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## Organisation of the Turkish healthcare system

### Abstract

It is widely believed that the Turkish healthcare system is robust, from an organisational perspective. Therefore, it proves capable of providing a wide range of services as it focuses on protecting patients' health and on improving their quality of life. Indeed, today's Turkey is a country that has made evident progress in improving healthcare infrastructure, increasing access to medical care, as well as developing medical education and research, accreditation and certification. In view of this, Turkey has improved the delivery of most healthcare services as a consequence of the Health Transformation Programme between 2003 and 2013. Accordingly, the following advantages of the Turkish healthcare system are most often cited: an extensive public healthcare sector; a well-integrated private healthcare sector; a wide range of healthcare services that are relatively cheap; universal health insurance for all; and the provision of healthcare for immigrants. Meanwhile, the shortcomings of the Turkish healthcare system are usually considered to be the shortage of medical staff, which mainly concerns doctors; long waiting times for service in public healthcare facilities, including in primary care; often limited healthcare services in rural areas; and limitations in the treatment of certain diseases, above all mental illness.

**Keywords:** Turkish healthcare system, organization of the health care system, protecting patients' health.

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### INTRODUCTION

The interest in the Turkish healthcare system has been essentially dictated by its extremely successful reform over the last few years. First and foremost, it is the result of the implementation of the Health Transformation Programme (Sağlıkta Dönüşüm Programı), with the financial support of the World Bank in particular, which was formally approved by the Turkish Government in 2003 when it responded to the Justice and Development Party's initiative to be able to implement its election programme in this way [1]. Undoubtedly, it was as much about guaranteeing universal accessibility to healthcare as it was about securing quality healthcare services. The implementation of the Health Transformation Programme (Sağlıkta Dönüşüm Programı) was the ultimate responsibility of the Turkish Ministry of Health for the subsequent ten years. It should be further emphasised that, in doing so, the Turkish Ministry of Health significantly supplemented the Health Transformation Programme (Sağlıkta Dönüşüm Programı) with a Public-Private Partnership (Kamu-Özel Ortaklığı) in 2010, also with the support of the World Bank, to expand its financial resources in the health insurance market [2]. Specifically, this provided more financial support to state hospitals, contributed to an increase in the number of private hospitals, and put a greater emphasis on specialised services. As a result, the Health Transformation Programme (Sağlıkta Dönüşüm Programı) was successfully implemented ahead of the deadline originally set for 2015.

Previously, the Turkish healthcare system was very inefficient and, therefore, characterised by high levels of patient dissatisfaction, especially given that only two-thirds of Turkey's population had health insurance. It was not until the Health Transformation Programme (Sağlıkta Dönüşüm Programı) that a change was brought about, as the percentage of Turkey's population covered by state health insurance increased from around 41.5 per cent in 2002 to 98.8 per cent in 2021 [3]. Admittedly, there was previously a programme in Turkey called the Green Card (Yeşil Kart), which was designed to help low-income social groups obtain healthcare, but the expenditure on it only amounted to TL 40 billion in 2010 [4]. Consequently, the programme was first reformed in 2011 and then completely abolished in 2012. Furthermore, it must be stated that the Turkish healthcare system was previously dominated by the state, which intervened directly in its mechanism through the Ministry of Health.

Undoubtedly, the Turkish healthcare system aims to achieve the following objectives: improving the level of care provided, improving the health of the population, and reducing operating costs. The operation of the Turkish healthcare system is based on the assumption that there is a parallel: public healthcare and private healthcare. This is particularly reflected in its structure: state hospitals run by the Ministry of Health, private hospitals run by private entities, university (research) hospitals run by the state or private entities, and family clinics run by the state or private entities. At the same time, there are three levels of healthcare: first, second and third. More specifically, family

clinics are included in the first level of healthcare, state hospitals and private hospitals are included in the second level of healthcare, and university (research) hospitals are included in the third level of healthcare. Finally, the Turkish healthcare system is based on the simultaneous coexistence of universal health insurance and private health insurance. Health insurance is now compulsory for all citizens under the Turkish Universal Health Insurance (Genel Sağlık Sigortası), with those earning below a certain threshold receiving free healthcare [4]. Of course, most healthcare services are covered by the general social insurance, which is managed fully by the Social Insurance Company (Güvenlik Kurumu Sosyal) [4]. In contrast, private health insurance is obtained by paying a monthly fee to a selected insurance company, enabling to obtain a wider range of healthcare services, higher quality healthcare services and shorter waiting times. Popular insurance companies that nowadays offer basic private insurance include Allianz, Aksigorta, and Akxa Sigorta.

## MATERIALS AND METHODS

In this context, the organisation of the Turkish healthcare system seems particularly interesting. Certainly, it must be viewed traditionally, as a system focused on the provision of healthcare. Therefore, it is now permissible to assume that the Turkish healthcare system must always be considered as a coherent whole, whose numerous and interrelated parts influence the provision of healthcare [5]. Obviously, the fact that the healthcare system under consideration is the totality of institutions intended to provide healthcare within Turkey, and subject to the jurisdiction of Turkey, should be borne in mind [6]. Hence, the practice of healthcare in Turkey should definitively give shape to its healthcare system. From the point of view of its organisation, it is necessary to further distinguish between the systemic element and the political element. Naturally, the systemic element generally focuses on the institutions that offer and/or finance healthcare services [6]. Meanwhile, the political element is clearly identified with specific state health policies [6]. The idea of analysing the institutions of the healthcare system together with the policies it pursues has today become a methodological canon of scientific research [6]. Depicting the organisation of the Turkish healthcare system demands the use of a system analysis method, since it considers the concept of a system and its analysis to be central to understanding any social phenomena occurring within it. Consequently, this must be accompanied by a systems methodology aimed at mapping the system and developing system thinking as the ability to make systemic inferences. Such a reference compels the development of statistics that are generally available in the literature over the last twenty-odd years, which will be presented below within the framework of the results of the ongoing research [7].

## RESULTS

Characterising the organisation of the Turkish healthcare system requires, first and foremost, presenting the level of spending from the perspective of 2022. At that time, the total healthcare expenditure was LT 606.8 billion, including LT 555.94 billion expenditure on current healthcare and LT 46.86 billion expenditure on investments. It is also noteworthy that healthcare expenditure grew exponentially between 2000

and 2022, especially in the last 4 years when healthcare expenditure more than tripled. Unfortunately, healthcare spending represented only 4.3 per cent of the GDP in 2022, leaving Turkey in the last place among OECD-European countries. Nevertheless, Turkey spent more than LT 7,000 per person in 2022, the highest sum ever recorded. The percentage of the total healthcare expenditure funded by the Government of Turkey increased greatly between 2000 and 2022, eventually reaching 76.4 per cent in 2022. Public healthcare is financed by an additional tax paid by all economically active people in Turkey at a rate of 12.5% of earnings – more specifically, 7.5% by employers and 5% by employees.

It is then appropriate to establish, according to the 2022 data, that the organisational structure of the Turkish healthcare system was primarily based on 1555 state, private and university (research) hospitals. Among them, there were 915 state hospitals, 572 private hospitals, and 68 university (research) hospitals. However, it is worth noting that Istanbul had 234 hospitals, including 54 state hospitals and 164 private hospitals, while Bayburt had only one. This translates into the number of hospital beds. According to the 2022 figures, there were 163,207 hospital beds in state hospitals, while private hospitals had 55,000 hospital beds. In terms of medical staff, this totalled 1,350,000, based on the 2022 figures, including 194,700 doctors – namely, 95,600 specialist doctors, 42,400 dentists, and around 60,000 family doctors – as well as 243,000 nurses, 59,600 midwives, and 39,000 pharmacists.

Undoubtedly, the organisational structure of the Turkish healthcare system has evolved especially since 2003. Recently, the number of hospitals has increased by more than 100, compared to only 1439 in 2010. An example of this are the large municipal hospitals scattered throughout the country, of which 21 are active today, while the total number is expected to reach 33. It should also be noted that family clinics are now to be found in every town and village. This has been accompanied by a dynamic increase in the number of medical staff, which has almost doubled between 2012 and 2022. Specifically, the number of doctors has increased by almost 100,000, as there were only 85,200 doctors in 2000. The number of family doctors has also increased by around 32,000, with only 27,500 doctors recorded in 2000. The number of nurses has increased even more. There were only around 97,000 nurses in 2000 and that number has grown by almost 146,000. Finally, there has been a noticeable increase in the number of midwives, by 18,000, since their number was 41,600 in 2000.

In turn, the most important parameters that identify all levels of organisation of the Turkish healthcare system in 2022 need to be recalled. To begin with, it seems necessary to point out that there are only 2.2 doctors per 100,000 inhabitants and 2.8 nurses per 100,000 inhabitants. The number of 3 hospital beds per 100,000 inhabitants is rather average. The length of stay of 4.4 days per patient in a hospital is not very optimistic. Without doubt, the most disappointing figure is 1.5 medical consultations per statistical patient. Advice from specialist doctors is sought by as many as 6 out of 10 patients, more often by women than by men. At the same time, 6 out of 10 patients visit their GPs, with women being again more likely to do so than men. There is a relatively high figure of 4400 patient visits per doctor, which peaked during the COVID-19 pandemic when it exceeded 5000 patient visits per doctor.

Finally, a repartition of healthcare services is needed, from the perspective of the organisation of the Turkish healthcare

system in 2022. Public healthcare, which is financed by public health insurance, includes: inpatient and outpatient services; accidents and occupational diseases; pregnancy, childbirth and related expenses; discounts at private hospitals, clinics, outpatient clinics and other medical facilities; infectious diseases; preventive healthcare; and treatment costs for foreigners and their dependents, with the exception of chronic diseases. Meanwhile, private healthcare, which is financed by private health insurance, includes: the costs of medical examinations; the costs of diagnostics; the costs of medicines; hospital services; room, bed, meal and other expenses during hospitalisation; corneal, kidney, pancreas, liver, heart and lung transplants; chemotherapy, radiotherapy and dialysis; biochemical, microbiological, pathological, radiological and imaging tests during hospitalisation; costs of prosthetic limbs in case of loss of limbs due to an accident or illness; post-operative physiotherapy; medical treatments lasting less than 24 hours; intensive care procedures; tooth and nose treatments resulting from a traffic accident.

## DISCUSSION

Naturally, the organisation of the Turkish healthcare system still needs the elaboration of specific issues. In principle, they should focus on important health problems that have a widespread dimension in Turkey, namely: cardiovascular disease – 42% of the population, overweight – 30% of the population, smoking – 30% of the population, and mental health disorders – 20% of the population [8]. Therefore, sanitation programmes are increasingly being undertaken in Turkey to point out, for example, the anti-smoking measures implemented in recent years: banning smoking in public places such as restaurants, cafés and bars; requiring tobacco products to carry graphic warning labels; banning tobacco advertising and sponsorship; and increasing taxes on tobacco products [9]. The primary health threat in Turkey is posed by non-communicable diseases (NCDs), which account for almost 90% of deaths in the population [10]. The following five NCDs alone, i.e., stroke, lung cancer, lung disease, diabetes and Alzheimer's disease, account for 36% of deaths in the Turkish population [11]. At the same time, it should be pointed out that the highest increase in incidence for several years has been reported for Alzheimer's disease with almost 70%, and stroke with almost 60% [10]. In addition, other risk factors for NCDs in Turkey have recently been highlighted, specifically: smoking – 31.6%, overweight – 64.4%, obesity – 28.8%, and low physical activity – 43.6% [10]. In view of this, Turkey is undertaking new strategies in this area to largely prevent the majority of early deaths from NCDs by optimising the healthcare system to risk factors of such diseases. Meanwhile, the health risk of infectious diseases in Turkey has clearly decreased, which mainly concerns diseases such as brucellosis, tularaemia, Lyme disease, rickettsiosis, and Crimean-Congo haemorrhagic fever [11]. Although the implementation of intensive and preventive public health vaccination policies has resulted in a significant decrease in the incidence of a number of important infectious diseases, several extramedullary infections, including brucellosis, tularaemia and Crimean-Congo haemorrhagic fever, have remained important health challenges for Turkey [11]. In addition, it is worth pointing out that the COVID-19 pandemic had tragic consequences in Turkey as well, with the following data during the peak period of the pandemic clearly reflecting

the problem: 179 doses per hundred people – the vaccination rate (November 2022), 152,475,057 doses in total – the total number of vaccinations (November 2022), 16,919,638 sick people – cases of the disease (May 2022), and 99,032 dead people – deaths due to the disease (July 2022) [7]. Finally, there is a need to address the health impacts of the numerous earthquakes in Turkey. For example, the recent 6 and 20 February 2023 earthquakes potentially affected 9.1 million people, with 48,448 deaths and more than 115,000 casualties [12]. Priority health issues in the earthquake-affected areas include, in particular, access to mental health services and psychosocial support; post-trauma rehabilitation care; prevention and control of disease outbreaks, including through strengthening disease surveillance; and ensuring access to basic healthcare services for the most vulnerable and affected populations.

## CONCLUSIONS

It is widely believed that the Turkish healthcare system is robust, from an organisational perspective. Therefore, it proves capable of providing a wide range of services as it focuses on protecting patients' health and on improving their quality of life. Indeed, today's Turkey is a country that has made evident progress in improving healthcare infrastructure, increasing access to medical care, as well as developing medical education and research, accreditation and certification. In view of this, Turkey has improved the delivery of most healthcare services as a consequence of the Health Transformation Programme (Sağlıkta Dönüşüm Programı) between 2003 and 2013. The improvement in healthcare delivery is reflected in the achievement of better health outcomes, increased health utilisation rates, and a positive change in health financing trends. Particularly noteworthy is the evolution of satisfaction with healthcare services between 2003 and 2023. The lowest percentage of people satisfied with healthcare services was 39.5% in 2003, when the Health Transformation Programme (Sağlıkta Dönüşüm Programı) began [3]. This percentage reached its peak of 75.9% in 2011, when the Green Card (Yeşil Kart) reform was undertaken to universalise health insurance, at the end of the implementation of the Health Transformation Programme (Sağlıkta Dönüşüm Programı) [3]. In contrast, the percentage of people satisfied with healthcare services was around 66% in 2023, when the Health Transformation Programme (Sağlıkta Dönüşüm Programı) was fully in place [13]. Accordingly, the following advantages of the Turkish healthcare system are most often cited: an extensive public healthcare sector; a well-integrated private healthcare sector; a wide range of healthcare services that are relatively cheap; universal health insurance for all; and the provision of healthcare for immigrants. Meanwhile, the shortcomings of the Turkish healthcare system are usually considered to be the shortage of medical staff, which mainly concerns doctors; long waiting times for service in public healthcare facilities, including in primary care; often limited healthcare services in rural areas; and limitations in the treatment of certain diseases, above all mental illness. In conclusion, the following observations can be made: the institutions that offer healthcare services have been properly formed, which applies equally to public healthcare and private healthcare; the institutions that finance healthcare services are properly complemented, with private health insurance complementing universal health insurance; the state health policy has been successful in implementing the Health

Transformation Programme (Sağlıkta Dönüşüm Programı); however, the level of healthcare expenditure, which is measured as a percentage of the GDP, must be considered inadequate; the shortages of medical staff are perceptible in healthcare, and this is particularly true of doctors; a satisfactory level of healthcare services has been provided only in the large cities, while it is clearly deficient outside them. An adequate confirmation of these conclusions is the ranking of the Turkish healthcare system by The Lancet journal as number 60 among 195 countries surveyed in 2016, from the point of view of the HAQ index, with a score of 74, reflecting the availability of services and the quality of healthcare [14].

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