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AURUM SAĞLIK BİLİMLERİ DERGİSİ
AURUM JOURNAL OF HEALTH SCIENCES

Cilt 5, Sayı 2 | Yaz 2023
Volume 5, No 2 | Summer 2023, 69-76

AN EVALUATION OF ACCESS TO HEALTHCARE SERVICES IN TÜRKİYE

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Received: 16.05.2023
Accepted: 13.06.2023
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Research Article

Abstract

Access to health services is an important determinant of a society's health indicators and it consists of various dimensions. These dimensions consist of physical capacity, human resources and economic indicators. Therefore, this study aims to provide a general evaluation of access to healthcare services in Turkey comparing with OECD countries based on historical statistical data. In the research, it has been determined that many health indicators of Turkey have improved over the years. Despite improvements in the number of doctors, nurses and hospital beds, Turkey is still behind the OECD average in these indicators. Although the number of applications to physicians is above the OECD average, the fact that these applications occur with proportionally fewer physicians can be a problematic point. Although there have been improvements over the years in out-of-pocket payments and catastrophic health expenditures, it has been determined that there has been an increase in these indicators in recent years. As a result, there is still a need for improvement in many areas. Therefore, it is recommended that policymakers prioritize areas that are lagging behind in resource allocation.

Keywords: Accessibility, Healthcare Services, Health Indicators, Access to Healthcare

1. Introduction

WHO indicated that half of the world cannot access to essential and adequate of healthcare services and 100 million people struggle with poverty due to health expenses (WHO, 2017). Hence, accessibility of healthcare services has been a major concern in the world.

In healthcare services, accessibility is a multidimensional phenomenon. Many authors have defined the concept of access and accessibility in healthcare services. In early discussion of the concept, Aday and Andersen (1974) indicated that access could be conceptualized by two different themes. The first one is the characteristics of the population such as income, insurance, attitudes toward medical care. In addition, the second one is the factors related to delivery system such as health staff, facilities and the distribution of resources. Salkever (1976) has examined the accessibility of healthcare services in two different aspects: financial accessibility and physical accessibility. He defined financial accessibility as “the individuals’ ability to afford the monetary costs of medical care” while physical accessibility as “the transportation time and search costs incurred in obtaining care”. Salkevers’ definitions have been taken forward considering financial and geographical barriers to healthcare services by scholars (Arcury et al., 2005). Penchansky and Thomas (1981) has also identified five dimensions of access. These dimensions are availability, accessibility, accommodation, affordability and acceptability. Availability refers to the adequacy of healthcare services, medical staff and programs. Accessibility stands for the distance and travel time between providers and patients. Accommodation is mainly related to factors such as appointment systems and the ability of

Cilt 5, Sayı 2 | Yaz 2023
Volume 5, No 2 | Summer 2023, 69-76

the population to adopt these systems. Affordability refers to ability of the population to pay for healthcare services. Hence, this factor includes prices of services and income of the population. Terminally, acceptability refers to patients' attitudes toward healthcare system staff in terms of their satisfaction level, perceptions, beliefs and concerns. Considering the thoughts of many scholars, Gulliford et al. (2002) suggested service availability, personal barriers, financial barriers, and organizational barriers as important dimensions of accessibility in healthcare services. The concept of spatial accessibility comes to the front with all these related concepts. Spatial accessibility combines two important components of access; one is the volume of services and the other is the proximity of services (McGrail, 2012).

Many studies have explored accessibility of healthcare services. Measuring of spatial accessibility in healthcare services is pioneered by Luo and Wang (2003), used and improved by many studies (Wang and Luo, 2005; McGrail and Humphreys, 2009; McGrail, 2012; Tao et al., 2018; Pan et al., 2018; Pu et al., 2020). Luo and Wang (2003) developed a measurement based on previous studies of floating catchment area (FCA) in different areas. The model considers the service providers, population, population-provider proximity to calculate a location's access. In a current study, many different indicators were used to discover accessibility in healthcare such as waiting time after patient services, the quality of healthcare, healthcare service supply, health insurance etc. (Barona et al., 2017). In a study which provide a wide perspective on European healthcare system, public funding, private and out-of-pocket funding, healthcare service provision, remuneration of doctors, access regulation index etc. were used for comparison of healthcare system in terms of financing, provision and access to healthcare (Wendt, 2009).

Accessibility of healthcare services has been a major challenge for Turkey as well. Many attempts have been made to provide accessible healthcare services to all citizens in Turkey. World Bank highlighted that, with the health transformation in Turkey's healthcare system, the provision of health services and health insurance scheme have been improved. Hence, healthcare services is more accessible to all than before (World Bank, 2018). Despite of obvious improvements, the accessibility of healthcare services in Turkey is in need to be discovered in depth. Even very few studies were conducted in Turkey, some studies reported significant challenges in this phenomenon (Avsar et al., 2017). For instance, Yetim and Çelik (2020) examined the level of unmet need of individuals with a health problem lasts longer than six months and revealed that 13.2% of health needs were not met. Tengilimoglu et al (2015) reported important findings on informal payments which can be accepted as an accessibility problem. They found, in their study, 29% of the 1.033 participants made informal payments in return for the medical service they received. Oğuzhan et al. (2021) reported that patients with rare diseases allocate more than 10% of the annual average household income. Koçkaya et al. (2021) investigated the changes in catastrophic health expenditures through health policies in Turkey and reported an increase in the share of out-of-pocket spending and the proportion of families spending catastrophically after 2012. Yardim and Uner (2018) reported some inequalities in unmet needs of patients. They highlighted that the propensity to report unmet need was 10 times higher for those in the poorest-income quintile compared to the richest.

Considering the discussed challenges and dimensions, evaluation of access to healthcare services can provide significant insights on health systems. Therefore, this study aims to provide a general evaluation on accessibility of healthcare services in Turkey comparing with OECD countries based on historical statistical data.

Cilt 5, Sayı 2 | Yaz 2023
Volume 5, No 2 | Summer 2023, 69-76

2. Methods

In this study, Turkey's indicators related to access to health services were evaluated by years, both within itself and by comparing them to OECD averages. With this aspect, the research is a secondary data evaluation. The data of the research were obtained by using the OECD database, which is expressed as the OECD Data Warehouse (https://stats.oecd.org/). The data between the years 2000-2020 were taken into account, both due to the fact that there have been radical changes in areas such as the provision, financing and management of health services, and because of the data accessibility. The physical, financial and human dimensions of access to health were taken into consideration. Therefore, the number of physicians and nurses per 1000 people, the number of hospital beds per 1000 people, the share of out-of-pocket payments in total health expenditures and annual doctors' consultation per capita were used. OECD averages were calculated by taking the average of the countries included in the OECD database in the relevant year. The data on the ratio of households making catastrophic health expenditures in Turkey were also used in the study. This data is available for 2002-2019. The average of OECD countries is not available for this data.

3. Results

The data obtained within the scope of the research are summarized in Table 1.

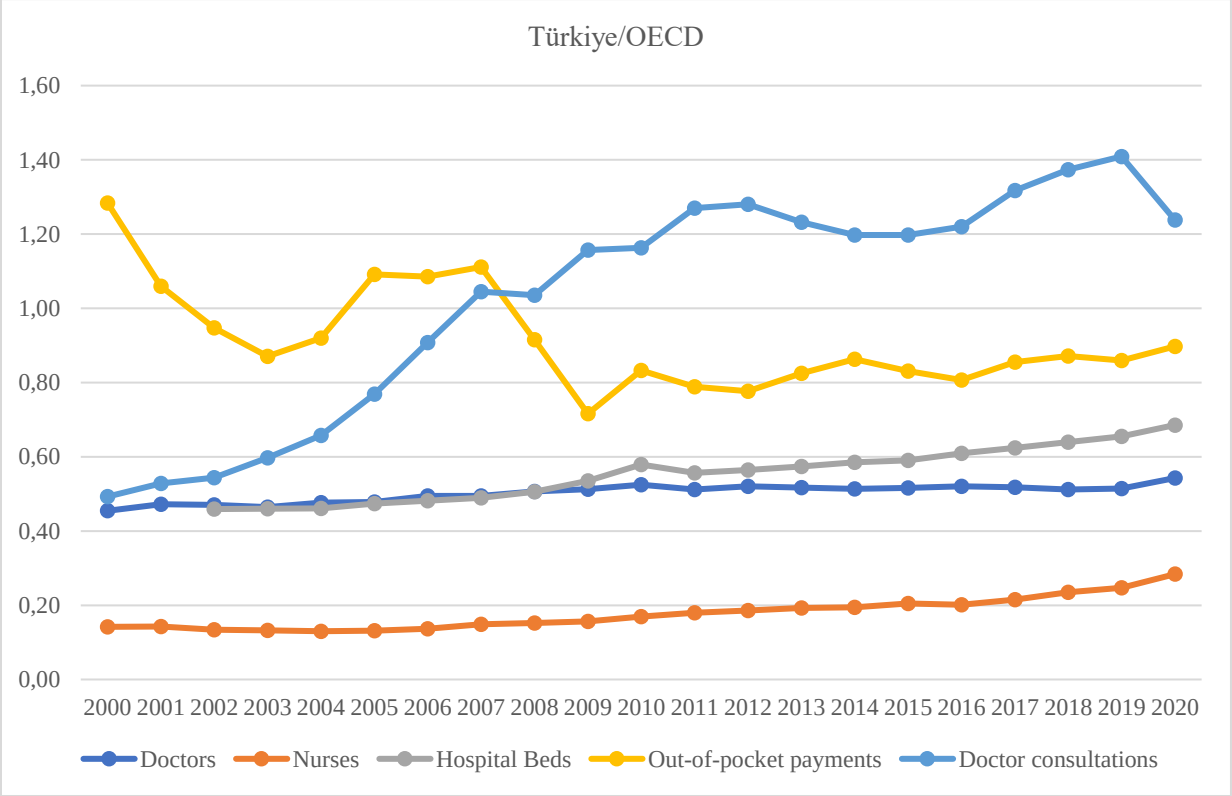
Table 1. Data on accessibility dimensions

	Doctors per 1000 people		Nurses per 1000 people		Hospital beds per 1000 people		Out-of-pocket payments		Doctors' consultation	
Years	**TR**	**OECD**	**TR**	**OECD**	**TR**	**OECD**	**TR**	**OECD**	**TR**	**OECD**
2000	1,30	2,86	1,06	7,48	..	5,77	28,91	22,51	2,80	5,68
2001	1,38	2,92	1,11	7,78	..	5,62	23,43	22,11	3,00	5,68
2002	1,39	2,96	1,10	8,22	2,49	5,42	20,32	21,44	3,10	5,70
2003	1,41	3,04	1,12	8,45	2,48	5,39	18,93	21,74	3,40	5,70
2004	1,44	3,02	1,12	8,61	2,47	5,36	20,18	21,94	3,70	5,63
2005	1,47	3,07	1,14	8,70	2,50	5,27	24,18	22,15	4,60	5,99
2006	1,51	3,05	1,19	8,69	2,52	5,23	23,65	21,78	5,30	5,84
2007	1,55	3,13	1,35	9,06	2,54	5,19	23,89	21,49	6,10	5,84
2008	1,59	3,14	1,41	9,29	2,58	5,10	19,18	20,96	6,70	6,47
2009	1,65	3,22	1,46	9,31	2,62	4,89	14,51	20,27	7,30	6,31
2010	1,69	3,22	1,57	9,29	2,74	4,73	16,87	20,27	7,30	6,28
2011	1,70	3,32	1,68	9,34	2,62	4,70	15,90	20,16	8,20	6,46
2012	1,73	3,32	1,79	9,65	2,66	4,71	15,93	20,51	8,20	6,40
2013	1,76	3,41	1,83	9,48	2,65	4,62	16,93	20,51	8,20	6,65
2014	1,76	3,42	1,85	9,51	2,68	4,58	17,73	20,54	8,30	6,93
2015	1,81	3,51	1,95	9,51	2,68	4,54	16,95	20,40	8,40	7,01
2016	1,83	3,51	1,93	9,61	2,75	4,51	16,47	20,40	8,60	7,05

2017	1,87	3,61	2,07	9,64	2,81	4,50	17,38	20,32	8,90	6,76
2018	1,88	3,67	2,34	9,97	2,85	4,45	17,49	20,07	9,50	6,92
2019	1,95	3,79	2,40	9,70	2,88	4,40	17,05	19,84	9,80	6,95
2020	2,05	3,78	2,73	9,62	3,01	4,39	16,43	18,31	7,20	5,81

It was determined that the number of physicians per 1000 people in Turkey between the years 2000-2020 increased from 1.30 to 2.05, the number of nurses per 1000 people increased from 1.06 to 2.73. In the same period, the OECD average increased from 2.86 to 3.78 for the number of physicians per 1000 population, and from 7.48 to 9.62 for the number of nurses per 1000 people. While the number of hospital beds per 1000 people was 2.49 in 2002, this rate increased to 3.01 in 2020. In terms of the OECD average, this ratio, which was 5.42 in 2002, became 4.39 in 2020. The share of out-of-pocket payments in health expenditures was 28.91 in Turkey in 2000, while the OECD average was 22.51. These rates were 16.43 and 18.31, respectively, in 2020. The annual number of consultation to a physician per capita in Turkey increased from 2.80 in 2000 to 7.20 in 2020. For the same period, it was 5.68 and 5.81 in OECD, respectively. In terms of these indicators, the Turkey/OECD ratio is shown in Graph 2 by years.

Graph 1. Türkiye / OECD Ratio of Indicators



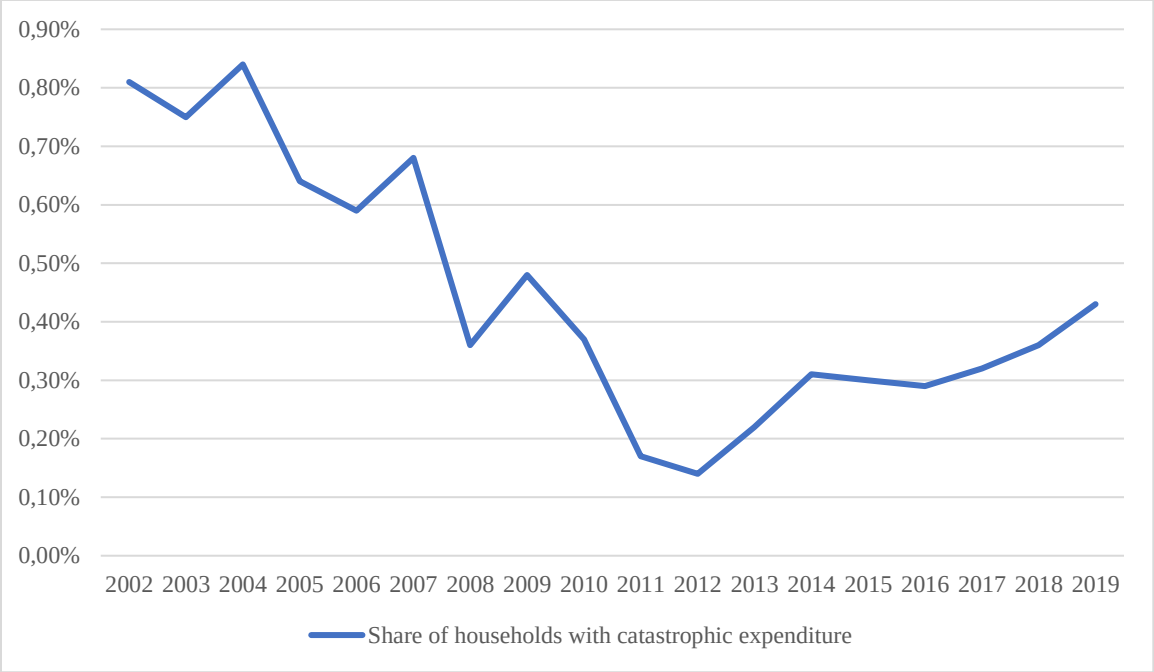
As seen in the figure, although it has increased over the years, the number of physicians, nurses and hospital beds per 1000 people in Turkey is still low when compared to the OECD average. On the other hand, the out-of-pocket payment ratio, which was higher than the OECD average, fell below the OECD average in 2002, and although it

Cilt 5, Sayı 2 | Yaz 2023
Volume 5, No 2 | Summer 2023, 69-76

fluctuated later, it remained below the OECD average as of 2008. Moreover, while the number of doctors' consultations was half of the OECD average in 2000, it has been above the OECD average since 2007.

Finally, the rate of households that make catastrophic health expenditures in Turkey over the years was evaluated and summarized in Graph 2.

Graph 2. Share of households with catastrophic health expenditure by years, Türkiye



The share of households making catastrophic health expenditures in Turkey was around ‰8 in 2002. Although the rate of households making catastrophic health expenditures decreased until 2012, it started to increase as of 2012.

4. Discussion and Conclusions

In healthcare, accessibility is an important indicator as it determines the effectiveness of the healthcare services in improving health status. Evidence clarify that sufficiently access to healthcare improves the survival rate and healthy life years (Gu et al., 2009). There are many factors effecting the accessibility level. Numerous studies provides insights on the effect of these factors on accessibility. Dominic et al. (2019) stated that number and density of physicians, nurses, midwives and hospital beds improved the access to healthcare for women in Africa. Sibley et al. (2011) found that the geographical distribution of the health staff and facilities can determine the level of unmet needs and the types of services people get regularly. Tsawe and Susuman (2014) also stated the importance of staff and facility availability in accessibility level.

There are also some studies, which investigated the effect of health coverage and insurance on accessibility. In Tajikistan, a study proved that both official and informal out-of-pocket deterred people from seeking for medical care. They also highlighted that households could face impoverishment due to burden of OOP and this will exacerbate the barriers to access healthcare. Many studies also have identical findings on OOP, health coverage and

catastrophic health expenditure (Ataguba and Goudge, 2012; Atanasova et al., 2013; Schokkaert et al., 2017; Akweongo et al., 2021).

Therefore, this study aimed to evaluate the accessibility of healthcare services by analyzing some key indicators in Turkey where the current health system holds equity access to health as a core principle. Currently, in the Turkish health system, services are mostly provided by public health institutions. Similarly, financing of health services is mostly provided by public resources. The general health insurance system in the country covers almost all of the population (WHO, 2022; Atun et al., 2013**)**. However, it is known that access to health services has many dimensions and proper access to these services can only be achieved when all of them are in integrity.

In this study, some key indicators related to access to health were examined. While the number of doctors, nurses and hospital beds and doctor consultations were examined in the physical and human dimensions of access to health, out-of-pocket payments and catastrophic health expenditures were evaluated in the economic dimension. Although the number of physicians and nurses in Turkey has been considerably lower than the OECD average over the years, doctor consultations have increased rapidly within the same period. It exceeded the OECD average in 2007 and is still above the OECD average. In the same period, the share of households paying out of pocket decreased below the OECD average. The number of hospital beds has increased over the years. Therefore, although physical and economic access to the physician has been provided, it can be argued that due to the fact that this increase has not been accompanied by the human dimension, the examination times have been shortened and the quality of the service has been affected by this situation. When the key factors are evaluated in general, it has been determined that the improvements achieved in the physical and economic dimensions could not be achieved in the human dimension, and the out-of-pocket payments and catastrophic health expenditures, which are in the economic dimension, tend to increase again as of 2012.

As a conclusion, it can be argued that although Turkey has achieved significant improvements in key indicators of access to health, there is still a need for improvement in many areas. Therefore, it is recommended that policymakers prioritize areas that are lagging behind in resource allocation.

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