EXAMINATION OF PRIVATE HEALTH INSURANCE IN TERMS OF HEALTH SERVICES USAGE IN TURKEY

Abstract

In this study, it was aimed to investigate whether there was any difference of the usage of health services between individuals who had and had not private health insurance in Turkey. If there was any difference, which direction it effects and what kind of health care it directs individuals toward.

A questionnaire was created by author depending on literature review. There were questions about participants’ socio-demographic, economic and health status and the usage of their health services in the last year. The sample was consisted of 852 people, 459 of whom do not have private health insurance and 393 of whom have private health insurance.

The data was analyzed with SPSS.v2 package program. Non-parametric tests such as Mann Whitney U test and Chi square were used for the analyzing.

Significant differences in terms of outpatient treatment, surgical procedure, vaccination, dentist visits, glasses-contact lenses supply and family health center (FHC) visits were found between the groups. It was found that individuals who had private health insurance tend to use therapeutic health services rather than preventive health services. Also, the usage of primary health care in this group was lower than others.

Key Words: Health Services, Health Finance, Private Health Insurance
**Introduction**

In recent years, increasing demand for health services, technological innovations in health sector, longer life of humans and burdens caused by chronic diseases have been forcing governments to make health financing more effective (Yıldırım, 2012). On the one hand, a universal health coverage that should include all individuals living in the country is aimed, on the other, there is an effort to reduce the burden of health services on the state budget even in the developed countries (Mathauer and Kutzin, 2019; OECD, 2004a).

Each country chooses a different health financing method considering their economic, administrative and cultural structure (WHO, 2010, Tatar, 2011). Today, countries mostly adopt a main financing method for health coverage, however, they also use different financing methods to increase risk sharing and obtain more resources as well (Preker et al. 2007; Daştan and Çetinkaya, 2015).

Health financing methods are generally divided into two groups; public finance models and private finance models. Two major types of public finance models are Beveridge Systems and Bismarck Systems. Private finance systems consist of Private Health Insurance System (PHI), Medical Savings Accounts and Out-of-Pocket Payments (OOP) (Tatar, 2011; Liaropoulos and Goranitis, 2015).

This study focuses on PHI. The aim of the study is to examine the health services usage of individuals both who have private health insurance and who have not. Thus the result could reveal whether the type of health insurance increases the health care usage or not.

1. **Private Health Insurance**

A private health insurance (PHI) is an insurance scheme financed through private health premium payments that a policyholder agrees to make. An insurance policy consists of a contract...
that is signed by an insurance firm and covered person (Sekhri and Savedoff, 2004; OECD, 2019).

Even though all types of private health insurances are not the same (community-based or risk-based, long-term, etc.), they often contain the same elements. The most common examples of private health insurances are short-term forms prepared annually. However, even though it is not very common, there are also some other types known as long-term health insurances in some countries such as Australia, Germany, Belgium and Ireland. In these types, the insured person is under protection for a long time (Deloitte, 2013; PKV, 2016).

There are four sub-types of private health insurance. According to the OECD's definition, these are listed below (OECD, 2017).

1.1. **Principal/substitute private health insurance:** Public or social health insurance (SHI) does not exist or individuals do not meet the conditions for inclusion in public health insurance. This situation is defined as principal private health insurance. When individuals prefer to leave the system despite being covered by a public insurance, it is called substitute private health insurance (OECD, 2004b).

The best known example has been implemented in the USA; weighted health financing method in this country is PHI. In addition, some conditions such as the income status of individuals in Germany and the Netherlands, their job status or occupation in Belgium or Austria allow individuals to choose PHI instead of SHI. Those with an income above a predetermined level in Germany can leave the compulsory public health insurance and purchase a basic guarantee package by getting PHI. Thus, they are exempt from paying premiums to compulsory health insurance (OECD, 2017; TSB, 2016).
1.2. **Complementary private health insurance**: It covers the costs (cost sharing, contribution etc.) that are not covered by the public insurance and which are not reimbursed and are expected to be covered by the individual. Thus it complements public health insurance (OECD, 2017).

1.3. **Duplicate private health insurance**: It is a PHI that offers access to different providers (e.g. private hospitals) or service levels (for example; faster care access) while offering coverage for health services already covered by public health insurance. This type of private health insurance does not prevent individuals from contributing to public health insurance programs (OECD, 2017). One of the most important reasons for being preferred is the long waiting times in public health service providers (Kiil, 2012).

1.4. **Supplementary private health insurance**: It is a type of private health insurance that provides additional health services that are not covered by public health insurance. The purpose of this type of insurance, which is frequently applied in countries such as Greece, Italy, Spain and the UK; to enable the individual to choose a health institution and to provide access to more comfortable healthcare services (OECD, 2017; TSB, 2016).

In the social insurance system, the premiums that a person must pay are determined by the person's earnings and have no relation with the person's health status, while they are mostly determined by the person's health status and risk ratio in private health insurance system.

In the process of determining the PHI policy price, variables such as the age, gender and frequency of using health services are taken into consideration. Net Risk Premium (NRP), which expresses the amount that will be sufficient to cover the health expenditure that is thought to be made for a year, is calculated according to the type of guarantee requested (Özsarı, 2003).

2. **Health System and Health Finance in Turkey**

In 2003, when the Health Transformation Program was launched, it was observed that health financing in our country was mainly provided by public sources. The remaining 30-40% were
provided through private resources such as out-of-pocket payments, private health insurance purchased by companies and individuals (OECD, 2008).

In Turkey, the financing and institutional structuring of the health services until the General Health Insurance (GHI) system has been introduced, was diverse and had a complex and inefficient structure (Sağlık Bakanlığı, 2008). With the law 5502 enacted on 20 May 2006, SSK, Bağ-Kur and Retirement Fund were put under one roof under the name of "Social Security Institution". Later in 2008, the law 5510 was enacted to prevent inequality in access to healthcare and financing, and the universal coverage principle was adopted (Sağlık Bakanlığı, 2008). The reform process was completed with the inclusion of Green Card holders in SSI in 2012 (SGK, 2013).

As stated in the Law, entering the General Health Insurance system is not left to the preference of individuals in Turkey. All citizens are mandatorily included in the system and have to pay premiums. However, the general health insurance premiums of some who are in special condition and whose income is below a specified level are covered by the state through taxes (Resmi Gazete, dated 16/06/2006 and numbered 26200).

In Turkey, PHI can be defined as “Optional Health Insurance”. It is not possible to leave the compulsory health insurance by choosing a substitute private health insurance. Insurance companies offer individuals two options as “Complementary Health Insurance” or “Supplementary Health Insurance”. Private health insurance is used as optional and secondary insurance in Turkey (Uzun, 2015; TSS, 2016).

The financing sources of the health system in our country are premiums collected from workers and employers, treasury aid (through taxes), contributions made by individuals, and other out-of-pocket payments and private health insurance premiums (Gülay, 2017).
Research Methodology

In this study, Istanbul and Ankara were included in the sample because they had the largest population and PHI policies were mostly registered in these cities. Ethics approval was obtained from Marmara University Institute of Health Sciences Ethics Committee before the study.

A questionnaire created by the researcher as a result of the literature review. It was applied to 852 individuals, volunteering to participate in the research, via face-to-face and online interviews. Information about the socio-demographic characteristics and participants’ healthcare usage were collected. Individuals over 18 years of age living in these two cities were included in the study and questionnaires were conducted between April 2018 and April 2019. Before conducting the questionnaire, the necessary explanations were made to the individuals and their written consents were obtained.

Because the foreigners who have a residence permit in our country are subject to “private health insurance for foreigners”, the persons in this group were not be included in the study. Travel health insurance was also excluded. Also, individuals under the age of 18 were not included in the study because the decision to purchase PHI is made by their parents instead of them. In addition, Turkish citizens living abroad were not covered because they received health services in a different country of where health system may differs.

Due to the nature of our country's health system, it is known that all citizens are covered by social health insurance (SHI-General Health Insurance). Even if an individual has a private health insurance, he/she can use social health insurance at any time. On the other hand, although all citizens are included in social health insurance, they can benefit from private health service providers by paying out of pocket. Due to this complex situation, the participants were asked about their health-care usage while considering both options during the questionnaire. People who have PHI were first asked about the health services they received by using PHI and then the
health services that they received from public hospitals through SHI without using private health insurance. Likewise, the people who do not have PHI were asked about the health services they received from public hospitals within the scope of SHI, and the status of receiving services from private health service providers by paying out of pocket. For both groups, the first option is called “priority health services usage” and the second option is “secondary health services usage”. In addition, each of the participants asked, "Have you visited to a family health center in the past year?" The application grouping for priority and secondary health services usage and family health center are shown in the table below.

Table 1. Grouping the health services used by the participants

| Priority health services usage | Secondary health services usage | Family health center (FHC) usage |
|-------------------------------|---------------------------------|---------------------------------|
| Health services received by using private health insurance (PHI) | Health services received by not using private health insurance (using SHI) | |
| Health services received by using social health insurance (SHI) | Health services received by not using social health insurance (paying OOP) | |

While analyzing the obtained data, the suitability of the variables to normal distribution was examined. It was tested by examining the central and prevalence criteria, evaluation of histograms and One Sample Kolmogorov-Smirnov Test. It was determined as not normal distribution. For this reason, non-parametric hypothesis tests were used in analysis and evaluations.

Analysis

Of the 852 respondents, 66.1% (563) are women and 33.9% (289) are men and the majority of the participants live in Istanbul (%91.1). When the socio-demographic characteristics of
individuals with and without private health insurance were examined, it was seen that there were differences in terms of many variables.

There was a statistically significant difference between the groups according to age (p=0.021), it is thought that this is due to the fact that people with PHI are mostly young and middle-aged. PHI is less preferred by individuals in the high age group because the age increases risk of illnesses, thus PHI companies demand higher rates of premium from risky groups. Also, older people earn less money than younger people to pay premiums. As another reason; corporate group insurance has a large share in total private health insurance. For this reason, most of the people with PHI are young people of working age (Table 2).

There was a significant difference between the groups according to the number of children owned (p=0.00). It is a known that high-income and working individuals have fewer children nowadays. As can be seen in the table above, while 46.3% of individuals with PHI had no children, 35.1% had only one child and there was no more than 3 children in this group. In the group without PHI, having no children and having only one child, 4, 5, 6 and more children were 44.4%, 20.5%, 1.7%, 0.9% and 0.7% respectively (Table 2).

Similarly, when the number of people living at home was analyzed, it was observed that individuals with PHI had been living with fewer people in their homes (p=0.00). While 9.2% of those with PHI stated that five or more people had been living at home, this rate was 19.6% for those without PHI (Table 2).

While education level of the people with PHI was 43.3% undergraduate and 35.4% graduate, there was no primary school graduate among that group. When we look at the other group, it was seen that rates of undergraduate and graduate were 34.4% and 19.6% respectively, there were 12.2% primary school graduates as well. There was a significant difference in education level between the two groups (p=0.00) and people with PHI had higher education levels. It was
thought that there was a difference in education level among the groups because more educated people more prefer PHI (Table 2).

As it can be seen in Table 2, people with PHI worked mostly in the private sector (77.1%) although 53.2% of those without PHI worked in the public sector. 4.1% of those with PHI stated that they did not work in any job. On the other hand, the number of people not working was higher in those who without PHI (12.6%).

### Table 2. Socio-demographic characteristics of the participants

|                | Health insurance status | Total | X² | S.d | P    |
|----------------|-------------------------|-------|----|-----|------|
|                | With PHI                | Without PHI |    |     |      |
| City           |                         |        |    |     |      |
| Istanbul       | %92.6                   | %89.8  | 776 | %91.1 | 2,132 | 1 | 0.144 |
| Ankara         | %7.4                    | %10.2  | 76  | %8.9  |       |   |       |
| Age            |                         |        |    |     |      |
| 18-25          | %11.2                   | %11.5  | 97  | %11.4 | 11,599 | 4 | 0.021 |
| 26-35          | %33.8                   | %26.8  | 256 | %30.0 |       |   |       |
| 36-45          | %39.2                   | %37.5  | 326 | %38.3 |       |   |       |
| 46-55          | %12.2                   | %17.4  | 128 | %15.0 |       |   |       |
| 56 ve over     | %3.6                    | %6.8   | 45  | %5.3  |       |   |       |
| Gender         |                         |        |    |     |      |
| Female         | %68.7                   | %63.8  | 563 | %66.1 | 2,238 | 1 | 0.135 |
| Male           | %31.3                   | %36.2  | 289 | %33.9 |       |   |       |
| Marital status |                         |        |    |     |      |
| Single         | %35.1                   | %44.4  | 342 | %40.1 | 7,670 | 1 | 0.006 |
| Married        | %64.9                   | %55.6  | 510 | %59.9 |       |   |       |
| Number of children |            |        |    |     |      |
| 0              | %46.3                   | %44.4  | 386 | %45.3 | 51,774 | 6 | 0.000 |
| 1              | %35.1                   | %20.5  | 232 | %27.2 |       |   |       |
| 2              | %16.8                   | %23.3  | 173 | %20.3 |       |   |       |
| 3              | %1.8                    | %8.5   | 46  | %5.4  |       |   |       |
| 4              | %0                      | %1.7   | 8   | %0.9  |       |   |       |
| 5              | %0                      | %0.9   | 4   | %0.5  |       |   |       |
| Number of people living in the house | 6 and more | 1 | 2 | 3 | 4 | 5 and more | Total |
|-------------------------------------|-----------|---|---|---|---|-----------|-------|
| 6 and more                          | 0 | %0 | 3 | %0,7 | 3 | %0,4 | 23,081 |
| 1                                   | 34 | %8,7 | 39 | %8,5 | 73 | %8,6 | 4000 |
| 2                                   | 89 | %22,6 | 95 | %20,7 | 184 | %21,6 | 83,909 |
| 3                                   | 139 | %35,4 | 117 | %25,5 | 256 | %30,0 | 255,778 |
| 4                                   | 95 | %24,2 | 118 | %25,7 | 213 | %25,0 | 139 |
| 5 and more                          | 36 | %9,2 | 90 | %19,6 | 126 | %14,8 | 139 |

| Education                           | Primary education | High school | Vocational school | Undergraduate | Graduate |
|-------------------------------------|-------------------|--------------|-------------------|---------------|----------|
| 6 and more                          | 0 | %0,0 | 56 | %12,2 | 56 | %6,6 | 83,909 |
| 1                                   | 49 | %12,5 | 98 | %21,4 | 147 | %17,3 | 4000 |
| 2                                   | 35 | %8,9 | 57 | %12,4 | 92 | %10,8 | 83,909 |
| 3                                   | 170 | %43,3 | 158 | %34,4 | 328 | %38,5 | 255,778 |
| 4                                   | 139 | %35,4 | 90 | %19,6 | 229 | %26,9 | 4000 |

| Sector                              | Public | Private | Independent | Not working | Student | Retire |
|-------------------------------------|--------|---------|-------------|-------------|---------|--------|
| 6 and more                          | 39 | %9,9 | 244 | %53,2 | 283 | %33,2 | 255,778 |
| 1                                   | 303 | %77,1 | 115 | %25,1 | 418 | %49,1 | 4000 |
| 2                                   | 14 | %3,6 | 11 | %2,4 | 25 | %2,9 | 4000 |
| 3                                   | 16 | %4,1 | 58 | %12,6 | 74 | %8,7 | 4000 |
| 4                                   | 8 | %2,0 | 10 | %2,2 | 18 | %2,1 | 4000 |
| 5 and more                          | 13 | %3,3 | 21 | %4,6 | 34 | %4,0 | 4000 |

| Position                            | Senior manager | Middle Level Manager | Sub-level Manager, Expert, Academician, Project Manager, Master etc. | Administrative, Technical or Salesperson etc. | Other |
|-------------------------------------|-----------------|----------------------|---------------------------------------------------------------------|-------------------------------------------------|-------|
| 6 and more                          | 39 | %9,9 | 21 | %4,6 | 60 | %7,0 | 94,804 |
| 1                                   | 50 | %12,7 | 35 | %7,6 | 85 | %10,0 | 4000 |
| 2                                   | 155 | %39,4 | 85 | %18,5 | 240 | %28,2 | 94,804 |
| 3                                   | 99 | %25,2 | 218 | %47,5 | 317 | %37,2 | 4000 |
| 4                                   | 15 | %3,8 | 12 | %2,6 | 27 | %3,2 | 4000 |
The working positions of participants were differ between groups (p=0.00). While people with PHI were working in higher positions, the majority of people without PHI were in administrative/technical/sales person position (Table 2).

There was also a significant difference between the groups in terms of the individual income of the participants (p=0.00). Individuals with PHI had higher income. 10.9% of people with PHI and 2.0% of those without PHI stated that their monthly income was between 7500-10000 TL. Those who said that they earn more than 10001 TL per month constitute 16.3% and 1.3% of the people with PHI and people without PHI respectively (Table 2).

In order to determine their health status, the participants were asked if they had any chronic diseases. A significant difference was found between the groups according to the responses given (p=0.023). 14.5% of those with PHI and 20.5% of those without PHI stated that they had at least one chronic disease. It was thought that the group with PHI consists of more younger people and this situation may have an effect on this result. However another reason may be the following; PHI does not cover an existing chronic illness or insurance companies demand higher premiums from these individuals. For this reason, people with chronic illnesses prefer PHI less (Table 2).
Table 3. Priority health services usage by type of health insurance owned

| Service                          | With PHI | Without PHI | U       | Z       | P  |
|---------------------------------|----------|-------------|---------|---------|----|
|                                 | Number   | Median      | Mean    | Std. D. | Min. | Max. | Number | Median | Mean    | Std. D. | Min. | Max. | 73669,500 | -2,505 | 0,012 |
| Outpatient                      | 357      | 3,00        | 2       | 2,908   | 0     | 21   | 459    | 2,83   | 2       | 3,983   | 0     | 50   | 86536,000 | -0,909 | 0,363 |
| Inpatient                       | 391      | 0,23        | 0,00    | 0,862   | 0     | 8    | 459    | 0,17   | 0,00    | 0,975   | 0     | 11   | 86629,000 | -2,468 | 0,014 |
| Surgery                         | 393      | 0,08        | 0,00    | 0,295   | 0     | 2    | 459    | 0,04   | 0,00    | 0,225   | 0     | 2    | 86629,000 | -2,468 | 0,014 |
| Delivery                        | 315      | 0,02        | 0,148   | 0,166   | 0     | 1    | 459    | 0,01   | 0,00    | 0,081   | 0     | 1    | 71158,500 | -1,897 | 0,058 |
| Emergency department visits     | 393      | 0,68        | 0,00    | 1,441   | 0     | 15   | 459    | 0,62   | 0,00    | 1,181   | 0     | 10   | 89438,000 | -0,252 | 0,801 |
| Ambulance                       | 393      | 0,01        | 0,00    | 0,112   | 0     | 1    | 459    | 0,03   | 0,00    | 0,245   | 0     | 3    | 89169,500 | -1,216 | 0,224 |
| Home healthcare                 | 393      | 0,00        | 0,00    | 0,050   | 0     | 1    | 459    | 0,01   | 0,00    | 0,238   | 0     | 5    | 90029,500 | -0,446 | 0,655 |
| Check-up                        | 393      | 0,11        | 0,00    | 0,316   | 0     | 1    | 459    | 0,13   | 0,00    | 0,416   | 0     | 3    | 89146,000 | -0,429 | 0,668 |
| Vaccination                     | 393      | 0,05        | 0,00    | 0,247   | 0     | 2    | 459    | 0,18   | 0,00    | 0,652   | 0     | 8    | 84032,500 | -3,569 | 0,000 |
| Dentist visits                  | 145      | 0,21        | 0,00    | 0,719   | 0     | 5    | 459    | 0,51   | 0,00    | 1,124   | 0     | 10   | 28046,000 | -3,842 | 0,000 |
| Glasses, contact lens           | 218      | 0,18        | 0,00    | 0,474   | 0     | 3    | 459    | 0,26   | 0,00    | 0,624   | 0     | 6    | 40200,500 | -5,805 | 0,000 |
A significant difference was found between outpatient health services (priority) received by participants (p=0.012). At the priority health services usage, the median of usage of outpatient health services in the past year was 3.00 for private health insurers and was 2.83 for non-private health insurers (Table 3).

The number of surgical procedures performed at the level of priority health services usage between groups was significant with a significance level of 0.014. The median of undergoing surgical procedures was 0.08 for those with PHI, while it was 0.04 for those without PHI (Table 3).

It can be seen in Table 3, although the median of vaccination was found to be 0.05 in people with PHI, it was 0.18 in people without PHI. There was a significant difference between the two groups (p=0.00).

The median of number of visits to the dentist was 0.21 for those with PHI and 0.51 for those without PHI. Similarly, when looking at glasses and contact lens medians, it was seen that those with PHI used those kind of health services lower than those without PHI (Table 3).

Considering the responses of the participants; It was observed that those with PHI continued to benefit from social health insurance, while those without PHI benefited from private health institutions by paying out of pocket.

At the level of secondary health services usage, there was no statistically difference between the groups in services such as outpatient, inpatient, surgical procedure, delivery birth, and emergency department use. There was a significant difference only according to the number of dentists visits (p=0.00). It was thought that this may be due to the fact that the provision of dental health services is limited in public health institutions, so that individuals prefer to go to private dental health centers (Table 4).
Table 4. Secondary health services usage by type of health insurance owned

|                      | PHI | SHI | U   | Z   | P   |
|----------------------|-----|-----|-----|-----|-----|
|                      | Numb| Med| Mea | Std.| Mi  | Ma  |
|                      | er  | an | n   | D. | n.  | x.  |
| Outpatient           | 393 | 0.79| 0.00| 1.50| 9   | 15  |
|                      | 459 | 1.02| 0.00| 1.799| 0   | 15  |
|                      | 84724.5| 00 | -1.74| 7   | 0.08|
|                      |     |     |     |     |     | 1   |
| Inpatient            | 393 | 0.10| 0.00| 0.458| 0   | 4   |
|                      | 459 | 0.06| 0.00| 0.456| 0   | 7   |
|                      | 88700.5| 00 | -1.19| 6   | 0.23|
|                      |     |     |     |     |     | 2   |
| Surgery              | 393 | 0.03| 0.00| 0.288| 0   | 5   |
|                      | 459 | 0.04| 0.00| 0.261| 0   | 3   |
|                      | 89303.0| 00 | -0.86| 8   | 0.38|
|                      |     |     |     |     |     | 6   |
| Delivery             | 393 | 0.02| 0.00| 0.266| 0   | 1   |
|                      | 459 | 0.01| 0.00| 0.093| 0   | 1   |
|                      | 90059.5| 00 | -0.22| 4   | 0.82|
|                      |     |     |     |     |     | 3   |
| Emergency department visits | 393 | 0.17| 0.00| 0.545| 0   | 5   |
|                      | 459 | 0.15| 0.00| 0.606| 0   | 5   |
|                      | 88186.0| 00 | -1.06| 8   | 0.28|
|                      |     |     |     |     |     | 6   |
| Ambulance            | 393 | 0.01| 0.00| 0.071| 0   | 1   |
|                      | 459 | 0.00| 0.00| 0.000| 0   | 0   |
|                      | 89734.5| 00 | -1.52| 9   | 0.12|
|                      |     |     |     |     |     | 6   |
| Home healthcare      | 393 | 0.02| 0.00| 0.262| 0   | 5   |
|                      | 459 | 0.00| 0.00| 0.000| 0   | 0   |
|                      | 89505.0| 00 | -1.87| 4   | 0.06|
|                      |     |     |     |     |     | 1   |
Table 5. Visits to the Family Health Center by type of health insurance owned

|                      | PHI                      | SHI                      | U       | Z       | P       |
|----------------------|--------------------------|--------------------------|---------|---------|---------|
|                      | Number | Median | Mean | Std. D. | Min. | Max. | Number | Median | Mean | Std. D. | Min. | Max. | Number | Median | Mean | Std. D. | Min. | Max. | Number | Median | Mean | Std. D. | Min. | Max. | Number | Median | Mean | Std. D. | Min. | Max. |
| Dentist visits       | 393     | 0,12   | 0,00 | 0,53 1 | 0 | 7 | 459 | 0,42 | 0,00 | 1,394 | 0 | 14 | 81586,500 | -4,17 | 7 | 0,00 |
| Radiology            | 393     | 0,22   | 0,00 | 0,63 2 | 0 | 5 | 459 | 0,19 | 0,00 | 0,759 | 0 | 10 | 87530,500 | -1,29 | 8 | 0,19 |
| Invasive procedures  | 393     | 0,02   | 0,00 | 0,31 5 | 0 | 6 | 459 | 0,02 | 0,00 | 0,255 | 0 | 5 | 89934,000 | -0,38 | 8 | 0,69 |
| Other                | 393     | 0,02   | 0,00 | 0,22 5 | 0 | 4 | 459 | 0,74 | 0,00 | 14,014 | 0 | 10 | 87988,000 | -2,24 | 2 | 0,02 |

There was also a significant difference between the groups in terms of visits to the FHC (p=0.00). It was observed that those without PHI were using more often primary health care
services. While the median of visiting to the FHC among those with PHI was 0.76, this number was 1.36 for those without PHI (Table 5).

Discussion

In different countries, there are studies investigating how PHI affects healthcare usage. Some of these studies reveal that PHI increases the usage of services (Alexander and Currie, 2017; Bolhaar et al., 2008; Jones et al., 2006; Buchmueller et al., 2002; Kiil and Arendt, 2017). According to Jeon and Kwon; PHI is effective in initiating healthcare demand and increases the search for healthcare (Jeon and Kwon, 2013). In some studies, the results show that there is no difference between health insurance in terms of service use (Bolhaar et al., 2008; Balan, 2002). For example; having private health insurance or public health insurance in Australia was not different in terms of hospitalization and overnight stay (Cheng, 2014). In another study conducted in Ireland, they found that those who have private health insurance do not use health services more than those who do not. In his study, Balan revealed that although the use of services was not different, the health expenditure of private health insurers was higher than those of public health insurance (Balan, 2002).

In a study conducted in the United States, it was observed that there was a difference between hospitalizations among children according to their public or private health insurance coverage. It was revealed that the applications of the children covered by private health insurance to the emergency department result in more hospitalization than the other group. It was stated that this difference was more pronounced especially in periods when the demand for hospital service use increased due to the flu epidemic. In the study, it was stated that private health insurance companies pay more for the same service than public insurance and therefore hospitals tend to invest more in private health insured patients (Alexander and Currie, 2017).
In a study conducted in Denmark, a questionnaire was applied to 2098 family physicians. In the study, 90% of the participants stated that they think PHI causes excessive service demand. Also 46% of the participants stated that when they examined patients with supplementary private health insurance, they felt a pressure to refer these patients to a specialist even if it was not necessary according to their own findings. In addition, 11% of family physicians stated that they sent patients asking referral to a specialist by not asking any questions or not examining (Andersen et al., 2017).

In a study conducted in 11 countries in Europe it was investigated that whether having a PHI affects health care usage such as hospital services, physician, specialist and dentist visits of individuals aged 50+. In other countries except Denmark and Sweden, it was found that PHI

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