

## Financial Sustainability of The Turkish Health Care System: Experts' Opinion

Nehir BALCI<sup>1</sup>, Güluzar KURT GÜMÜŞ<sup>2</sup>

### Abstract

Financial sustainability of health care systems is an issue that has frequently come up in recent years. Similarly, it has been a common topic of discussion in Turkey, and reforms implemented in the system since 2003 have made this issue more popular. The aim of this study is to determine the experts' viewpoints about financial sustainability of the health care system in Turkey. The content analysis results indicates that an important proportion of experts think that Turkey health care system faced with unsustainability problem and main problems were lack of resources and university hospitals' problems. The most important external factors effect financial sustainability are reimbursement system, resources allocated for the system, policies, foreign dependency, and economic growth. Moreover, the major internal factors affecting sustainability are administrator & personnel performance, human resources management costs, and cost of service & goods. The participants' primary recommendation for enabling financial sustainability is novel financing models development and referral chain application.

**Keywords:** Financial Sustainability, Health Care System, Content Analysis, Turkey.

**Jel Codes:** I115, H51, I11

### Türk Sağlık Sisteminin Finansal Sürdürülebilirliği: Uzman Görüşleri

#### Özet

Sağlık sistemlerinin finansal sürdürülebilirliği son yıllarda sıkça karşılaşılan bir konudur. Benzer şekilde, Türkiye'de yaygın bir tartışma konusu olmuştur ve 2003'ten bu yana sistemde uygulanan reformlar bu konuyu daha popüler hale getirmiştir. Bu çalışmanın amacı, Türkiye'deki sağlık sisteminin finansal sürdürülebilirliği konusunda uzmanların görüşlerini belirlemektir. İçerik analizi sonuçları, uzmanların önemli bir kısmının, Türkiye'nin sağlık sisteminin sürdürülemezlik sorunu ile karşı karşıya kaldığını ve temel sorunların kaynak eksikliği ve üniversite hastanelerinin sorunları olduğunu düşündüğünü göstermektedir. Finansal sürdürülebilirliği etkileyen en önemli dış faktörler geri ödeme sistemi, sisteme ayrılan kaynaklar, politikalar, dışa bağımlılık ve ekonomik büyümedir. Ayrıca, sürdürülebilirliği etkileyen en önemli iç faktörler, yönetici & personel performansı, insan kaynakları yönetim maliyetleri ve hizmet & malların maliyetidir. Katılımcıların finansal sürdürülebilirliği sağlama konusundaki birincil önerileri yeni finansman modellerinin geliştirilmesi ve sevk zinciri uygulamasıdır.

**Anahtar kelimeler:** Finansal Sürdürülebilirlik, Sağlık Sistemi, İçerik Analizi, Türkiye.

**Jel kodları:** I115, H51, I11

## 1. INTRODUCTION

Financial sustainability can be defined as "the growth in the resources of a health care system being equal to or larger than the increase in health expenditure". In today's world, countries are implementing quick reform programs to

make their health care systems financially sustainable. These reform programs are centered on sustainability and the financial power of the health care system in the face of the increased cost pressures. Some of the most important elements affecting the financial

\*This study was produced from doctoral thesis.

**ATIF ÖNERİSİ (APA):** Balci, N., Kurt Gümüş, G. (2021). Financial Sustainability of The Turkish Health Care System: Experts' Opinion. İzmir İktisat Dergisi. 36(1). 61-79. Doi: 10.24988/ije.202136105

<sup>1</sup> Res. Assist. Dr., Dokuz Eylül University School of Applied Sciences, Department of International Trade, İzmir / TURKEY, **EMAIL:** nehir.balci@deu.edu.tr, **ORCID:**0000-0002-9317-7491

<sup>2</sup> Prof. Dr., Dokuz Eylül University, Department of International Trade and Business, İzmir / TURKEY, **EMAIL:** guluzar.kurt@deu.edu.tr, **ORCID:**0000-0002-9016-285X

power of a system are the changing structure of the population and increased disease burden, the inability of countries' macro-economic structures and Gross Domestic Product (GDP) to grow at the same rate as health expenditure, difficulties experienced by pension funds in financing health expenditure, the increase in the number of health care personnel employed and the resulting burden on the health care system, increased health awareness and individuals' growing health care expectations, and the pressures of advances in health care technology on public finances (Angelis et al., 2017; Crisp 2017; Harper, 2010; Thomson et al., 2010).

The health sector reforms in Turkey are considered to have been among the most successful of middle-income countries undergoing reform. Turkish national health care system is characterized by the following three main features: tax-based financing, universal access, and predominant public provision and universal coverage. The history of Turkey's health care system can be divided into 5 periods in terms of health care reform processes: i) the pre-reform period of 1920-1960, ii) the health care reform period of 1960-1980, iii) the health care reform period of 1981-2002, iv) the health care reform period of 2003-2013, and v) the new health care vision in Turkey of 2014-2023. In the Turkey's history, one of the important health reform was the Health Transformation Program (HTP). The HTP was put into practice in 2003. It aimed to organize health care services more effectively, efficiently, and fairly, and to obtain and provide financing for health care services. After the HTP was completed, new vision aimed to place Turkey among the world's most developed countries in terms of service provision, technology, drugs, and improved human power in the field of health. The rate of health expenditure in GDP in Turkey is 4.3% in 2016. Average of OECD is 9% in the same year (OECD, 2017a). Compared to OECD, it may be concluded that resources allocated for health care system in Turkey must be increased.

Numerous articles have been published review Turkey's health care system reforms, yet there has been no comprehensive evidence-based analysis of financial sustainability of Turkey's health care system. In this respect, this study aims to define financial sustainability based experts' opinions and to evaluate the financial sustainability status of Turkish health care system.

## 2. DATA AND METHODOLOGY

The population of the study for gathering expert opinions consists of the participants of the First International Congress on Patient Safety and Health Financing. The reason for choosing this congress is that the main theme of the congress was "*patient safety for sustainable health financing*" and that the congress mainly sought an answer to the issues of the new modelling of Turkey's health care system pricing and creating an international perspective that prioritizes patient safety. As one of the most used methods in qualitative research, purposive sampling was used in this study. Purposive sampling allows using judgment to choose cases that will help find answers to your research questions in the best way to meet your objectives (Neuman, 2005).

Using purposeful sampling, 33 people were included in this study. For the experts' views, the evaluation of the open-ended responses was carried out using Maxqda 12, one of the programs used for qualitative analysis. Qualitative data obtained from the semi-structured interview forms were arranged into word documents separately for each participant and transferred into the program. Each question was assessed individually and content analysis conducted using Maxqda 12. For the content analysis, a coding system was developed based on the data obtained from the interviews and the analyses were carried out in accordance with the coding list. In addition, one content analysis method, frequency analysis, was employed as well. Words, phrases, or sentences were turned into their related codes, which allowed for numbers and frequencies to be extracted. In addition to the codes, other

remarkable and significant responses were quoted as stated.

### 3. RESULTS

#### 3.1 Personal and Demographic Characteristics of Participants

The demographic distribution of the 33 participants of the study show that a great majority were males (70%). As for the

institution they work in, the participants were divided between private hospitals (27%), university hospitals (15%), universities (15%), and MoH (15%). Regarding the distribution of occupations, 49% of participants were administrators while 15% were academics. Regarding length of employment at the current institution, 33% of participants had been there between 5 and 10 years while 42% had been in their present position for 5-10 years.

**Table 1:** Characteristics of Participants

<i>Institution</i>	<i>Number</i>	<i>Percent</i>	<i>Gender</i>	<i>Number</i>	<i>Percent</i>
Ministry of Health (MoH)	6	18.20	Male	23	69.70
Social Security Institution (SSI)	2	6.00	Female	10	30.30
Private hospital	9	27.30	<b>Sum</b>	<b>33</b>	<b>100.00</b>
Research and training hospital	1	3.00	<b>Working time at the current institution</b>		
HSSWU <sup>1</sup>	1	3.00	Less than 5 years	5	15.20
University hospital	5	15.20	5-10 years	11	33.30
University	5	15.20	11-15 years	4	12.10
Medical company	3	9.10	16-20 years	10	30.30
ICHOM <sup>2</sup>	1	3.00	21 years and above	3	9.10
<b>Sum</b>	<b>33</b>	<b>100.00</b>	<b>Sum</b>	<b>33</b>	<b>100.00</b>
<b>Position</b>			<b>Working time at the current position</b>		
Consultant	2	6.00	Less than 5 years	14	42.40
Expert/Specialist	1	3.00	5-10 years	14	42.40
Administrator	16	48.50	11-15 years	2	6.10
Doctor	3	9.10	16-20 years	2	6.10
Unit supervisor	2	6.10	21 years and above	1	3.00
Academic	5	15.20	<b>Sum</b>	<b>33</b>	<b>100.00</b>
DRG <sup>3</sup> education coordinator	1	3.00			
Civil servant	3	9.10			
<b>Sum</b>	<b>33</b>	<b>100.00</b>			

#### 3.2 The Concept of Financial Sustainability in the Health Care System

The interviewees were asked to define the concept of financial sustainability in the health care system. While 33 participants answered the question, 2 stated they had no idea (Table 2).

Wang (2015) stated that system revenues must be more than health expenditure, the government must support the system in case the system needs more resources and the

citizens' demand for health care services should be met comprehensively in a financially sustainable health care system. 27% of the participants in the study, similarly defined financial sustainability as the revenues covering the expenditure while 18 % of them defined it as financing the health care services, in other words, health expenditures. It can be said that 45% of the participants emphasized the revenue and expenditure aspects of financial sustainability.

<sup>1</sup> Health and Social Service Workers' Union

<sup>2</sup> International Consortium for Health Outcomes Measurement

<sup>3</sup> Diagnosis related groups

**Table 2:** Participants’ Opinion on Defining Financial Sustainability in Health Care Systems

What is financial sustainability in health care systems?	Frequency	Percent
Revenues meeting expenses	9	27.27
Financing health services and expenditure	6	18.18
Effective and efficient use of resources allocated for the health care system	5	15.15
Accurate staging of the service algorithm of the health care system	4	12.12
Treatments being comprehensive and attaining stakeholders satisfaction	2	6.06
No idea	2	6.06
A system in which real policies and strategies are formed and predictability is assured	1	3.03
Health care services ongoing without any faults	1	3.03
Cost efficiency	1	3.03
Making profit for the private sector	1	3.03
A system that places value at the forefront	1	3.03
<b>Sum</b>	<b>33</b>	<b>100</b>

It is defined that sustainability in health care systems guarantees the existence of adequate resources in the long term which will allow reaching quality services for the health care needs that will appear (Romanow, 2002). 15% of the participants likewise defined financial sustainability in health care as “effective and efficient use of resources allocated for the health care system”. Even though the definition made by the participants is not adequate to define financial sustainability precisely, it corresponds to the definition of sustainability of health care system.

12% of the participants defined sustainability as accurate staging of the service algorithm of the health care system. What is implied is the fact that health care system should be designed accurately and preventive and curative health care services should be properly included. Attention to design, implementation and monitoring is required by well-performing health systems. A three-tiered health care system has three steps. Primary health care centres are the places we can receive ambulatory care and should apply in the first place. Public Health Care, Family Medicine Service Centers and Centres for Maternal and Infant Health are among the institutions

providing primary medical care. Secondary health care centres are the hospitals where patients are diagnosed for any disease and their treatments are given by specialists. Public hospitals and Municipality are within the institutions providing secondary health care. Tertiary health care centres are the university hospitals where medical technology is intensely used, cancer research centres and psychiatric hospitals. It is aimed to reach more patients through accurate methods by a three-tiered medical care system. Patients who cannot be treated in a previous care centre are transferred to the latter care centre, which does not cause any congestion in a tiered health care system and allows a healthy care service. A better health outcome is attained at lower cost thanks to a focus on primary care which makes contribution to a more sustainable, accessible, and equitable health care system (Cotlear et al., 2015). A system should be accurately designed in order that a health care system can be sustainable.

For Guyatt et al. (2002), there are mechanisms that health care system sustainability has to ensure that all citizens have ongoing access to sufficient, immediate, technologically advanced, and humane health care that can cover all their needs. Likewise, 6% of the

participants defined financial sustainability of health care system as “treatments being comprehensive and attaining stakeholder satisfaction”. The participants defined general sustainability of the system rather than financial sustainability. While sustainability of health care system is being discussed, one of the leading topics is the fact that resources are restricted, human needs grow steadily despite this and health expenditures increase excessively due to both extended life expectancy and senility period and technological advances. Health expenditure has risen swiftly in the last 15 years in Turkey. With this increase, satisfaction from health care services has also risen and reached to 72% in 2017 (TUIK, 2018). Although it is not known whether the satisfaction of all the stakeholders in the health care system is ensured with the transformation process, it is certain that the satisfaction of the society in health services increased.

3% of the participants defined sustainability as a system in which real policies and strategies are formed and predictability is assured. The policies and strategies enforced take place in the second section of Birch et al. (2015)’s Health Care Sustainability Framework. It is important to enforce right policies in order to maintain the sustainability in health care systems. It is likely to say that sustainability in health care systems is also a political choice. Health policies enforced have a direct influence on financial sustainability. Balance of revenue and expenditure can be maintained by dampening health expenditure and restricting the health care service scope. However, this situation may especially result in the problem that health care needs of low-income individuals are not met. It is clear that this may affect health of the society adversely in the long run. .

For Prada et al. (2014), a sustainable health care system is a system which protects individuals’ health and provide health care needs until the end of their lives. 3% of the participants defined sustainability as “health

care services ongoing without any faults”. It is implied by this that citizens’ right to benefit from health care services needs to be provided without any restriction and fault at present and for the future generations. As of 2017, in Turkish health care system, 98% of the population can access health care service in scope of UHI. This ratio is a very high. It is one of the fundamental requirements of a sustainable health care system the fact that the individuals can access the service they need. Financing is essential; however, a UHI program is not worse than the services it can buy, and if they are unavailable when and where they are needed, no effort toward UHI will be complete. The capacity of health care provision must be considered by the policy makers and necessarily it must be enhanced to attain their UHI objectives (Cotlear et al., 2015).

3% of the participants defined financial sustainability of health care system as “cost efficiency”. This definition is one of the elements that need to be achieved in order to maintain financial sustainability even though this depiction is insufficient. It is not likely to design a sustainable health care system as long as costs of the health care systems provided are not accurately determined and cost-efficiency and precise pricing is not made.

3% of the participants clarified financial sustainability of health care system from the perspective of private sector and defined it as earning profit. To USAID (2001), financial sustainability can be marked by an organization’s excess revenues over expenses, accessible cash to pay bills and the relation between assets and debt or liabilities. This definition can be accepted accurate when evaluating financial sustainability in terms of private health institutions in a health care system.

Value is one of the most significant matters to be focused while discussing about financial sustainability in a health care system. In the simplest terms, the notion of “value” formulated by comparing health outcomes to its costs is considered in a perception different

than efficiency comparing inputs to outputs in a classical meaning. On one hand, the notion of value is balanced with equity and considered in every aspect and phase of health management. Herein, value-based health care service approach becomes a current issue. Thomson et al. (2009b) stated that the value generated by health care must outstrip its opportunity cost in order that health systems can be financially sustainable.

### 3.3 Financial Sustainability of the Turkish Health Care System

The participants were asked their opinions as to whether the Turkish health care system is financially sustainable or not. All 33 participants responded, with 67% stating that it was not financially sustainable whereas 18% claimed that it was (Table 3). In addition, the responses of the participants were matched with their previous definitions of health care system financial sustainability in Table 3.

**Table 3:** Participants’ Opinion on the Financial Sustainability of the Health Care System in Turkey

Do you think Turkish health care system is financially sustainable?	Fr.	%	Health System financial Sustainability Definition	Fr.	%
No, unsustainable*	22	66.67	Revenues meeting expenses	6	18.18
			Financing health services/expenditure	4	12.12
			No idea	2	6.06
			Accurate staging of the service algorithm of the health care system	2	6.06
			Treatments being comprehensive and attaining stakeholders satisfaction	2	6.06
			Effective and efficient use of recourses allocated for the health care system	2	6.06
			A system in which real policies and strategies are formed and predictability is assured	1	3.03
			Making profit for the private sector	1	3.03
			A system that places value at the forefront	1	3.03
			Yes, sustainable**	6	18.18
Revenues meeting expenses	1	3.03			
Accurate staging of the service algorithm of the health care system	1	3.03			
Financing health services/expenditure	1	3.03			
Health care services ongoing without any faults	1	3.03			
Sustainable in short-term, unsustainable medium and long-term	3	9.09	Revenues meeting expenses	2	6.06
			Accurate staging of the service algorithm of the health care system	1	3.03
			Effective and efficient use of recourses allocated for the health care system	1	3.03
Uncertain	2	6.06	Financing health services/expenditure	1	3.03
			Cost efficiency	1	3.03
	<b>33</b>	<b>100</b>		<b>33</b>	<b>100</b>

\*Responses as “Cannot be sustained unless changes are made” were coded as “No, it cannot be sustained”.

\*\*Responses as “Can be brought to a sustainable point” were coded as “Yes, it can be sustained”.

Most of the participants who have the opinion that Turkish health care system is unsustainable or unsustainable in the long run defined financial sustainability in health care systems as the fact that revenues cover the expenses and health care services and expenditure are financed. It is possible to say that the participants have the opinion that the

revenues cannot meet the expenses and there is a problem in financing the health care service.

The participants were also asked about their opinions on possible problems that might affect sustainability in the Turkish health care system. 12% of the participants’ answers stated that the Turkish health care system is negatively affected by the lack of resources of health

system and university hospitals' problems. 11% of the participants' answers show that participants thought the populist policies and organizational structure of the Turkish health care system is not built appropriately and that there are problems in staging amongst health service providers. 8% of participants answers

explained that the Turkish health care system is negatively affected by the unnecessary medical interventions and examinations and another 7% stated that Turkish health care system is negatively affected by reimbursement system and performance-based supplementary payment system is create a problem (Table 4).

**Table 4:** Participants' Opinion on Problems Affecting Financial Sustainability in the Turkish Health Care System

<b>Problems Affecting Financial Sustainability</b>	<b>Fr.</b>	<b>Percent</b>
Lack of Resources	11	11.96
University hospitals' problems	11	11.96
Populist policies	10	10.87
Organizational structure of the health care system	10	10.87
Unnecessary medical interventions and examinations	7	7.61
Reimbursement system and problems created by performance-based supplementary payment system	6	6.52
SSI benefit package having an over-comprehensive scope	5	5.43
Non-current/Low Medical Enforcement Declaration (MED) prices	5	5.43
Excessive/Unnecessary demand for health care services	4	4.35
Foreign dependency in medical equipment/devices and drugs	4	4.35
High costs of health services	2	3.26
Lack of generic products or the low quality of available generic products	2	2.17
Gradual increase in health expenditure	2	2.17
Increased immigration from Syria	2	2.17
Lack of education, low health awareness and health literacy of the population	2	2.17
Incompetency of administrators	2	2.17
The fact that diagnosis treatment algorithms are not available or not used	1	1.09
Creating serious quality problems in order to reduce costs at hospitals	1	1.09
Failure to reach a sufficient number of patients in terms of health	1	1.09
Not paying enough attention to preventive health services	1	1.09
Insufficient informing about city hospitals	1	1.09
HTP being insufficient	1	1.09
<b>Sum</b>	<b>92</b>	<b>1.00</b>

One of the major problems the participants have focused on is the lack of resources. In Turkish health care system, SSI is the only payer institution in the health care system using the premiums it collects from all citizens in scope of health insurance. The problems regarding insufficiency of the resources may essentially be separated into two as problems that decrease revenues and problems that increase expenditure. The factors that cause

decrease of revenues in Turkish health care system may be summarized as early retirement, decrease in labour force participation rate, understatement of earnings subject to premium, high unregistered employment, low premium collection rate, the decrease of tendency of premium payment chance with amnesty, amnesty imposed on the penalty for delay of the unpaid premiums, low limits of earnings subject to premium (at the level of minimum wage) and lack of fund

revenues. It is possible to summarize the factors that increase expenditures as early retirement applications, insurance payments without obtaining the premium (for example, covering health care expenses of all children below 18 years by the government), borrowing laws, increased monthly payments due to extended average life expectancy and health aids as well as the weakness of the relationship between premium revenues and salaries paid.

Another problem that the participants have focused most on is the ones university hospitals encounter. The participants stated that financial sustainability of university hospitals have been influenced by vast web of expenditures of the hospitals and high costs, insufficiency of resources, problems caused by reimbursement system, problems encountered during medical equipment and medicine supply, and problems resulting from lack of staff. Approximately 50% of expenditures of revolving fund management at the university hospitals is allocated personnel, while 40% of them is allocated to medicine, medical equipment and devices and 10% of them is composed of current expenditures such as stationery, electricity, water and natural gas. An obligation on meeting medical supplies and medicines of the inpatients has been enforced since 2008 by the hospitals (Yiğit and Yiğit, 2016). Along with an unchanged MED prices for nearly 9 years, reimbursement policy applied in university hospitals put a difficulty on financial sustainability of university hospitals. Moreover, the number of hospital admissions in Turkey increased as 296% while the admission to university hospitals as 370% in recent 2002-2016 years (Atasever, 2014, Sağlık Bakanlığı, 2012a). In the same period, the number of doctors increased as 58%, the number of nurses as 111% and the number of health care personnel in total as 196% (TUIK, 2017c). It is not possible to provide health care service without sufficient number of staff. All these causes necessitate reorganization of procedures that are being applied for the number of staff, their duty leave, maternity

leave, breast-feeding leave etc. in a way that will put the hospitals in comfort.

Other two significant problems the participants focused on are policies and organizational structure of the health care system. It is likely to say that many policies which are in force in order to improve health care services have a populist approach if they are put into practice without being laid on strong foundation. For example, Turkish Medical Association Central Council stated that the practice of “check-up” initiated by the government in order to enhance the admission to primary care clinics is a product of a populist approach and warned about the fact that a new model increasing the demand for admission to primary care health services artificially will cause new problems in the system (Turkish Medical Associations, 2018). Another example to populist policies may be moving the age of retirement to an earlier time. This situation causes both the decrease of premium revenues and the increase of expenditures. While determining health policies, the initial topic to be considered is how these policies will have an effect on sustainability of the system in the long run and how it will influence the public health.

The organizational structure of a health care system has a significant role among the elements providing health care services at a financially sustainable level in a country. The first and most important step of establishing a financially sustainable health care system is to set the organizational structure of the system accurately. The organizational structure of a health care system must be arranged in accordance with the aims each country’s health care system desired to reach at and the country’s resources. In evaluating the Turkish health care system in terms of admissions to the hospitals, it is seen that the intensity is in secondary and tertiary care hospitals. Whereas, it is more suitable for the countries to support the patients initially getting services from ambulatory care institutions because it is cost-effective. For this reason, the patients must be encouraged to go through ambulatory care



institutions first. In other words, protective and preventive health care services must be given more importance and intense admission to the hospitals must be decreased.

Another problem occurring due to the deficiencies in organizational structure is unnecessary procedures and examinations at hospitals. In accordance with the report based on the study carried out by Agency for Research on Cancer, abbr. IARC, affiliated to World Health Organization in 12 countries (the USA, Australia, Denmark, Finland, France, England, Italy, Sweden, Switzerland, Norway, Republic of Korea, Japan), there has been an 'unnecessary' increase in thyroiditis cancer diagnosis since 1980s when the ultrasound started to be used. 470 thousand women and 90 thousand men were diagnosed with cancer unnecessarily in these 12 countries because the ultrasound technology which got increasingly more sensitive and fine-needle aspiration biopsy helped the diagnosis of very tiny and in fact nonfatal nodules. When compared on international terms, the usage of the MR device is the highest per person in Turkey. For each MR device, which provides inpatient treatment in the hospitals of Turkey the number of screening is 14,992, whereas in the OECD countries it is 5,125 (OECD, 2017b). The system is considered to be abused by the service providers supported by the extreme number of screening per MR device in Turkey, the view of which is stated by the experts that participated in this study.

According to participants of this study, one other problem is the reimbursement system and performance system. Participants believe that the performance-based reimbursement system applied in government and university hospitals adversely affects health care systems. As reported by participants artificial health services are produced on paper in order to meet performance targets. Performance pressure on health care personnel causes deterioration of health service quality. Today, patients with high risk of treatment costs are directed from private hospitals to public and

university hospitals. In public and university hospitals, such patients are not wanted because of the loss of revolving fund.

The other problem posed by the participants to adversely affect the financial sustainability of the health system is SSI benefit package over-comprehensive scope. Social security systems are available at SSI, which is a public entity that Turkish citizens make use of. The Law No. 5520 provides GHI system administered by SSI. A high rate of the Turkish population is covered by GHI, the rate of which is 98.6% (SGK, 2017a). Koçkaya et al. (2016) states that Turkey's insurance system is highly comprehensive compared to that of the world in terms of universal health insurance. In reviewing the samples all around the world, it is seen that health care systems are provided over general health insurance and private health insurance (complementary insurance and private insurance). In this scope, private health insurances provide insurance takers additional payment options for such health care services as dental and optometry cares of private hospital treatments not included in general health insurance. In addition, individuals are able to get access to faster and more quality health care services in private hospitals (Deloitte, 2015). The majority of examination fees at private hospitals and dental cares not included in many health care systems are paid in scope of universal health insurance in Turkey. Private health insurance should be supported and scope of universal health insurance should be narrowed in order to reduce the load on public health care sector.

Another topic mentioned among problems of Turkish health care system is MED prices. MED prices are paid by SSI for various medical procedures and examinations. It is determined upon operations or in packages. Packages consist of pricing of certain operations together, for example heart transplantation. There is only one price for heart transplantation and this price includes all medical equipment, disbursement and other equipment prices. In general, clinic chiefs and lecturers called from

public and university hospitals prepare these prices. These prices do not reflect personnel costs, overheads and some other costs because these expenditures are met from general budget at public institutions, and from budget of revolving fund of university hospitals. Private hospitals request an extra fee in amount of 200% of prices of MED in order to meet such kind of expenditures and make profit.

Another problem emphasized by the participants is the demand for excessive health care services. There are differences between demand for health care services and demand for other goods and services due to distinctive characteristics of health care services. Briefly, it can be said that the demand of health care is affected by mainly five factors which are, (i) price (the quantity of the money anticipated regarding the payment of health care services) (ii) income (In the case of a low-income earner, health care may not be required by the consumer for common sickness. Similar to which, a higher income earner might be more inclined to spend on healthcare) (iii) the medical condition and degree of illness (iv) the impact of government (the demand for healthcare can increase with policies like aids since the patients are charged a lower price) (v)

supply (health service for consumers) (Babalola, 2017).

Apart from these, the participants stated that the problems related to the topics such as health policies and planning, efficiency and performance, management of finance, administration and organization affect financial sustainability in health.

### 3.4 External Factors Affecting Financial Sustainability in Turkey's Health Care System

The influences coming from outside that can affect financial sustainability of a health care system are defined as external factors. The possible achievement of a health care system' or health care investment' strategic goals and objectives may be influenced by diverse external factors. These may be as follows: (i) social factors such as resilience and health of the population, (ii) technological and legal factors like carers' contribution and informal networks of care, (iii) the economic and political medium such as the act of integrating policy and practice with other sectors and establishing healthy communities that create health.

**Table 5:** Participants' Opinions on the External Factors Affecting Financial Sustainability in Turkey's Health Care System

External Factors Affecting Financial Sustainability	Frequency	Percent
Reimbursement system	18	20.45
Resources allocated for the health care system	17	19.32
Policies (Popular/Populist/ Macro/Health/Price)	15	17.05
Foreign dependency (Medical devices/Supplies/Pharmaceuticals)	8	9.09
Economic growth	7	7.95
Increased elderly population	5	5.68
Exchange rates	5	5.68
Public awareness and health literacy	3	3.41
Immigration from Syria	2	2.27
Rapid changes in technology	2	2.27
Organizational structure of the health care system	2	2.27
Health expenditure of other countries	1	1.14
Increased demand for health care services	1	1.14
International pressure in the establishment of health policies	1	1.14
Increased global burden of disease	1	1.14
<b>Sum</b>	<b>88</b>	<b>100%</b>

This question asked for participants' opinions on the external factors affecting financial sustainability in health care. External factors that the participants were most focused on, respectively; reimbursement system (%20), resources allocated for the health care system (19%), policies (17%), foreign dependency (9%) economic growth (8%) (Table 5).

Similarly, the answers given to the problems of Turkish Health System are one of the external factors that affect the health system; reimbursement system, resources allocated for the health care system, policies and organizational structure of the health care system. These factors are explained in the previous section and they can be considered as external factors.

One of the common answers of the participants have given to the questions as to the problems of the health care system in Turkey and the external factors is the dependence on foreign countries. The dependence on which should be examined in terms of the medical device industry and pharmaceutical industry. Even though the medical device market developed on a regular basis between 2005-2008 in Turkey, due to the global financial crisis in 2009, there was a market decline in Turkey as well (YASED, 2012). There are about 1000 local medical device manufacturers and suppliers in Turkey and the components that take place in the industry export 70% of their products. Local manufacturers can only meet 15% of the demands of the medical device market (YASED, 2012). There are no medical device manufacturers that are public in Turkey. The local manufacturers' lack of research-development activities is the cause of meeting market demands by importing. Although there are firms that manufacture locally in the medical device industry, most of which are not of the power to compete with big firms. The advanced technology medical devices are produced by firms that are of limited availability in the world. These firms both decrease the cost and apply the new technology they have developed on medical devices. It is

not possible to produce advanced technology products of medical devices in our country. This situation is the root of the external dependence of the healthcare industry on foreign sources.

Additionally, the Turkey Pharmaceutical Market (2017) report states that the importation of NCUs pharmaceutical in 2010 was 7.61 billion in Turkey and that it went up to 13.33 billion NCUs in 2017 (İEİS, 2018). This progress is due to the effects of the increase in the accessibility to doctors and public hospitals, the rise of life span, and the growing and ageing population. What is more, in 2017, when the rate of pharmaceutical exports was compared to that of the imports, the rate was 18% (İEİS, 2018). When sustainability is taken into account, the drawback is that the health care industry relies on foreign products, which is what the import figures of the pharmaceutical sector holds as a view.

In addition, the participants have also mentioned about the exchange rate as an external factor that has effect on the system. The fact that the requirements of the health care system are provided by exportation in the medical device and pharmaceutical sector not only makes the system dependent upon foreign resources, but also has to cope with the risk of the exchange rate.

The main imperative so as to make the health care system financially sustainable is to ensure economic growth. Due to the fact that financial sustainability is associated with economic expansion, many countries feel the pressure of which on their health expenses. According to the estimations of the European Union, if the GDP continues to increase, there will be no problem regarding the health expenses (Thomson et al., 2009a-2010). On the condition that a country's health care expenses increase in a higher rate compared to the increase in resources, this will be of a sustainability issue.

The participants indicated that the aging population was an external factor. This issue is one of the issues frequently discussed in the world. It is a known fact that the increase in the elderly population causes an increase in old age

diseases. Old age diseases cause more health expenditure.

What is meant by 'health literacy' is the individuals' skill to have access to, comprehend and be informed so as to preserve and improve their health. The skill of which consists of cognitive, personal and social abilities (Nutbeam, 2000). Individuals are responsible for making the right decision about their health care/illnesses and to be well-informed at all ages and in all domains of their lives (work, school, house, neighbouring relationships etc.). Mothers face with the decisions for their children about their health care management, the elderly encounter the decision of using their prescribed medicines accurately, workers are responsible to know possible health dangers of their working environments, take necessary precautions, while all individuals are confronted with the decision to apply to the right health care centre in case of any illnesses, understand and evaluate the information given by the health care personnel, analyse risks and gains during a treatment process and calculate the right dosages, which are complex treatment decisions. In all these cases, individuals should have a basic level literacy for an effective health care and its management. It is of great importance to develop health care literacy for a healthy public and sustainable health care system.

The participants depicted immigrations from Syria as an external factor. Turkey has been confronted with refugees immigrating from Syria since mid-March of 2011. Millions of Syrian immigrants who cannot get access to fundamental needs such as food, water, electricity, fuel or medical equipment due to war have taken refuge in our country in poverty, illness and starvation. While the factors such that Syrian refugees settled down in eastern parts of Turkey firstly and there were not sufficient health care institutions and manpower, they were undernutrition, faced with language barrier, they did not have any health care insurance as well as social and psychological stress influenced their health

adversely, all these affected the health of community they are in. For example, measles disseminated from these Syrian refugees. 349 cases of measles were seen in Turkey in 2012 and this number rise 20-fold after this Syrian inflow. Turkish Medical Association (TMA) preached at the fact that it is thought that this immigration of Syrian refugees is effective in dissemination of measles cases (Altındiş, 2013 and Korkmaz, 2014). In terms of refugee mobility from Syria to Turkey, it may be accepted as an external factor because this immigration is dense.

Another factor the participants stated was that the rapid changes in technology affected the system. The tendency of a brand new set of genetic testing and screening technologies leads to extra crucial ethical and economic health matters regarding the question as to how the public system should refer to them (Lee, 2007). The national health insurance contributed to the evolution of the doings of the drug industries, doctors and patients, which is its utmost effect in terms of the favor of the individual. The compulsory enrolment mechanism and the extensive coverage of the health insurance result in high healthcare access rates. So as to gain even more profit and harm the service quality, the national health insurance manages more opportunities for hospitals and drug industries to be cooperative. Therefore, briefly, the dilemma remained unsolved since neither the financing mechanism of the current national health insurance, nor the cost saving were capable to do so, and this is the main cause of the negative financial incident (Wang, 2010).

Participants stated was that other countries health expenditure is an external factor for system. The level of health spending in developed countries may be an indicator for determining the rate of optimal spending income. In 2016, while 9% of GDP was spent on health in OECD35, 4.3% of GDP was spent on health in Turkey (OECD, 2017a). Considering these ratios, it can be said that the amount of

resources allocated by Turkey to health expenditures should be raised.

Multinational conferences have been arranged in various parts of the world by numerous organizations, aims have been determined and many manifestos are being published about this in order to determine the common movement in protection, improvement and dissemination of health care. The participants indicated that international pressure in the establishment of health policies was an external factor. The participants also stated that another external factor was international pressure in the establishment of health policies. Even though it is not true to say that there is a pressure on health policy makers from overseas, it is clear that suggestion and strategic plans (World Economic Forum-Value in Health Care Project) that describe duties to protect human beings' health and make it better can contribute to improvement of health care systems.

Once for all, apart from other factors, it is known that the increase in disease burden and the growing demand of health care service have effect on health care systems.

### **3.5 Internal Factors affecting Financial Sustainability in Turkey's Health Care System**

Originated from inside the system, internal factors influence the performance of health care systems either adversely or positively. These factors may can be system structure, efficiency and effectiveness of health and care provision system stability, management, availability of well-trained health and care workers, incentives, cost and economic benefits.

This question asked for the participants' opinions on the internal factors affecting financial sustainability. According to participants the first three internal factors affecting sustainability were administrator and personnel performance (32%), human resources management and personnel costs (18%), and cost of service and goods (Table 6).

**Table 6:** Participants' Opinions on the Internal Factors Affecting Financial Sustainability in Health Care Systems

<b>Internal Factors Affecting Financial Sustainability</b>	<b>Frequency</b>	<b>Percent</b>
Administrator and personnel performance	14	31.82
Human resources management and personnel cost	8	18.18
Cost of service and goods	8	18.18
Health care providers	5	11.36
Accurate planning and purchasing	4	9.09
Effective and efficient use of resources	2	4.55
Organizational memory	2	4.55
Patients' doctor preferences	1	2.27
<b>Sum</b>	<b>44</b>	<b>100.00</b>

Maintaining administrative efficiency and applying organizational strategies effectively have a critical role in the improvement of organizational performance. This research has stated that the performance of the participants, administrators and health care personnel internally affected the sustainability of the system. One of the issues that disturbed the participants regarding the performance of the administrators was that they weren't determined on professional bases. Disregarding the quality when the administrators are chosen affects both the motivation of the staff negatively and disrupts the corporate functioning. It has also been stated by the participants that the administrative positions were individualized and that they had worries about protecting their position, putting aside the corporate objectives. The criteria of appointing for administrative positions should be developed for a sustainable health care system. It is required that the performance criteria of administrators be determined and applied and taken into consideration during administrative dismissals and pricing.

Similarly, the participants have considered organizational memory as an internal factor. The necessity of memory applies to

corporations as well, like humans. A corporation is made up of processes, procedures and values, which are of great importance. Participants have especially complained about the lack of memory in governmental institutions. The reasons of which are that the processes are dependent on a person and the administrators change a lot, during the process of which a lot of information regarding previous actions isn't conveyed neither to them nor the staff. Health organizations should be managed by professional administrators and the durability of corporate memory should be maintained. Otherwise, it is clear that many problems are around the corner.

The participants have considered human resources management and personnel costs as an internal factor. The main determinant of health care service quality and costs is the human resources management. Health systems have a quite different personnel combination in terms of their education and experiences. So as to form a financially sustainable health care system, the planning of the health care human resources should be carried out in a way that meets the requirements of the corporations. With the help of an appropriate performance management, the performance of the participants should be measured and they should be provided a chance for a rise.

Another internal variable stated by the participants was the cost of the health care service. The excessive number of health care services provided within a health care system and not distinguishing interrelation between them make it difficult to calculate the costs. As mentioned before, the cost of providing health care service is high due to the reasons such as developing technologies, high importation rate of products like medicine and medical equipment in our country and the fact that health care services are based on manpower. The main priorities in health care services should be the cost, efficiency and financial sustainability since the unbalanced increase in the cost of health care services challenges

sustainability. High costs cause compulsory usage of resources efficiently and effectively. From the point of view of the participants on this issue, they indicated efficient and effective use of resources as an internal factor.

As an internal factor stated by the participant, health care providers are given as an example. Health care providers' contribution to the system is undoubtedly a factor impacting the system. Health care providers can be separated into three as private health care providers, university hospitals and public service providers. One of the attitudes of health care provided meant is the execution of unnecessary tests and examinations. The participants stated that there is a tendency of unnecessary tests and examinations at public and university hospitals due to performance system. They think that the system is being abused with unnecessary examination and operations because many of these operations are met by the government in private hospitals.

According to the participants, another internal factor is planning and purchasing. The correct planning and purchasing are of importance for a sustainable health care system. It is imperative for it to work like clockwork to maintain an active planning and purchasing process. When considered especially in terms of the public health servers, the importance of planning and purchasing doubles. The necessities of public hospitals are purchased by the National Association of Public Hospitals through collective procurements. While this condition not only leads to cost containment, but also exclusive managing of the purchasing processes, it is seen that the exclusive purchases decrease the cost in some provinces, yet increase it in some others. As for university hospitals, they use the procurement method or direct purchase. That said, this increases the purchase costs to increase in university hospitals. So as to maintain sustainability, the co-purchasing system should be supported and improved.

Finally, another factor the participants described is the choice for doctor. It is

considered that the participants mean that the patients should be able to choose the institution they will be treated at according to their own

preference. It is a controversial topic if this can be seen as an internal factor or not.

**Table 7: Participants Recommendations for Maintaining the Financial Sustainability of the Turkish Health Care System**

<b>Participants Recommendations</b>	<b>Fr.</b>	<b>Percent</b>
Novel financing models should be developed.	15	12.93
Health care service staging system among health service providers must be based on the accurate ground/referral chain.	6	5.17
Preventive health services must be improved.	5	4.31
Expenditure tracking systems must be set up.	5	4.31
Unnecessary health service demands must be prevented.	5	4.31
Public awareness and health literacy must be raised.	5	4.31
The scope of the SSI benefit package must be reduced.	5	4.31
Price policies implemented in Turkey must change. MED prices must be updated/increased.	5	4.31
Accurate planning and purchasing should be done.	4	3.45
Savings should be made in health expenditure.	4	3.45
Unnecessary medical interventions and examinations must be avoided.	4	3.45
Problems of university hospital should be solved.	3	2.59
Premiums must be collected and premium collection methods must be changed.	3	2.59
Institutions must be managed by professional administrators.	3	2.59
Diagnosis-related groups (DRGs) should be employed.	3	2.59
Efficient auditing must be ensured.	3	2.59
Private health insurance must be promoted.	3	2.59
Populist policies must be avoided.	2	1.72
Personnel-related arrangements must be made.	2	1.72
Resources allocated for the health care system must be increased.	2	1.72
Resources should be used efficiently and effectively.	2	1.72
The State's economic contribution to private service providers must be limited.	2	1.72
An effective workshop/consortium could be held concerning stakeholders.	2	1.72
The State must supply drugs and equipment.	2	1.72
State policies on creating employment fields must be abandoned.	2	1.72
Economic growth must be attained.	2	1.72
Domestic production must be promoted in medical equipment/devices and drugs.	2	1.72
Premiums must be collected/Premium collection methods must be changed.	2	1.72
Activities of quality management and patient safety in health must be increased.	1	0.86
Doctors must be convinced to believe in financial sustainability.	1	0.86
Resources allocated for health care services must be reduced.	1	0.86
Organizational memory and stability must be attained at management level.	1	0.86
Solutions must be found for the problems concerning the labor market.	1	0.86
Errors caused by health service providers must be reduced.	1	0.86
Extra price restrictions must be abandoned/out-of-pocket payments must be made.	1	0.86
Staff must receive sufficient training, have experience and knowledge.	1	0.86
Accuracy of personnel expenditure and the extra payment system must be ensured.	1	0.86
Job satisfaction must be ensured for health care personnel.	1	0.86
Impaired doctor-patient trust relationships must be mended.	1	0.86
Importance must be attached to foreign tourists/health tourism.	1	0.86
<b>Sum</b>	<b>116</b>	<b>100%</b>

### **3.6 Participant Recommendations for the Maintenance of Financial Sustainability in the Turkish Health Care System**

The evaluation of the specialists working in the field, the stakeholders that are in the health care system, the servers and the identification of the solution offers will be valuable resources for the decision-makers in terms of the improvement of the health care system. The suggestions of the participants of this study have been categorized under 41 titles.

The participants responded to the request for their recommendations concerning the financial sustainability of the health care system with a variety of opinions.

#### **4. CONCLUSION AND DISCUSSION**

The health care system is defined as a system that covers any activity directly aiming at improving, promoting, or protecting health. Most basically, the health care system consists of users, payers, providers, and regulators, as well as the relations among them. There are no agreed criteria to measure and evaluate financial sustainability in health care systems. The indicators for the financial sustainability of a health care system can be divided into two main groups. These are measurements based on health expenditure and revenues/resources, and measurements based on the opinions of stakeholders. The stakeholders views about system can be lighted how to create a financially sustainably system. This study aims to determine financial sustainability status of Turkish health care system. For this aim, we collected the experts' views about financial sustainability of system to make evaluations in line with these views.

The majority of the experts participating have found Turkish health care system financially unsustainable and stated that the main reasons of the unsustainability are the lack of resources, the university hospital problems, populist policies, the organizational structure health care system, unnecessary medical interventions and examinations, reimbursement system and performance-

based supplementary payment system, SSI benefit package having an over-comprehensive scope, and non-current MED prices.

The lack of resources was of the participants' concern as one of the major problems. A financially sustainable health care system is possible with a system that basically meets the necessity of a decent resource structure. So as to guarantee that the health system has the power to reach its aims at present and in the long term, the expansion of the public revenue base for the health sector is required.

The structure and function of the Ministry of Health has been changed with the reforms implemented in the Turkish health system in 2003, the first and second step health care services have been transformed and put Universal Health Insurance (UHI) into force and the organizational structure of the Turkish health care system have been subject to the most radical regulation. The views on this deep-rooted change lead to disagreement in the literature. Some studies indicated that changes in the organizational structure of the health system is successful (Atasever et al., 2017), some of them indicated that these changes is unsuccessful (Doğan, 2017; Sevinç and Özer, 2015). It is believed that the changes in the organizational structure of the Turkish health system should be discussed through open sessions, workshops and should be investigated the positive and negative changes brought about by the transformation of the health system. Furthermore, as participants mentioned that second and third step health care institutions applications very high in Turkey. However, countries in the world generally primarily support preventive health care service providers in other words first step health care providers. Because it is less costly. For this reason, patients are encouraged to go through outpatient diagnosis and treatment facilities. It can be also create sustainability problem in the future.

Also, the participants indicate major external factors impacting sustainability of health care system as reimbursement system, resources



allocated for the health care system, policies, foreign dependency. Moreover, participants of this study indicate internal factors affecting financial sustainability as stated that administrators and personnel performance, human resources management and personnel cost, cost of goods sold, and health service providers, health care personnel performance, accurate planning/purchasing, effective and efficient use of resources, organizational memory. The experts participating in this study suggest that novel financing models should be developed, health care service staging system among health service providers must be based on the accurate ground, preventive health services must be improved, expenditure tracking systems must be set up, unnecessary health care service demand must be prevented, public awareness and health literacy must be raised, the scope of the SSI benefit package

must be reduced and price polices implemented in Turkey must change. So as to manage the pressures of cost in a better way and upgrade performance, health financing policy should be supported with all these factors taken into consideration.

Health care systems of countries vary according to decision-makers' preferences about policies. The fact that there are surplus of treatment method and procedures which are in scope of reimbursement may be a deliberate policy preference as a matter of a country's health care policy. This study results indicate that experts opinion about sustainability and problems of system. It cannot be say Turkish health care system financially unsustainable only based on experts views but policy makers should be evaluate experts' concerns about system and should take necessary precautions.

## REFERENCES

- Angelis, A., Tordrup, D. and Kanavos, P. (2017). Is the Funding of Public National Health Systems Sustainable Over the Long Term? Evidence from Eight OECD Countries. *Global Policy*. 8(S2): 7-22.
- Atasever, M. and Karaca Z. (2017). Türkiye Tıbbi Cihaz Sektör Analizi. Ankara: Sağlık-Sen Yayınları-36.
- Atasever, M. (2014). Türkiye Sağlık Hizmetlerinin Finansmanı ve Sağlık Harcamalarının Analizi, 2002-2013 Dönemi. Ankara: Sağlık Bakanlığı, Strateji Geliştirme Başkanlığı.
- Altındış, M. (2013). Türkiye'de Mülteciler, Salgın Hastalıklar ve Korunma. *Sağlık Düşüncesi ve Tıp Kültürü Dergisi*. 28:64-67.
- Babalola, O. (2017). Consumers and Their Demand for Healthcare. *J Health Med Econ*. (3): 1-6.
- Birch, S., Murphy, G. T., MacKenzie, A. and Cumming, J. (2015). In Place of Fear: Aligning Health Care Planning with System Objectives to Achieve Financial Sustainability. *Journal of Health Services Research and Policy*. 20(2): 109-114.
- Cotlear, D., Nagpal, S., Smith, O., Tandon, A., & Cortez, R. (2015). Going universal: how 24 developing countries are implementing universal health coverage from the bottom up. The World Bank.
- Crisp, N. (2017). What Would a Sustainable Health and Care System Look like?. *BMJ: British Medical Journal*. BMJ, 358(j3895): 1-3.
- Deloitte. (2015). Uzun Dönemli Sağlık Sigortası Ülke İncelemesi Raporu. [https://www.tsb.org.tr/Document/Yonetmeliler/Uzun\\_Dönemli\\_Sağlık\\_Sigortası-FİNAL.pdf](https://www.tsb.org.tr/Document/Yonetmeliler/Uzun_Dönemli_Sağlık_Sigortası-FİNAL.pdf), (13.02.2019).
- Doğan, B. Ş. (2017). Türkiye'de Sağlık Hizmetlerinin Özelleştirilmesi: Sağlıkta Dönüşüm Projesi. V. Anadolu International Conference in Economics Proceeding Book (pp. 1-17). Organizer: Econ-Anadolu. Eskişehir. May 11-13, 2017.
- Guyatt, G., Yalnizyan, A. and Devereaux, P. J. (2002). Solving the Public Health Care

Sustainability Puzzle. Canadian Medical Association Journal. 167(1): 36-38.

Harper, S. (2010). The Capacity of Social Security and Health Care Institutions to Adapt to an Ageing World. International Social Security Review. 63(3-4): 177-196.

İEİS. (2018). Türkiye İlaç Sektörü 2017 Raporu. İlaç Endüstrisi İşverenler Sendikası.

Jakovljevic, M. M. and Ogura, S. (2016). Health Economics at the Crossroads of Centuries—from the Past to the Future. Frontiers in Public Health. 4, 115.

Koçkaya, G., Atikeler, K. and Yenilmez, F. B. (2016). Türkiye Özel ve Kamu Sağlık Sigortacılığı Prim/Hasar Sağlık Harcaması Değerlendirmesi. Sosyal Güvence. (9): 82-101.

Korkmaz, A. Ç. (2014). Sığınmacıların Sağlık ve Hemşirelik Hizmetlerine Yarattığı Sorunlar. Sağlık ve Hemşirelik Yönetimi Dergisi. 1(1): 37-42.

Lee, M. (2007). How Sustainable is Medicare? A Closer Look at Aging, Technology and Other Cost Drivers in Canada's Health Care System. Ottawa ON: Canadian Centre for Policy Alternatives.

Nutbeam, D. (2000). Health Literacy as a Public Health Goal: A Challenge for Contemporary Health Education and Communication Strategies into the 21st Century. Health Promotion International. 15(3): 259-267.

OECD. (2017b). Health Statistics. [http://stats.oecd.org/index.aspx?DataSetCode=HEALTH\\_STAT](http://stats.oecd.org/index.aspx?DataSetCode=HEALTH_STAT), (22.04.2018).

Prada, G., Grimes, K. and Sklokin L. (2014). Defining Health and Health Care Sustainability. The Conference Board of Canada.

Romanow, R. J. (2002). Building on Values: The Future of Health Care in Canada, Final Report. Commission on the Future of Health Care in Canada.

Sevinç, İ. and Özer, K. (2015). Yeni Kamu Yönetimi Bağlamında Sağlık Bakanlığı Yeniden Yapılandırma Çalışmaları. International

Journal of Social Sciences and Education Research. 2(4): 1373-1387.

Thomson, S., Vörk, A., Habicht, T., Rooväli, L., Evetovits, T. and Habicht, J. (2010). Responding to the Challenge of Financial Sustainability in Estonia's Health System. WHO Regional Office for Europe.

Thomson, S., Foubister, T. and Mossialos, E. (2009a). Financing Healthcare in the European Union. World Health Organization on behalf the European Observatory on Health Systems and Policies.

Thomson, S., Foubister, T., Figueras, J., Kutzin, J., Permanand, G. and Bryndová, L. (2009b). Addressing Financial Sustainability in Health Systems. World Health Organization on behalf of the European Observatory on Health Systems and Policies.

TUIK. (2018). Yaşam Memnuniyeti. <https://biruni.tuik.gov.tr/medas/?kn=10-0&locale=tr>, (23.04.2018).

TUIK. (2017c). Temel İstatistikler. <http://www.tuik.gov.tr/UstMenu.do?metod=temelist>, (14.10.2017).

Turkish Medical Associations. (2018). Popülist Bir Politika: Aile Hekimliğinde "Check-up" Uygulaması. [http://www.ttb.org.tr/haber\\_goster.php?Guid=542e7ce6-b507-11e8-b86c-f3b5b25ebe9d](http://www.ttb.org.tr/haber_goster.php?Guid=542e7ce6-b507-11e8-b86c-f3b5b25ebe9d), (20.01.2019).

Sağlık Bakanlığı. (2012a). Türkiye Sağlıkta Dönüşüm Programı Değerlendirme Raporu (2003-2011). <http://sbu.saglik.gov.tr/Ekutuphane/kitaplar/SDPturk.pdf>, (01.02.2018).

SGK. (2017a). Genel Sağlık Sigortası. <https://www.csqb.gov.tr/media/6777/gss.pdf>, (12.05.2018).

USAID. (2001). Fundamentals of NGO Financial Sustainability, <http://www.inbest-co.il/NGO/NGOFinancial.pdf>, (29.05.2017).

Wang, L. (2015). Does the National Free Health Care 'Have Financial Sustainability in China? A

case of Shenmu County, Shaanxi Province, China. *Technology and Health Care*, 23 (1).

YASED (2012). Uluslararası Yatırımcılar Derneđi. Türkiye Sađlık Sektörü Raporu. [https://www.yased.org.tr/ReportFiles/2013/TURKYE\\_SALIK\\_SEKTORU\\_RAPORU.pdf](https://www.yased.org.tr/ReportFiles/2013/TURKYE_SALIK_SEKTORU_RAPORU.pdf), (07.02.2019).

Yiđit, V. and Yiđit, A. (2016). Üniversite Hastanelerinin Finansal Sürdürülebilirliđi- Financial Sustainability of University Hospitals. *Mehmet Akif Ersoy Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*. 8(16): 253-273.