



# HEALTH SYSTEM IN TURKEY

## Reforms, Transformations, and Challenges



SANDHYA VENKATESWARAN AND ALOK KUMAR SINGH

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# HEALTH SYSTEM IN TURKEY

## Reforms, Transformations, and Challenges\*

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## List of abbreviations

|       |   |
|-------|---|
| ANC   | Ante Natal Care                                       |
| CAP   | Capitation  |
| CHC   | Community Health Centre                               |
| CP    | Case Payment  |
| CRMS  | Core Resource Management System                       |
| FFS   | Fee for Service                                       |
| FMIS  | Family Medicine Information System                    |
| FMP   | Family Medicine Programme                             |
| FMU   | Family Medicine Unit                                  |
| GHIS  | General Health Insurance System                       |
| HIG   | Health Implementation Guideline                       |
| HTP   | Health Transformation Programme                       |
| IHME  | Institute for Health Metrics and Evaluation           |
| IMR   | Infant Mortality Rate                                 |
| MoH   | Ministry of Health                                    |
| NCD   | Non-Communicable Disease                              |
| NHS   | National Health Service                               |
| NMR   | Neonatal Mortality Rate                               |
| OECD  | Organisation for Economic Cooperation and Development |
| OOPE  | Out-of-Pocket Expenditure                             |
| P4P   | Performance-Related Pay                               |
| PBSPS | Performance Based Supplementary Payment System        |
| PHC   | Primary Health Care                                   |
| RP    | Preference Price System                               |
| SSI   | Social Security Institution                           |
| SSK   | Social Insurance Organisation                         |
| U5MR  | Under-Five Mortality Rate                             |

## 1. Introduction

Turkey drafted its health policy in 1989-90, following the global framework of universal health coverage laid down through the Alma Ata declaration in 1978. The country legislated to make health a state responsibility and proposed comprehensive reforms in health care. The reforms included the introduction of general health insurance, the separation of the health services purchaser from the provider, the consolidation of multiple fragmented financing and provision mechanisms, and the introduction of a family practitioner model (Tatar et al, 2011). The planning for these reforms started in 1990 but it took more than a decade to roll them out. It was only in 2003 that the reforms were introduced in the form of the Health Transformation Program (HTP).

The objective of this paper is to analyse the HTP and draw lessons on access and equity in health services, financial protection, and improved health outcomes. The analysis of the achievements and challenges of these reforms is based on the pillars specified in World Health Organization's (WHO) framework for health systems.

This paper is organised into three sections. The first discusses the underlying context for the structural transformation of the health system. The second outlines system-level changes, their impact, and continuing challenges. Taking a subset of the WHO framework, the analysis focuses on four specific areas: organisation and governance, financing, physical and human resources, and provision. The third section summarizes the discussion in terms of outcomes and remaining challenges of the reform process and outlines implications for comparable countries.

## 2. Social, economic, demographic, and political context

An underdeveloped country with orthodox social values, a mixed economy,<sup>1</sup> and a weak political system in 1970s, Turkey has made fundamental changes in its social, political, and economic structure that has led the nation to the upper middle-income category with a very high human development index (Tuncer, 1971). It has focused on modernising and secularising society. On the economic front, it has transitioned from a mixed economy to free market enterprise. Politically, it has adopted a multiparty parliamentary democracy since the 1940s (Hacettepe University Institute of Population Studies, 2013).

The social, economic, and political transitions influenced the healthcare model. It evolved from a preventive medicine-focused system in the 1920s (where the state was not obligated to provide curative care) to an integrated health care model in the 1940s. The shift was triggered by greater democratisation in the 1940s, which led to competitive populism.

Health care reforms continued between 1960 and 1990. Health conditions in rural areas prior to 1960 were poor, with gaps in availability of workforce and infrastructure, leading to poor health outcomes. Dissatisfaction among citizens prompted the enactment of a law to establish a nationalised health service (NHS) in 1961. It placed Primary Health Care (PHC) at its centre. Key aspects of this shift included 1) a health post, staffed by a nurse/midwife, for a population of every 2,000 and 2) a health centre, staffed by a physician, nurses/midwives, and a health technician, for every 7,000-10,000 people. The importance of integrated care was recognised as early as the 1960s, as was evident in the linking of health centres to hospitals. To reduce inequity in the distribution of physicians, a two-year programme, making service mandatory for medical graduates, was implemented across the country (Bishku, 1990).

The implementation of NHS improved the supply of physical and human resources across the country, contributing to improved outcomes between 1960 and 1990. The infant mortality rate

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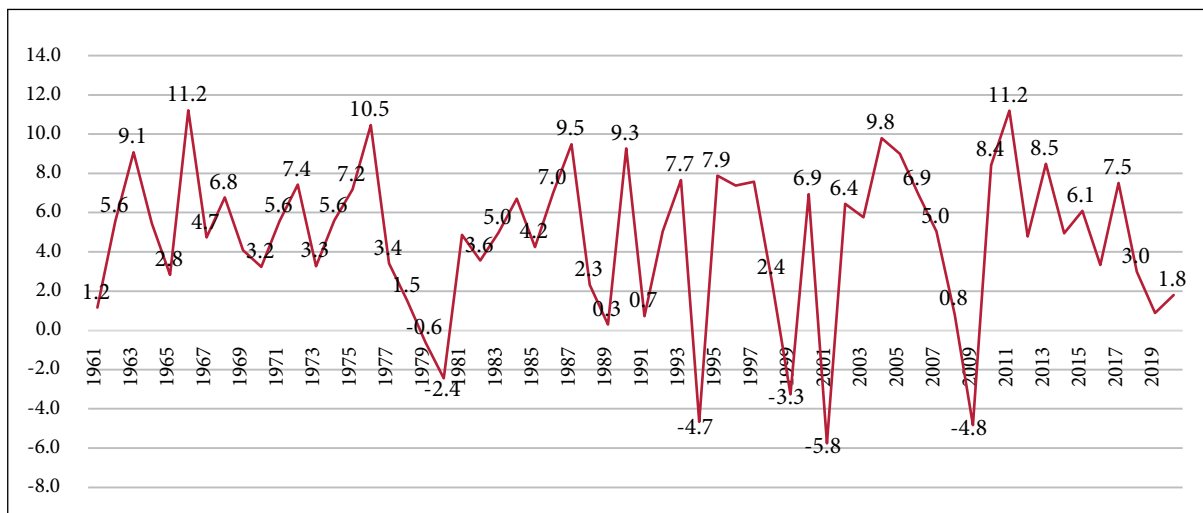
<sup>1</sup> During the 1970s, Turkey was considered a mixed economy, as the private sector was expanding under state regulation (Tuncer, 1971). It became a free market economy in the 1980s.

(IMR) reduced from 134 per 1,000 live births to 56. Between 1968 and 1990, the under-five mortality rate (U5MR) reduced from 199 per 1,000 live births to 99. Despite these improvements, health outcomes in Turkey trailed those in other countries with a lower gross domestic product (GDP) per capita.

Progress on health outcomes was not commensurate with GDP growth because of two reasons: 1) The NHS was initiated without ensuring that the less developed eastern region had adequate physical and human resources; 2) Political instability was persistent during its implementation in 1961-1983 (Bishku, 1990). As a consequence, NHS did not succeed in covering the entire population by the 1980s, as expected.

Political and economic instability continued between 1983 and 2003, constraining focus on health. Real GDP growth fell significantly in the 1990s, particularly in 1991, 1994, 1999, and 2001 (Figure 1). The 90s were a period of high inflation, high unemployment, and a high Gini coefficient. In this context of economic instability, the 1993 proposal for comprehensive reforms and laws on universal health insurance and family medicine could not be implemented (Tatar, et al., 2011).

**Figure 1: GDP growth (annual %), 1961-2020**

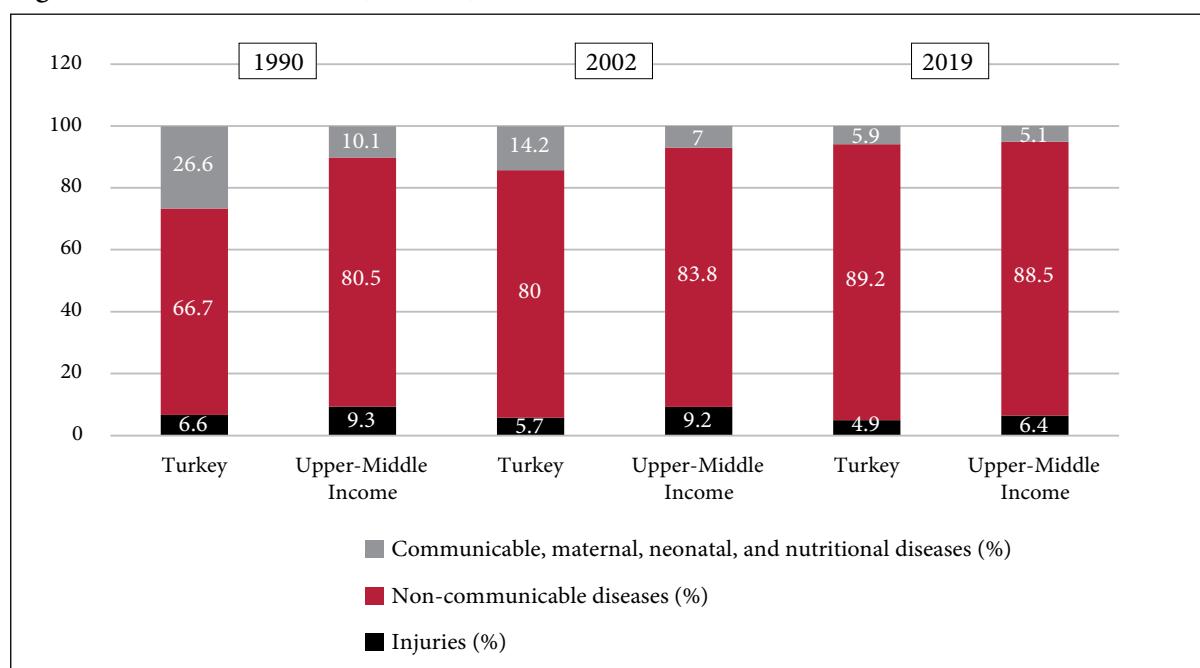


Source: World Bank, 2021

On the political front, coalition governments during the 1990s posed challenges for the implementation of reform measures. Public health expenditure was also low. As a result, from 1990 until 2003, the health system was inequitable and fragmented (Atun, et al., 2013). Responsiveness to citizens was low, out-of-pocket expenditure (OOPE) was high, and regional inequities in coverage, benefits, and outcomes, were large. The reasons for this were numerous, including fragmentation in financing and provisioning, gaps in availability of health workforce and infrastructure, and a lack of accountability.

## 2.1. Key issues pre reform

As mentioned, Turkey started focusing on health reforms in the 1960s and demonstrated progress on various fronts. The attention given to primary care contributed to a consistent improvement in outcome indicators in the pre-reform years. However, challenges persisted. During 1990-2002, Turkey witnessed a rapid epidemiological transition. There was a reduction in deaths due to communicable, maternal, neonatal, and nutritional diseases from 26 percent in 1990 to 14 percent in 2002. There was a simultaneous rise in deaths due to non-communicable diseases (NCD), which reached 80 percent in 2002. The trend continued, and by 2019, NCD contributed almost 90 percent (Figure 2) of total deaths (IHME, 2019).

**Figure 2: Burden of disease (% death) between 1990–2019<sup>2</sup>**

Source: IHME, 2019

Some health outcomes did see progress since the 1960s. For one, Turkey compared well with other countries on life expectancy (Figure 3). However, there was space for improvement in child mortality rates (Figure 4, 5, 6). Despite government spend accounting for a relatively high proportion of total health expenditure in the pre-reform period (Figure 8), the supply of physical and human resources was not comparable with that of other upper middle-income countries (Figure 10, Table 1). Inadequate workforce and infrastructure and concerns regarding accountability—lower salaries in public facilities led to doctors taking on private practice on the side—led to inequities in service delivery and access, regional disparities, lack of responsiveness<sup>3</sup> to citizens, and catastrophic expenditure on health (Figure 12).

**Table 1: Comparing availability of physicians pre reforms**

| Indicator                         | Country                      | 1990 | 2000 |
|-----------------------------------|------------------------------|------|------|
| Physicians (per 1,000 population) | Turkey (upper middle income) | 0.9  | 1.3  |
|                                   | High income                  | 2.2  | 3    |
|                                   | Upper middle income          | 1.4  | 1.8  |
|                                   | Middle income                | 1.1  | 1.2  |
|                                   | Lower middle income          | 0.8  | 0.7  |

Source: World Bank, 2021

Before the early 2000s, Turkey's health financing system consisted of five insurance schemes: Social Insurance Organisation (*Sosyal Sigortalılar Kurumu* or SSK), Government Employees' Retirement Fund (*Emekli Sandığı*), Social Insurance Agency for Merchants, Artisans and the Self-employed

<sup>2</sup> The graph compares Turkey with other upper middle socio demographic index (SDI) countries according to the Institute of Health Metrics and Evaluation. SDI is the composite index comprised of income, education, and fertility. Here, income has been taken as a proxy of SDI.

<sup>3</sup> Hospital authorities, for example, did not release patients or dead bodies in case of pending bills (Akdağ, 2015; Yildirim, et al., 2020).



(*Bağ-Kur*), Green Card (*Yeşil Kart*), and Active Civil Servants Scheme. They covered different segments of the population and had different benefit packages (Atasever, 2014). Except for the green card<sup>4</sup>, they were devised for those employed or capable of paying the premium themselves. The green card scheme was for the poor but failed to cover the target population. It lacked an effective system for identifying beneficiaries, and did not cover outpatient costs, contributing to large OOPE (Atun, et al., 2013).

As a percentage of GDP, government expenditure on health during the 1990s, at 2.8 percent, was higher than the average in upper middle income countries. However, it was significantly lower than that of other OECD member countries which were at 5.5 percent of GDP. Government spending was relatively low but, as a percentage of total health expenditure, it was high (Figure 8). The low public expenditure, combined with a fragmented financing structure, resulted in high OOPE, which was estimated at 30 percent of the total (Atun, et al., 2013; Countryeconomy, 2022).

Like financing, the system for provisioning of health services was also fragmented. Both, the Ministry of Health (MoH) and the Social Insurance Organisation, started in 1965 to cover blue collar workers and their dependents, established their own hospitals and health centres and these operated parallelly (Tatar, et al., 2011).

The inadequacy in financing and provisioning contributed to regional disparity in health outcomes. It was emblematic of the significant inequity in the system (Figure 13, 14 and 15). The Turkey Demographic and Health Surveys from 1993 to 2013 successively revealed variance between the better developed western regions and the lesser developed eastern regions in terms of IMR, U5MR, and nutritional outcomes (Hacettepe University Institute of Population Studies, 2013).

In summary, the period before the 2003 reforms witnessed consistent improvement in indicators for communicable disease, and maternal and neonatal health, due, in part, to a focus on primary healthcare. However, epidemiological shifts led to non-communicable diseases contributing to mortality. Gaps in availability, distribution, and accountability of workforce, combined with low public expenditure, and a fragmented financing and provisioning system, made the system low on responsiveness and led to regional disparities.

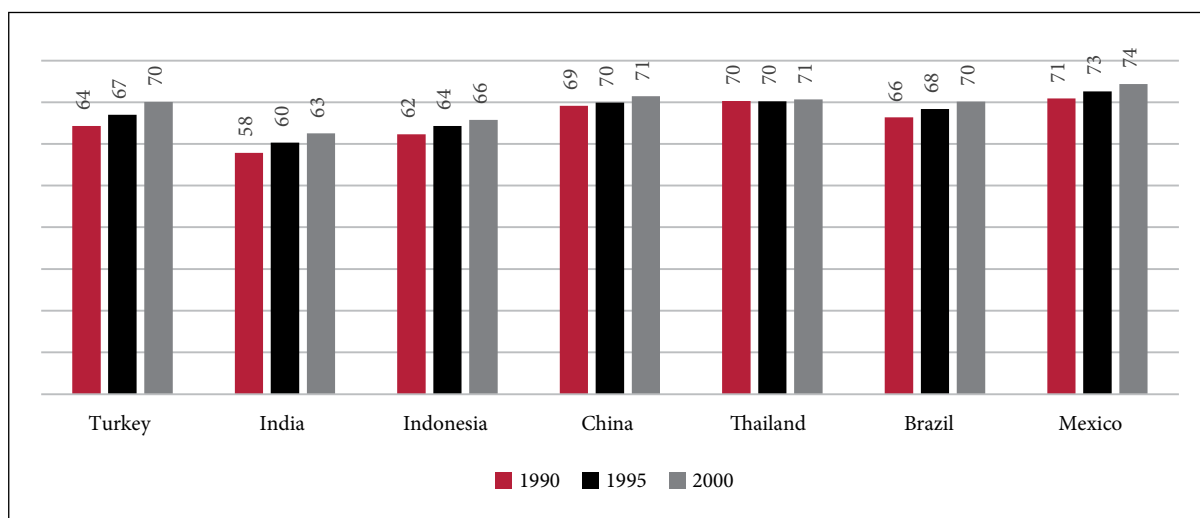
Presented below are trends, over time, for these indicators, as well as for health outcomes across countries. Countries are arranged according to GDP per capita (constant 2015 US\$) for the year 2000 (Figures 3 to 15).

Turkey transformed from a lower middle-income country to an upper middle-income one during 1990-2000 (World Bank, 2022). The high economic growth in the mid-1980s and 1990s, with the state's commitment to health care, improved health outcomes. By 2000, life expectancy at birth reached the levels prevalent in upper middle-income countries such as Mexico (Figure 3). There was substantial improvement in maternal and child-related health outcomes at rates higher than that in countries with similar GDP per capita (Figures 4 to 7).

During the years of economic growth, public expenditure on health increased. During 1990-2000, government health expenditure was higher in Turkey than in other countries of the upper middle-income category (Figure 8). OOPE as a percentage of total expenditure reduced at a faster rate than that in other countries with similar GDP per capita (Figure 9). The decrease in OOPE can also be explained by the free hospital care extended to the poor and vulnerable through the Green Card scheme introduced in 1992. Of the total number of beneficiaries of the scheme, 20 percent belonged to the lowest income quintile. The scheme covered 4 percent of the total population in 2002 (Menon, Mollahaliloglu, & Postolovska, 2013).

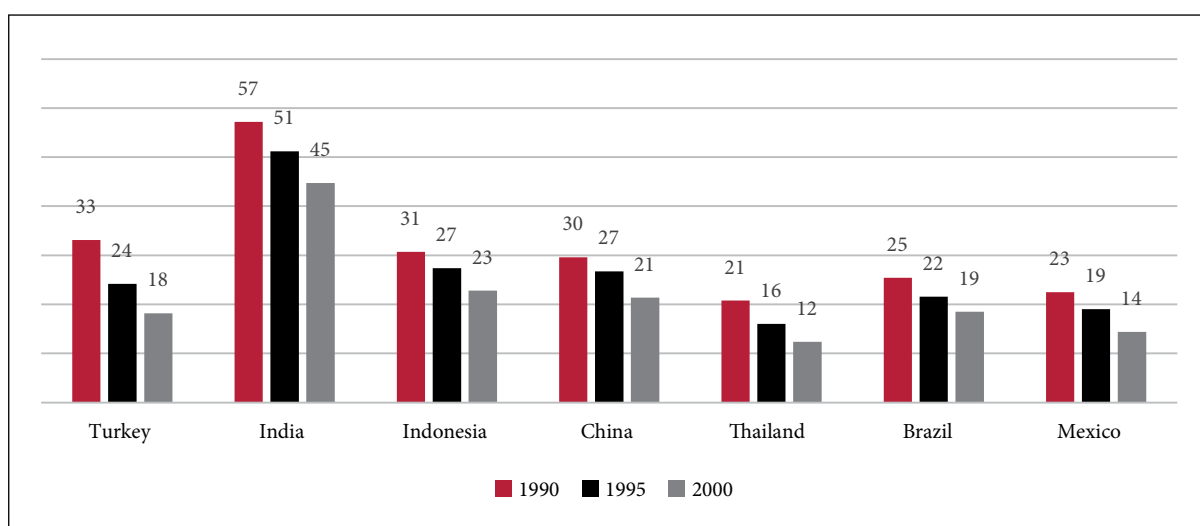
<sup>4</sup> The Green Card scheme, introduced in 1992, was targeted at those whose monthly income was lower than a third of the base wage rate determined by the state (Tatar, et al., 2011).

Figure 3: Life expectancy at birth, total (years)



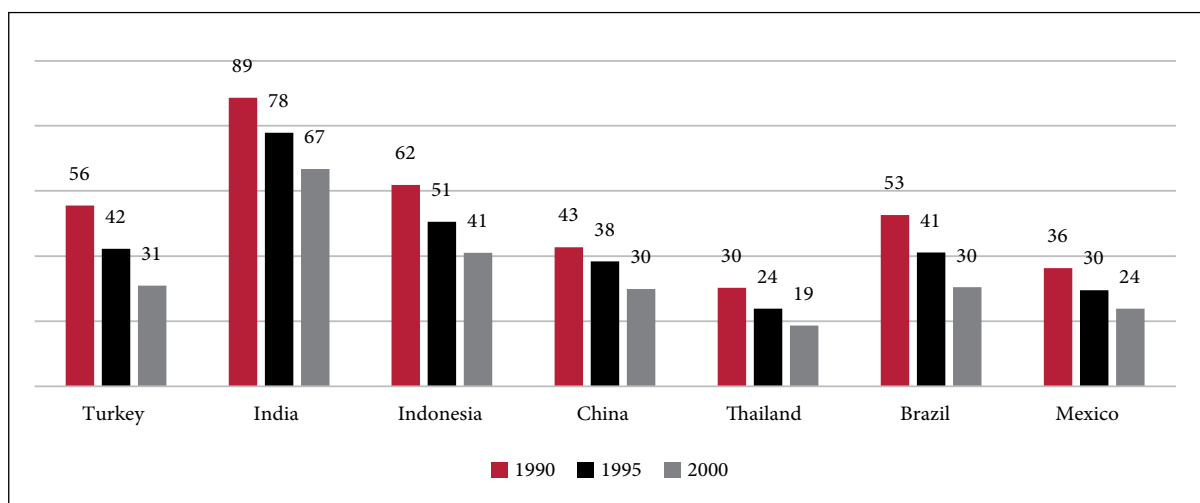
Source: World Bank, 2021

Figure 4: Neonatal mortality rate (per 1,000 live births)



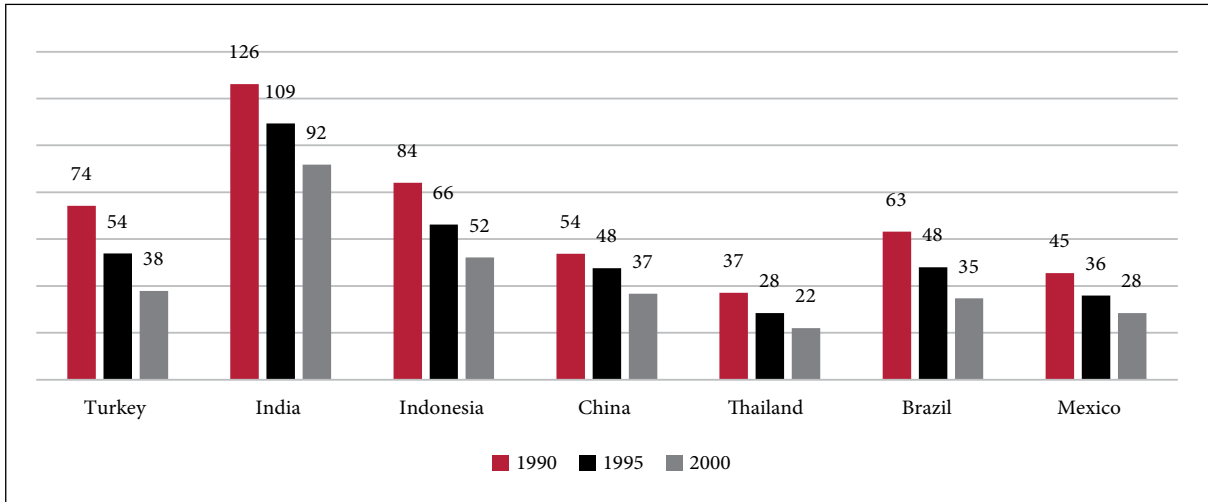
Source: World Bank, 2021

Figure 5: Infant mortality rate (per 1,000 live births)



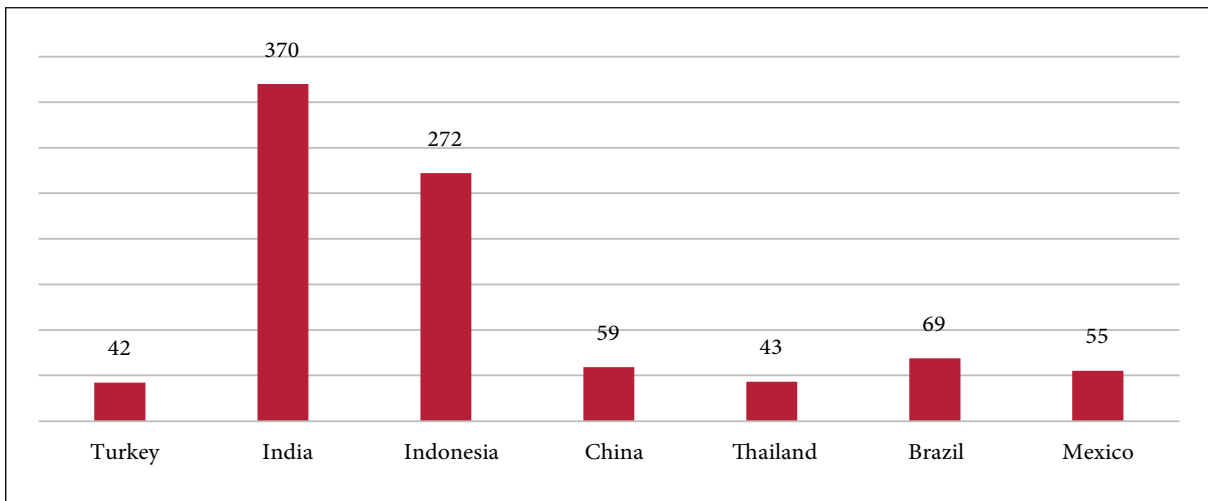
Source: World Bank, 2021

**Figure 6: Under-five mortality rate (per 1,000 live births)**



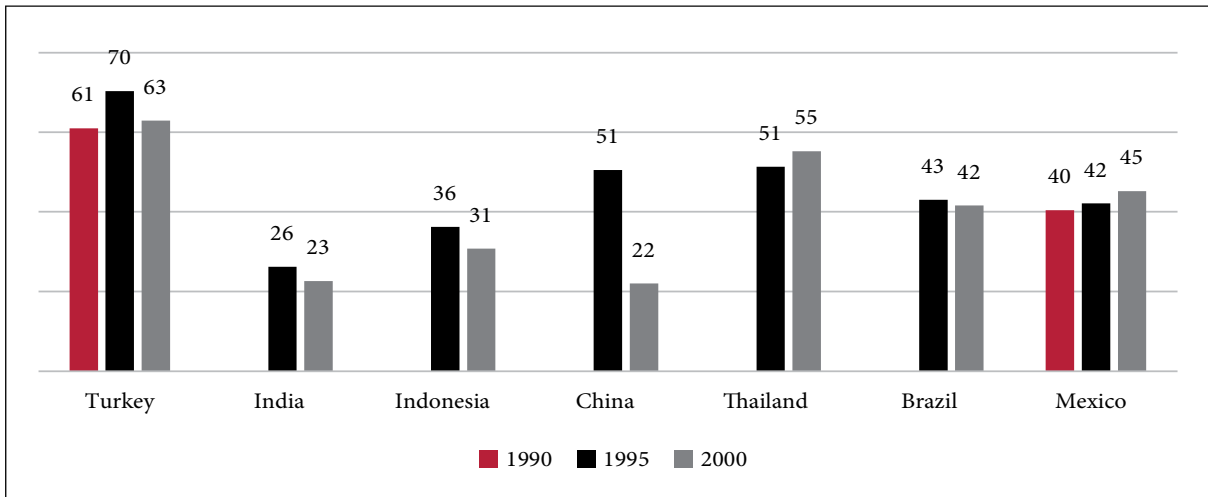
Source: World Bank, 2021

**Figure 7: Maternal mortality ratio (per 100,000 live births)**



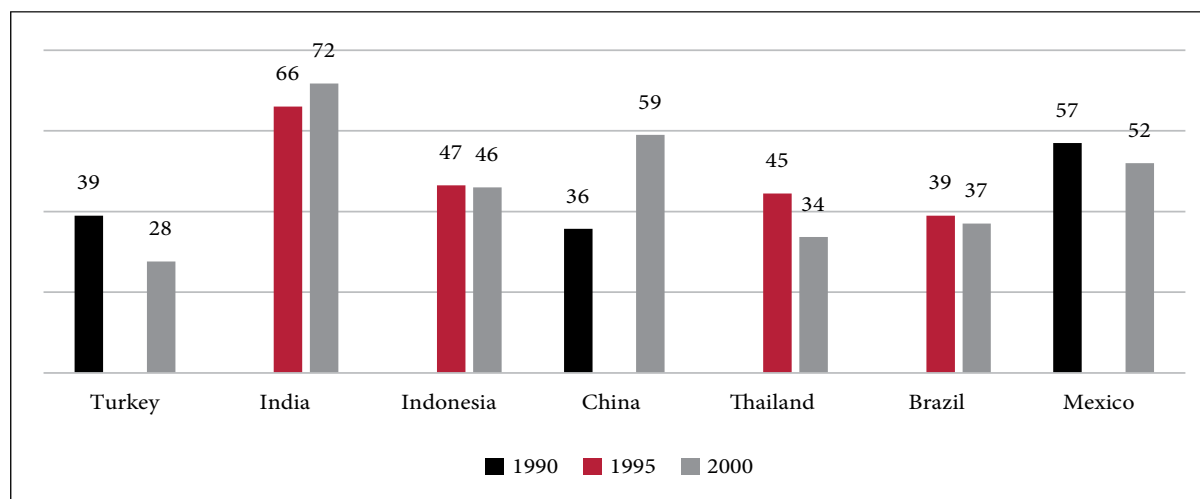
Source: World Bank, 2021

**Figure 8: Public health expenditure (% of total health expenditure)**



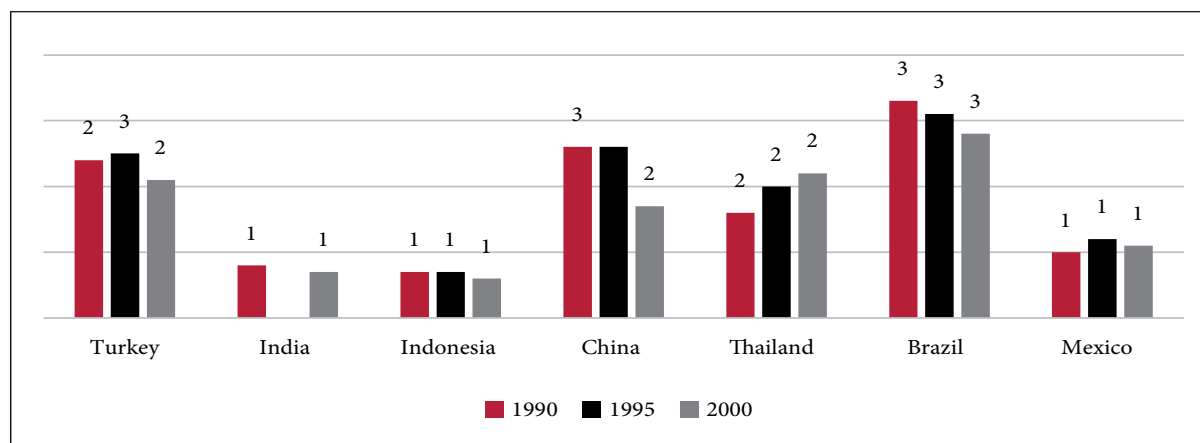
Source: World Bank, 2021; PAHO, 2018; Tatar, et al., 2011; PAHO, 2002; Mahendradhata, et al., 2017; Jongudomsuk, et al., 2015

**Figure 9: Out-of-pocket expenditure (% of total health expenditure)<sup>5</sup>**



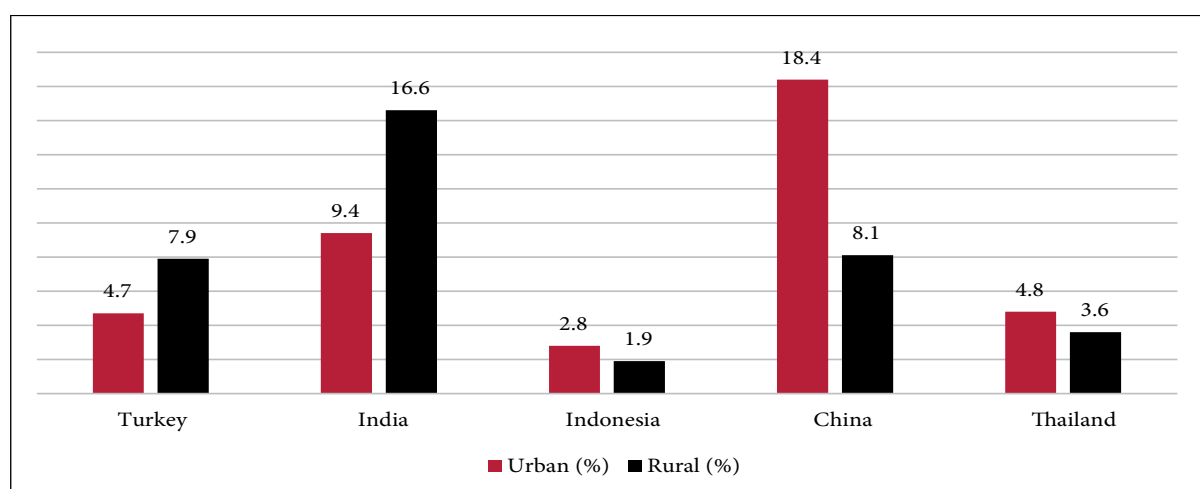
Source: World Bank, 2021; PAHO, 2018; Tatar, et al., 2011; PAHO, 2002; Mahendradhata, et al., 2017; Jongudomsuk, et al., 2015

**Figure 10: Hospital beds per 1,000 people**



Source: World Bank, 2021

**Figure 11: Catastrophic health expenditure (>10% of total household expenditure), 2002<sup>6</sup>**

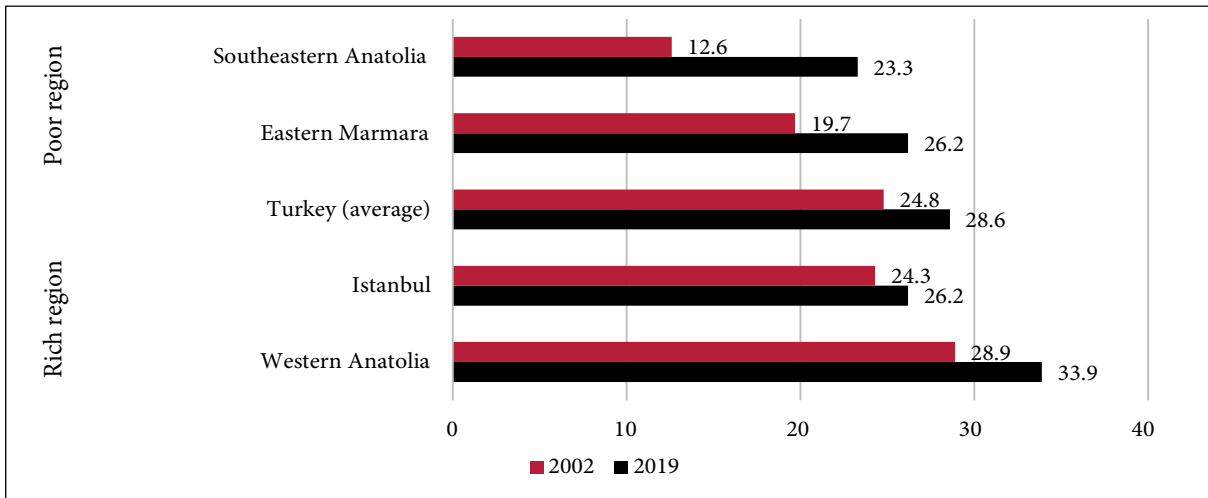


Source: World Bank, 2021

<sup>5</sup> The OOP value (44.5) for Thailand is for the year 1994. And values of hospital beds for Brazil (3.1) and Indonesia (.7) is for the year 1996 and 1994 respectively.

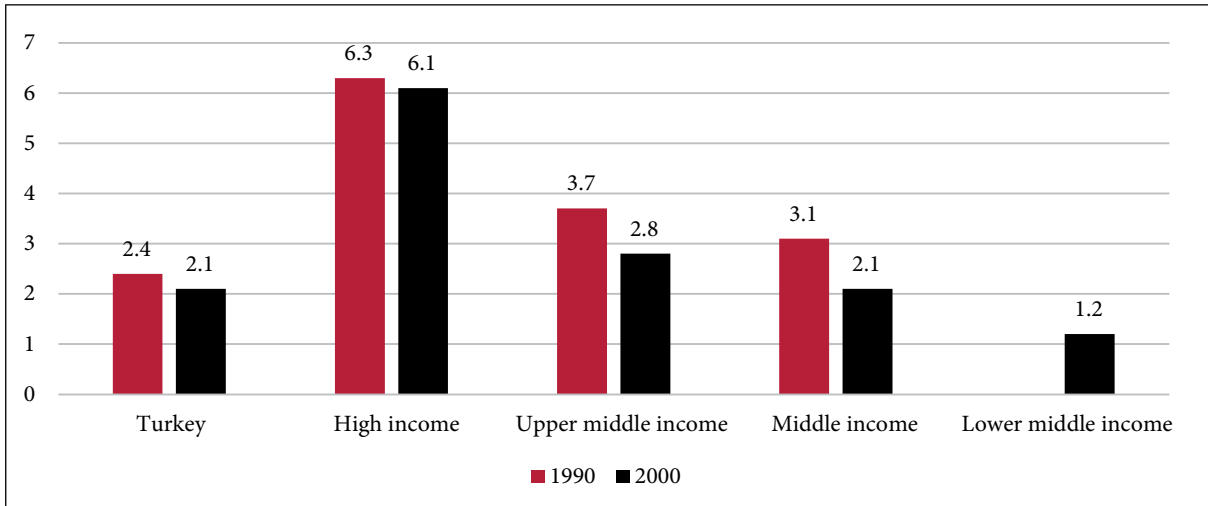
<sup>6</sup> Values for catastrophic health expenditure is in proportion of population.

Figure 12: Hospital beds per 10,000 people



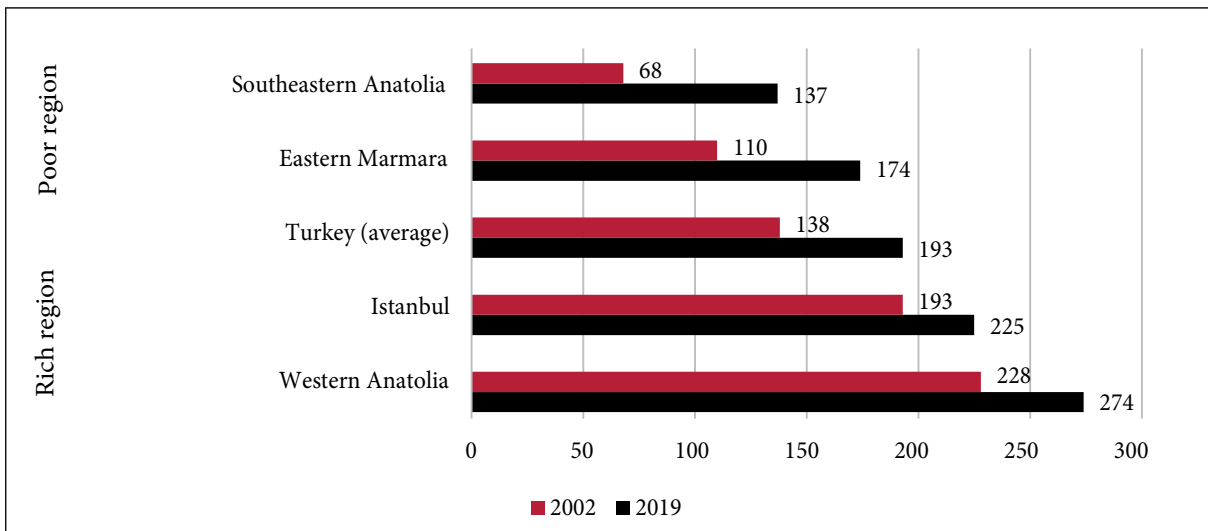
Source: Turkish Statistical Institute, 2020

Figure 13: Hospital beds per 1,000 people pre reforms

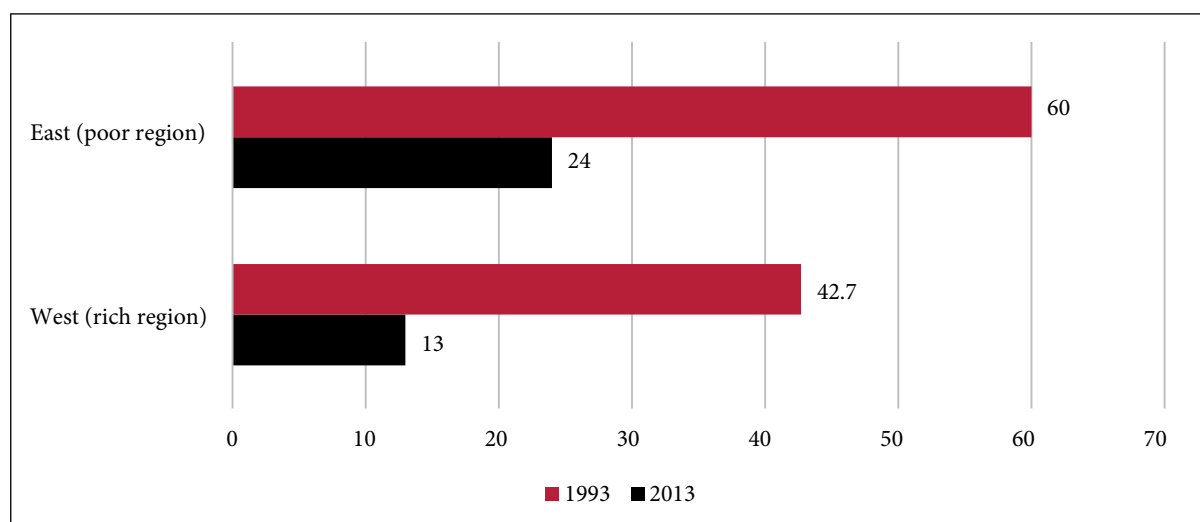


Source: World Bank, 2021

Figure 14: Number of physicians per 100,000 people



Source: Turkish Statistical Institute, 2020

**Figure 15: Infant mortality rate (per 1,000 live births)**

Source: Hacettepe University Institute of Population Studies, 2014

### 3. Health system transition

In the context of regional inequities, gaps in the responsiveness, and the need to reduce household expenses on health, the new political regime (Justice and Development Party) in 2002 initiated a comprehensive strategy, in the form of the HTP. Launched in 2003, the HTP sought to address inequities in access to health and to achieve universal health coverage with policy initiatives aimed at improved governance, effective financing, expanded workforce and infrastructure, and an improved delivery model. Key features of the policy levers included 1) a universal health insurance scheme, ensuring financial protection for all, 2) delivery centred around primary health care, 3) public hospital autonomy through global budgeting, 4) right to health for increased user satisfaction (Tatar, et al., 2011; Atun, et al., 2013). Key pre-reform components, along with the HTP response, are summarised in Table 2.

#### 3.1. Organisation and governance

Prior to the 2003 reforms, key organization faced challenges with lower priority accorded to preventive and public health, multiple institutions being tasked with overlapping functions, and inequities and citizen dissatisfaction arising out of a fragmented and variable financing and provider system. Therefore, a key component of policy reforms was to reorganise the role of MoH and other institutions to enable greater focus on preventive health care. This led to the creation of the general directorate of public health and the general directorate of public hospitals, separating purchasing from provision under single institutions, and consolidating multiple financing mechanisms (SGK, 2022).

In the years before the reforms, five different health insurance schemes were functioning under the ministry of labour and social security. The labour ministry played a prominent role in financial regulation and health policy making. This role overlapped with the roles and responsibilities of the MoH. Social Insurance Organisation (SSK), one of the largest insurance schemes, governed a percentage of government hospitals and dispensaries under its authority. There were constraints on SSK beneficiaries accessing other hospitals governed by MoH. Informal sector employees, insured under the 'Bag̃-Kur' scheme, were not eligible for university hospitals. Because of the restrictions on access, people with serious health problems often experienced catastrophic health expenditure (Atasever, 2014).

Table 2: HTP pre- and post-reform components

| Components | Pre reform  | Post reform   |
|------------|---|---|
| Governance | Overlap in the duties and responsibilities of government institutions due to fragmentation in provisioning and purchasing   | Separation of purchasing from provisioning as all public hospitals were transferred to MoH. MoH became single largest provider and Social Security Institution (SSI) became single largest purchaser. |
|            | Denial of basic patient rights by public hospitals - citizens not able to get dead bodies of relatives with pending bills   | Legal arrangements for patient rights put in place, and hospitals established patient rights units  |
|            | Beneficiaries of insurance schemes Green card and Bag Kur had limited access to health services while active and retired civil servants had a comprehensive benefit package | Universalisation of health insurance scheme by incorporating all existing schemes under the umbrella organisation, Social Security Institution (SSI).   |
|            | Right to choose provider reserved for select benefit packages. Rest of the population restricted by specific referral rules based on their insurance plan                   | Right to choose physician policy implemented to encourage competition among service providers in public sector  |
|            | Hospital clinicians indulged in dual practice, in both public hospitals and private clinics   | Abolition of dual practice. Government physicians given higher salaries as incentive for not practicing privately   |
|            | No integrated information system to report mortality at the village level   | The Family Medicine Information System, linked to the Core Resource Management System, established for effective monitoring and evaluation of the Family Medicine Program (FMP).                      |
| Financing  | Fixed salaries for doctors without any check on their performance   | Performance-based supplementary payment introduced at public hospitals and primary health centres (PHC) to ensure accountability  |
|            | Retrospective payment system  | Global budgeting introduced so the system of prospective payment could curb additional expenditure  |
|            | Health posts and centres had insufficiently equipped with professionals and infrastructure  | FMP and Community Health Centres established to ensure equity in the availability of physical and human resource across all the provinces   |
|            | Compulsory services for doctors did not solve the problem of inequitable distribution   | Compulsory service for doctors and elevation of general practitioners to family physicians introduced to fill the gaps in hard-to-reach areas and poorer provinces                                    |
| Delivery   | Health posts and centres provided PHC services but lacked comprehensive patient-centric preventive and curative services  | PHC established as a distinct medical specialty with FMP  |

Source: Atun, et al., 2013; Tatar, et al., 2011

The HTP reforms addressed this fragmentation by creating the Social Security Institution (SSI) in 2006. Five insurance schemes were integrated under the purview of SSI. Benefits were standardised to enable all citizens to access both public and contracted private hospitals for any health condition (Table A1 in Appendix). To enable equal access to all, public hospitals under different authorities, such as SSK, were transferred to MoH. This made MoH the dominant provider and SSI the single largest purchaser (Figure 16). It also addressed the issue of overlapping duties and responsibilities, as purchasing was separated entirely from provisioning.

The internal fragmentation in provisioning was also addressed with the transfer of all public hospitals to MoH. The government became the single largest health provider, with 78.4 percent of total bed capacity and 81.3 percent of the total number of physicians in 2019. Private facilities at the secondary and tertiary levels had 21.5 percent of total bed capacity and 18.6 percent of the total number of physicians in 2019 (Turkish Statistical Institute, 2020).

Prior to the HTP in 2003, health care delivery at the primary level was organised in three different categories based on population.

- Health houses/health posts covered 2,000-2,500 people, and were staffed with midwives. They constituted the first point of contact and were primary providers for maternal and child health care (Tatar, et al., 2011).
- Health centres, providing both preventive and curative services, were staffed with a team of one physician, a nurse, and a midwife. They covered a population of 5,000-10,000 in villages, and of 10,000-30,000 people at the district level, making for a total of 30,000-50,000 people at the provincial level (Tatar, et al., 2011).
- Additional primary centres at the provincial level provided services such as maternal and child health, family planning, and tuberculosis control. In addition to this, disease-specific centres delivered services at the primary level.

At the secondary level, hospitals were classified as district/town hospitals, day care (for outpatient services), general (comprehensive care with at least 50 beds), and specialist hospitals (for specific age and gender groups) (Tatar, et al., 2011). If patients needed advanced treatment, they were referred to university hospitals for tertiary-level care.

The primary-level delivery system faced two challenges. First, there was regional disparity in the allocation of human resources. Second, health posts/houses and health centres shortage of not just midwives/doctors but also medical and technical equipment, which hampered the achievement of national targets<sup>7</sup> for IMR and life expectancy at birth (Savas, et al., 2002). Inadequate workforce led to long waiting times and poor quality in services, and this resulted in low levels of usage (Sparkes, et al., 2019).

The dual problem of inequity and inadequacy in service delivery at PHCs was addressed with the introduction of a family medicine program (FMP) in 2005. FMP formed a family medicine unit (FMU) to make both preventive and curative services more accessible. The unit was comprised of a physician, a nurse, and a midwife. Each unit was expected to cover 3,500-4,000 people. It was also expected that this unit would provide door-to-door services to those who could not come to the centre. Additionally, community/population health centres were established for every 30,000 people (Figure 16). These were to support medicine units in services such as medical tests, and logistical support for preventive services (Atun, et al., 2013; Hone, et al., 2017; Tatar, et al., 2011).

<sup>7</sup> According to Savas, Karahan, & Saka, (2002), Turkey set the target of achieving an IMR of 50 per 1,000 live births, and life expectancy at birth of 68 years during the sixth five-year plan (1990-95). However, it fell short of achieving these targets. Besides this, Turkey was lagging countries with similar income per capita, such as Poland and Czech Republic, in terms of IMR in the late 1990s.



They differed from the previous health centres in that accountability was fixed and audits were conducted for health posts.

At the local level, municipalities, in coordination with the relevant provincial and general directorates, performed water, sanitation, and hygiene-related activities. Disease prevention and health promotion were carried out through population and family medicine centres.

In the current architecture, the MoH is the nodal agency governing both primary care facilities and public hospitals. It is the highest policy-making and administrative authority in health, and the dominant provider. It regulates and sets standards for delivery in all public and private facilities. MoH is responsible for both preventive and curative health, whereas aspects of public health—water, sanitation, hygiene, and others—fall under the remit of municipalities. At the provincial level, directorates coordinate and implement primary, secondary, and tertiary services. The system is a highly centralised one, with provincial directorates requiring central approval for planning and budgeting. This leads to delays (Tatar, et al., 2011).

The delivery architecture of Turkey's health system includes provision by both public and private facilities, with public facilities owning the larger share. The private sector accounts for 21.5 percent of the total secondary and tertiary health care provisioning, and less than 2 percent of the total primary health care provisioning<sup>8</sup> (Turkish Statistical Institute, 2020).

The financing architecture includes the Ministry of Finance as the main financier, and the SSI<sup>9</sup> as the main purchaser. The SSI, an autonomous government body, is the single largest purchaser of healthcare services, from both public and private providers (Figure 16). The Ministry of Finance provides the general budgets for operation and management.

Health services in Turkey are currently financed by taxes, premiums, private health insurance, and out-of-pocket payments (Atasever, 2014).

- The Ministry of Finance provides a tax-based general budget to all three levels of health institutions i.e., primary, secondary, and tertiary. The allocation is mainly for physical infrastructure and human resources, including staff base salaries,<sup>10</sup> operating costs, and capital investments.
- SSI purchases services from both public and contracted private hospitals (for secondary and tertiary care) through funds collected from both public and private employer contributions. In case of public hospitals, it provides a global budget<sup>11</sup> for the treatment costs based on services provided in the previous year. For private institutions, payments are made per capita per unit utilised. SSI deficits are addressed through tax resources from the Ministry of Finance.
- Households incur health expenditure at the point of service and private health insurance premiums.

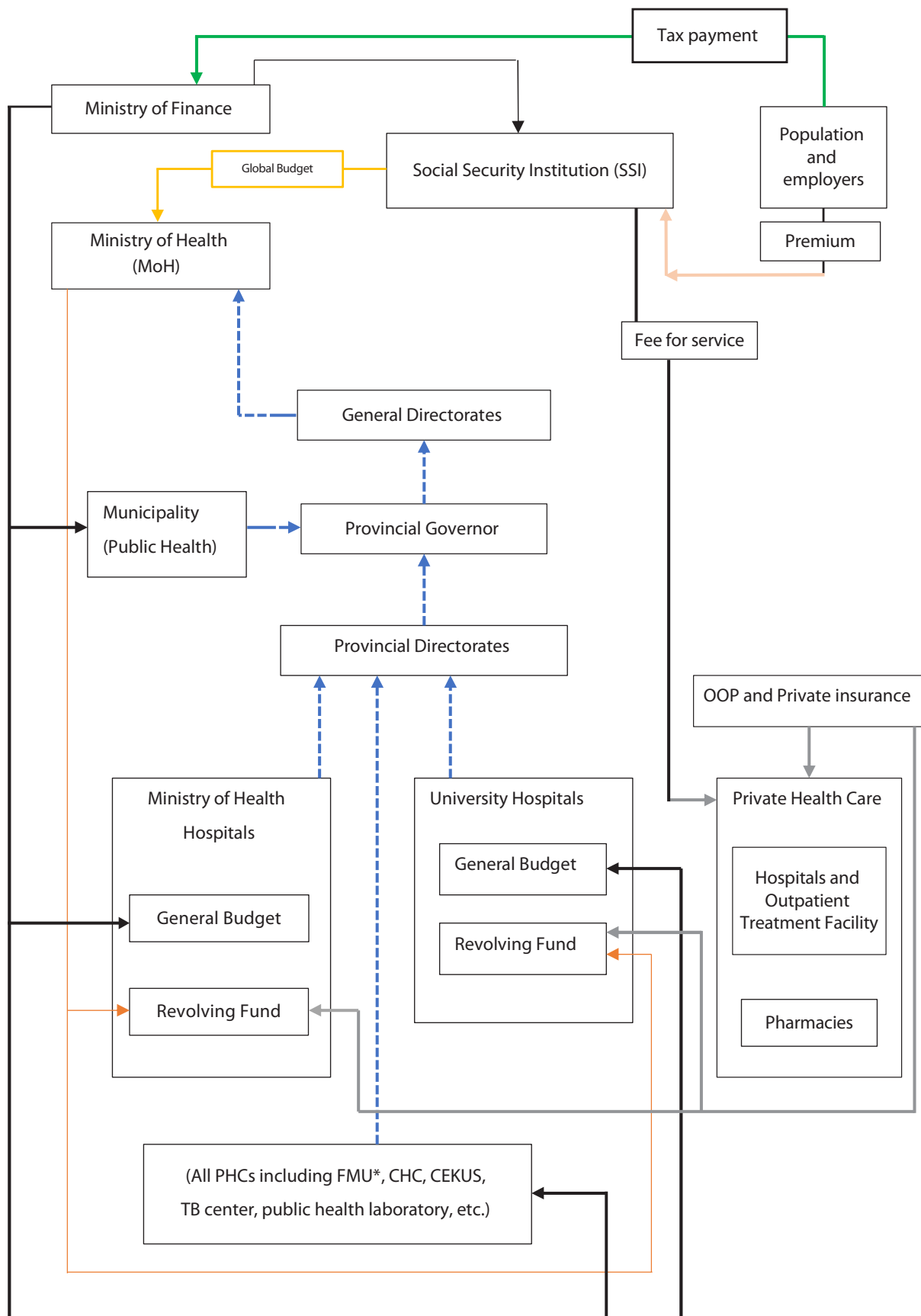
<sup>8</sup> The extent of private health care provisioning in the secondary and tertiary health sector has been calculated based on the availability of beds (as a percentage of total beds in public and private facilities) in private hospitals in the year 2019. For primary health care, it is calculated based on the total private outpatient clinics and specialty health centers in 2019. In terms of total physicians, the private sector has 18.6 percent of the total number.

<sup>9</sup> The Health Transformation Program (HTP) brought all the health insurance schemes under the purview of the newly created autonomous government body Social Security Institution (SSI).

<sup>10</sup> Staff salary has two components; one is base salary that comes from line-item budget provided by ministry of finance, and another is performance linked payment that comes from hospital revolving fund.

<sup>11</sup> Global budget is a predetermined amount of money that is being calculated based on previous year's expenditure and expected expenditure for the coming year. In case of deficit, ministry of finance provides supplementary amount.

Figure 16: Overview of the Turkish health system



Source: Tatar, et al., 2011

Solid lines represent financial relationships and dotted line represents administrative relationships

\*FMU is for family medicine unit, CHC for community health centre, and CEKUS is the maternal and child health centre

### **Outcomes and remaining challenges**

The restructuring in the organisation and governance of Turkey's health care system led to improvements on various fronts.

First, the integration of health insurance schemes, along with abolition of private practice by government doctors (discussed in subsequent sections), helped reduce OOPE from 19.8 percent in 2002 to 16 percent in 2020 (Turkish Statistical Institute, 2020). Second, with the standardisation of insurance schemes, access to a broader range of hospitals, both public and private, increased for all beneficiaries. Third, establishment of the regulatory institution, the Turkish Medicines and Medical Devices Agency, promoted the rational use of drugs. With the implementation of the international reference drug pricing policy, and rigorous reimbursement policies, pharmaceutical expenditure reduced from 1.29 percent of GDP in 2005 to 0.81 percent in 2018 (Yang, 2022). Fourth, FMP contributed to increase in the coverage of various health programmes. Consequent outcomes are reflected in the increase in life expectancy at birth (from 70 in 2,000 to 77.6 in 2019), reduction in deaths due to communicable disease (16.91 percent of total deaths in 2,000 to 5.9 percent in 2019), and reduction in MMR (from 42 in 2,000 to 19 in 2015) (World Bank, 2021).

One of the biggest challenges of the reform was the centralisation of the administrative and financial function. Provincial health directorates required approval from the central government and provincial governors even though they had the mandate for planning and implementation. This contributed to inefficiencies and delays at provincial levels (Tatar, et al., 2011).

Another key challenge in delivery remains the absence of a referral system. The institutions at the three levels are not integrated, causing an overburden on the secondary and tertiary hospitals. It is a largely hospital-centric system, with the share of inpatient visits at less than 2 percent of total visits since 2013. With an increasing outpatient burden on hospitals, there is a need to shift ambulatory care to the primary level (Sumer, et al., 2019).

In summary, key organisational challenges before 2003 included overlap in roles across institutions, significant fragmentation in the financing and provisioning of health, low priority on preventive and public health, an overall shortage and inequity in distribution of health workforce, and hospital-centricity. These led to duplication and weak accountability, significant inequity across regions and high OOPE.

The Health Transformation Plan, targeted at these challenges, combined five health insurance schemes into a single standardised one, consolidated hospitals under the MoH, separated the purchasing and provision of health services through SSI and MoH, and reorganised MoH to strengthen preventive and primary care functions. The Family Health Program model took services to community members and put in place an institutional mechanism of supervision and accountability of local level primary care. The consolidation and standardisation of insurance schemes helped reduce OOPE and expanded access for beneficiaries to both public and private hospitals. The centralisation of the system and the absence of referrals persisted and implied a lack of autonomy for provinces, leading to delays, and hospital-centricity.

### **3.2. Health system delivery**

Turkey's health care reforms addressed the low attention given to preventive services, the excessive utilisation of secondary and tertiary services for primary care functions, and the lack of accountability in service provision.

The FMP was aimed at expanding preventive services and providing basic curative care at the grassroots level, including services for vaccination and ANC. A performance-based supplementary payment system was implemented to improve quality and accountability. This aimed to improve

equity, responsiveness, effectiveness, and productivity within public facilities. An effective performance-based system requires a robust information system and Turkey introduced the Family Medicine Information System (FMIS) in 2006. This was accessed by both provincial health directorates and the MoH to monitor the status of patients and assess the performance of family practitioners (Tatar, et al., 2011).

Prior to HTP 2003, there was no mechanism to evaluate the health provider's performance over time. PHC health professionals were compensated through fixed salaries, could work until retirement, and had no mandate or incentive to work in under-developed areas. All these were reflected in the shortage of human resources in under-developed areas. This was coupled with the worsening quality of delivery, low coverage of services, and regional disparity in both coverage and delivery (Özçelik E. A., 2020).

FMP, implemented in 2005, introduced performance-based contracts for medical professionals<sup>12</sup> appointed in the family medicine units. This reform addressed inequitable distribution of human resources by linking salary to performance indicators such as enrolment numbers, compliance with work hours, coverage of services, and working in less developed areas. A capitation-based system was designed that linked payment to the number of people registered with each primary facility. Non-compliance with target indicators, such as planned work hours, entailed a deduction of up to 20 percent of base salary or contract termination. A payment up to 40 percent of base salary was provided to medical professionals posted in less developed areas (Özçelik E. A., 2020). That these reform measures have paid dividend is evident from the significant reduction in coverage disparities across regions (Table 3).

**Table 3: Convergence in coverage of preventive services across regions, 2003-2018**

|                               | Pregnant women receiving ANC from medical professionals (%) |      |      | Institutional delivery (%) |      |      | Vaccination of children aged 12-23 months (%) |      |
|-------------------------------|---|------|------|----------------------------|------|------|---|------|
|                               | 2003  | 2013 | 2018 | 2003                       | 2013 | 2018 | 2003  | 2013 |
| West                          | 91.2  | 99   | 95.9 | 91.5                       | 99.8 | 99.6 | 63  | 76.4 |
| South                         | 84.9  | 98.4 | 95.8 | 78.5                       | 97.9 | 99.7 | 60.2  | 77.4 |
| Central                       | 82.7  | 97.1 | 97.7 | 88.2                       | 99.1 | 99.1 | 61  | 77.3 |
| North                         | 84.6  | 95.8 | 99.4 | 85.3                       | 98.8 | 99.7 | 60.1  | 71.1 |
| East                          | 61  | 93.2 | 96.2 | 54.4                       | 91.7 | 97   | 34.8  | 67.6 |
| <b>Urban-rural difference</b> |   |      |      |                            |      |      |   |      |
| Urban                         | 88.1  | 98.1 | 96.3 | 85.6                       | 98.7 | 99.4 | 62.9  | 76.5 |
| Rural                         | 65.3  | 92.7 | 97   | 64.3                       | 91.7 | 97.2 | 36.5  | 64.7 |

Source: Hacettepe University Institute of Population Studies, 2014; Hacettepe University Institute of Population Studies, 2019

The performance-based supplementary payment system (PBSPS) for health personnel, extended to secondary and tertiary care as well, aimed to enhance the performance of public hospitals, quality of care, efficiency, and patient satisfaction. PBSPS, sourced from a revolving fund, is an additional salary payment linked with performance indicators such as inpatient and outpatient follow-up, minor or major surgical operations, medical interventions, and diagnostics related services.

<sup>12</sup> In this paper, the term medical professionals is used for physicians, nurses, and midwives.

The existing evidence suggests that, after 2005, there has been overall increase in medical examinations, tests, and yearly per capita visit to a physician in government secondary and tertiary health care institutions (Yiğit, 2017). MoH statistics from 2019 show that, post HTP, the number of inpatients and surgical operations in all public hospitals has nearly doubled. User satisfaction with service in these hospitals has also increased equally.

To increase accessibility of facilities, HTP opened the window for greater private investment in under-developed regions (Tatar, et al., 2011). Between 2002 and 2019, there was an increase in the share of private hospitals and beds in secondary and tertiary level facilities. In 2019, the intensive care unit beds in private hospitals accounted for 40 percent of the total ICU beds. While per capita visits to a physician in all secondary and tertiary health care facilities have increased from three in 2005 to 6.3 in 2019, the gap in per capita visits to a physician between developed and undeveloped regions persists (Turkish Statistical Institute, 2020; General Directorate of Health Information Systems, 2019).

Even though the share of private provisioning in higher level health institutions has increased, typical challenges of a mixed system are not common in Turkey. There are two reasons for this. Since the government is the main purchaser, the extent of private provisioning is regulated through yearly contracts, so private providers cannot charge more than the fixed price. Second, with performance-based payments, public providers compete with each other for efficient and effective service (Tatar, et al., 2011; Gursoy, 2015). This is reflected in public hospitals outperforming private facilities in user satisfaction. According to the health statistics yearbook, 2019, the overall satisfaction ratio was 56 percent for private hospitals, and 67.9 percent for MoH hospitals (Turkish Statistical Institute, 2020).

Considering the extent of the reforms undertaken, it would be relevant to look at how professional medical associations responded to them. Were they aligned with the changes or was there push back from their end. Turkey reduced the influence of professional medical, pharmacist, and nurses' associations by prohibiting their right to strike in the public sector. (Tatar, et al., 2011).

### ***Outcomes and remaining challenges***

Several scholars have analysed the impact of the HTP reforms. There was a significant increase in user satisfaction with health services, as a result of the expanded primary health care model rolled out nationwide by 2010, the provision of comprehensive services, and the ability to choose providers across public and private (Figure 29). The increase in primary care as a provider of choice (even though secondary care continues to be the preferred choice) was also observed after the roll out of the HTP (Stokes et al, 2015; Hone et al, 2017).

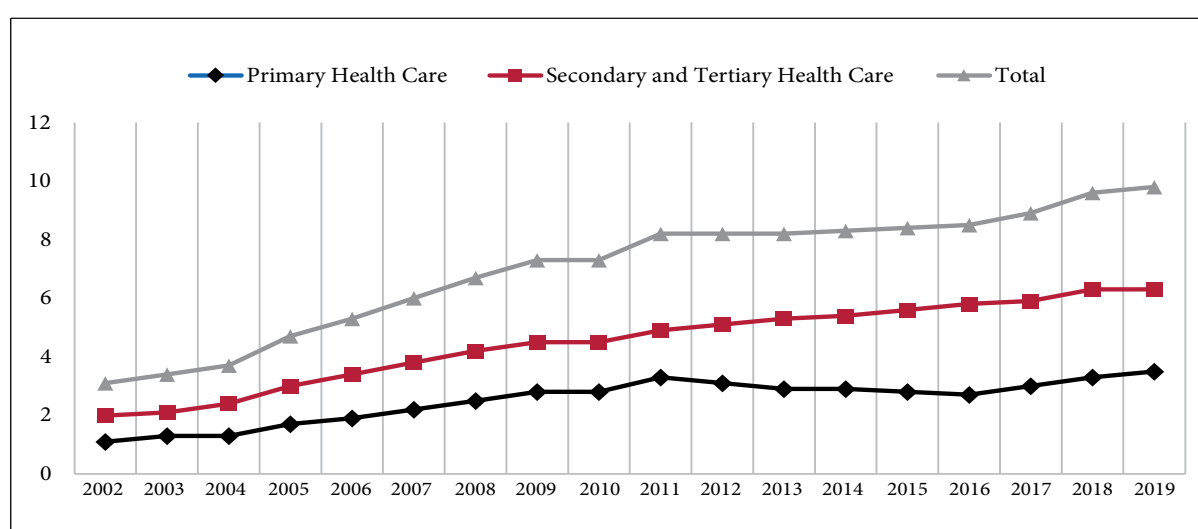
The impact of FMP was evident in the greater coverage of preventive services across regions (Table 4). The percentage of pregnant women receiving four or more ANC services increased from 54 percent in 2003 to 74 percent in 2008, and, subsequently, to 90 percent in 2018. Institutional deliveries increased from 78 percent in 2003 to 90 percent in 2008. The percentage of vaccinated children improved substantially. This growth in preventive activities was commensurate with the increase in yearly per capita visits to a PHC physician, which improved gradually from 1.7 in 2005 to 3.5 in 2019 (Figure 17).

Evidence for the impact of reforms on the poor remains inconsistent. Some studies have shown they had little impact on adequate health cover reaching the poor (Erus, et al, 2015), while others show progress (Tirgil, et al, 2018). Although inequities continue, FMP did address the inequitable regional distribution of services to some extent. The successive Turkey Demographic and Health Survey revealed that inequities in the coverage of maternal and child health related services decreased between 2003 and 2018 (Table 3) (Hacettepe University Institute of Population Studies, 2018).

**Table 4: Percentage of individuals benefited from preventive services, 1993-2018**

|  | 1998 | 2003 | 2008 | 2013 | 2018 |
|--|------|------|------|------|------|
| Percentage of women aged 15-49 to receive more than four ANC's | 42   | 54   | 74   | 89   | 90   |
| Institutional delivery (%)                                     | 73   | 78   | 90   | 97   | 99   |
| Vaccination of children aged 12-23 months <sup>13</sup> (%)    | 46   | 54   | 77   | 74   | 67   |
| C section deliveries (%)                                       | 14   | 21   | 37   | 48   | 52   |

Source: Hacettepe University Institute of Population Studies, 2014; Hacettepe University Institute of Population Studies, 2019

**Figure 17: Total number of per capita visits to a physician in primary, secondary, and tertiary health care, 2002-2019**

Source: Turkish Statistical Institute, 2020

HTP reforms focused on maternal and child health and mortality data for both demonstrates progress. Turkey has already achieved Sustainable Development Indicators goals for neonatal, infant, and under-five mortality (Table 5). NMR, IMR, and under-five mortality improved by 83 percent, 84 percent, and 86 percent respectively in the past three decades. Maternal mortality also reduced significantly, by 54 percent, in 2000-2015. Stunting decreased by a substantial 74 percent over the past three decades (World Bank, 2021).

The proportion of deaths due to communicable, maternal, neonatal, and similar causes went down to 5.9 percent in 2019 from 26.6 percent in 1990. Death due to TB reduced simultaneously. Life expectancy has reached levels achieved by high income countries (IHME, 2019; World Bank, 2021).

While this progress is noteworthy, it is important to note that all these indicators were witnessing a secular improvement from the pre-reform period. Post-reform, the rate of change had not improved significantly. The rate of change in IMR reduction was 28.9 percent from 2000 to 2005, and 30 percent from 2005 to 2010. For stunting, it was 17.7 percent from 2000 to 2005, and 20 percent from 2005 to 2010. For U5MR, there was no improvement in the rate of change in this period (Figure 5, 6 and Table 5). While this could be used to question the effectiveness of PHC reforms, it can be argued that rates of change do decrease as outcomes improve.

<sup>13</sup> This covers percentage of children, aged 12-23 months, who received all basic vaccinations (BCG, PCV, Hepatitis A, OPV, Chickenpox, Hepatitis B, MMR, and D'TaP-IPV-Hib) at any time before the survey.

**Table 5: Health outcomes post reform**

| Indicator   | 2005           | 2010         | 2015        | 2019 | SDG                                 |
|---|----------------|--------------|-------------|------|-------------------------------------|
| Mortality rate, neonatal (per 1,000 live births)  | 13.6           | 9.1          | 6.3         | 5.3  | <12                                 |
| Mortality rate, infant (per 1,000 live births)  | 22.3           | 15.6         | 11.1        | 8.6  | ..                                  |
| Mortality rate, under-5 (per 1,000)   | 26.5           | 18.2         | 13          | 10   | <25                                 |
| Stunting (% of children under five)   | 12.5<br>(2008) | 10<br>(2013) | 6<br>(2018) | NA   | <40 % of<br>2012 level <sup>s</sup> |
| Maternal mortality ratio (modelled estimate, per 100,000 live births)                                       | 33             | 24           | 19          | NA   | <70                                 |
| Mortality due to communicable diseases and maternal, prenatal and nutrition conditions (% of total deaths)* | 10.3           | 6.6          | 6.4         | 5.9  | ..                                  |
| Mortality from non-communicable disease (% of total death)*   | 83.9           | 88.4         | 88.2        | 89.2 | ..                                  |
| Life expectancy at birth, total (years)   | 72.4           | 74.5         | 76.5        | 77.7 | ..                                  |
| Fertility rate, total (births per woman)  | 2.3            | 2.2          | 2.1         | 2    | ..                                  |
| Low-birthweight babies (% of births)  | 12.2           | 11.7         | 11.4        | NA   | <30% of<br>2012 level <sup>s</sup>  |
| Tuberculosis death rate (per 100,000 people)  | 1.3            | 1.2          | 0.7         | 0.5  | ..                                  |

Source: World Bank, 2021; IHME, 2019

Since family medicine was a flagship programme, it is important to investigate the challenges faced by PHCs. The existing evidence suggests that visits to PHCs, and family physicians, have improved in the past two decades. However, secondary and tertiary health centres are still the preferred choice for primary check-ups. The total number of visits to higher level facilities are almost double that of visits to a PHC physician (Figure 18).

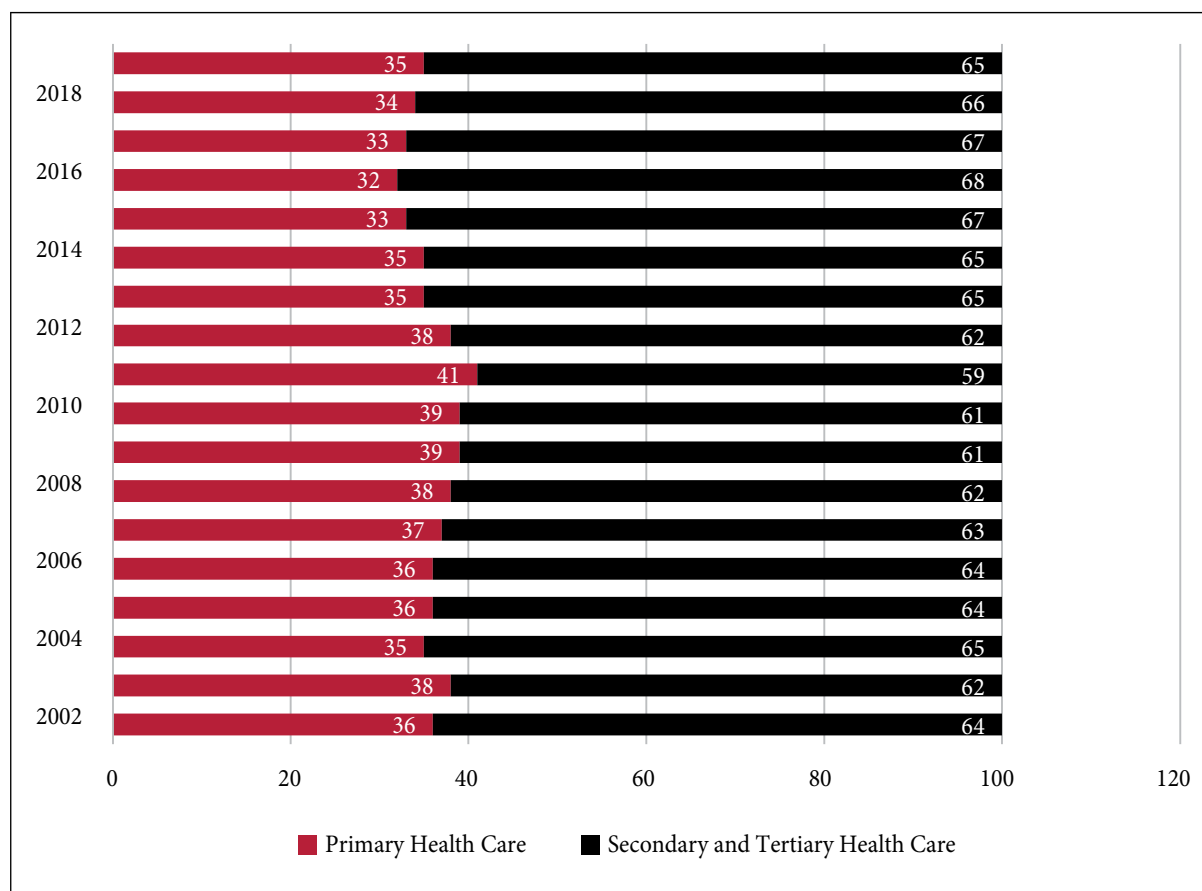
There are two major implications of physicians at higher level institutions being overburdened. The average consultation time per patient goes down and waiting times get longer. These have combined to increase incidences of violence against physicians<sup>14</sup>. Besides this, consultations at secondary and tertiary levels require a user fee, adding to the OPE burden. Free consultations are available only to those coming through referral and a system of referral and coordination is absent.

The other key challenge with PHCs is that they were originally designed to cater to the needs of maternal and child health. With a transitioning epidemiological burden, the country is witnessing increased non-communicable disease (Figure 19). The PHC staff have yet to undergo the necessary reorientation. Doctors and midwives are not yet trained to provide adequate care to patients suffering from chronic illness<sup>15</sup> (Kilic, et al., 2014).

<sup>14</sup> Discussion with Prof Mehtap Tatar.

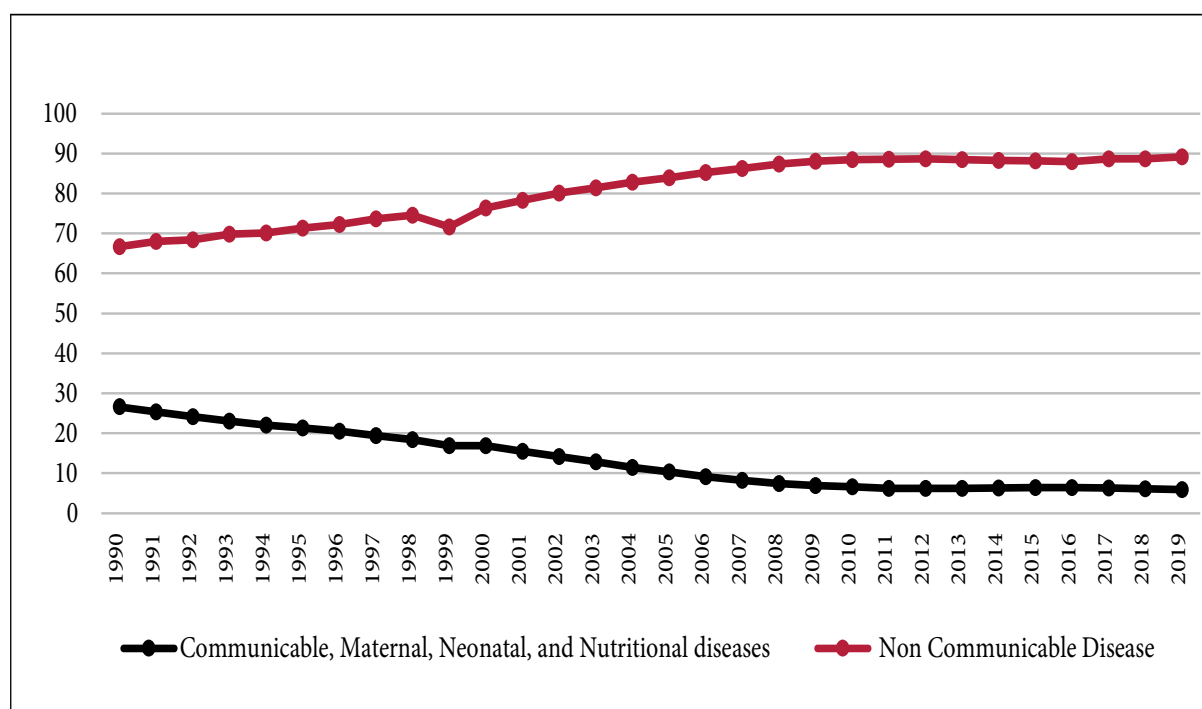
<sup>15</sup> MoH has introduced the new model Healthy Living Centres (HLC) to address chronic diseases at the primary level. They will act as a supporting structure to the FMU and will conduct screening activities to identify people suffering from NCDs. Currently, there are 205 HLCs operating in the country (Sumer, Shear, & Yener, 2019). However, sufficient evidence on the functioning of HLCs is not available.

**Figure 18: Ratio of total number of visits to a physician in health care facilities by years (%), all sectors**



Source: Turkish Statistical Institute, 2020

**Figure 19: Growing burden of NCDs, 1990-2019**



Source: IHME, 2019



A study on mental health conducted with 255 general practitioners located in PHCs of Manisa city in the Aegean region suggest that only 14.8 percent of general practitioners had adequate knowledge of Generalized Anxiety Disorder (Kartal, et al., 2010). The Institute for Health Metrics and Evaluation (IHME) ranked depressive and anxiety disorders as two of the top 10 causes of years lost due to disability for 2019, with a rate of change of 22.65 percent and 23 percent from 2002.

NCD management is not included in the coefficients of the performance-based payment system (Sumer, et al., 2019). The system runs the risk of perverse incentives for doctors to choose not to treat patients who need more time and cannot recover. Research further suggests that people use family medicine centres or primary health centres only to renew prescriptions for NCDs, as the centre is not well-equipped to handle long-term diseases. PHCs lack standard operating procedures for cardiovascular diseases and diabetes, and the follow up programme for these is also not functioning well (Kilic, et al., 2014).

In summary, the focus of delivery reforms included expansion of preventive and basic curative services through the FMP, the introduction of performance-based incentives in both, the FMP, and secondary and tertiary services, contributing improved accountability, quality and equity in service and reduced disparities in coverage.

This improved the performance of public facilities, significantly increasing user satisfaction, and reducing competition between public and private providers. The reforms also increased coverage of services, decreased coverage disparities across regions, expanded number of visits to a physician in primary, secondary or tertiary facilities, and led to continuing improvement in outcomes. As there has been consistent improvement even since the pre-reform period, there are varying schools of thought on how much the reforms contributed to outcomes; especially in view of the declining pace of improvement.

Reforms have perhaps not made a significant impact in shifting the preference for higher levels of care. Despite FMP's contribution, secondary and tertiary care facilities remain the preferred choice for outpatient care. The absence of a referral system has constrained progress on this front. A second area of limited impact is the continuing system focus on communicable diseases and family health despite the rising non-communicable disease burden. The workforce has not yet been re-orientated towards this and the indicators used in the performance-based system have not been updated.

### **3.3. Physical and human resources**

Prior to 2003, Turkey had a significant shortage in its medical workforce, both in terms of overall availability of staff, and regional imbalances in distribution. The total number of physicians per 1,000 people in 2000 was 1.34, compared to 3.05 for high-income countries. The availability of nurses and midwives per 1,000 people was 1.75, compared with 8.19 for high-income countries. The shortage of physicians led to 16.8 percent of PHCs running without physicians in 2003 (Yildirim, et al., 2020; World Bank, 2021).

As part of HTP, various mechanisms were employed to address the workforce shortage. Compulsory medical service was introduced for newly qualified doctors. It required physicians to serve for up to two years in a government facility. Contracts were introduced and general physicians were upgraded to family physicians. The geographical imbalance in distribution of workforce was addressed through incentives, such as bonus payments and higher salaries for serving in deprived regions (Tatar, et al., 2011; Yildirim, et al., 2020).

These interventions contributed to a substantial increase in the number of physicians, nurses, and midwives. The total for nurses and midwives increased from 113,872 in 2002 to 254,075 in 2019 (General Directorate of Health Information Systems, 2019), and for physicians, it went from 91,949

in 2002 to 160,810 in 2019 (Table 6). While these improvements in density were noteworthy, they were not commensurate with those in other upper middle-income countries (Figure 20).

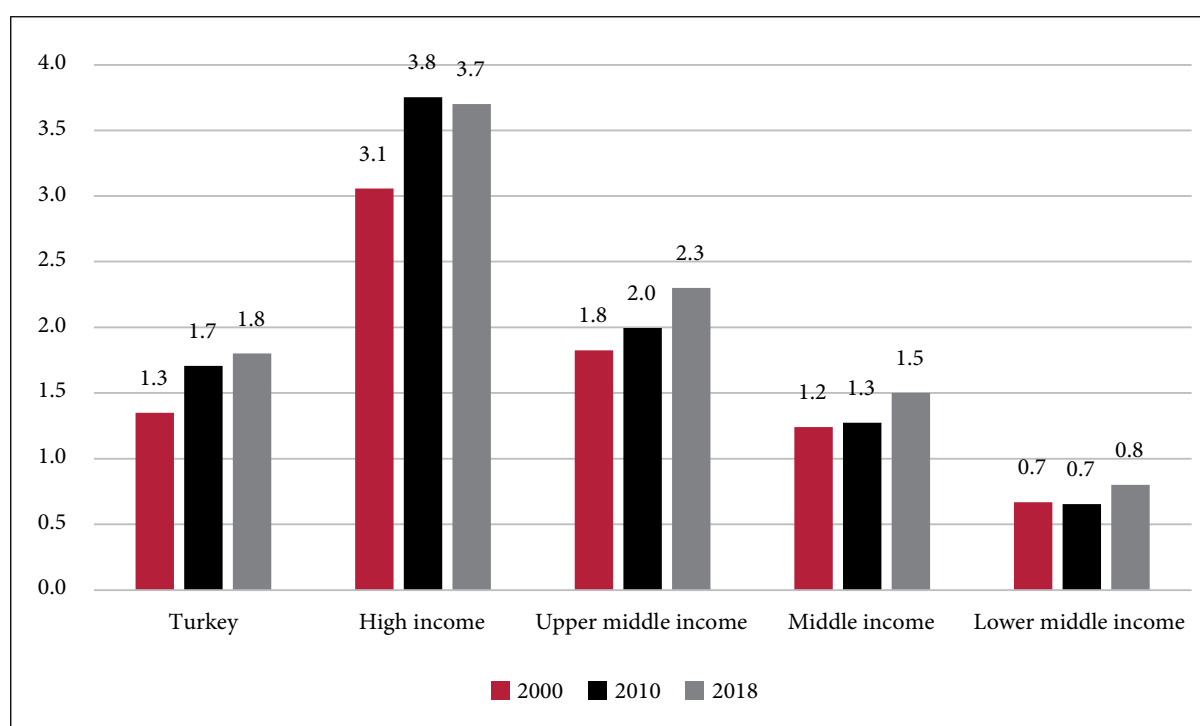
Regional inequities persisted as changes varied across regions. Between 2002 and 2019, South-eastern Anatolia witnessed a 101 percent increase in physicians, whereas Western Anatolia witnessed a 20 percent growth (Figure 21). While regional inequities remained, gaps between regions did narrow.

**Table 6: Status of physical and human resources, 2002-19**

| Indicator                 | Government |         | Private |        |
|---------------------------|------------|---------|---------|--------|
|                           | 2002       | 2019    | 2002    | 2019   |
| Total Physicians          | 77,513     | 130,899 | 14,436  | 29,911 |
| Total nurses and midwives | 102,826    | 216,472 | 11,046  | 37,603 |
| Number of hospitals       | 824        | 963     | 271     | 575    |
| Number of hospital beds   | 133,735    | 186,337 | 12,387  | 51,167 |

Source: Turkish Statistical Institute, 2020

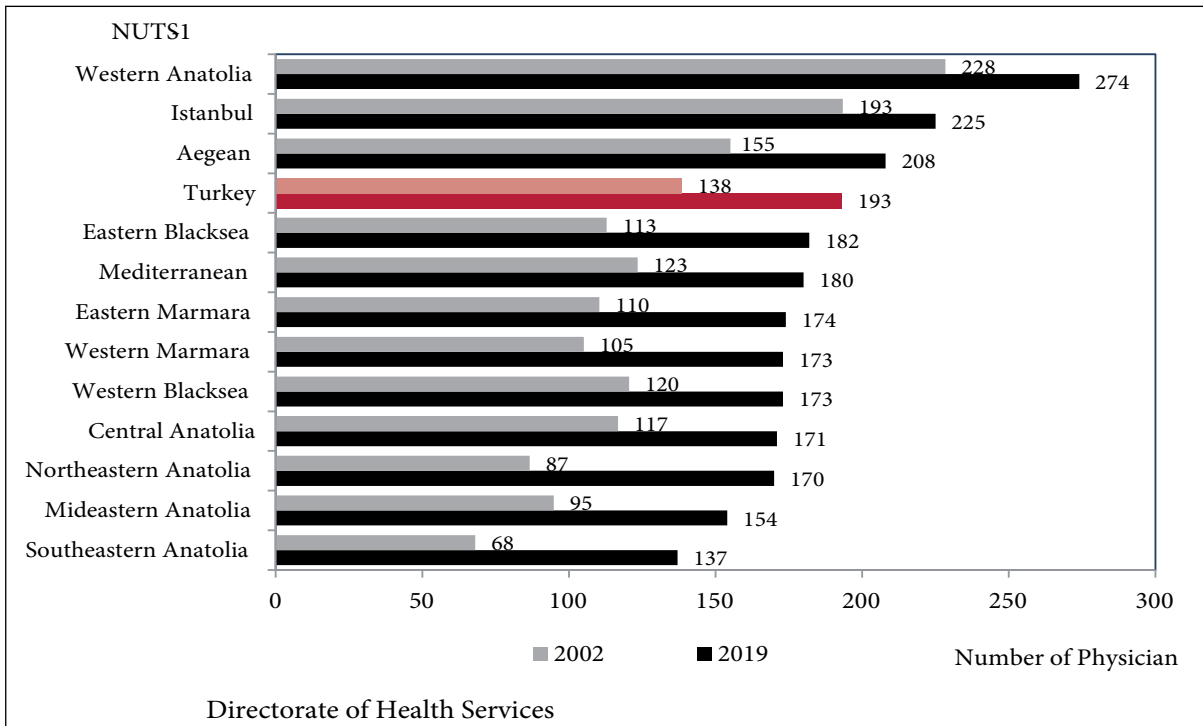
**Figure 20: Comparing physicians per 1,000 people post reform**



Source: World Bank, 2021

Prior to the 2003 reforms, health infrastructure in Turkey also faced challenges of shortage and regional inequity. The number of beds per 1,000 people in the country was below that of other upper middle-income countries (Figure 3). Disparity in infrastructure across regions was wide (Figure 13). A combination of increased public facilities and space for the private sector was used to address these shortages. Private providers gravitated towards urban or relatively more developed areas. The health ministry attempted to control the potential imbalance with incentives such as tax exemptions for all private investments in less developed areas (Tatar, et al., 2011).

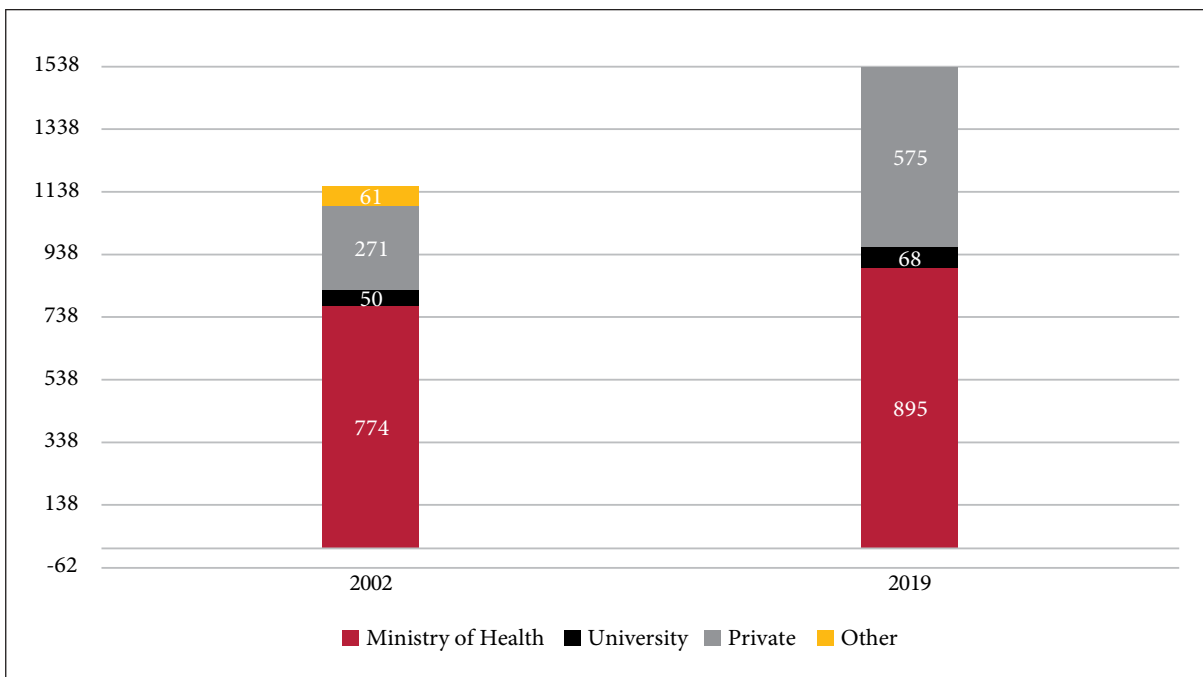
**Figure 21: Total number of physicians per 100,000 people, region-wise, all sectors, 2002, 2019<sup>16</sup>**



Source: Turkish Statistical Institute, 2020

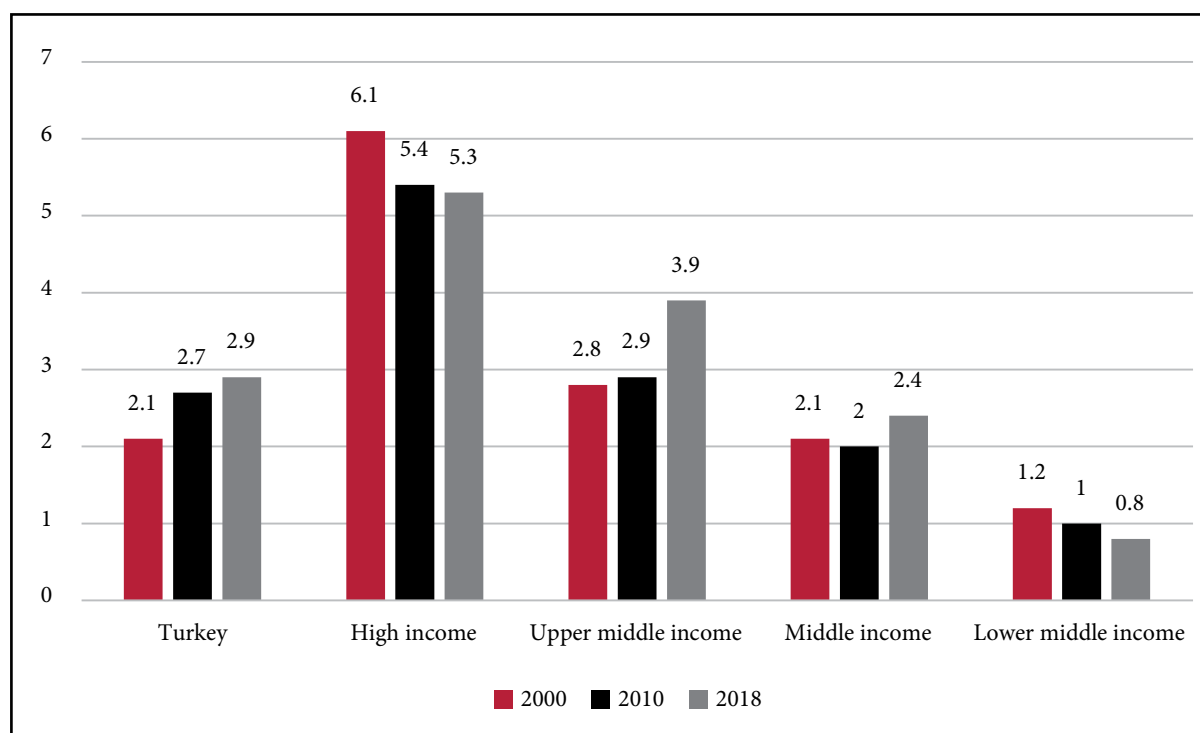
The total number of hospitals, both public and private, witnessed an increase of 33 percent between 2002 and 2019 (Figure 22), with the majority (62 percent) of hospitals belonging to government (Turkish Statistical Institute, 2020). The availability of hospital beds per 1,000 people increased from 2.4 in 1990 to 2.68 in 2015 (Figure 23).

**Figure 22: Increase in number of hospitals before and after HTP 2002, 2019**



Source: Turkish Statistical Institute, 2020

<sup>16</sup> The regions mentioned in the graph are part of Nomenclature of Territorial Units for Statistics (NUTS)- 1.

**Figure 23: Comparing availability of hospital beds per 1,000 people, 2018**

Source: World Bank, 2021

### **Outcomes and remaining challenges**

MoH statistics in 2019 show that the reform initiative in 2003 contributed to an increase in infrastructure and human resources across different regions. Between 2002 and 2012, the total health workforce increased by 36 percent (World Bank, 2018). The health statistics data in 2019 suggest an increase in the utilisation of PHCs, with the average per capita visit to a physician<sup>17</sup> increasing from 1.1 in 2002 to 1.9 in 2006 (General Directorate of Health Information Systems, 2019). There was an increase in ante natal care (ANC) coverage (from 81 percent in 2003 to 92 percent in 2008) and vaccination coverage of children below two years of age (from 54 percent in 2003 to 77 percent in 2008). The regional disparity in physicians was also addressed to an extent (Annex, Figure A1).

Despite the relative increase in human resources, Turkey continues to face three major challenges: scarcity of physicians, nurses, and midwives; inadequate nurse to physician ratio; and geographic imbalance in the distribution of human resources. Existing literature suggests that Turkey is yet to match its availability of medical professionals at health centres with those in countries with similar per capita GDP<sup>18</sup>. The number of nurses and midwives per 100,000 people remained 306 in 2019 for Turkey, compared to the 841 for other OECD countries in the same year (Yildirim, et al., 2020).

The reforms caused discontent among physicians. The speed at which the FMP was implemented resulted in a lack of preparedness, insufficient planning, and quick-fix solutions. For instance, upgrading general practitioners to family physicians with a short training course created a rift between family physicians and upgraded practitioners. Both received the same salary even though they had different skill sets. Additionally, negative performance-based payment cuts also caused discontent among skilled physicians (Espinosa-González & Normand, 2019).

<sup>17</sup> The average per capita visit to a physician is number of outpatient visits made by a person to a physician in a year (WHO, 2020).

<sup>18</sup> Russian Federation (GDP per capita, \$29812), and Malaysia (GDP per capita, \$27923) has 853 and 348 nursing and midwifery per 100,000 population respectively (WHO, 2020; World Bank, 2020).

In summary, health infrastructure and workforce were inadequate before the HTP reforms. The innovations, incentives, and mandatory strategies led to improvements in numbers for both distribution of workforce and of infrastructure. The mix of skills in the workforce, however, continued to be a concern. This was the result of a lack of human resource planning and preference for physicians. A concerted focus on infrastructure led to an increase in hospitals as well, with HTP opening the health system to private actors to address the gaps.

Despite the progress, the total number in the workforce remains inadequate, the skill mix continues to be imbalanced, as does the distribution of the workforce across regions. Rushing through the FMP reforms, without adequate planning and by utilizing quick-fix solutions, resulted in continuing gaps and inequities.

### 3.4. Health system financing

Prior to the HTP reforms in 2003, government health expenditure as a percentage of GDP was low and financial vulnerabilities arising out of health expenditure were high, in comparison with OECD countries. OOPE was at 27.6 percent of total health expenditure in 2000. The reforms focused on increasing public expenditure and reducing household expenditure on health.

In Turkey, the Ministry of Finance, SSI, and private funds constitute the three main sources of financing healthcare. The Ministry of Finance provides tax funds for physical and human resources at PHCs, for public health services to municipalities and as a general budget for public hospitals (Figure 16). Public hospitals also receive funds from SSI, voluntary health insurance, and household health expenditure (fee for service), which are used for performance-linked supplementary payments to staff, and other expenditures such as capital investment.

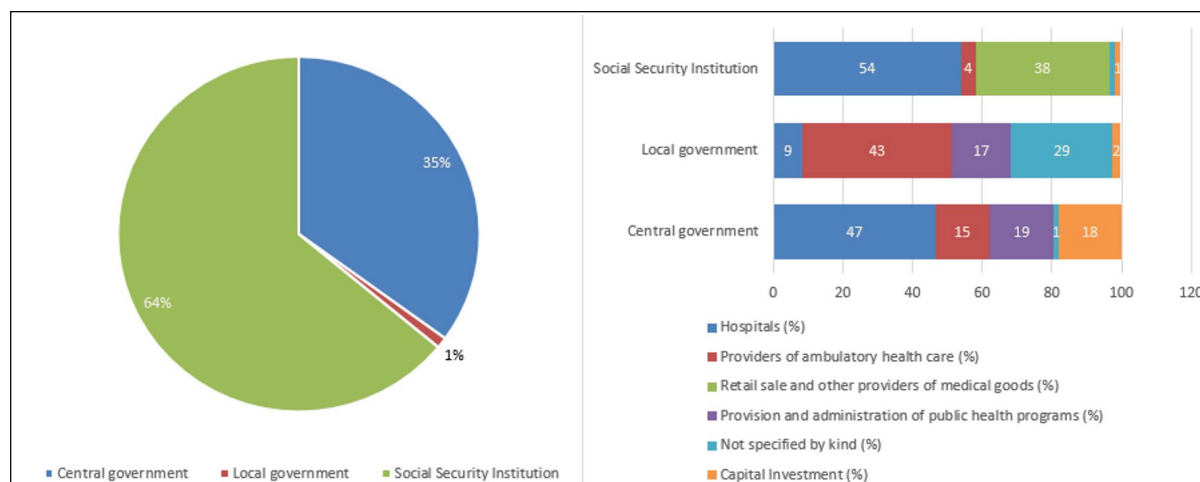
There has been a substantial increase in public expenditure, from 63 percent of the total in 2000 to 79 percent in 2020 (Table 7). Most of government expenditure for 2020 came from SSI (64 percent). This was followed by central government (35 percent), and local government (1 percent) (Turkish Statistical Institute, 2020). Public hospitals remained the major target of total government health expenditure (Figure 24). While all components of government funding have increased, the largest increase has been for hospital expenditure, suggesting continuing focus on hospital use.

**Table 7: Health expenditure, 2000-2020**

| Indicators   | 2000 | 2010 | 2020 |
|--|------|------|------|
| Ratio of total health expenditure to GDP (%)                                   | 4.8  | 5.3  | 5.0  |
| Ratio of general government health expenditure to total health expenditure (%) | 62.9 | 78.6 | 79.2 |
| Ratio of private sector health expenditure to total health expenditure (%)     | 37.1 | 21.4 | 20.8 |
| Out of pocket expenditure (% of total health expenditure)                      | 27.6 | 16.3 | 16   |

Source: Tatar, et al., 2011; Turkish Statistical Institute, 2020

Alongside increase in government expenditure, there has been a decrease in OOPE. Government doctors practicing privately on the side was contributing to OOPE in the form of informal payments. The discontinuation of this practice reduced OOPE. The removal of differing benefit packages, which led to inequities in accessibility, also led to the reduction in OOPE from 27 percent to 16 percent (Akdag, 2015).

**Figure 24: Distribution of government health expenditure, 2020**

Source: Turkish Statistical Institute, 2020

### Outcomes and remaining challenges

The reforms led to an increase in health insurance coverage, from 70 percent in 2002 to 99 percent in 2019, and a reduction in OOPE on health, by 42 percent between 2000 and 2020 (World Bank, 2018; Turkish Statistical Institute, 2020).

Household expenditure on health also reduced due to a decrease in expenditure on pharmacy, doctors, devices, and equipment used in treatment. This was linked to greater accountability brought about by three key measures:

1. The Core Resource Management System<sup>19</sup> (CRMS) was used to track budgets and expenditure, which includes data on parameters that determine payments to family medicine staff.
2. The Family Medicine Information System (FMIS), where patient related data is entered, was linked with CRMS for salary calculations.
3. Family medicine staff was required, as per contractual obligation, to report regularly. Falsification of data carried a heavy penalty, and even the termination of a contract (Kockaya, et al., 2021; World Bank, 2013).

Despite these positive shifts, there has been a gradual increase in the percentage of total households incurring catastrophic expenditure, from 0.14 percent in 2012 to 0.43 percent in 2019 (Turkish Statistical Institute, 2020). This needs further research. A possible explanation for this increase could be the increase in expenditure on medical products, devices, and equipment used in treatment (Table 8).

In summary, government funds remain the dominant source of financing health, (contributing almost 80%). They are spread across the three sources of the Ministry of Finance, SSI and private funds. While the total health expenditure as a percentage of GDP has not shifted significantly in the past two decades, the proportion of government expenditure has increased by 16 percentage points and OOPE as percentage of total expenditure has decreased by 12 percentage points. Health insurance cover for the poorest decile increased, along with increased accountability. The latter is

<sup>19</sup> “CRMS is a MoH wide information system. It is linked to FMIS and accessed by Provincial Health Directorate to assess the family medicine unit’s performance on targeted performance indicators. FMIS, on the other hand, has electronic health record for each person registered to the family physician. Family physician or nurse updates the patient record on a regular basis” (World Bank, 2013).

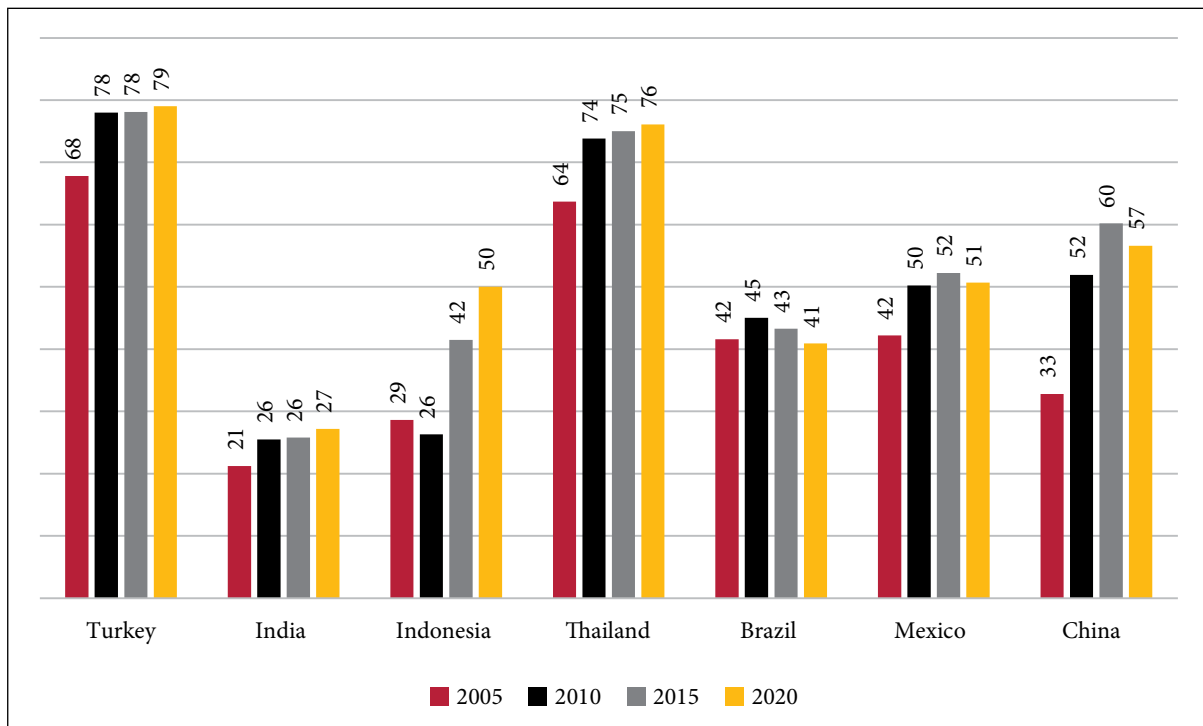
linked with improved management, monitoring of family medicine staff, and information systems aimed at tracking budgets and expenditures. While OOPE has decreased, households experiencing catastrophic expenditure have increased marginally between 2012 and 2019, the reason for which needs deeper analysis.

## 4. Discussion

In the pre-reform period, Turkey witnessed a gradual increase in government expenditure on health, from 1.5 percent of GDP in 1990 to 2.8 percent in 2000. This compared well with the average of upper middle-income countries (2.3 percent in 2000) but low with respect to the OECD average of 5.5 percent (Turkey is an OECD country). The context for health in this period included a fragmented financing and provisioning system, low levels of infrastructure and health workforce, inequities due to disparities in healthcare access and outcomes, and dissatisfaction amongst the population. The health system reforms, in the form of the HTP, were aimed at promoting UHC by extending health insurance to all citizens; integrating five parallel insurance schemes into a single unified general health insurance; expanding the scope of and access to health services, especially preventive and primary health care, and improving user-satisfaction.

While health expenditure as a proportion of GDP did increase after the reforms (from 2.8 percent to 3.4 percent between 2000 and 2018), its increase as a proportion of total health expenditure was much more significant (from 62 percent to 78 percent), as evident in Figure 25. By addressing fragmentation in the financing and provision system, improving accountability by performance-based incentives, expansion and balanced distribution of the health workforce, and a focus on primary healthcare, Turkey has demonstrated progress on the three dimensions of universal health coverage: financial protection (Figure 26), improved health outcomes (Figure 27 and 28) and citizen satisfaction (Figure 29).

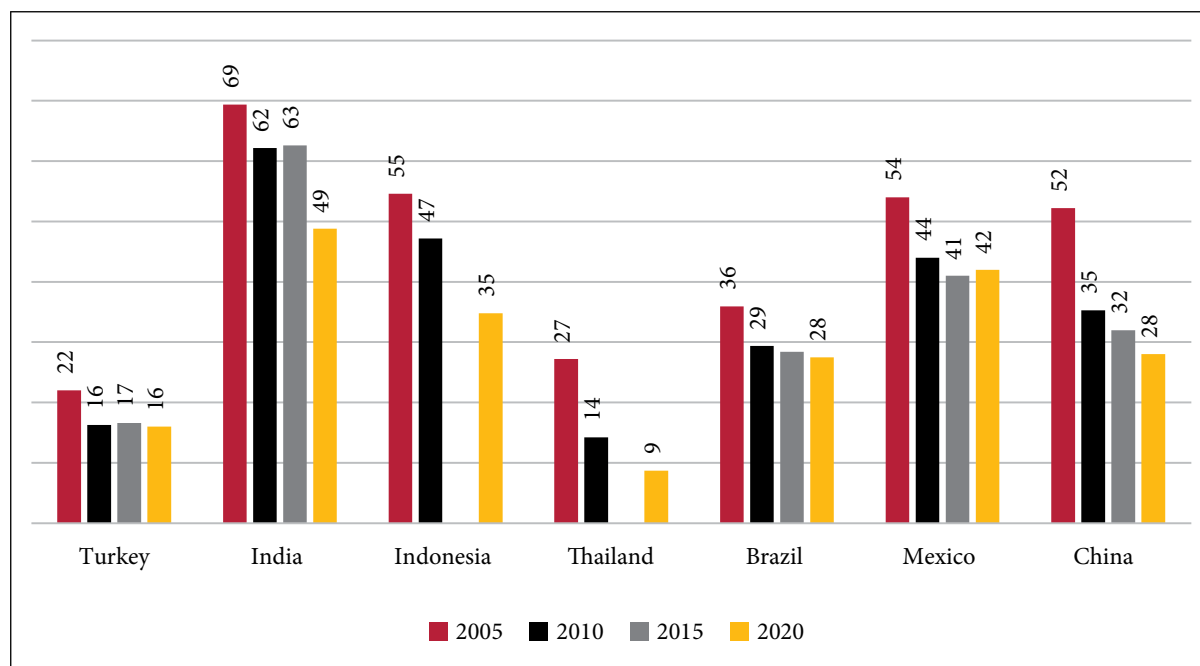
Figure 25: Public health expenditure (% of total health expenditure)<sup>20</sup>



Source: World Bank, 2021; PAHO, 2018; Tatar, et al., 2011; PAHO, 2002; Mahendradhata, et al., 2017; Jongudomsuk, et al., 2015

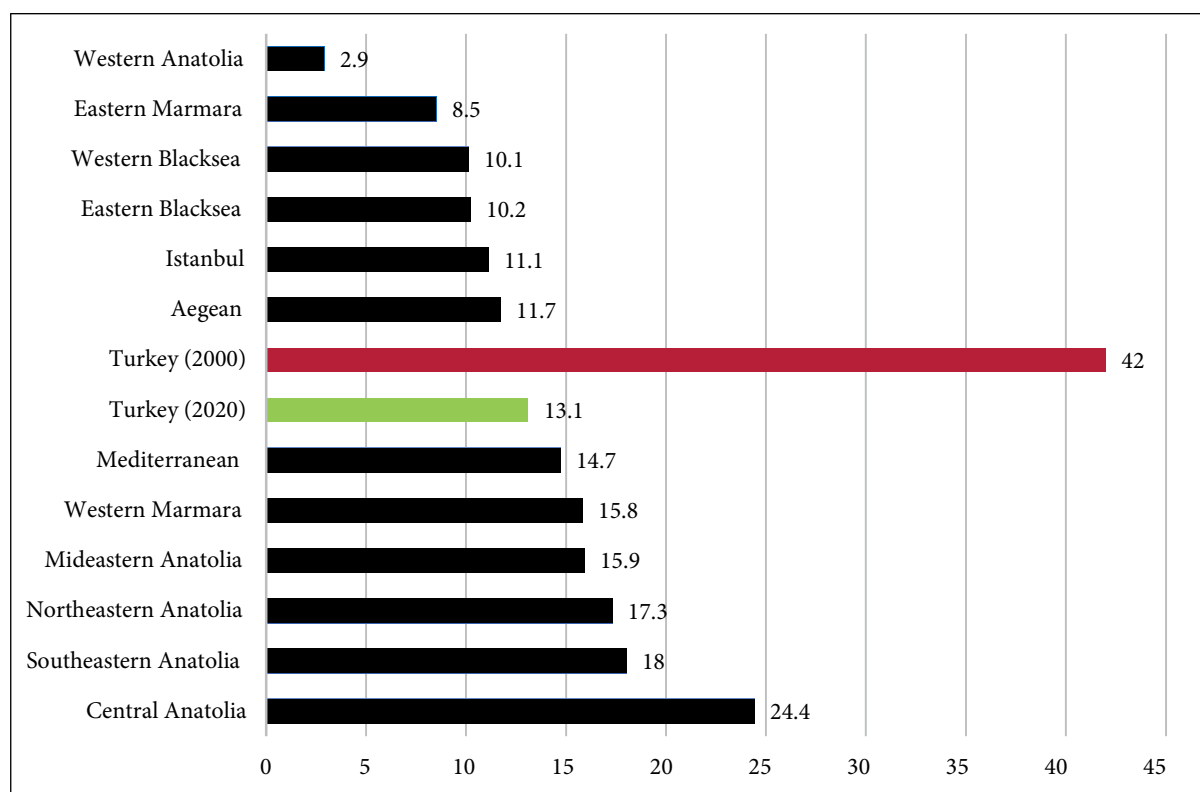
<sup>20</sup> Countries are arranged in the ascending order of GDP per capita (constant 2015 US \$) for 2020.

Figure 26: Out-of-pocket expenditure (% of total health expenditure)<sup>21</sup>



Source: World Bank, 2021; PAHO, 2018; Tatar, et al., 2011; PAHO, 2002; Mahendradhata, et al., 2017; Jongudomsuk, et al., 2015

Figure 27: Maternal Mortality Ratio (per 100,000 Live Births), 2019

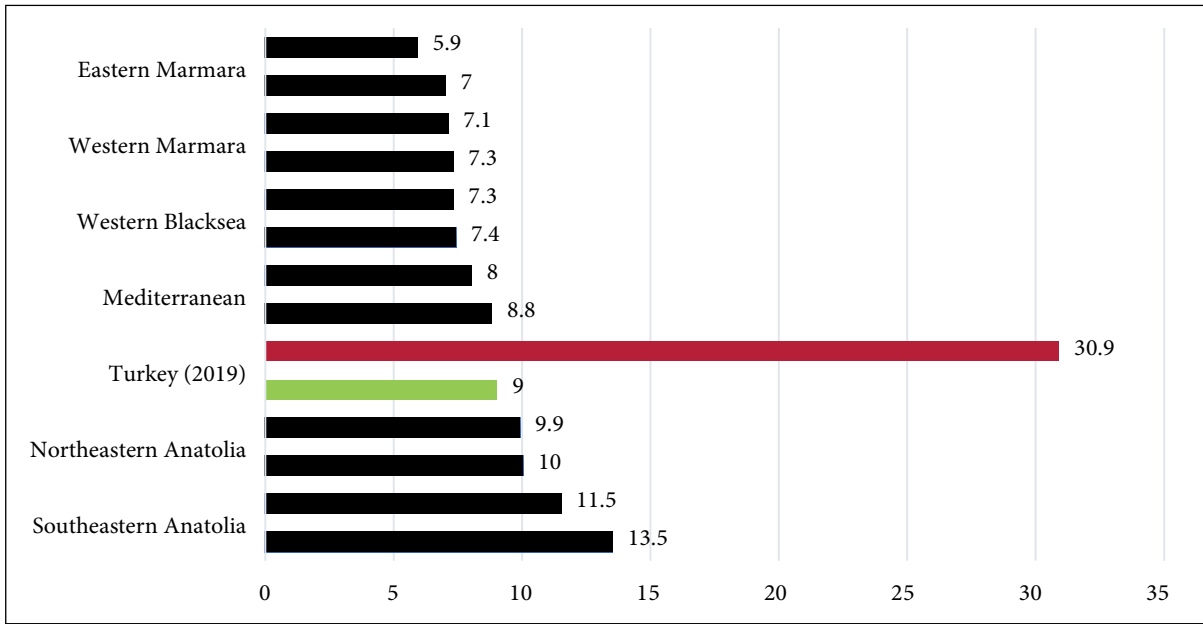


Source: Turkish Statistical Institute, 2020

<sup>21</sup> OOPE data for Brazil, Mexico, and China, are for 2018.

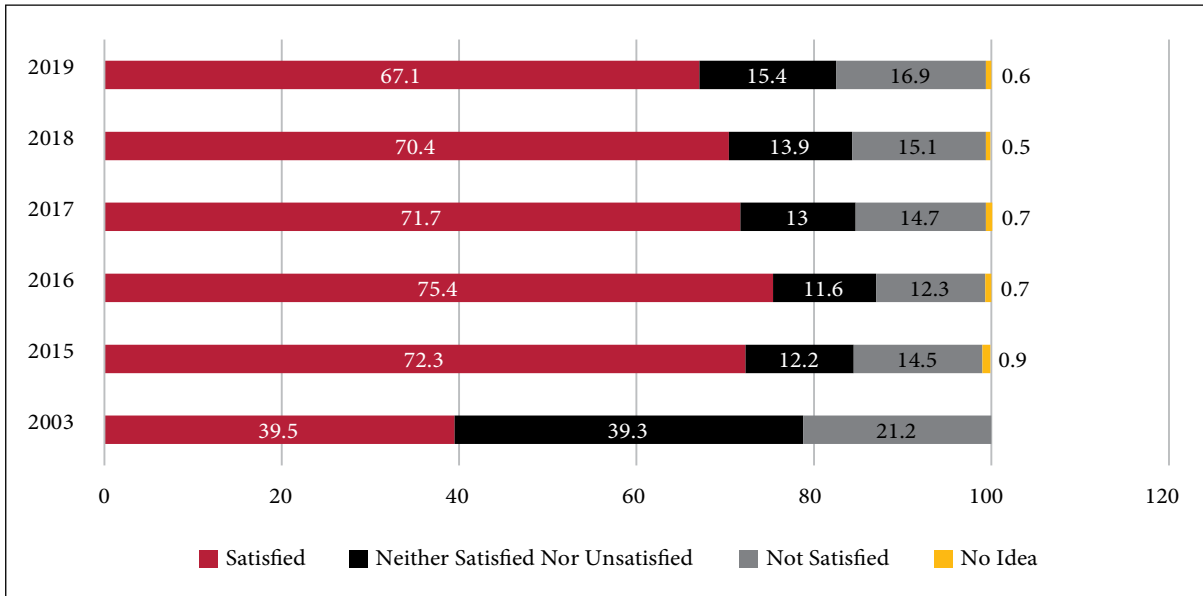


**Figure 28: Infant Mortality Rate (per 1,000 Live Births), 2019**



Source: Turkish Statistical Institute, 2020

**Figure 29: User satisfaction ratio with the healthcare services by years (%), 2019**



Source: Turkish Statistical Institute, 2020

Some argue that the gains in financial protection are not high, and not commensurate with the increase in tax allocation. What is of note, in this regard, is the increase in service utilisation (which saw significant jumps after the reforms) and the absence of an increase in OOPe, which, in fact, decreased, even though nominally. Gaps remain, in the form of continuing secondary care focus, catastrophic expenditures, and others, but useful lessons emerge for comparable countries moving towards UHC.

1. Turkey’s reform experience points to the importance of a strong primary care system, especially for those countries that continue to rely on secondary and tertiary care. The country’s focus on primary care is seen to have contributed to its improved outcome trajectory even before the HTP reforms.

2. The HTP demonstrated that progress and behavioural shifts in service utilisation and preferences are possible even in the absence of gatekeeping and a referral system. At the same time, while reforms led to progress on increased utilisation of primary care, the continuing focus on hospitals points to the limitations in this regard. It also indicates the importance of a referral system for the optimisation of utilisation at the appropriate level of care.
3. Enhanced state capacity, strengthened through increased accountability, can contribute to improved quality and increased footfalls, where well targeted incentives and mandates address the shortage, distribution, and responsiveness of the health workforce. Although a performance-based payment system can introduce healthy competition for efficiency amongst public providers, a robust data system (which evolves according to an evolving disease burden) and regulation based on such a system can ensure that it is implemented effectively and does not lead to irrational procedures, driven by perverse incentives. Equally important is a simultaneous focus on accountability measures and system strengthening; the absence of basic inputs and processes will set back the implementation of an accountability system.
4. Dedicated institutions facilitate addressing of common challenges around drugs/diagnostics pricing and gaps in health workforce. They need management and regulation of drugs and diagnostics, innovations in recruitment and human resource management, such as compulsory medical service, and incentives for serving in deprived regions.
5. Leveraging a current private provider landscape can remove/minimize a potential public-private competitive environment. It can also regulate private provision through government purchasing from a large risk pool.
6. Lessons for similar economies, which cannot subsidise healthcare for all, point to the feasibility and benefits of covering the poor through tax resources, in a context where the non-poor are covered through contributory schemes. A large risk pool, with progressive contributions from those who can pay, can create the pool for non-contributory citizens and build solidarity. At the same time, HTP demonstrated the feasibility and impact of standardising benefits across the population, bringing in greater equity and increased citizen satisfaction.
7. Public (tax) resources are foundational to health reforms, by providing risk protection to the poor and creating a system that can effectively leverage other resources. Turkey has consistently increased its public allocations to the health sector, suggesting an acknowledgement of the importance of health.
8. Health systems need to evolve to respond to an evolving disease burden. The lack of preparedness in the Turkey health system to the large NCD burden points to the need for relevant training and systems that can respond to newer challenges.
9. Introduction of far-reaching reforms are invariably likely to impact historical incentives of some stakeholders, such as medical professional associations. Management of the influence exercised by them is an essential element of ensuring that reforms can be introduced and implemented effectively.
10. Continuity in government (Turkey has had the same party in power for the past 20 years) has helped retain the focus on health. It has also been an outcome of health reforms. Well received health reforms (Figure 29) have provided credibility to the government, in turn acting as a motivation to retain the focus on health<sup>22</sup>. Turkey's young population has no context of the previous system, and, therefore, has come to expect the newer system and the attention to health. A dilution of this attention may lead to electoral costs for the ruling party.

Two aspects of Turkey's health reforms stand out for countries such as India. The first points to the ability and will to invest adequate tax resources on health. Countries invariably face competing

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<sup>22</sup> Discussion with prof Mehtap Tartar

demands on their fiscal space. Prioritising one issue over another will require a clear positioning of the issue in the national development strategy and its political and national incentives. The second aspect points to the mobilisation of the non-poor population into insurance schemes. In contexts where a large working population is informal, as is the case for India, mandatory contributory schemes need a well thought out design and implementation framework.

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## Annex

Table A1: Health insurance scheme before and after the health transformation programme

| Key characteristics of different health insurance schemes |   |  |   |   |  |
|---|---|--|---|---|--|
|   | Social Insurance Organisation   | Government Employees Retirement Fund   | Active Civil Servants   | Bağ-Kur   | Green Card Scheme  |
| <b>Pre-Health Transformation Program</b>                  | i. Comprehensive inpatient and outpatient benefits in SIO healthcare providers.<br>ii. Limited access due to limited resources and dual practice.<br>iii. Contracts with private hospitals for selected services.<br>iv. Co-payment for outpatient drugs: employed 20 percent; retired 10 percent   | i. Comprehensive inpatient and outpatient benefits in public hospitals.<br>ii. Limited access due to limited resources and dual practice.<br>iii. Allowed to access limited private health facilities at own discretion.<br>iv. Co-payment of 10 percent for outpatient drugs. | i. As Retired Government Employee scheme, except able to access private providers<br>ii. Co-payment of 20 percent for outpatient drugs. | i. Comprehensive inpatient and outpatient benefits in public hospitals.<br>ii. Limited access due to limited resources and dual practice.<br>iii. Allowed to access limited private health facilities at own discretion.<br>iv. Co-payment for outpatient drugs and outpatient health services 10-20% of cost | i. For poor households earning less than a minimum level of income defined by law.<br>ii. Limited access due to limited resources and dual practice.<br>iii. Access to inpatient and outpatient care. No subsidy for outpatient drugs. |
| Unified General Health Insurance                          |   |  |   |   |  |
| <b>Post Health Transformation Program</b>                 | <ul style="list-style-type: none"> <li>● Unified and harmonised scheme</li> <li>● SSI responsible for identification of beneficiaries and their enrolment</li> <li>● Comprehensive benefits package for preventive, primary healthcare, and inpatient services with no cost-sharing.</li> <li>● Fixed contribution of TL5 (~US\$3) for outpatients in public hospitals. Contribution of TL12 (~US\$7) for private hospitals, with additional cost-sharing for services.</li> <li>● Varying contribution to outpatient drugs (none for chronic illnesses; 10 percent for retired beneficiaries, 20 percent for those in active employment).</li> <li>● Free health services and medicines for children up to the age of 18 years.</li> <li>● All schemes integrated into universal health insurance scheme.</li> <li>● SSI beneficiaries have access to both public and contracted private providers for all conditions.</li> <li>● Green Card scheme beneficiaries have access to MoH hospitals; access to university hospitals or to private health providers following referral.</li> <li>● All citizens have free access to emergency services and intensive care (including neonatal care) in all public and private healthcare providers.</li> </ul> |  |   |   |  |

Source: Atun, et al., 2013

Independence | Integrity | Impact

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