care	Other care	Total	Pharmaceutical, other medical non-durable goods	Therapeutic appliances, other medical durable goods	
2011	286,965	167,614	72,174	87,902	7,539	114,513	99,262	15,251	4,839
%	100	58.4	(25.2)	(30.6)	(2.6)	39.9	(34.6)	(5.3)	1.7
2012	306,935	184,773	81,396	97,938	5,439	116,145	101,763	14,382	6,018
2013	322,212	196,511	85,916	104,478	6,116	119,366	103,494	15,872	6,335
2014	347,921	214,112	93,874	114,279	5,959	127,141	108,928	18,212	6,669
2015	376,558	229,979	99,715	122,834	7,430	139,559	116,174	23,385	7,020
2016	407,292	248,830	102,660	137,935	8,235	151,072	126,065	25,007	7,390
2017	432,614	268,198	112,889	145,738	9,571	156,531	133,061	23,470	7,885
2018	470,024	295,211	125,714	157,330	12,167	166,700	140,936	25,764	8,114
2019	497,320	310,211	135,686	160,834	13,691	177,337	148,662	28,676	9,772
2020	469,730	276,468	115,121	148,509	12,838	182,462	163,031	19,432	10,800
2021	562,526	355,610	147,627	189,588	18,396	194,358	167,483	26,875	12,558
%	100	63.2	(26.2)	(33.7)	(3.3)	34.6	(29.8)	(4.8)	2.2

Source: (KOSIS; CHE, annually)

Note 1. Other care: day curative and rehabilitative care, home-based curative and rehabilitative care, day long-term care, outpatient long-term care, home-based long-term care

2. Pharmaceuticals: prescribed medicines, over-the-counter medicines



In Korea, when generating data on household OOP expenses, the primary source for calculation is the medical expenses survey data conducted by NHIS, supplemented by information from the service industry survey conducted by Statistics Korea. Data for unclassified categories, such as eyeglasses and medical equipment, utilize estimates from the household income and expenditure survey (Hyung-Sun Jung et al., 2022).

In Korea, NHIS conducts an annual survey on medical expenses to determine the proportion of health insurance coverage and the percentage of patients' out-of-pocket costs. The surveyed institution must have more than six months of medical records among all medical institutions registered with health insurance and should use a computerized billing program. The health insurance patient medical expenses survey is a sample survey. It identifies the total medical expenses, including out-of-pocket costs incurred by health insurance patients visiting medical institutions for treatment. Calculate the health insurance coverage, copayment, and out-of-pocket rates from this. In 2021, the institutions surveyed for medical expenses totaled 2,421 (2.5%) out of 95,024 institutions, including hospitals, clinics, and pharmacies (NHIS (Korea), 2023).

Table 5-20 shows CHE by provider scheme in Korea. Of the total CHE of 193.3158 trillion KRW in 2021, hospital providers accounted for 82.9062 trillion KRW (42.9%), ambulatory health care providers accounted for 56.4480 trillion KRW (29.2%) and pharmacy providers 25.0393 trillion KRW (13.0%) respectively.

Table 5-20. CHE by provider scheme: Korea, 2011-2021

(Unit: 100 million KRW)

Year	Total	Hospitals	Ambulatory health care	Pharmacies	Others*
2011	821,493	361,178	203,942	153,477	102,896
%	100	44.0	24.8	18.7	12.5
2012	868,747	384,717	219,521	156,030	108,479
2013	923,109	417,281	232,854	156,521	116,454
2014	1,000,950	444,082	263,596	162,060	131,212
2015	1,092,513	492,603	279,860	169,519	150,530
2016	1,196,002	541,258	310,018	185,676	159,051
2017	1,293,694	583,310	339,835	198,125	172,425
2018	1,421,974	637,637	383,274	211,916	189,146
2019	1,573,238	702,154	436,938	226,358	207,787
2020	1,620,462	716,819	434,650	236,416	232,576
2021	1,933,158	829,062	564,480	250,393	289,223
%	100	42.9	29.2	13.0	15.0

Source: (KOSIS; CHE, annually)

* Others: residential long-term care facilities, ancillary services, retail sellers and other suppliers of durable medical goods and medical appliances, other miscellaneous sellers and other suppliers of pharmaceuticals and medical goods

Note: ambulatory health care; medical practices, dental practices, providers of home health care services, other health care practitioners, providers of preventive care, providers of health care system administration and financing, other domestic and overseas sectors

According to the CHE by function scheme, personal health is 87.6% with 169.4034 trillion KRW, and collective health is 12.4% (preventive care 9.0%, administration of health financing 2.1%, governance and health system administration 1.3%) with 20.6254 trillion KRW. In 2011, personal health accounted for 92.9%, and collective health accounted for 7.1% (Table 5-21).

Table 5-21. CHE by function scheme: Korea, 2011-2021

(Unit: 100 million KRW)

Year	Total	Personal health	Preventive care	Administration of health financing	Governance and health system administration
2011	821,493	763,034	27,106	18,178	13,176
%	100	92.9	3.3	2.2	1.6
2012	868,747	806,349	29,565	20,205	12,628
2013	923,109	858,084	32,621	19,807	12,596
2014	1,000,950	928,368	35,398	23,245	13,939
2015	1,092,513	1,010,447	44,001	23,952	14,113
2016	1,196,002	1,111,091	44,719	26,525	13,666
2017	1,293,694	1,198,625	51,600	28,798	14,671
2018	1,421,974	1,323,715	50,613	31,394	16,251
2019	1,573,238	1,462,117	56,607	36,337	18,177
2020	1,620,462	1,485,523	71,108	38,298	25,533
2021	1,933,158	1,694,034	174,233	39,706	25,185
%	100	87.6	9.0	2.1	1.3

Source: (KOSIS; CHE, annually)

Based on financial resources among personal care expenditures in 2021, the public sector accounted for 58.9%, with 99.6996 trillion KRW (compulsory contributory health insurance 49.1%, government 9.8%), while the private sector accounted for 41.1%, with 69.7038 trillion KRW (households' out-of-pocket 32.5%, others 8.7%).

Regarding the functional standards of personal care expenditures in 2021, inpatient care accounted for 39.2% (66.4678 trillion KRW), outpatient care accounted for 32.6% (55.2628 trillion KRW), and pharmacies accounted for 18.7% (prescribed medicines 16.2%, over-the-counter medicines 2.5%), totaling 31.7182 trillion KRW (Table 5-22).

Table 5-22. Personal health by function, financing scheme: Korea, 2011-2021

(Unit: 100 million KRW)

Year	Personal health	Total	Public Sector		Private Sector	
			Government	Compulsory contributory health insurance	Household out-of-pocket	Others*
2011	Total	763,034 (100%)	64,708 (8.5%)	372,563 (48.8%)	282,127 (37.0%)	43,636 (5.7%)
	Inpatient care	277,171 (36.3%)	33,273	148,712	72,174	23,013
	Outpatient care	237,497 (31.1%)	14,979	115,688	87,902	18,928
	Prescribed medicines	163,840 (21.5%)	11,419	85,967	64,790	1,663
	Other care	29,604 (3.9%)	4,393	17,672	7,539	-
	Over-the-counter medicines	26,400 (3.5%)	475	3,571	22,321	32
	Therapeutic appliances, other medical durable goods	16,169 (2.1%)	169	750	15,251	-
	Other medical non-durable goods	12,353 (1.6%)	-	202	12,151	-
2021	Total	1,694,034 (100%)	165,853 (9.8%)	831,143 (49.1%)	549,968 (32.5%)	147,070 (8.7%)
	Inpatient care	664,678 (39.2%)	100,907	345,761	147,627	70,382
	Outpatient care	552,628 (32.6%)	28,188	263,766	189,588	71,087
	Prescribed medicines	274,735 (16.2%)	19,639	141,653	107,904	5,539
	Other care	104,810 (6.2%)	15,574	70,841	18,396	-
	Over-the-counter medicines	42,447 (2.5%)	670	4,254	37,460	62
	Other medical non-durable goods	30,196 (1.8%)	591	2,730	26,875	-
	Therapeutic appliances, other medical durable goods	24,540 (1.4%)	284	2,137	22,120	-

Source: (KOSIS; CHE, annually)

* Others: voluntary health insurance, non-profit institutions, enterprises

Note 1. compulsory contributory health insurance: NHI, long-term care insurance, industrial accident insurance, automobile insurance

2. other care: day curative and rehabilitative care, home-based curative and rehabilitative care, day long-term care, outpatient long-term care, home-based long-term care

Table 5-23 below summarizes Korea's 2021 health expenditure by financing, provider, and function.



Table 5-23. Financing scheme of Korea's health expenditure, 2021

(Unit: 100 million KRW)

Financing	Total	Amount	%
		1,933,158	100.0
	Compulsory contributory health insurance	881,250	45.6
	Household out-of-pocket	562,526	29.1
	Government	323,384	16.7
	Others (Voluntary health insurance, Non-profit institutions, Enterprises)	165,998	8.6



Provider	Total	Amount	%
		1,933,158	100.0
	Hospitals	829,062	42.9
	Ambulatory health care	564,480	29.2
	Others*	289,233	15.0
	Pharmacies	250,393	13.0



Function	Total	Amount	%
		1,933,158	100.0
	Personal health	1,694,034	87.6
	Preventive care	174,233	9.0
	Administration of health financing	39,706	2.1
	Governance and health system administration	25,185	1.3

Source: Edited using (KOSIS; CHE, annually) data

* Others: residential long-term care facilities, ancillary services, retail sellers and other suppliers of durable medical goods and medical appliances, other miscellaneous sellers and other suppliers of pharmaceuticals and medical goods

5.2.2 Health Expenditures: Focusing on Household Income and Expenditure Survey



As mentioned in Chapter 1, Taiwan's family income and expenditure survey includes life and casualty insurance in the health expenditure category. Therefore, when comparing the trend of health expenditure ratios with Korea, it is essential to note that the items included differ. In addition, Taiwan conducts an annual household survey based on yearly expenditures, while Korea conducts a monthly survey based on monthly costs. Therefore, this study divided Taiwan's annual expenditure into 12 months to create monthly expenditure for comparison with Korea.

Before comparing household health expenditures in the two countries, this study briefly examines the ratio of spending to consumption expenditure by survey item in the household trend survey. In Taiwan, the top five household consumption expenditures are in the order of 1) Housing, water, electricity, gas, and other fuels; 2) Health; 3) Food and non-alcoholic beverages; 4) Restaurants and hotels; and 5) Transport. For Korea, the top five household consumption expenditures are in the order of 1) Food and soft drinks; 2) Restaurants and hotels; 3) Housing, water, electricity, gas, and other fuels; 4) Transportation; and 5) Health. The five high-spending items are the same, but there are differences in the percentage of spending on each. Consumption expenditure items

ranked 1-4 account for more than 10% each (Table 5-24).



Table 5-24. Consumption expenditure ratios: Taiwan and Korea, 2011-2021

(Unit: %)

Taiwan				Korea			
Consumption expenditure ratio	2011	2016	2021	Consumption expenditure ratio	2011	2016	2021
4. Housing, water, electricity, gas and other fuels	24.39	24.22	24.58	1. Food and soft drinks	14.31	13.89	15.92
6. Health	14.62	15.33	17.78	11. Restaurants and hotels	12.53	13.42	13.54
1. Food and non-alcoholic beverages	14.89	14.63	14.67	4. Housing, water, electricity, gas and other fuels	10.98	11.84	11.95
11. Restaurants and hotels	10.16	11.83	12.77	7. Transportation	12.09	11.76	11.49
7. Transport	9.68	9.11	9.03	6. Health	6.78	7.26	9.08
12. Miscellaneous goods and services	5.63	5.45	5.08	12. Other miscellaneous goods and services	9.17	8.61	8.25
10. Education	5.1	3.83	3.27	10. Education	11.34	9.87	7.28
9. Recreation and culture	5.28	5.55	3.07	9. Entertainment and culture	5.38	5.98	5.72
5. Furnishings, household equipment, routine household maintenance	2.49	2.43	2.94	5. Household equipment, housekeeping services	3.75	4.27	5.21
8. Communication	3.31	3.54	2.92	3. Clothing and footwear	6.51	6.17	5.04
3. Clothing and footwear	3.1	2.95	2.73	8. Communication	5.93	5.52	4.96
2. Tobacco, alcoholic beverages and betel nuts	1.34	1.13	1.15	2. Alcoholic beverages and cigarette	1.22	1.41	1.56

Source: Taiwan; (Executive Yuan (Taiwan); Household survey, annually)

Korea; (KOSIS; Household survey, annually)

Table 5-25 shows the current status of household expenditure in Taiwan. The average household expenditure in 2021 is 86,576 TWD, of which the average non-consumption expenditure is 18,622 TWD, and the average consumption expenditure is 67,954 TWD. Health expenditure was 12,080 TWD of the consumption expenditure, accounting for 17.8%. Compared to 2011, health expenditures increased by about 1.4 times, from 8,884 TWD 2011 to 12,080 TWD in 2021.

Table 5-25. Household health expenditure: Taiwan, 2011-2021

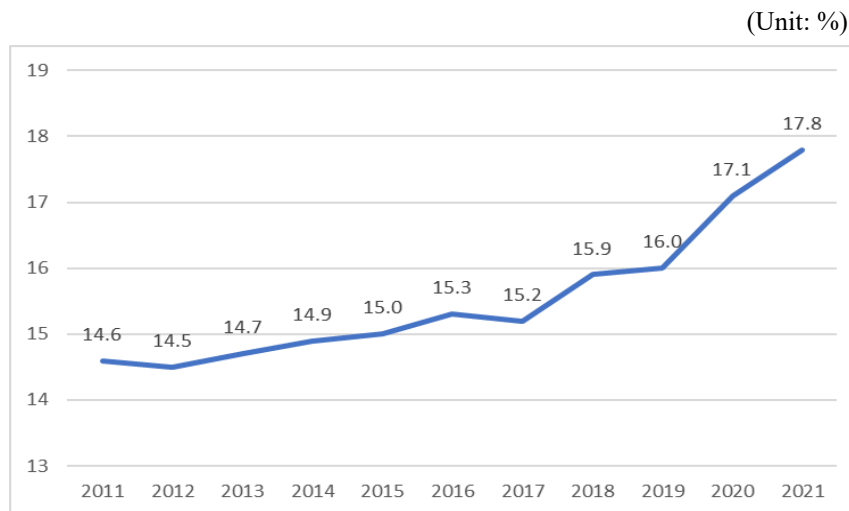
(Unit: TWD)

Year	Expenditure				
	Grand total	Non-consumption expenditure	Consumption expenditure		
			Total	• Health	• Miscellaneous goods and services
2011	77,107	16,356	60,751	8,884	3,419
%			100	14.6	5.6
2012	77,207	16,566	60,641	8,822	3,279
2013	78,832	16,505	62,327	9,143	3,525
2014	79,687	16,756	62,931	9,356	3,495
2015	80,170	16,866	63,304	9,525	3,454
2016	81,522	16,788	64,734	9,924	3,530
2017	85,320	17,681	67,639	10,314	3,668
2018	85,340	17,727	67,613	10,719	3,580
2019	86,972	17,872	69,100	11,060	3,608
2020	85,764	17,839	67,925	11,584	3,475
2021	86,576	18,622	67,954	12,080	3,451
%			100	17.8	5.1

Source: (Executive Yuan (Taiwan); Household survey, annually)

Note: This study indicated health and miscellaneous items as examples of consumption expenditure.

Figure 5-1 shows the proportion of health expenditures among consumption expenditures from 2011 to 2021, increasing from 14.6% in 2011 to 17.8% in 2021.



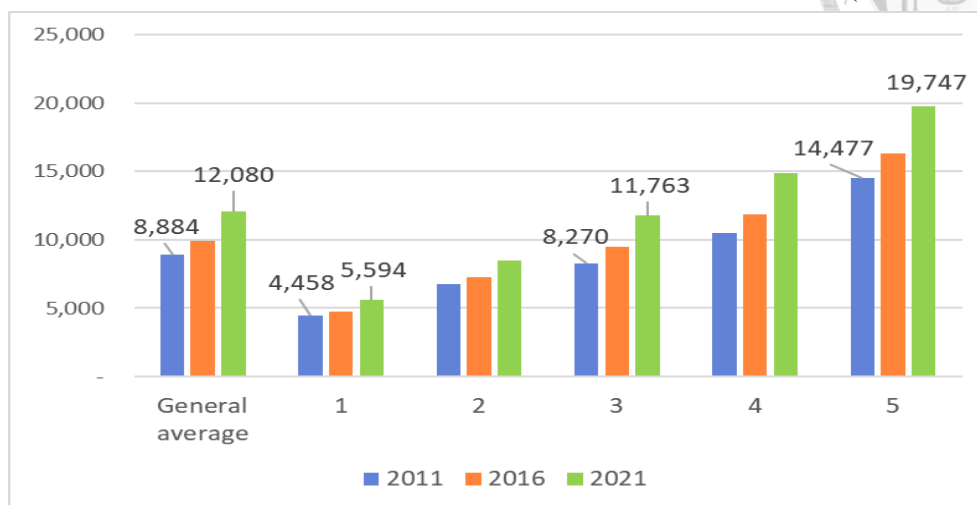
Source: (Executive Yuan (Taiwan); Household survey, annually)

Figure 5-1. Health expenditures rate: Taiwan, 2011-2021

The household survey also shows data on health spending by income quintile. In the first quintile, health expenditure increased 1.3 times from 4,458 TWD (16.4%) in 2011 to 5,594 TWD (17.9%) in 2021. In the second quintile, expenditure rose 1.3 times from 6,730 TWD (15.5%) in 2011 to 8,463 TWD (17.7%) in 2021. In the third quintile, expenditure increased 1.4 times from 8,270 TWD (14.3%) in 2011 to 11,763 TWD (18.0%) in 2021. In the fourth quintile, expenditure increased 1.4 times from 10,485 TWD (14.4%) in 2011 to 14,836 TWD (18.1%) in 2021. In the fifth quintile, expenditure increased 1.4 times from 14,477 TWD (14.2%) in 2011 to 19,747 TWD (17.7%) in 2021 (Table 5-26).

Table 5-26. Health expenditure by quintile income: Taiwan, 2011-2021

(Unit: TWD)



Year	Expenditures	General average	Five equal divisions of households according to income				
			1	2	3	4	5
2011	Consumption expenditures	60,751	27,138	43,507	57,934	72,958	102,217
	Health	8,884	4,458	6,730	8,270	10,485	14,477
	Ratio (%)	14.6	16.4	15.5	14.3	14.4	14.2
2016	Consumption expenditures	64,734	28,982	46,575	62,317	77,648	108,150
	Health	9,924	4,725	7,278	9,471	11,868	16,280
	Ratio (%)	15.3	16.3	15.6	15.2	15.3	15.1
2021	Consumption expenditures	67,954	31,338	49,225	65,298	82,108	111,798
	Health	12,080	5,594	8,463	11,763	14,836	19,747
	Ratio (%)	17.8	17.9	17.2	18.0	18.1	17.7

Source: (Executive Yuan (Taiwan); Household survey, annually)

Table 5-27 shows the current status of household expenditure in Korea. The average household expenditure in 2021 is 3,374,709 KRW, of which the average non-consumption expenditure is 879,855 KRW, and the average consumption expenditure is 2,494,854 KRW. Health expenditure was 226,410 KRW, which was 6.8% of the consumption expenditure. Compared to 2011, health expenditures increased by about 1.6 times, from 142,565 KRW in 2011 to 226,410 KRW in 2021.

Table 5-27. Household health expenditure: Korea, 2011-2021

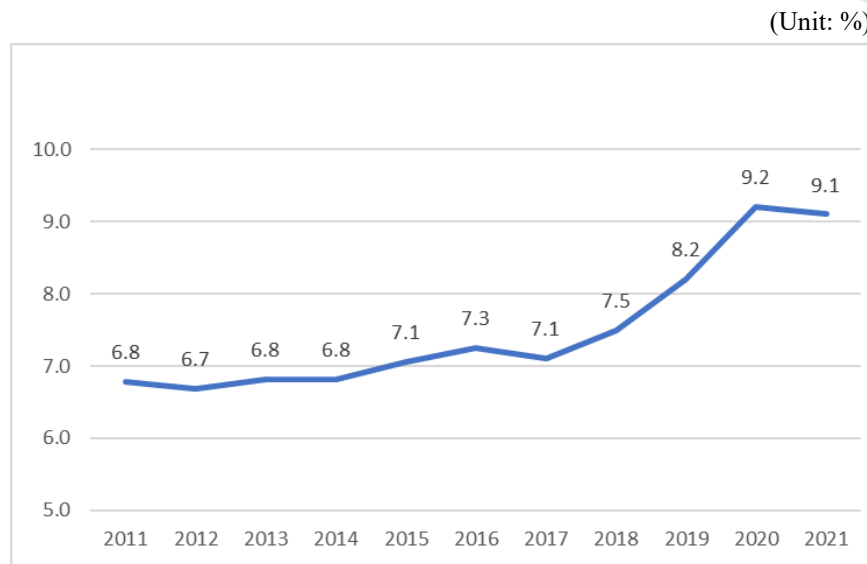
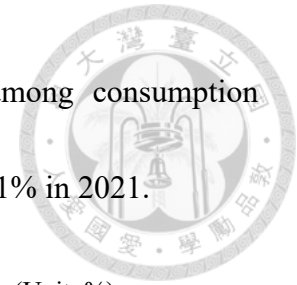
(Unit: KRW)

Year	Expenditures				
	Grand total	Non-consumption expenditure	Consumption expenditure		
			Total	• Health	• Miscellaneous goods and services
2011	2,738,529	636,267	2,102,262	142,565	192,742
%			100	6.8	9.2
2012	2,825,615	668,928	2,156,687	144,144	190,405
2013	2,846,644	680,025	2,166,619	147,681	177,087
2014	2,901,814	695,477	2,206,337	150,261	186,860
2015	2,886,649	693,649	2,193,001	154,842	185,922
2016	2,857,967	692,879	2,165,089	157,129	186,324
2017	3,316,143	759,319	2,556,823	181,796	201,712
2018	3,326,764	789,123	2,537,641	191,120	192,282
2019	3,329,804	873,126	2,456,678	202,279	206,182
2020	3,239,681	839,559	2,400,123	220,558	203,873
2021	3,374,709	879,855	2,494,854	226,410	205,836
%			100	9.1	8.3

Source: (KOSIS; Household survey, annually)

Note: This study indicated health and miscellaneous items as examples of consumption expenditure.

Figure 5-2 shows the proportion of health expenditures among consumption expenditures from 2011 to 2021, increasing from 6.8% in 2011 to 9.1% in 2021.



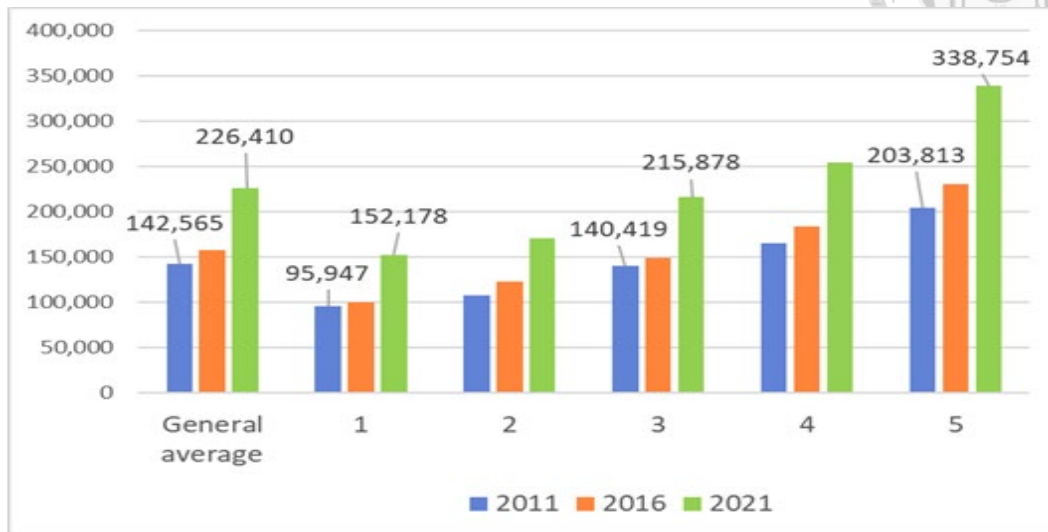
Source: (KOSIS; Household survey, annually)

Figure 5-2. Health expenditure rate: Korea, 2011-2021

According to Table 5-28, health expenditure in the first income quintile increased by about 1.6 times from 95,947 KRW (11.96%) in 2011 to 152,178 KRW (13.2%) in 2021. In the second income quintile, health expenditure increased about 1.6 times from 107,281 KRW (7.32%) in 2011 to 170,599 KRW (10.1%) in 2021. In the third income quintile, expenditure increased 1.5 times from 140,419 KRW (6.6%) in 2011 to 215,878 KRW (9.5%) in 2021. In the fourth income quintile, health expenditure increased about 1.5 times from 165,242 KRW (6.29%) in 2011 to 254,489 KRW (8.4%) in 2021. In the fifth income quintile, the expenditure increase is 1.7 times from 203,813 KRW (5.8%) in 2011 to 338,754 KRW (7.9%) in 2021.

Table 5-28. Health expenditure by quintile income: Korea, 2011-2021

(Unit: KRW)



Year	Expenditures	General average	Five equal divisions of households according to income				
			1	2	3	4	5
2011	Consumption expenditures	2,102,262	802,489	1,466,374	2,121,152	2,627,172	3,491,571
	Health	142,565	95,947	107,281	140,419	165,242	203,813
	Ratio (%)	6.78	11.96	7.32	6.62	6.29	5.84
2016	Consumption expenditures	2,165,089	787,549	1,430,840	2,086,599	2,744,358	3,773,632
	Health	157,129	100,421	122,321	149,068	183,239	230,489
	Ratio (%)	7.26	12.75	8.55	7.14	6.68	6.11
2021	Consumption expenditures	2,494,854	1,150,350	1,697,383	2,283,702	3,026,468	4,313,942
	Health	226,410	152,178	170,599	215,878	254,489	338,754
	Ratio (%)	9.08	13.23	10.05	9.45	8.41	7.85

Source: (KOSIS; Household survey, annually)

5.3 Comparison of Out-Of-Pocket in Taiwan and Korea



This section presents the discussion points by comparing and analyzing sections 5.1 and 5.2 data from the two countries.

Table 5-29 shows both countries' medical benefit payments and copayments in 2021. Copayment accounted for about 5.5% of Taiwan's health insurance service medical expenses. The copayment rate is 6.3% for outpatient care, 4.7% for inpatient care, and 0.8% for medicine, all of which are less than 10%. In contrast, copayment accounted for 25% of the total medical expenses in Korea. The copayment rate is 29.3% for outpatient care, 18.8% for inpatient care, and 27.4% for medicine.

The average copayment rate in both countries is significantly different, with Taiwan at 5.5% and Korea at 25%. In particular, the difference in the medicine copayment rate is enormous. The medicine copayment rate in Taiwan was 0.8%, but in Korea, it is 27.4%. Both countries have copayment ceiling systems, and Taiwan reimbursed 300 million TWD, or 0.8% of 38.9 billion TWD, in 2021, and Korea reimbursed 2.386 trillion KRW, or 10% of 23.8815 trillion KRW in copayment. In Korea, those in the bottom 50% of the income distribution accounted for 68.5% of the copayment reimbursement, and by age, those 65 and older accounted for 64.5% (MOHW (Korea), 2022(b)).

Table 5-29. Medical benefit payment and copayment: Taiwan and Korea, 2021

(Unit: 100 million TWD, 100 million KRW)

	Medical expenses		Grand Total	Medical institution			Pharmacy
				Total	Outpatient	Inpatient	
Taiwan (100 million TWD)	Total		7,114	6,633	4,523	2,110	482
	Medical benefit payment		6,725	6,247	4,237	2,010	478
		%	94.5	94.2	93.7	95.3	99.2
	Copayment		389	385	286	100	3.7
		%	5.5	5.8	6.3	4.7	0.8
	Reimbursement for the excess copayment		3 (0.8% of the copayment)				
Korea (100 million KRW)	Total		954,802	764,849	410,845	354,004	189,953
	Medical benefit payment		715,987	578,064	290,644	287,420	137,924
		%	75.0	75.6	70.7	81.2	72.6
	Copayment		238,815	186,785	120,201	66,584	52,030
		%	25.0	24.4	29.3	18.8	27.4
	Reimbursement for the excess copayment		23,860 (10% of the copayment)				

Source: Taiwan; (NHIA (Taiwan), annually(a))

Korea; (MOHW (Korea), 2022(b); NHIS (Korea), HIRA (Korea), annually)

Note 1. (Taiwan) Because of the COVID-19 pandemic, benefit payment methods have changed. Approved medical benefit payments could not be categorized into outpatient and inpatient services, preventing the finalization of the 2021 expense in this table. The preliminary total expense in 2021 was 723,839 million TWD.

2. (Taiwan) This study classified pharmacy expenditure separately, previously included in outpatient care.

Table 5-30 below is subject to Taiwan's copayment exemption, and its scope is broad. In particular, exemptions from copayment expenses for catastrophic and rare diseases are noticeable. There are 30 catastrophic diseases, including cancer, chronic

mental illness, kidney dialysis, and congenital conditions. Korea has fewer copayment exemptions than Taiwan. In Korea, there is a copayment of 5% for patients with severe disease and 10% for patients with rare disease (HIRA (Korea), www.hira.or.kr).

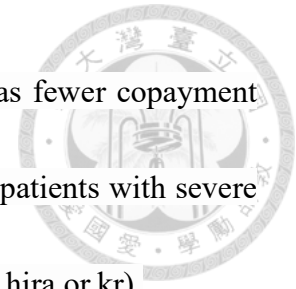


Table 5-30. Taiwan's exemption from copayments

1. Those exempt from all copayments	(1) Individuals suffering from a catastrophic illness, living and being treated in remote mountain areas or island regions, or women giving birth (2) Outpatients or emergency care patients from outlying islands who have been referred to a healthcare facility in Taiwan. (3) Veterans with the symbol "veteran" on their NHI cards and dependents. (4) Members of low-income households. (5) Children under three years of age. (6) Registered tuberculosis patients who receive treatment at specified contracted hospitals. (7) Patients with labor insurance who are being treated for occupational ailments. (8) Patients suffering from PCB (polychlorinated biphenyl) poisoning. (9) Centenarians. (10) Alternative service members who hold military service ID cards (including general alternative service members and alternative service members involved in first- and second-stage R&D)
2. Those exempt from copayments on prescribed medication	(1) Patients with chronic illness refill prescriptions (prescriptions for more than 28 days). The National Health Insurance Administration has listed 100 diseases as chronic illnesses, including hypertension and diabetes. (2) Dental patients. (3) Patients receiving care for one of the ailments covered under the "per case payment" system.
3. Those exempt from physical therapy copayments	(1) Patients undergoing "moderate to complicated" physical therapy, defined as undergoing three or more types of "moderate" therapy, such as electrical muscle stimulation and 13 other therapies, for a total of more than 50 minutes. (2) Patients require "complicated" treatment care involving specialized therapists (such as balance training and six other therapies). Prescriptions are limited to those issued by a rehabilitation physician.
4. Regions deficient in medical resources	The copayment of patients who receive clinic, emergency, or home care services in regions deficient in medical resources will be reduced by 20%. The National Health Insurance Administration will make annual announcements regarding areas determined to be lacking in medical resources.

Source: (NHIA (Taiwan), 2019)



In Taiwan, children under 3 have no copayment; in Korea, newborns (up to 28 days old) have no copayment (HIRA (Korea), www.hira.or.kr). Pregnant women and tuberculosis patients are exempt from copayment in both countries (HIRA (Korea), www.hira.or.kr; NHIA (Taiwan), 2019).

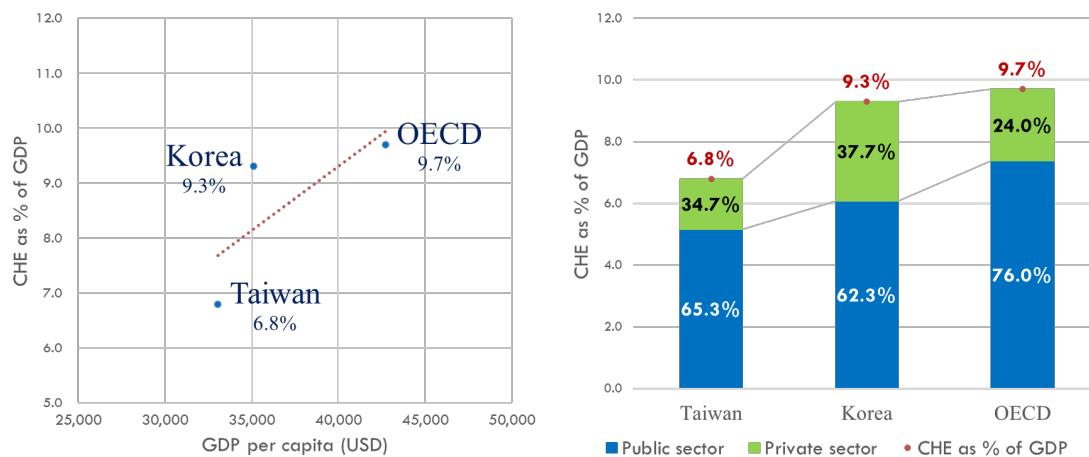
Other than that, in Taiwan, copayment exemptions also apply to prescription drugs for chronically ill patients and dental prescription drugs. This copayment exemption policy may be one of the reasons for the significant difference in medicine copayment prices between Taiwan and Korea.

Next, this study compares household out-of-pocket expenses in both countries based on current health expenditures (CHE) and household income and expenditure survey data. Household out-of-pocket expenses can be classified into out-of-pocket costs for non-insurance services and copayments for insurance services.

Let us examine current health expenditures. This study discusses based on current health expenditure (CHE), which refers to data excluding capital formation in national health expenditure (NHE). Since the primary purpose of this study is to compare the two countries, the researcher adjusted the data as much as possible to make the conditions similar and then compared them.

Some studies have found that GDP per capita significantly influences health expenditures (Min-Chang Ko, 2008). Figure 5-3 shows GDP per capita and CHE as a

percentage of GDP in Taiwan, Korea, and OECD countries. The OECD often uses the public sector's share of health expenditures for international comparisons (Min-Chang Ko, 2008), and in general, as the public sector's share of health expenditures increases, the private burden of health expenditure decreases. Both countries have a lower share of public health expenditures than the OECD country average, and Korea's share is lower than Taiwan's (Figure 5-3).



Source: Taiwan; (MOHW (Taiwan); NHE, annually; National Statistics (Taiwan), 2023)

Korea; (KOSIS, annually; MOHW (Korea), annually(a))

OECD; (MOHW (Korea), annually(a); The World Bank)

Figure 5-3. CHE as % of GDP, the proportion of public/private sector

When preparing the NHE report, the Taiwanese government organizes data by compiling statistics such as government accounts, national income, household surveys, NHI, and life insurance. Also, the household out-of-pocket ratio was adjusted by referring to the health expenditure part of the household survey. Voluntary health insurance is the administrative fee of private health insurance, estimated using annual

statistical data published by the Taiwan Insurance Institute (MOHW (Taiwan); NHE, annually). In Taiwan's total CHE, household out-of-pocket expenses accounted for 33.76%, and voluntary health insurance accounted for 0.83% (Table 5-31).

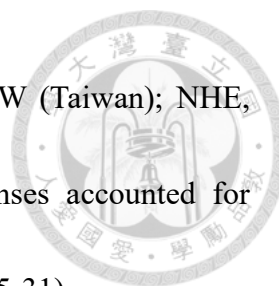
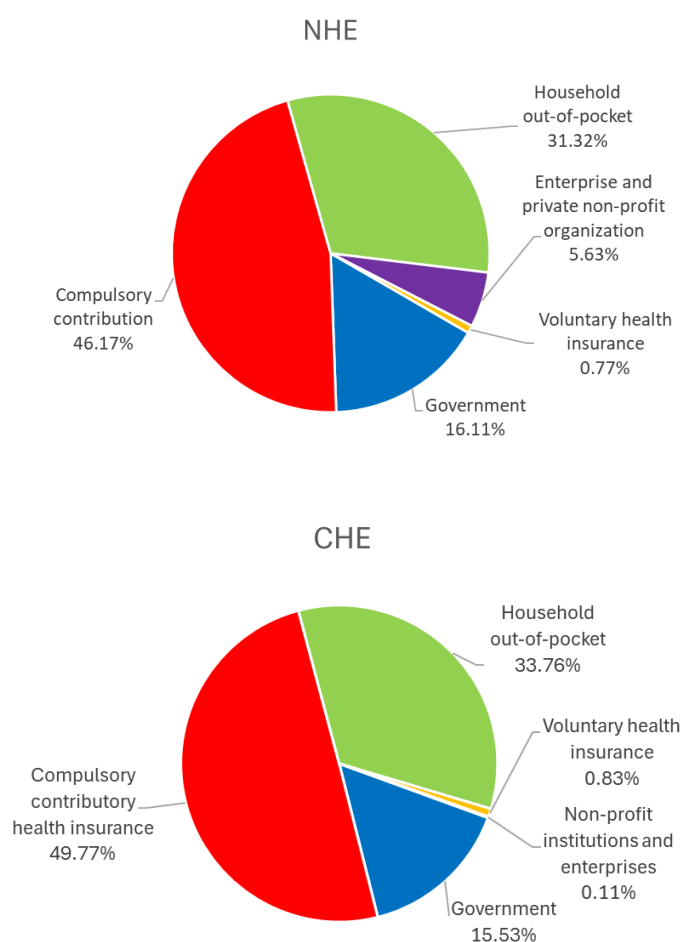


Table 5-31. Taiwan health expenditure, from NHE to CHE, 2021

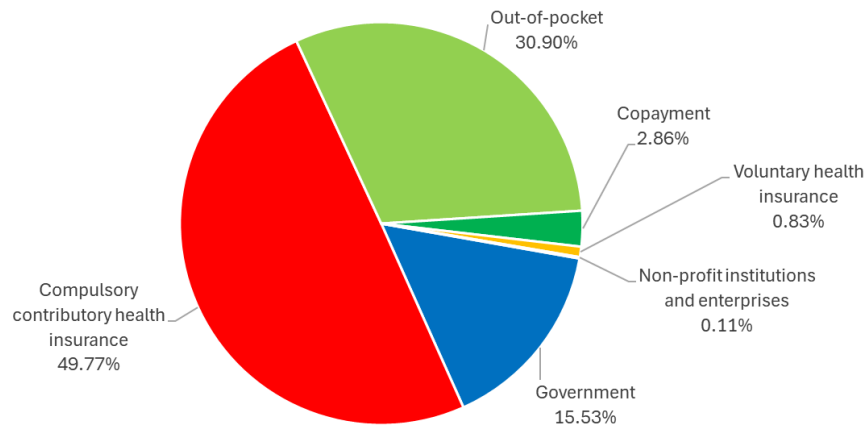


NHE			
Per capita NHE (TWD)	Total (million TWD)	Household out-of-pocket (million TWD)	Voluntary health insurance (million TWD)
67,614	1,586,789 (100%)	496,968 (31.32%)	12,276 (0.77%)
CHE			
Per capita CHE (TWD)	Total (million TWD)	Household out-of-pocket (million TWD)	Voluntary health insurance (million TWD)
62,726	1,472,073 (100%)	496,968 (33.76%)	12,276 (0.83%)

Source: Edited using (MOHW (Taiwan); NHE, annually) data

Note: NHE = CHE + capital formation

Table 5-32. Taiwan health expenditure, identifying copayment, 2021



	Per capita CHE (TWD)	Total (million TWD)	Govern Ment (million TWD)	Compulsory contributory health insurance (million TWD)		Household out-of-pocket (million TWD)		Voluntary health insurance (million TWD)	Non profit institutions and enterprises (million TWD)
CHE	62,767	1,472,073	228,560	732,658		496,968		12,276	1,610
%		100	15.53	49.77		33.76		0.83	0.11
				General administration and public health	Personal health	Out-of-pocket	Copay ment		
				5,641 (0.38%)	727,017 (49.39%)	45,900 (30.90%)	42,068 (2.86%)		

Source: Edited using (MOHW (Taiwan); NHE, annually) data

Calculation copayment using (NHIA (Taiwan), annually(a)) data

Note 1. Household out-of-pocket = Out-of-pocket + Copayment

2. Copayment: 94.5% (medical benefit, 672,521) : 5.5% (copayment, 38,915) = 727,017 : X (million TWD), X= 42,068 (million TWD)

Since Taiwan's NHE report does not provide separate amounts of out-of-pocket and copayments, this study calculated copayment using health insurance benefits. In compulsory contribution health insurance, personal health expenses excluding general

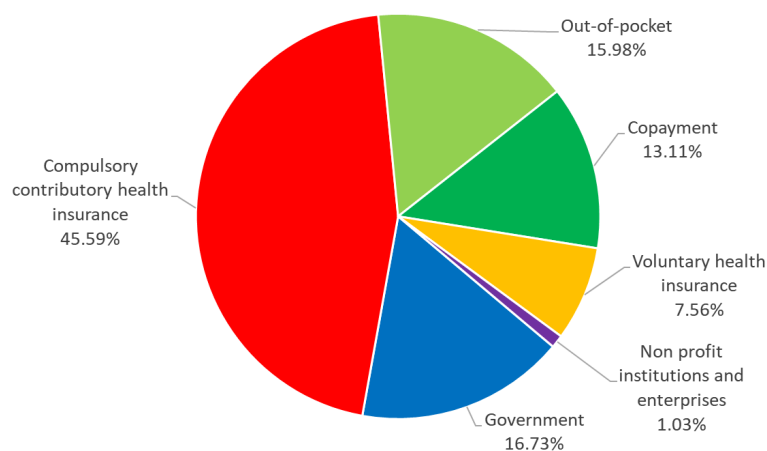
administration and public health were considered medical benefits. On average, medical benefit payments and copayments account for 94.5% and 5.5% of medical costs in Taiwan, respectively (refer to Table 5-29). The calculation shows that of the 34% of households out-of-pocket, 31% are out-of-pocket in non-insurance services, and 3% are copayments in insurance services (Table 5-32).

In Korea, household out-of-pocket figures are estimated and provided through various surveys and health expenditure statistics. Here is a list of resources:

Health Insurance Patient Medical Expenses Survey (NHIS); Service Industry Survey (Statistics Korea); Household Income and Expenditure Surveys (Statistics Korea); National Health and Nutrition Examination Survey (Korea Disease Control and Prevention Agency); Korea Health Panel Survey (NHIS, Korea Institute of Health and Social Affairs) (Hyung-Sun Jung et al., 2023).

In addition, when calculating household out-of-pocket, the actual voluntary (private) insurance reimbursement is deducted. The voluntary insurance category specifies private health insurance (PHI) reimbursement besides insurance administration costs, which is the most significant difference from Taiwan. Of the total CHE in Korea, the out-of-pocket proportion was 15.98%, the copayment proportion 13.11%, and the voluntary insurance proportion was 7.6% (Table 5-33).

Table 5-33. Korea health expenditure, identifying copayment, 2021



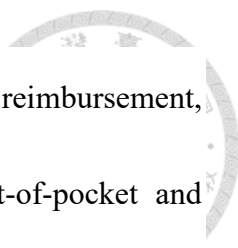
CHE			
Per capita CHE (KRW)	Total (100 million KRW)	Household out-of-pocket (100 million KRW)	Voluntary health insurance (100 million KRW)
3,736,000 (≅ 88,952 TWD)	1,933,158 (≅ 4,602,758 million TWD)	56,252,634 (≅ 1,339,348 million TWD)	14,614,396 (≅ 347,962 million TWD)
			1) Reimbursement of actual-cost private insurance: 12,815,147 2) Administration of health financing: 1,799,249

Source: (Hyung-Sun Jung et al., 2023; KOSIS; CHE, annually)

Note 1. 1 TWD = 42 KRW

Figure 5-4 is a more granular breakdown of personal health. For Taiwan, the study calculated the ratio of health benefits to copayment in the same way as in Table 5-32. The proportion of copayments in medical expenses differs from outpatient to 6.3%, inpatient to 4.7%, and drug prices to 0.8%, respectively, with an average copayment proportion of 5.5% (refer to Table 5-29).

For example, Taiwan's household out-of-pocket costs for outpatient care are 24%, including 19% out-of-pocket in non-insurance and 5% copayment in insurance service. In Korea, household out-of-pocket costs are 34%, including a 16% out-of-pocket and



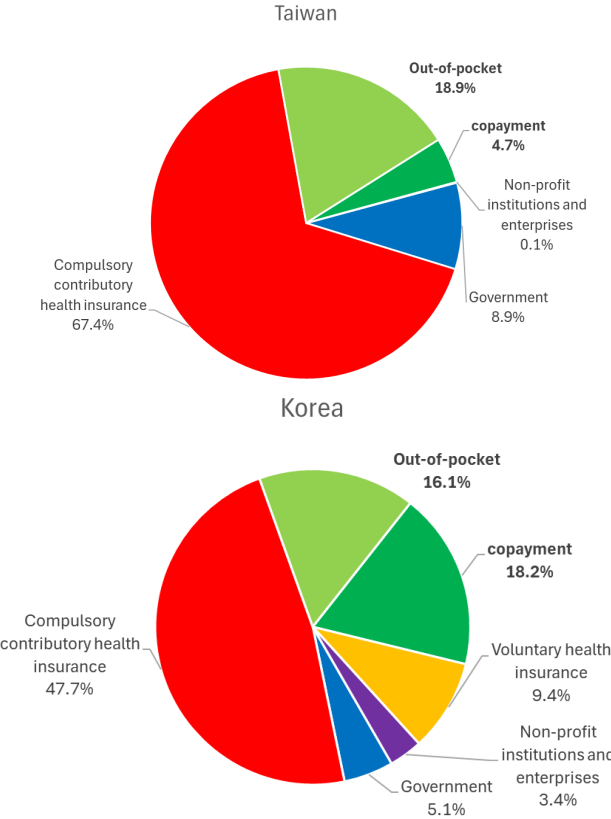
18% copayment. Also, 9.4% of voluntary insurance is private insurance reimbursement, but the CHE report did not provide data on the proportion of out-of-pocket and copayments. The bottom line is that while we do not know the private insurance reimbursements in Taiwan, even without accounting for them, Taiwan's household out-of-pocket rate is lower than Korea's. Hence, Taiwan's health insurance coverage rate is higher than Korea's (Figure 5-4, ① Outpatient care).

For Figure 5-4, ③ Other care, the difference in household out-of-pocket rates between the two countries was significant. This study used an average copayment rate of 5.5% to calculate copayment for other care in Taiwan. Since 54.6% of other care in Taiwan and 65.1% in Korea was long-term care, the study further separated it. Taiwan's long-term care household out-of-pocket expenses are 34%. In Korea, the household out-of-pocket expenses are 10%, of which the copayment is 8.5%. This difference in household out-of-pocket expenditure is the impact of long-term care insurance in Korea.

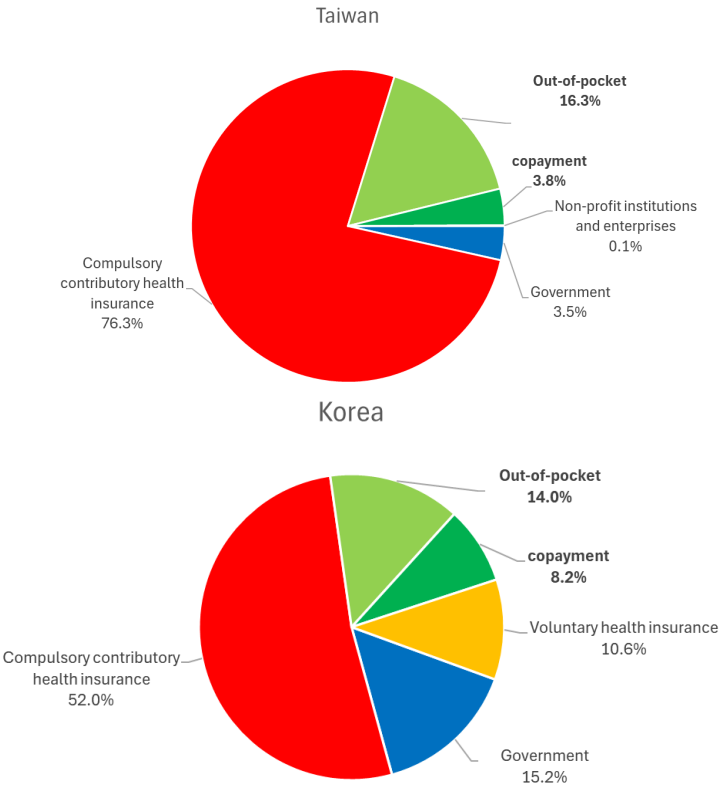
For medicines, Taiwan has a 45% out-of-pocket while Korea has an 18% out-of-pocket and 27% copayment, which is also a significant difference (Figure 5-4, ④ Medicine).



① Outpatient care

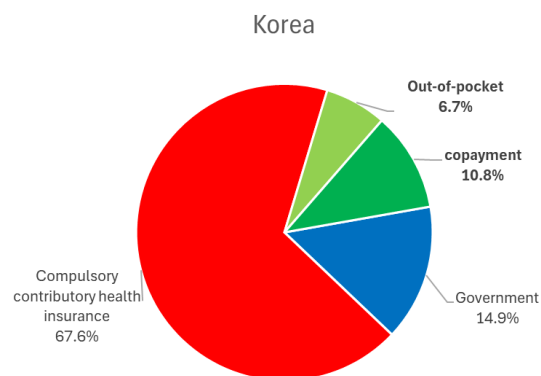
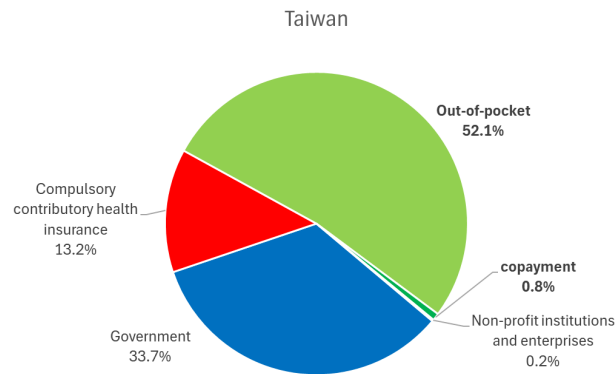


② Inpatient care



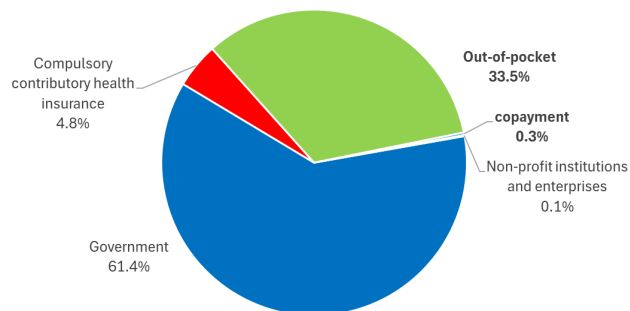


③ Other care

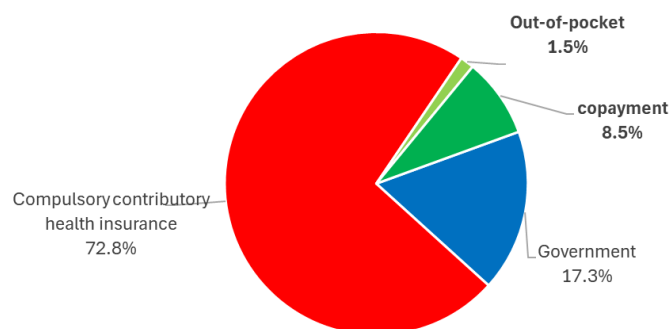


<Long-term care>

Chronic and long-term care, Taiwan

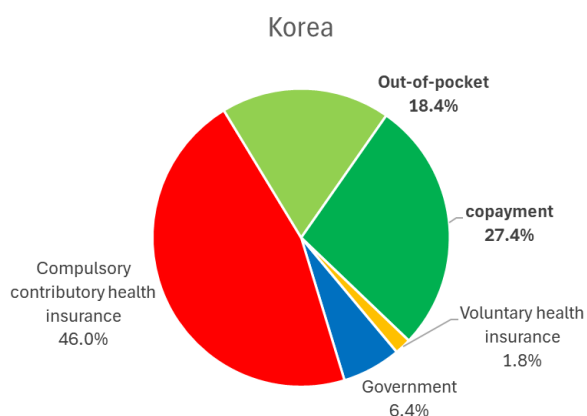
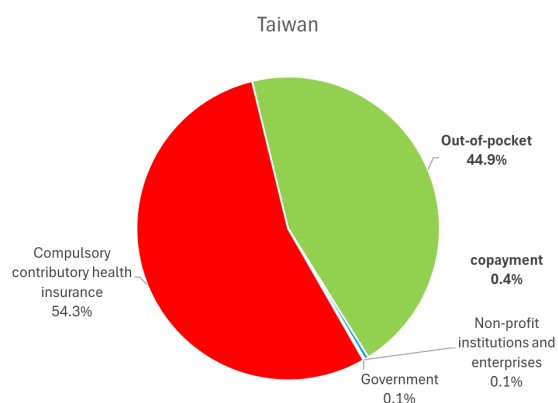


Long-term care, Korea

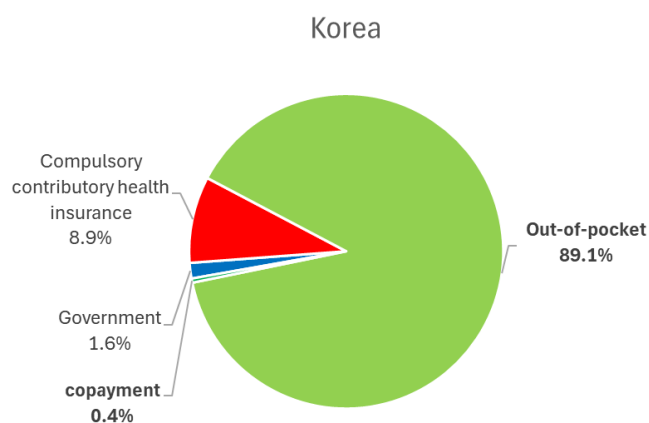
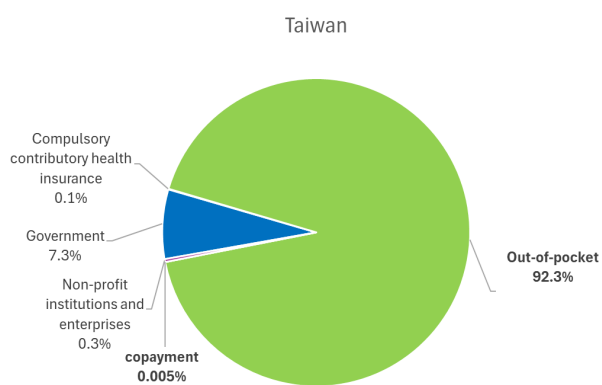




④ Medicine



⑤ Medical goods, therapeutic appliances, others



Source: Taiwan; Edited using (MOHW (Taiwan); NHE, annually) data, calculation copayment using (NHIA (Taiwan), annually(a)) data

Korea; (KOSIS; CHE, annually)

Note 1. Household out-of-pocket = Out-of-pocket + Copayment

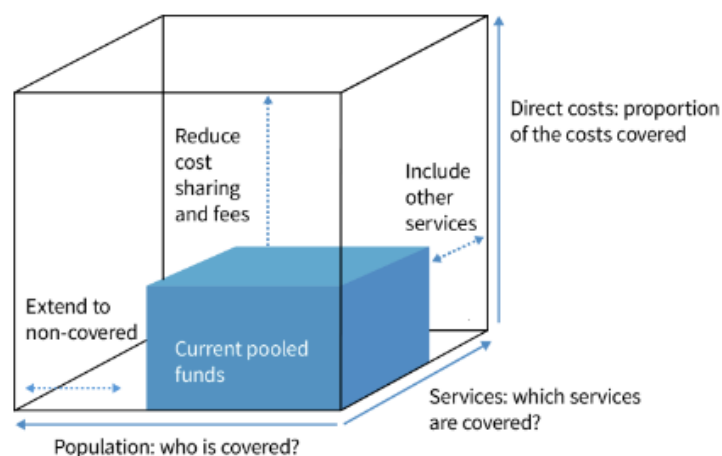
2. (Taiwan) Outpatient copayment: 93.7% (medical benefit, 423,690) : 6.3% (copayment, 28,588) = 449,333 : X (million TWD), X= 30,318 (million TWD)

3. (Taiwan) Inpatient copayment: 95.3% (medical benefit, 201,042) : 4.7% (copayment, 9,961) = 208,610 : X (million TWD), X= 10,336 (million TWD)

4. (Taiwan) Medicine copayment: 99.2% (medical benefit, 47,789) : 0.8% (copayment, 366) = 45,039 : X (million TWD), X= 345 (million TWD)

5. (Korea) Household out-of-pocket is the amount after PHI reimbursement.

Figure 5-4. Personal health: Taiwan and Korea, 2021



Source: (WHO; HBP)

Figure 5-5. The universal health coverage (UHC) cube

We typically refer to three aspects of the universal health coverage (UHC) cube when discussing health benefit packages (HBP), as shown in Figure 5-5. Since health benefits in both countries cover all citizens, the policy discussion will primarily focus on what services are available and at what cost. Based on Figure 5-4, NHI in Taiwan has a higher coverage rate (broader services) and relatively lower price than Korea. In

terms of long-term care, Korea's long-term care insurance helps reduce the cost burden.

The design of health benefits in the two countries is different, and health benefits are also highly dependent on the direction of policy within limited resources. By comparing these detailed out-of-pocket costs and copayments, the governments of both countries can use them to determine future policy priorities.

Objectively comparing which system is better is a complex task, but public satisfaction ratings in both countries are slightly different. Taiwan's NHI system is famous for its high public satisfaction. It scored 90.2 points in 2020, 91.6 points in 2021, and 91.0 points in 2022, maintaining over 90% satisfaction since 2020 (NHIA (Taiwan), annually(b)). In Korea, the Ministry of Economy and Finance conducts an annual Public-service Customer Satisfaction Index (PCSI) (245 institutions as of 2021), categorizing them into three levels (excellent, average, and poor) based on goal achievement. The National Health Insurance Service received an average rating from 2020 to 2021 and an excellent rating in 2022. Meanwhile, the Health Insurance Review and Assessment Service received an excellent rating in 2020, a poor rating in 2021, and an average rating in 2022 (MOEF (Korea), annually). Ultimately, the feedback from those who utilize the health system is critical, and governments will have no choice but to consider that when improving their policies.

5.3.1 Private Health Insurance Reimbursement in Taiwan



The 2023 study by Christy Pu et al. suggests various implications for estimating Taiwan households' OOP in 2021. This nationally representative cross-sectional study was conducted from January to August 2022 and investigated household health OOP expenses in 2021, involving 657 households and 1,969 individuals in Taiwan. In this study, 657 households represented the total number of households in Taiwan, which is 8,902,287. Additionally, 1,969 study participants expressed the total population of Taiwan, comprising 22,787,450 people. The research team used the rank-order weighting method to make the household structure (the number of people by household) and proportion of households (each city and country's households) similar to the national distribution. Christy Pu et al. created a questionnaire based on 'A Systems of Health Accounts (SHA)' to obtain internationally comparable OOP data. Also, they examined PHI reimbursements (Christy Pu et al., 2023).

According to Christy Pu et al. (2023) study findings, the out-of-pocket (OOP) expenditure per household in 2021 was 47,612 TWD. Multiplying this by the national household number of 8,902,287, the national-level OOP is 424 billion TWD. This study thought subtracting PHI reimbursement from the household OOP would be a more accurate calculation of the household burden. That is the same as the calculation method

for household OOP in Korea. After PHI reimbursements, OOP decreased to 43,331 TWD per household and 386 billion TWD at the national level OOP, respectively.

OOPs after PHI reimbursement decreased to 91% of the amount before PHI reimbursement (Christy Pu et al., 2023) (Table 5-34).

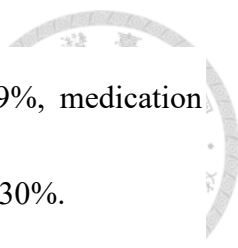
Table 5-34. Estimated household OOP and estimated national level OOP: Taiwan, 2021

(Unit: TWD)

		OOPs before PHI reimbursement			OOPs after PHI reimbursement		
		Mean	95% confidence interval		Mean	95% confidence interval	
Household OOP		47,612	39,095	56,128	43,331	35,179	51,484
	HC.1 (Curative care)	23,844	18,401	29,287			
	HC.2 (Rehabilitative care)	142	63	221			
	HC.3 (Long-term care)	4,986	2,097	7,876			
	HC.4 (Ancillary services)	70	18	122			
	HC.5 (Medical goods)	18,570	13,755	23,385			
National level OOP		423,855,688,644 TWD = 47,612 TWD × 8,902,287 (Household)			385,744,997,997 TWD = 43,331 TWD × 8,902,287 (Household)		
	OOP after PHI reimbursement / OOP before PHI reimbursement	423,855,688,644 TWD / 385,744,997,997 TWD = 0.91 (91%)					

Source: Edited using (Christy Pu et al., 2023) data

Let us examine both countries' household OOP components and amounts. The first figure in Figure 5-6 displays the household OOP components from the Taiwan Ministry of Health and Welfare's NHE report. Among household OOPs, the proportion for



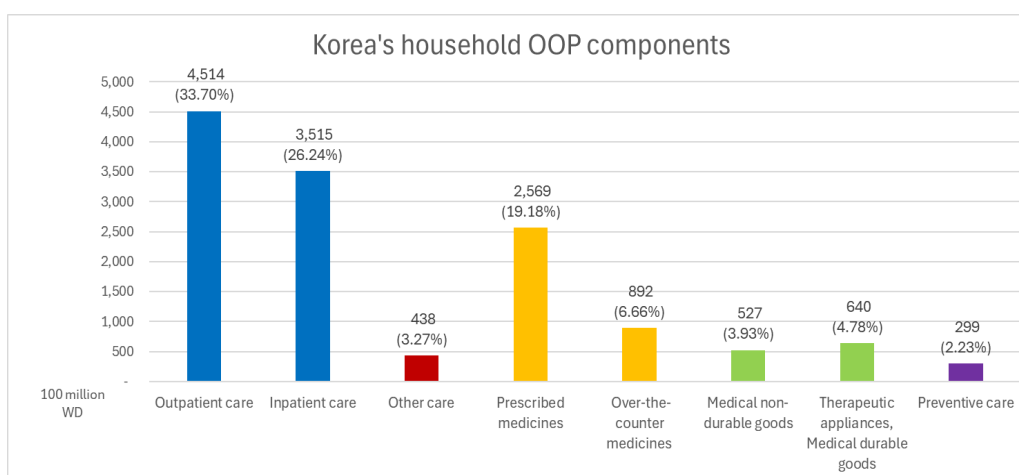
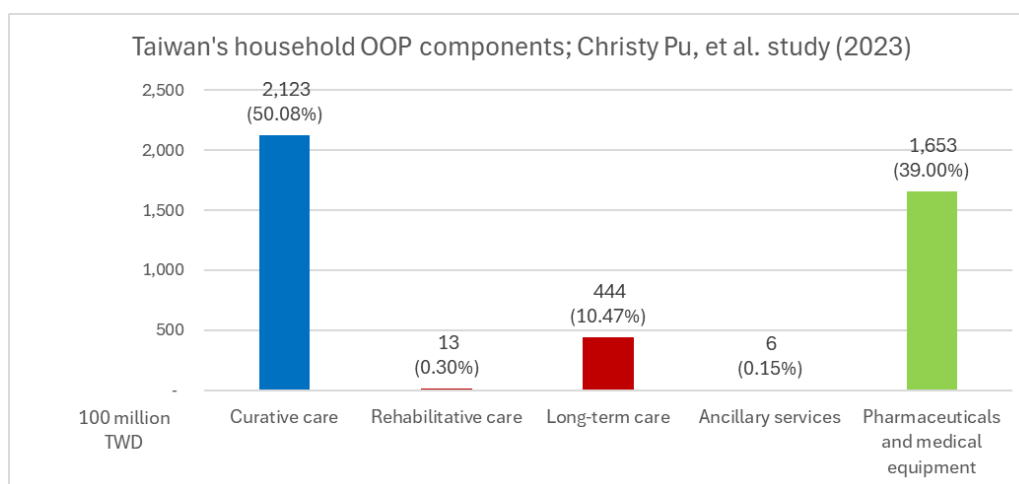
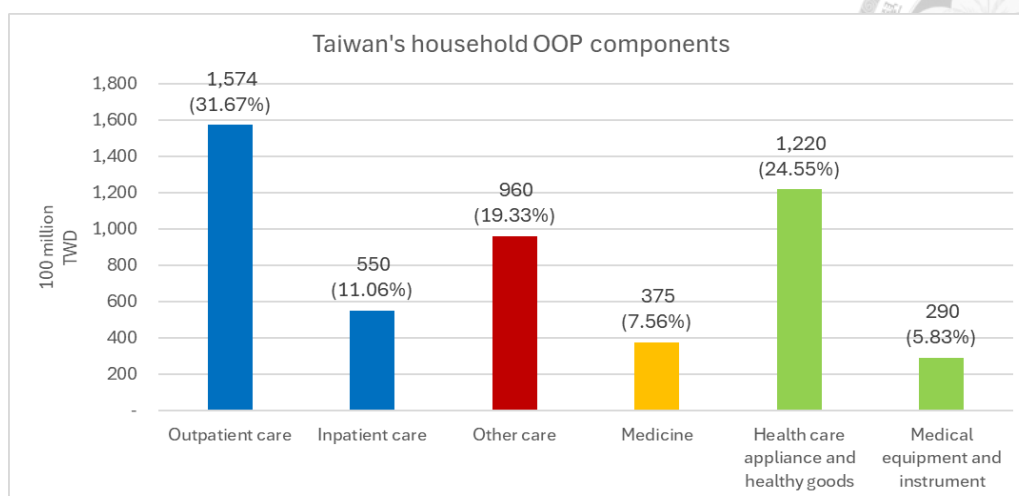
outpatient care was 32%, inpatient care was 11%, other care was 19%, medication accounted for 8%, and medical goods, equipment, and others comprised 30%.

The second figure in Figure 5-6 is data calculated by multiplying the household OOP component obtained by Christy Pu et al. (2023) study by 8,902,287 households in Taiwan. In Christy Pu et al.'s survey, the proportion for outpatients and inpatient care was 50%, other care was 11%, and medicines and medical equipment were 39%.

The third figure in Figure 5-6 shows the household OOP component among CHE statistics in Korea. Among household OOP, the proportion of outpatient care was 34%, inpatient care was 26%, and other care was 3%. Medication was 26%, and medical equipment, goods, and preventive care were 11%. However, when comparing it to Taiwan, it is essential to note that all OOP data for Korea represent amounts after PHI reimbursement.

There may be differences depending on the amount of PHI reimbursements. Still, there are significant differences in inpatient care, other care, and medicine among the proportions of the two countries' households out-of-pocket.

(Unit: 100 million TWD)



Source: Tawan; (MOHW (Taiwan); NHE, annually), calculation using (Christy Pu et al., 2023) data
Korea; (KOSIS; CHE, annually)

Note: 1 TWD = 42 KRW

2. All OOP data for Korea represent amounts after PHI reimbursement.

Figure 5-6. Household OOP components: Taiwan and Korea, 2021

Since this study aims to compare household out-of-pocket expenses in both countries, the researcher decided to exclude PHI reimbursements from household out-of-pocket expenses in Taiwan to make them comparable. This study calculates using the PHI reimbursement rate from Christy Pu et al. (2023). The PHI reimbursement amount is subtracted from the household out-of-pocket and added to the voluntary health insurance item. Therefore, it does not affect the total amount of CHE. After PHI reimbursement, Taiwan's household OOP in current health expenditures falls from 33.76% to 30.72% (Table 5-35).

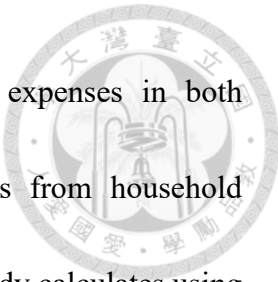
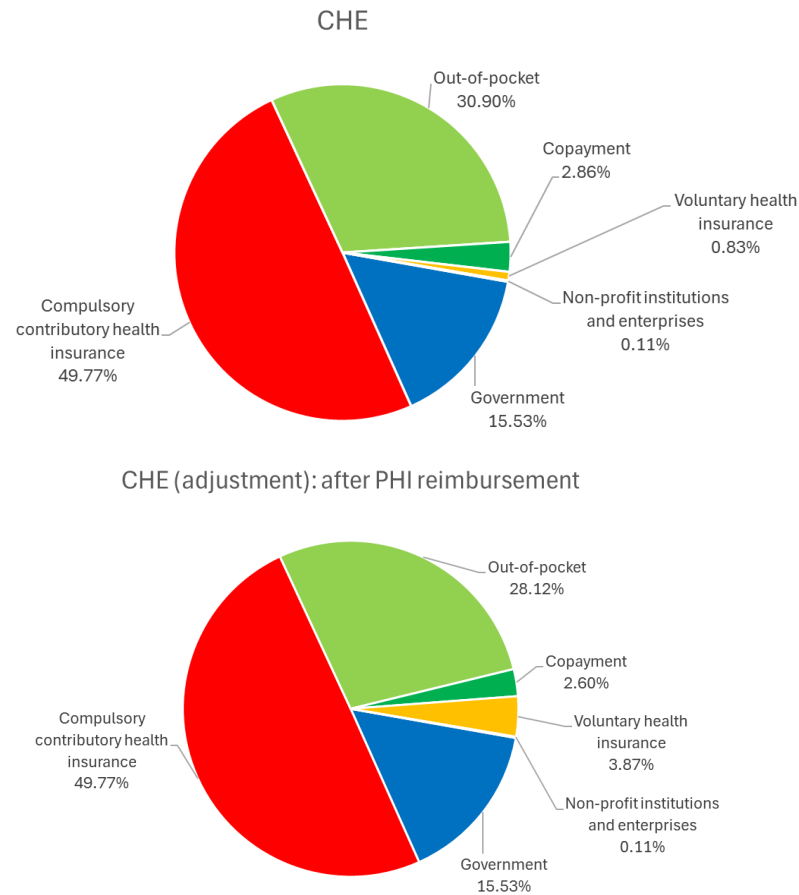


Table 5-35. Taiwan health expenditure, further adjustment for PHI, 2021



(Unit: million TWD)

	Total	Government	Compulsory contributory health insurance	Household out-of-pocket		Voluntary health insurance	Non profit institutions and enterprises
CHE	1,472,023	228,560	732,658	496,968		12,276	1,610
%	100	15.53	49.77	33.76		0.83	0.11
				Out-of-pocket	Copayment		
				454,900 (30.90%)	42,068 (2.86%)		
	Total	Government	Compulsory contributory health insurance	Household out-of-pocket		Voluntary health insurance	Non profit institutions and enterprises
CHE (adjustment) after PHI reimbursement	1,472,023	228,560	732,658	452,283		56,961	1,610
%	100	15.53	49.77	30.72		3.87	0.11
				Out-of-pocket	Copayment		
				413,998 (28.12%)	38,285 (2.60%)		

Source: Edited using (MOHW (Taiwan); NHE, annually) data, calculation copayment using (NHIA (Taiwan), annually(a) data (Table 5-31)

Note 1. Household out-of-pocket = Out-of-pocket + Copayment

2. Household out-of-pocket (after PHI reimbursement): 423,856 : 385,745 (Christy Pu et al., 2023) = 496,968 : X (100 million TWD), X = 452,283 (100 million TWD)

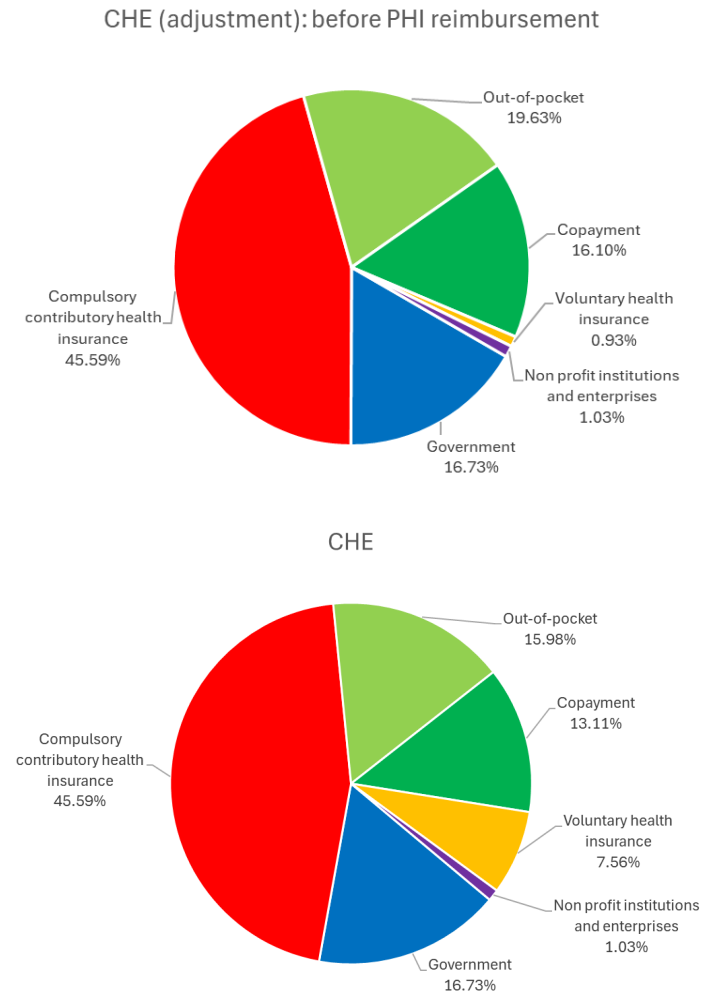
However, in this study, since the out-of-pocket and copayment ratio after PHI reimbursements is unknown, the researcher calculated that the ratio before PHI reimbursements remains the same. After PHI reimbursement, Taiwanese households' out-of-pocket ratio is 30.72%, of which out-of-pocket in non-insurance is 28.12% and copayment in insurance is 2.6% (Table 5-35).

For Korea, this study calculated household out-of-pocket expenses before PHI

reimbursement. Because out-of-pocket costs and copayment percentage were unavailable before PHI reimbursement, this study used the percentages after PHI reimbursement. The household out-of-pocket rate for current health expenditures decreases from 35.7% to 29.1% after PHI reimbursement. The non-insurance out-of-pocket rate is 16%, and the insurance copayment rate is 13% (Table 5-36).



Table 5-36. Korea health expenditure, adjusting for PHI, 2021



(Unit: million KRW)

	Total	Government	Compulsory contributory health insurance	Household out-of-pocket		Voluntary health insurance	Non profit institutions and enterprises
CHE (adjustment) before PHI reimbursement	1,933,158	323,384	881,250	690,677		17,992	19,854
%	100	16.73	45.59	35.73		0.93	1.03
				Out-of-pocket	Copayment		
				379,410 (19.63%)	311,267 (16.10%)		
	Total	Government	Compulsory contributory health insurance	Household out-of-pocket		Voluntary health insurance	Non profit institutions and enterprises
CHE	1,933,158	323,384	881,250	562,526		146,144	19,854
%	100	16.73	45.59	29.10		7.56	1.03
				Out-of-pocket	Copayment		
				309,013 (15.98%)	253,514 (13.11%)		

Source: (KOSIS; CHE, annually), calculation Household out-of-pocket (before PHI reimbursement) using (KOSIS; CHE, annually) data

Note 1. Household out-of-pocket = Out-of-pocket + Copayment

2. PHI reimbursement: 128,151 (100 million KRW)

3. Household out-of-pocket (before PHI reimbursement): 562,526 + 128,151 = 690,677 (100 million KRW)

In conclusion, before PHI reimbursement, household out-of-pocket expenses in Taiwan were 34%, lower than 36% in Korea. After PHI reimbursement, out-of-pocket expenditures decreased to 91% in Taiwan and 81% in Korea, and the proportion of out-of-pocket spending among CHE changed to 31% in Taiwan and 29% in Korea.

Actual PHI reimbursement rates were higher in Korea than in Taiwan.

5.3.2 Household and Per Capita Health Spending



Next, the household survey, one of the data sources that can estimate household OOP expenditures, will be examined. This survey is statistical data that has been updated annually by both countries for a long time, and it is information directly provided by the citizens. Estimating the amount of expenditure on detailed items is also possible, but problems such as recall bias may occur.

Table 5-37. Number of households, number of persons per households, 2021

(Unit: person)

			General average	Five equal divisions of households according to income				
				1	2	3	4	5
Taiwan	Household survey (Executive Yuan)	Number of households	8,919,896	1,783,979	1,783,979	1,783,979	1,783,979	1,783,980
		Number of persons per household	2.89	1.62	2.30	2.95	3.52	4.03
	Census (MOI)	Number of households	9,006,580					
		Number of persons per household	2.60					
	Christy Pu et al. study (2023)	Number of households	8,902,287					
		Number of persons per household	2.60					
Korea	Household survey (KOSIS)	Number of households	20,809,101					
		Number of persons per household	2.36	1.46	1.84	2.39	2.86	3.27
	Census (KOSIS)	Number of households	21,448,463					
		Number of persons per household	2.3					

Source: Taiwan; (Christy Pu et al., 2023; Executive Yuan (Taiwan); Household survey, annually; National Statistics (Taiwan), 2022)

Korea; (KOSIS, annually; KOSIS; Household survey, annually)

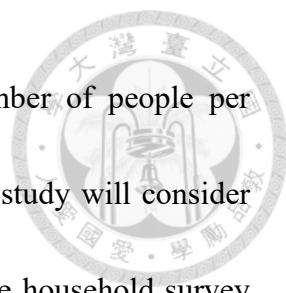


Table 5-37 summarizes the households and the average number of people per household in both countries. Since each survey varies slightly, this study will consider them when comparing data from both countries. For instance, in the household survey in Taiwan, the average number of people per household is reported as 2.89, while the survey by census and Christy Pu et al. study indicate 2.6. In Korea, the household survey records 2.36 people per household, whereas the census reports a baseline of 2.3 individuals.

Table 5-38 shows household health expenditures among household surveys of both countries. In the '① Health' category, health expenditures in Taiwan in 2021 are 12,081 TWD, and Korea's is 5,391 TWD. Health expenditures in Taiwan and Korea significantly differ between 17.78% and 9.08% of consumption expenditures, respectively. As mentioned earlier, it is difficult to directly compare differences in survey items between the two countries, with Taiwan categorizing private insurance items as health expenditures.

Table 5-38. Health expenditure during household survey: Taiwan and Korea, 2021

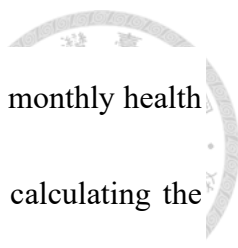
(Unit: person, TWD)

	Taiwan			Korea			References
Number of persons per household	2.89			2.36			※ Household survey
	Amount	%		Amount	%		
Total	86,576	100		80,350	100		
Non-consumption expenditure	18,622	21.51		20,949	26.07		NHI premium
Consumption expenditure	67,954	78.49	100	59,401	73.93	100	Copayment, Out-of-pocket
① Health	12,081	(13.95)	17.78	5,391	(6.71)	9.08	
Number of persons per household	2.6			2.3			※ Census
	Amount	%		Amount	%		
Total	77,888	100		78,307	100		
	2:89: 2.6 = 86,576 : X, X= 77,888 (TWD)			2:36: 2.3 = 80,350 : X, X= 78,307 (TWD)			
Non-consumption expenditure	16,753	21.51		20,416	26.07		NHI premium
Consumption expenditure	61,135	78.49	100	57,891	73.93	100	Copayment, Out-Of-Pocket
② Health	10,869	(13.95)	17.78				
(1) Household OOP	4,598	(5.90)	7.52	6,390	(8.16)	11.04	※ NHE / CHE report
	4,598 TWD = 496,968 (million TWD)(national level OOP) / 12 month / 9,006,580 (household)			1) 13,394 (100 million TWD) (national level OOP) / 12 month / 21,448,463 (household) = 5,204 TWD 2) (562,526+128,151) : 562,526 = X : 5,204, X = 6,390 TWD			
(2) Household OOP	3,968	(5.09)	6.49				※ (Christy Pu et al., 2023) study
	3,968 TWD = 47,612 TWD (household OOP; year) / 12 month						
③ Health – Household OOP	6,271-6,901	(8.05-8.86)	10.26-11.29				life insurance, etc

Source: Taiwan; (Executive Yuan (Taiwan); Household survey, annually), calculation using (Christy Pu et al., 2023; Executive Yuan (Taiwan); Household survey, annually; MOHW (Taiwan); NHE, annually; National Statistics (Taiwan), 2022) data

Korea; (KOSIS; Household survey, annually), calculation using (KOSIS, annually; KOSIS; CHE, annually) data

Note: 1 TWD = 42 KRW



Considering the average number of people per household, Taiwan's monthly health expenditure is 10,869 TWD, based on 2.6 household members. When calculating the household out-of-pocket by dividing the current health expenditure in both countries by the number of households, this study found that Taiwan's was 4,598 TWD and Korea's was 6,390 TWD. And Christy Pu et al. (2023) study found that the household out-of-pocket was 3,968 TWD.

Subtracting household OOP expenditures of 3,968-4,598 TWD from the total health expenditures (10,869 TWD) in Taiwan yields 6,271-6,901 TWD, the most predominant portion expected to be personal insurance premiums.

As shown in Table 5-39, according to statistics from the Taiwan Insurance Institute, the total premium collected from private life insurance is 2.9771 trillion TWD in 2021. Individual insurance, excluding group insurance, accounts for 99.25%. The total amount of private life insurance in Korea is 2.8434 trillion TWD (1 TWD = 42 KRW), and the classification differs slightly from that of Taiwan. Because Korea's population is about 2.2 times that of Taiwan, the penetration rate of private life insurance in Taiwan is remarkably high. This study estimated Taiwanese premiums based on private life insurance income. Based on the total amount of individual premium income, the premium per household in Taiwan is 27,283 TWD per month, and based solely on health and injury insurance, the premium per household is 4,241 TWD per month.

Table 5-39. Private life insurance amount and estimated premium, 2021



1) Private life insurance amount

(Unit: 100 million TWD)

Taiwan		Grand total	Individual					Group	
			Total	Life	Pension	Health	Injury		
Taiwan	Amount	29,711	29,487	19,724	5,179	3,983	601	224	
	%	100	99.25	(66.39)	(17.43)	(13.41)	(2.02)	0.75	
Korea		Grand total	Individual				Pension	Variable	Group
			Total	Life	Death	Life-Death			
Korea	Amount	28,434	18,168	4,081	10,540	3,547	5,815	4,270	181
	%	100	63.90	(14.35)	(37.07)	(12.47)	20.45	15.02	0.63

Source: Taiwan; (Taiwan insurance institute, 2022)

Korea; (Korea life insurance association, 2022)

Note 1. Including domestic and foreign companies

2. 1 TWD = 42 KRW

3. (Korea) Information on pension and variable insurance in Korea is not provided separately for individuals and groups.

2) Estimated amount of life insurance premium: Taiwan

	I	II
	(Individual) life insurance: 2,948,689,562 (1,000 TWD) ※ Excluding group insurance	(Individual) health + injury insurance: 458,364,352 (1,000 TWD) ※ Excluding group insurance
Household	27,283 TWD = 2,948,689,562 (1,000 TWD) / 12 month / 9,006,580 (household)	4,241 TWD = 458,364,352 (1,000 TWD) / 12 month / 9,006,580 (household)
Per capita	10,493 TWD = 27,283 TWD / 2.6	1,631 TWD = 4,241 TWD / 2.6

Source: calculation using (National Statistics (Taiwan), 2022; Taiwan insurance institute, 2022) data

Note: Number of households: 9,006,580 (Census survey)

Table 5-40 compares household out-of-pocket before and after PHI reimbursement for both countries. This study compares household out-of-pocket costs in both countries, from Taiwan based on the NHE report, the Christy Pu et al. (2023) study, and Korea based on the CHE report and household surveys.

Taiwan's household OOP is 3,968-4,598 TWD, accounting for 6.49%-7.52% of consumption expenditure. Korea's household OOP is 5,391-6,390 TWD, accounting for 9.08%-11.04% of consumption expenditure. The average number of people per household in both countries differs. When converting household out-of-pocket to a per capita basis, Taiwan amounts to 1,526-1,768 TWD; Korea stands at 2,284-2,778 TWD. Korea's household out-of-pocket expenditures per capita are 1.3 to 1.8 times Taiwan's. Broken down, it is 0.8 to 1.1 times for out-of-pocket (non-insurance) and 6.9 to 9.7 times for copayment.

As previously calculated in Tables 5-35 and 5-36, this study estimated that household out-of-pocket costs decrease to 91% in Taiwan and 81% in Korea after PHI reimbursement.

After PHI reimbursement, Taiwan's household OOP was 3,611-4,185TWD, accounting for 5.91%-6.84% of consumption expenditure. Korea's household OOP was 4,391-5,204 TWD, accounting for 7.39%-8.99% of consumption expenditure. Considering the average number of people per household in both countries, monthly

health spending per person is 1,389-1,609 TWD in Taiwan and 1,861-2,263 TWD in Korea. After PHI reimbursement, Korea's household out-of-pocket expenditures per capita are 1.2 to 1.6 times Taiwan's. Broken down, it is 0.7 to 1.0 times for out-of-pocket (non-insurance) and 6.2 to 8.6 times for copayment.

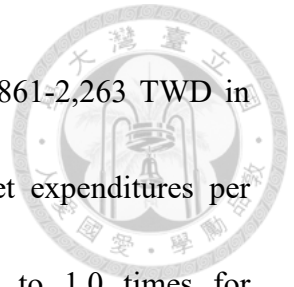


Table 5-40. OOP before and after PHI reimbursement on a household basis: 2021

(Unit: TWD, 1 TWD = 42 KRW)

OOP before PHI reimbursement			
Taiwan		Korea	
① Household OOP			
4,598 TWD ※ NHE report	3,968 TWD ※ (Christy Pu et al., 2023) study	6,390 TWD ※ CHE report (562,526 + 128,151) : 562,526 = X : 5,204 ※ calculation using CHE report data	5,391 TWD ※ Household survey
number of persons per household: 2.6	number of persons per household: 2.6	number of persons per household: 2.3	number of persons per household: 2.36
-Outpatients service: 31.7% (1,456 TWD) -Health care appliance and healthy goods: 24.5% (1,129 TWD) -Other care: 19.3% (889 TWD) -Inpatient services: 11.1% (509 TWD) -Medicines: 7.6% (347 TWD) -Medical equipment and instrument: 5.8% (268 TWD)	-Curative care: 50.1% (1,987 TWD) -Pharmaceuticals and medical equipment: 39.0% (1,548 TWD) -Long-term care: 10.5% (416 TWD) -Rehabilitative care: 0.3% (12 TWD) -Ancillary services: 0.1% (6 TWD)		-Outpatients service: 30.4% (1,639 TWD) -Medicines: 27.2% (1,466 TWD) -Inpatient services: 17.0% (916 TWD) -Dental care services: 15.1% (814 TWD) -Medical consumables: 4.2% (226 TWD) -Others: 6.1% (329 TWD)
5.90% of total expenditures 7.52% of consumption expenditures	5.09% of total expenditures 6.49% of consumption expenditures	8.16% of total expenditures 11.04% of consumption expenditures	6.71% of total expenditures 9.08% of consumption expenditures
- Out-of-pocket 4,209 TWD - Copayment 389 TWD ※ 496,968 : 42,068 = 4,598 : X (X= 389); calculation using NHE report data	- Out-of-pocket 3,632 TWD - Copayment 336 TWD ※ 496,968 : 42,068 = 3,968 : X (X= 336); calculation using NHE report data	- Out-of-pocket 3,510 TWD - Copayment 2,880 TWD ※ 562,526 : 253,514 = 6,390 : X (X=2,880); calculation using CHE report data	- Out-of-pocket 2,961 TWD - Copayment 2,430 TWD ※ 562,526 : 253,514 = 5,391 : X (X=2,430); calculation using CHE report data
② Per capita OOP			
1,768 TWD = 4,598 TWD / 2.6	1,526 TWD = 3,968 TWD / 2.6	2,778 TWD = 6,390 TWD / 2.3	2,284 TWD = 5,391 TWD / 2.36
- Out-of-pocket 1,619 TWD - Copayment 150 TWD	- Out-of-pocket 1,397 TWD - Copayment 129 TWD	- Out-of-pocket 1,526 TWD - Copayment 1,252 TWD	- Out-of-pocket 1,255 TWD - Copayment 1,030 TWD

OOP after PHI reimbursement			
Taiwan		Korea	
① Household OOP			
4,185 TWD 47,612 : 43,331 = 4,598 : X ※ calculation using (Christy Pu et al., 2023)	3,611 TWD = 43,331 TWD / 12 month ※ (Christy Pu et al., 2023) study	5,204 TWD	4,391 TWD (562,526 + 128,151) : 562,526 = 5,391 : X ※ calculation using CHE report data
		-Outpatients care: 33.7% (1,754 TWD) -Inpatient care: 26.2% (1,366 TWD) -Prescribed medicines: 19.2% (998 TWD) -OTC medicine: 6.7% (347 TWD) -Therapeutic appliances, medical durable goods: 4.8% (249 TWD) -Medical non-durable goods: 3.9% (205 TWD) -Other care: 3.3% (170 TWD) -Preventive care: 2.2% (116 TWD)	
5.37% of total expenditures 6.84% of consumption expenditures	4.64% of total expenditures 5.91% of consumption expenditures	6.65% of total expenditures 8.99% of consumption expenditures	5.46% of total expenditures 7.39% of consumption expenditures
- Out-of-pocket 3,831 TWD - Copayment 354 TWD ※ 496,968 : 42,068 = 4,185 : X (X= 354); calculation using NHE report data	- Out-of-pocket 3,305 TWD - Copayment 306 TWD ※ 496,968 : 42,068 = 3,611 : X (X= 306); calculation using NHE report data	Out-of-pocket 2,859 TWD - Copayment 2,345 TWD ※ 562,526 : 253,514 = 5,204 : X (X=2,345); calculation using CHE report data	- Out-of-pocket 2,412 TWD - Copayment 1,979 TWD ※ 562,526 : 253,514 = 4,391 : X (X=1,979); calculation using CHE report data
② Per capita OOP			
1,609 TWD = 4,185 TWD / 2.6	1,389 TWD = 3,611 TWD / 2.6	2,263 TWD = 5,204 TWD / 2.3	1,861 TWD = 4,391 TWD / 2.36
- Out-of-pocket 1,473 TWD - Copayment 136 TWD	- Out-of-pocket 1,271 TWD - Copayment 118 TWD	- Out-of-pocket 1,243 TWD - Copayment 1,020 TWD	- Out-of-pocket 1,022 TWD - Copayment 839 TWD

Source: Taiwan; calculation using(Christy Pu et al., 2023; Executive Yuan (Taiwan); Household survey, annually; MOHW (Taiwan); NHE, annually) data

Korea; calculation using (KOSIS; CHE, annually; KOSIS; Household survey, annually) data

Note 1. Keep the ratio of out-of-pocket and copayments the same before and after PHI reimbursement.

2. (Taiwan) Household OOP : Copayment = 496,968 : 42,068 (refer to Table 5-32)

3. (Korea) Household OOP : Copayment = 562,526 : 253,514 (refer to Table 5-36)

Chapter 6 . Conclusion



Taiwan and Korea operate single-payer national health insurance and similar healthcare delivery systems. They are making great efforts to improve healthcare access and quality of care.

This study discussed and compared the healthcare in Taiwan and Korea, focusing on the healthcare system, NHI premium collection system, and health expenditure. The study's essential aspect was calculating and estimating the financial burden on households and individuals in both countries for premiums, copayments, and out-of-pocket (OOP) costs. This study explains the differences in the methods of calculating NHI premiums and health expenses between the two countries and provides a detailed comparison of statistical data.

The major findings of the study are as follows (Table 6-1).

The big difference between Taiwan's and Korea's premium collection is that dependents do not pay insurance premiums in Korea, and Taiwan collects a premium on dependents. Assuming that workers receive the same salary, Taiwanese workers pay more individual insurance premiums than Korean workers if they have more than two dependents. As of 2021, workers in Taiwan (Category 1 Item 1-3) paid an average of 2.37% of their monthly salary as premiums, while workers in Korea paid 3.43% of their

monthly wage as premiums, with Korean workers paying more premiums.

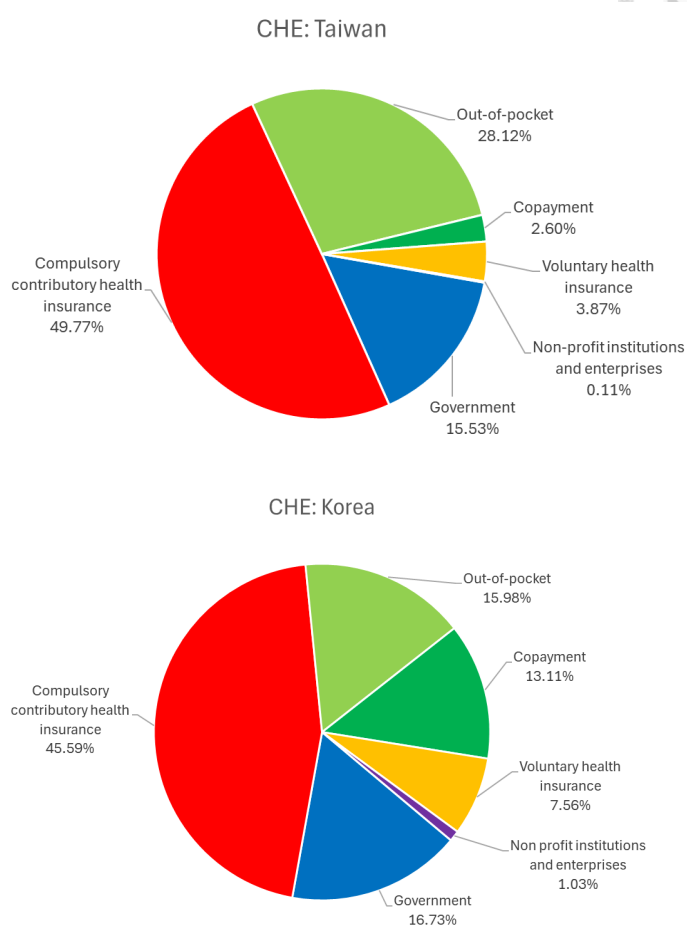
As of 2021, supplementary insurance premiums for the insured accounted for 4.3% of the total premiums in Taiwan. In Korea, 7.5% of the total premiums were supplementary premiums for the insured (1% for employees, 6.5% for self-employed). In the case of self-employed people in Korea, what is unique in calculating premiums is that they include premiums for property and cars in addition to income.

For household out-of-pocket (OOP) costs, this study adjusted and compared differences based on current health expenditures (CHE) and household surveys in both countries. Official data from Taiwan did not exclude PHI reimbursement from household out-of-pocket expenses, so this study estimated the reimbursement amount and adjusted household out-of-pocket expenses for comparison with Korea.

In Taiwan, the household out-of-pocket share of total current health expenditure (CHE) was 30.72%, of which 28.12% was out-of-pocket (non-insurance) and 2.6% was copayments. The household out-of-pocket share in Korea was 29.1%, with 15.98% out-of-pocket (non-insurance) and 13.11% copayments.

In Taiwan, household out-of-pocket expenses represent 5.91% to 6.84% of monthly consumption expenditures and 4.64% to 5.37% of total monthly expenses. In Korea, these expenses account for 7.39% to 8.99% of monthly consumption expenditures and 5.46% to 6.65% of total monthly expenses.

Table 6-1. Study major findings: Household health expenditure, 2021



			Taiwan	Korea
Premium	General premium	NHI services	2.37% of monthly wage ※ the employee insured	3.43% of monthly wage ※ the employee insured
	Supplementary premium		4.3% of the total premiums	7.5% of the total premiums (1% for employees, 6.5% for self-employed)
			- Dependents do pay premiums	- Dependents do not pay premiums. - income + property, automobile ※ the self-employed insured
Household out-of-pocket	Copayment		5.5% (NHI benefit 94.5%, copayment 5.5%) - outpatient 6.3% - inpatient 4.7% - pharmacy 0.8%	25% (NHI benefit 75%, copayment 25%) - outpatient 29.3% - inpatient 18.8% - pharmacy 27.4%
			118 – 136 TWD per capita (per month)	839 – 1,020 TWD per capita (per month)
	Out-of-pocket (Market price)	non-NHI service	1,271 – 1,473 TWD per capita (per month)	1,022 – 1,243 TWD per capita (per month)
		NHI + non-NHI service	4.64-5.37% of total expenditures (per month) 5.91-6.84% of consumption expenditures (per month) ※ number of persons per household: 2.6	5.46-6.65% of total expenditures (per month) 7.39-8.99% of consumption expenditures (per month) ※ number of persons per household: 2.3-2.36

Copayment differed significantly between Taiwan and Korea when using health insurance services. In 2021, the share of copayment on all medical expenses was 5.5% in Taiwan and 25% in Korea.



Korea's household out-of-pocket expenditures per capita are 1.2 to 1.6 times Taiwan's. Broken down, it is 0.7 to 1.0 times for out-of-pocket (non-insurance service) and 6.2 to 8.6 times for copayment (insurance service).

When calculated monthly, the copayment cost ranges from 118 to 136 TWD per person in Taiwan and 839 to 1,020 TWD per person in Korea. The out-of-pocket costs for non-insurance services range from 1,271 to 1,473 TWD per person in Taiwan and 1,022 to 1,243 TWD per person in Korea.

The limitations of this study are listed as follows.

Since no previous studies directly analyzed and compared the raw data related to health expenditures in both countries, it has been challenging to understand and organize the differences in raw data in collecting and analyzing data. Nevertheless, this study makes the most of the official data from both countries, organizes them in an easy-to-understand manner, and explains the data estimation processes in detail.

During the study, the researcher also inquired about the composition of national health expenditures and household surveys in Taiwan with the Ministry of Health and Welfare (Department of Statistics) and Executive Yuan (General Administration of

Budget, Accounts, and Statistics).



This study was conducted based on publicly available government reports and information, with some limitations in collecting relevant data that might affect the analysis results. Each specific section of health expenditure deserves further study.

In Taiwan, Categories 4, 5, and 6 Item 1 of the NHI insured, for whom the government covers 100% of the premiums, are also included in the NHI system. As of 2021, they represent 3% (710,079 people) of Taiwan's total population. However, Korea has a separate medical aid system other than NHI, covering 2.9% (1,516,525 people) of the total population as of 2021. Although the proportion of the government-aided population is relatively small, it may slightly affect the contributions of individuals and the government to insurance premiums.

In addition, detailed information on private insurance was unavailable, limiting accurate analysis. In the case of private insurance in both countries, establishing an appropriate role as a complementary option to public insurance and promoting collaboration between public and private sectors will require further in-depth research.

Here are some suggestions based on the results of this study.

Taiwan:

Compared to Korea, the NHI in Taiwan has a higher coverage rate and lower copayment, making medical access more convenient. However, in terms of long-term

care, the out-of-pocket expenses are considerably higher than in Korea, indicating the need for policy changes to prepare for an aging society.



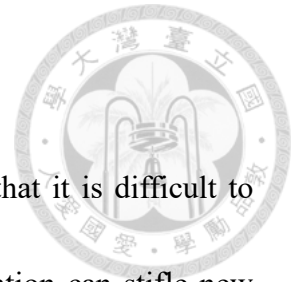
Korea:

The burden of insurance premiums in Korea was higher compared to Taiwan. Specifically, dependents were not required to pay premiums, and self-employed insureds had the unique aspect of calculating property and automobiles in addition to income. During the writing of the paper, there were ongoing policy changes in Korea. Beginning in February 2024, the government increased the primary deductible for property and eliminated auto premiums for self-employed insureds to make premiums more affordable. In addition, since the introduction of automobile insurance premiums in 1989, there have been improvements in income assessment methods and changes in living standards. Currently, Korea is the only country collecting automobile health insurance premiums, and there have been many calls for reform (MOHW (Korea), 2024). Continuing reform for more reasonable premium collection is needed. Copayments in Korea remain high, particularly for outpatient care and pharmacy costs. Thus, policy adjustments may be needed to reduce the burden of medical care for low-income groups. Additionally, compared to Taiwan, the health insurance coverage rate is lower, so efforts to expand coverage should continue. Korea relies more on private healthcare due to fewer public hospitals and beds. Thus, there should be a

greater emphasis on building a public healthcare system.

The difficulty of managing out-of-pocket (OOP) expenses is that it is difficult to get an accurate picture of the current situation. Also, over-intervention can stifle new technologies or the development of the healthcare industry, emphasizing the need for careful policy decisions. Comparing the country's healthcare system with those of other countries can be helpful in objectively assessing its current position.

Differences in the operation of healthcare systems directly or indirectly affect all citizens, requiring continued government intervention and healthcare reforms that keep up with the times.



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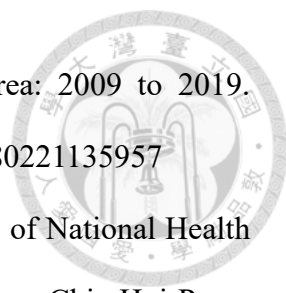
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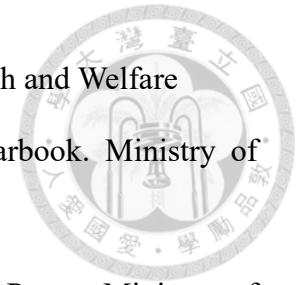
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