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Health system review

Mehtap Tatar • Salih Mollahaliloğlu
Bayram Şahin • Sabahattin Aydın
Anna Maresso •
Cristina Hernández-Quevedo

European Observatory on Health Systems and Policies

Anna Maresso and Cristina Hernández-Quevedo (Editors) and Elias Mossialos (Series editor) were responsible for this HiT

Editorial Board

Health Systems in Transition

Mehtap Tatar, *Department of Health Care Management, Hacettepe University, Ankara*

Salih Mollahaliloğlu, *Turkish School of Public Health (TUSAK), Ankara*

Bayram Şahin, *Department of Health Care Management, Hacettepe University, Ankara*

Sabahattin Aydın, *Istanbul Medipol University*

Anna Maresso, *European Observatory on Health Systems and Policies*

Cristina Hernández-Quevedo, *European Observatory on Health Systems and Policies*

Turkey

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Preface

The Health Systems in Transition (HiT) series consists of country-based reviews that provide a detailed description of a health system and of reform and policy initiatives in progress or under development in a specific country. Each review is produced by country experts in collaboration with the Observatory's staff. In order to facilitate comparisons between countries, reviews are based on a template, which is revised periodically. The template provides detailed guidelines and specific questions, definitions and examples needed to compile a report.

HiTs seek to provide relevant information to support policy-makers and analysts in the development of health systems in Europe. They are building blocks that can be used:

- to learn in detail about different approaches to the organization, financing and delivery of health services and the role of the main actors in health systems;
- to describe the institutional framework, the process, content and implementation of health care reform programmes;
- to highlight challenges and areas that require more in-depth analysis;
- to provide a tool for the dissemination of information on health systems and the exchange of experiences of reform strategies between policy-makers and analysts in different countries; and
- to assist other researchers in more in-depth comparative health policy analysis.

Compiling the reviews poses a number of methodological problems. In many countries, there is relatively little information available on the health system and the impact of reforms. Due to the lack of a uniform data source, quantitative data on health services are based on a number of different sources, including

the World Health Organization (WHO) Regional Office for Europe's European Health for All database, data from national statistical offices, Eurostat, the Organisation for Economic Co-operation and Development (OECD) Health Data, data from the International Monetary Fund (IMF), the World Bank's World Development Indicators and any other relevant sources considered useful by the authors. Data collection methods and definitions sometimes vary, but typically are consistent within each separate review.

A standardized review has certain disadvantages because the financing and delivery of health care differ across countries. However, it also offers advantages, because it raises similar issues and questions. HiTs can be used to inform policy-makers about experiences in other countries that may be relevant to their own national situation. They can also be used to inform comparative analysis of health systems. This series is an ongoing initiative and material is updated at regular intervals.

Comments and suggestions for the further development and improvement of the HiT series are most welcome and can be sent to info@obs.euro.who.int.

HiTs and HiT summaries are available on the Observatory's web site (http://www.healthobservatory.eu).

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The European Observatory on Health Systems and Policies is a partnership between the WHO Regional Office for Europe, the Governments of Belgium, Finland, Ireland, the Netherlands, Norway, Slovenia, Spain, Sweden and the Veneto Region of Italy, the European Commission, the European Investment Bank, the World Bank, UNCAM (French National Union of Health Insurance Funds), the London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine. The Observatory team working on HiTs is led by Josep Figueras, Director, Elias Mossialos, Martin McKee, Reinhard Busse and Suszy Lessof. The Country Monitoring Programme of the Observatory and the HiT series are coordinated by Gabriele Pastorino. The production and copy-editing process of this HiT was coordinated by Jonathan North, with the support of Caroline White, Jane Ward (copy-editing), Mathew Chambers (typesetting) and Aki Hedigan (proofreading).

List of abbreviations

Abbreviation	English	Turkish (where relevant)
Bağ-Kur	Social Insurance Agency for Merchants, Artisans and the Self-employed	
CARK	Central Asian republics and Kazakhstan	
CIS	Commonwealth of Independent States	
DaPT-IPA-Hib	Combination vaccine for diphtheria, acellular pertussis, tetanus, inactive polio and *Haemophilus influenzae* type b	
DRG	Diagnosis-related group	*Teşhisle ilişkili grup*
EU	European Union	
Eur-A	Countries in the WHO European Region with very low child mortality and very low adult mortality	
Eur-B+C	Countries in the WHO European Region with low child mortality and low or high adult mortality	
GDP	Gross domestic product	
GERF	Government Employees' Retirement Fund	*Emekli Sandığı*
GHIS	General Health Insurance Scheme	*Genel Sağlık Sigortası*
GP	General practitioner	
HIG	Health Implementation Guide	*Sağlık Uygulama Tebliği*
HTA	Health technology assessment	*Sağlık teknolojileri değerlendirme*
HTP	Health Transformation Program	*Sağlıkta Dönüşüm Programı*
IBRD	International Bank for Reconstruction and Development	
ICD-10	International Statistical Classification of Diseases and Related Health Problems, 10th Revision	
IMF	International Monetary Fund	
IMR	Infant mortality rate	*Bebek ölüm hızı*
IT	Information technology	
MEDULA	Electronic information management system for the SSI	
MMR	Measles, mumps and rubella	
NGO	Nongovernmental organization	
NHA	National Health Accounts	*Ulusal Sağlık Hesapları*
NUTS	Nomenclature of territorial units for statistics	
OECD	Organisation for Economic Co-operation and Development	
OOP	Out-of-pocket expenditure	*Cepten yapılan harcama*
PPP	Purchasing power parity	

SHA	System of Health Accounts	
SHÇEK	Social Services and Child Protection Agency	*Sosyal Hizmetler ve Çocuk Esirgeme Kurumu*
SPO	State Planning Organization	*Devlet Planlama Teşkilatı*
SSI	Social Security Institution	*Sosyal Güvenlik Kurumu*
SSK	Social Insurance Organization	*Sosyal Sigortalar Kurumu*
TURKSTAT	Turkish Statistical Institute	*Türkiye İstatistik Kurumu*
TUSAK	Turkish School of Public Health (former Turkish Institute of Health)	
VAT	Value added tax	
VHI	Voluntary health insurance	*Gönüllü Sağlık Sigortası*
TL[a]	Turkish lira	*Türk lirası*
YTL[a]	New Turkish lira	*Yeni Türk lirası*

[a] From 2005 through to 2008, Turkey's currency was called the "new Turkish lira". From 1 January 2009, the "new" was dropped and the currency became again known simply as the Turkish lira.

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Abstract

Turkey has accomplished remarkable improvements in terms of health status in the last three decades, particularly after the implementation of the Health Transformation Program (HP (Sağlıkta Dönüşüm Programı)). Average life expectancy reached 71.8 for men and 76.8 for women in 2010. The infant mortality rate (IMR) decreased to 10.1 per 1000 live births in 2010, down from 117.5 in 1980. Despite these achievements, there are still discrepancies in terms of infant mortality between rural and urban areas and different parts of the country, although these have been diminishing over the years. The higher infant mortality rates in rural areas can be attributed to low socioeconomic conditions, low female education levels and the prevalence of infectious diseases. The main causes of death are diseases of the circulatory system followed by malignant neoplasms.

Turkey's health care system has been undergoing a far-reaching reform process HTP since 2003 and radical changes have occurred both in the provision and the financing of health care services. Health services are now financed through a social security scheme covering the majority of the population, the General Health Insurance Scheme (GHIS (Genel Sağlık Sigortası)), and services are provided both by public and private sector facilities. The Social Security Institution (SSI (Sosyal Güvenlik Kurumu)), financed through payments by employers and employees and government contributions in cases of budget deficit, has become a monopsonic (single buyer) power on the purchasing side of health care services. On the provision side, the Ministry of Health (Sağlık Bakenlıgı) is the main actor and provides primary, secondary and tertiary care through its facilities across the country. Universities are also major providers of tertiary care. The private sector has increased its range over recent years, particularly after arrangements paved the way for private sector provision of services to the SSI.

The most important reforms since 2003 have been improvements in citizens' health status, the introduction of the GHIS, the instigation of a purchaser–provider split in the health care system, the introduction of a family practitioner scheme nationwide, the introduction of a performance-based payment system in Ministry of Health hospitals, and transferring the ownership of the majority of public hospitals to the Ministry of Health. Future challenges for the Turkish health care system include, reorganizing and enforcing a referral system from primary to higher levels of care, improving the supply of health care staff, introducing and extending public hospital governance structures that aim to grant autonomous status to public hospitals, and further improving patient rights.

Executive summary

Introduction

Turkey is located in the northern hemisphere and bridges Europe and Asia. The bordering countries are Greece, Bulgaria, Georgia, Armenia, the Islamic Republic of Iran, the Syrian Arab Republic and Iraq. The country has a population of 73 million, 26% being under 14 years of age in 2010. Turkey is a parliamentary democracy with a clear separation of executive, legislative and judicial powers. The 1982 Constitution describes Turkey as a democratic, secular and social state governed by the rule of law. The Turkish Grand National Assembly (*Türkiye Büyük Millet Meclisi*), or parliament, is the legislative body acting on behalf of the nation. The President, elected by the people, and the Council of Ministers (Cabinet) headed by the Prime Minister, exercise executive power. Independent courts handle judicial power. Administratively, Turkey is divided into 81 provinces headed by provincial governors appointed by the central government. Provincial governors are the representatives of all ministers at the provincial level. All ministries, including the Ministry of Health, have their own local organizations in the provinces and the heads of these organizations are responsible to the provincial governor.

Turkey has accomplished remarkable improvements in terms of health status in the last three decades, particularly after the implementation of the HTP in 2003. Major health indicators such as the infant mortality rate (IMR), life expectancy and maternal mortality have improved considerably. Average life expectancy reached 71.8 for men and 76.8 for women in 2010, with the linear improvement between 2003 and 2010 being the fastest in the WHO European Region and narrowing the gap that existed previously. The IMR decreased significantly to 10.1 per 1000 live births in 2010, down from 117.5 in 1980, while maternal mortality has declined rapidly (5.5% annually) over the last 10 years. Despite these improvements, there are still discrepancies in terms of IMR between rural and urban areas, and between different parts of the country, although these also have been diminishing over the years. The higher IMR

in rural areas can be attributed to low socioeconomic conditions, low female education levels and the prevalence of infectious diseases. The main causes of death are diseases of the circulatory system followed by malignant neoplasms.

Organization

Turkey's health care system has been undergoing a far-reaching reform process since 2003 and radical changes have occurred both in the provision and financing of health care services. Health services are financed through a social security scheme, the GHIS, which covers the majority of the population, and services are provided by both public and private sector facilities. The SSI, financed through payments by employers and employees, and government contributions in cases of budget deficit, has become a monopsonic power on the purchasing side of health care services. On the provision side, the Ministry of Health is the main actor and provides primary, secondary and tertiary care through its facilities across the country. Universities are also major providers of tertiary care in the system. The private sector has gained power over recent years, particularly after arrangements paved the way for private provision of services to the SSI.

Financing

Total expenditure on health as a proportion of gross domestic product (GDP) has risen from 2.4% in 1980 to 6.1% in 2008. The share of health expenditure from public sources as a proportion of total health expenditure was 73% in 2008. Health expenditure between 2000 and 2004 increased mainly because of reform initiatives that improved access to health care services and changes in the provider payment system. This trend has continued, with a rise in the share of public expenditure on health as a proportion of GDP from 2.9% in 1999 to 4.4% in 2008. This increase is mainly the result of improvements in the public provision and financing of health services that have decreased the share of out-of-pocket (OOP) expenditure.

Turkey finances health care services from multiple sources. Social health insurance contributions take the lead, followed by government sources, OOP payments and other private sources. According to the most recent National

Health Accounts (NHA) data, 43.9% of funds were from social health insurance in 2008, followed by 29.1% from government sources, 17.4% from OOP payments and 9.6% from other private sources.

Data on the distribution of health expenditure by types of expenditure come from the NHA study in 2000; figures for more recent years are not available. Inpatient care and public health care services, on the one hand, were predominantly paid for by public sources in 2000. On the other hand, private sources (that is, private insurance, OOP payments and other private sources) and public sources (central and local government plus social insurance funds) contributed more or less equally to outpatient services. The estimates for 2000 show that 83.1% of total current health expenditure was on personal health care services and goods, which included inpatient and outpatient services as well as pharmaceuticals and other medical goods. Nearly 60% of this expenditure was derived from government sources, with social security funds providing the largest share.

The share of OOP payments was 17.4% of total health care expenditure in 2008, with a decrease from 27.6% in 2000. The decrease can be mainly attributed to reforms that improved health coverage of the population. OOP payments can be in the form of direct payments or cost-sharing. There are both direct and indirect cost-sharing in Turkey. Direct cost-sharing occurs as co-payments for prescriptions, medical devices and outpatient care. Extra billing and reference pricing are new methods of indirect cost-sharing that were introduced after 2003. Cost-sharing exemptions exist for emergency care, intensive care and for people suffering from chronic diseases such as diabetes and cancer.

Voluntary health insurance (VHI) provides a relatively small share of health expenditure; it was estimated as 3.7% of total health expenditure in 2000. Currently, there are no complementary private health insurance schemes. Individuals or companies purchase private insurance for their employees at their discretion. Companies provide VHI for profit and currently there are no non-profit-making companies operating in the sector. Premiums, duration of insurance, coverage rules and all other rules are set within individual policies bought by the insured.

Delivery of services

A comparative analysis with other European countries clearly shows the scarcity of health care personnel in Turkey in relation to its population. In particular, while the number of physicians per 100 000 people (167 in 2010) has grown moderately but steadily since the early 1990s, it is still significantly lower than that of other Mediterranean countries such as Greece, Italy, Spain and Portugal, as well as of the average for the European Union (EU).[1] Similarly, the number of nurses per 100 000 people (156 in 2010) is the lowest among the selected countries mentioned. Despite insufficient overall numbers, a significant improvement has been made in the geographical distribution of health care personnel, particularly general practitioners (GPs), since the early 2000s. Compulsory service and strictly applied health care personnel transfer rules are used as tools to balance geographical inequalities in deprived areas.

Public health activities are mainly the responsibility of the Ministry of Health and municipalities. The Ministry mainly undertakes health promotion and prevention activities while issues such as environmental health or food hygiene are under the responsibility of other ministries and municipalities.

Recent reforms have put special emphasis on the reorganization and strengthening of primary care services. A family practitioner system was first introduced as a pilot programme and was extended to cover the whole country at the end of 2010. Family practitioners (*aile hekimi*) are GPs and family physician specialists providing primary care to the population on their lists. They are paid on a capitation basis with incentives for preventive activities. The major drawback of the system is the lack of a referral system between primary, secondary and tertiary care. In other words, patients are free to enter the system at whatever point they prefer, and the primary care level is not working as effectively as it should. However, a new system of co-payment exemptions for primary and higher level care has been implemented as an incentive for people to visit their GP first and to receive a referral to secondary or tertiary care. The main reasons underlying the lack of a compulsory referral system are the general undersupply of doctors nationwide and, in particular, the insufficient number of doctors working at the primary care level who can act as gatekeepers. Currently, outpatient care, either primary or specialist, is provided by family practitioners, hospital outpatient departments (public and private) and private practitioners.

[1] It should be noted however, that Italy and Greece, in particular, have an oversupply of doctors compared with the rest of Europe.

Hospital care is delivered by both public and private hospitals. In 2010, there were 1439 hospitals, of which 843 were owned by the Ministry of Health, 62 by universities, 489 by the private sector and the rest by other public organizations such as the Ministry of National Defence. Hospitals provide both inpatient and outpatient care. The SSI purchases health care services from both public and private sector providers. There are plans to grant autonomy to public hospitals in the future but, so far, existing attempts have not been successful. Over the years, the number of beds in acute care hospitals has increased gradually, from 145 153 in 2000 to 191 481 in 2010. The number of beds in long-term care hospitals has increased from 6841 in 2000 to 8469 in 2010.

Dental health care is provided by both public and private sector facilities, with around 70% of dentists working in the private sector. The current SSI benefits package covers dental care in both sectors, with certain restrictions in the private sector that households must cover as OOP payments.

Medicines are obtained through private pharmacies, and dispensing outpatient prescriptions from hospital pharmacies is not allowed. All SSI outpatient prescriptions are filled through private pharmacies. Pharmacy chains and provision of over-the-counter medicines in places other than pharmacies are not allowed in Turkey. However, pharmacies can sell other commercial products such as contraceptives, personal hygiene items, baby products and cosmetics.

As in other European countries, the number of elderly people is growing in Turkey, although the general demographic profile is young. As a result of rapid changes in the social structure, elderly people have an increasing need for state support and professional services. This need is met by both public and private agencies. There are a number of organizations and institutions responsible for the long-term care of the elderly and disabled. These are, mainly, the Ministry of Health, the Social Services and Child Protection Agency (SHÇEK (Sosyal Hizmetler ve Çocuk Esirgeme Kurumu)) and various initiatives in the private sector.

Turkey does not have a national policy or guidelines for palliative care. Few oncology teaching hospitals have patient-specific palliative care training in their curriculum, nor are there palliative care units in health care facilities. Similarly, the "hospice" concept is very new and there is no legal framework covering this type of organization.

Turkey has highly institutionalized mental health care, with large hospitals located regionally and community-based care is in its infancy. In 2011, the National Mental Health Action Plan was launched; as of September 2011, 26 community-based mental health centres provide services in 24 provinces across Turkey, with plans for a further 236 to be established by the end of 2016.

Reforms and future challenges

New initiatives in health care date back to the beginning of the 1990s but the real implementation phase started under the radical reforms of the HTP in 2003 (Ministry of Health, 2003b). The Program covered a number of health policy areas in both the provision and the financing of health care services. The main concrete developments since 2003 include improvements in citizens' health status; introducing the GHIS, thus enhancing the financial protection of the population; instigating a purchaser–provider split in the health care system; introducing a family practitioner scheme nationwide; transferring ownership of the majority of public hospitals to the Ministry of Health; introducing a performance-based payment system in Ministry of Health hospitals; and enhancing the accessibility of health care services of acceptable quality for the whole population.

The main challenges for the future are to implement the remaining reform initiatives; promote the decentralization of health care governance; create a more competitive environment for the operation of the health care system; and to address sustainability issues, including instigating an effective referral system from primary to higher levels of care, improving the supply of health care staff, introducing and extending public hospital governance structures that aim to grant autonomous status to public hospitals; and further improving patient rights.

1. Introduction

1.1 Geography and sociodemography

Turkey is located in the northern hemisphere and bridges Europe and Asia. The bordering countries are Greece and Bulgaria to the north-west, Georgia and Armenia to the north-east, the Islamic Republic of Iran in the east and the Syrian Arab Republic and Iraq in the south-east (Fig. 1.1). The country is surrounded by the Aegean Sea to the west, the Black Sea to the north and the Mediterranean Sea to the south. The Marmara Sea, with its passages in Çanakkale Straits (Dardanelles) and Bosphorus, connects the Aegean Sea to the Black Sea.

Fig. 1.1
Map of Turkey

Source: CIA, 2007.

In general, the country is mountainous with plateaus in central Anatolia. Turkey has a Mediterranean climate, although there are regional variations. In the western and southern parts of the country, summers are hot and winters are mild, whereas in the rest of the country winters are cold and summers are hot. The northern part of the country is an exception with mild winters and summers.

Turkey carried out the last de facto census in 2000. In 2006, the Turkish Statistical Institute (TURKSTAT (*Türkiye İstatistik Kurumu*)) introduced the "Population Record System Based on Addresses", which updates population data based on place of residence, and started to collect such data annually on a *de jure* basis.[2] As the system is based on citizenship numbers, population movements can be detected and revised systematically. In 2010, the Turkish population was declared to be just over 73 million, with the female population making up 49.9% of the total population. The age dependency ratio was 48.9 (Table 1.1).

Table 1.1

Population/demographic indicators 1970–2010 (selected years)

	1970	1980	1990	2000	2004	2005	2006	2007	2008	2009	2010
Population (mid-year, thousands)	35 321	44 439	55 120[a]	64 252	67 723	68 566	69 395	70 215	71 095	72 050	73 003
Females (% total population)	49.4	49.3	49.3	49.3	49.6[a]	49.6[a]	49.6[a]	49.9[a]	49.8	49.9	49.9
Population < 15 years (%)	35.0	29.8	34.9	29.8	28.8[b]	28.4[b]	28.1[b]	26.4	26.3	26.3	26.0
Population 65+ years (%)	4.3	5.7	4.3[b]	5.7	5.7[b]	5.9[b]	6.0[b]	7.1	6.8	6.9	6.9
Population growth (%)	25.0	24.9	17.0	13.8	12.4	12.2	11.9	11.7	13.4	13.3	13.0
Population density (per km^2)	43.4	54.6	67.7	78.9	83.2	84.2	85.2	86.2	87.3	88.5	89.7
Fertility rate (total births per woman)	4.90[c]	3.40	2.93	2.38	2.23	2.20	2.17	2.15	2.14	2.12	2.11
Crude birth rate (per 1 000 population)	34.5[b]	30.8[b]	24.1[d]	20.3[d]	19.0[d]	18.7[d]	18.4[d]	18.0	17.9	17.8	17.5
Crude death rate (per 1 000 population)	11.6[b]	9.0[b]	7.1[d]	6.6[d]	6.4[d]	6.4[d]	6.3[d]	6.4	6.4	6.3	6.3
Age dependency ratio	85.9	78.1	64.7	55.1	52.8[a]	52.3[a]	52.6[a]	50.4	49.5	49.2	48.9
% population urban	28.7[b]	35.9[b]	51.3	59.2	60.3[b]	62.1[b]	62.7[b]	67.5	69.2	70.1	71.0
Literacy rate (%) in population aged 15+ years	56.2	67.5	80.5	87.3	87.4[d]	88.1[d]	88.1[d]	88.7[c]	89.1	n/a	n/a

Sources: TURKSTAT, 2010b; Specific data: [a]OECD, 2009; [b]TURKSTAT, 2010a; [c]WHO Regional Office for Europe, 2010; [d]TURKSTAT, 2010c.

Notes: The age dependency ratio is the ratio of the combined child population (aged 0–14) and the elderly population (aged 65+) to the working age population (aged 15–64); n/a: Data not available.

[2] TURKSTAT first undertook a comprehensive address identification process throughout the country and compiled an address database. After this, all addresses were visited and the citizenship numbers of residents at those addresses were added to the database. A citizenship number is issued at birth and acts as an ID number. The number is issued only to Turkish nationals.

As can be seen from Table 1.1, the population growth rate has declined since the 1980s, although the rate is still high compared with European levels. While the ratio of younger people is high in Turkey, owing to the comparatively higher population growth rate, the number of elderly people is also increasing, a tendency reflected in the high age dependency ratio. Currently, the dynamic nature of the population is seen as a window of opportunity, particularly for social security policies. According to the latest OECD and International Bank for Reconstruction and Development (IBRD)/World Bank report (OECD & IBRD/World Bank, 2008), Turkey is facing more favourable demographic prospects than most other OECD countries over the next 25 years. The report states that, according to United Nations population projections, the proportion of the population of working age (15–65) will increase from 66% of the total in 2005 to 69% in 2030. This means that the number of contributors to the social security system will increase, and this can be regarded as an asset for the sustainability of the system. However, this advantage very much depends on economic development over the next two decades, as the increased number of people of working age can only be an asset if the phenomenon is accompanied by conditions that allow this group to join the workforce. Without high and sustainable economic growth rates, this demographic trend may manifest into high unemployment rates, low national income per capita and social unrest in the long run.

The OECD and IBRD/World Bank report (2008) also focuses on the ageing population and states that the population over 65 years will double from 5% to 11% in 2030. Although lower than the OECD average (14%), there still will be increased cost pressures on the health care system because of the ageing population. Table 1.1 also shows that the percentage of people living in urban areas has increased over time. According to 2010 figures, 71% of the population live in urban areas and 36.2% live in Turkey's five biggest cities; Istanbul alone is home to 18% of the population. The urbanization rates in Turkey should be treated cautiously because of the high migration rates from villages to cities and from the east to the west of the country. The literacy rate has steadily increased since 1970 but it is still below the average figures for European countries. The government and nongovernmental organizations (NGOs) have initiated programmes in the last 10 years to address this issue.

The official language of the Republic of Turkey is Turkish but people in different parts of the country speak other languages, such as Kurdish and Laz, in social life. The majority (more than 99%) of the population is Muslim. Constitutionally, Turkey is a secular country where no religious interference is allowed in the state's official structures, laws and regulations.

1.2 Economic context

Turkey's gross domestic product (GDP) per capita was US$ 13 598 purchasing power parity (PPP) in 2008 (Table 2.1), the lowest among OECD countries (OECD & IBRD/World Bank, 2008; OECD, 2008b). Since the late 1990s, the country has experienced two major economic crises that severely slowed the pace of development. A high inflation rate, unemployment, internal and external debts and both long-term and short-term instability characterized the 1980s, 1990s and early 2000s. The beginning of the 1980s can be regarded as a turning point for the Turkish economy, when a radical ideological change occurred in line with global trends, emphasizing a liberalized economy; prior to this, a closed economy, distinguished by the substitution of imports by internally manufactured goods, was in place.

The period until the last economic crisis in 2001 was marked by high and increasing public deficits, high interest rates, high inflation and increasing public sector borrowing requirements. External factors, such as the Asian crises and the dissolution of the Russian Federation, coupled with rising prices for crude oil and natural gas, and unfavourable exchange rates in the international arena, fuelled the crisis in the already weak and vulnerable Turkish economy. In April 2001, following severe economic turmoil, a new recovery programme was adopted with the IMF. The basic principles of this programme were tight fiscal and monetary policies and flexible exchange rates. The government's strong commitment and the impetus provided by the commencement of accession talks with the European Union (EU) accelerated the recovery process. The last few years have witnessed a considerable recovery in economic indicators, with support from the relatively stable political environment. In 2003, after a long period of hung parliaments, a single-party government took office, with a strong commitment to introducing structural and economic reforms and to becoming a member of the EU. Following the 2001 crisis, during 2002–2004, average annual growth reached 8%. For the first time in 35 years, inflation declined to single digits (9.3% in 2004) (Ministry of Finance, 2011), leading to a reduction in interest rates as well. Since the late 1990s, despite the economic instability experienced in earlier years, the Turkish economy has grown substantially. As can be seen from Table 1.2, GDP increased four-fold between 2000 and 2008. However, the most recent global crisis of 2008 has also shown that there are still weaknesses in the economy, with Turkey's economic performance having been severely affected. The economic growth rate declined to 0.7% in 2008 and 4.8% in 2009 from 6.9% in 2006. However, the economic growth rate increased to 8.9% in 2010 during the recovery period from the global economic

Table 1.2

Macroeconomic indicators, 1990–2010 (selected years)

	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
GDP (1 000 YTL)[a]	393	7 762	166 658	240 224	350 476	454 781	559 033	648 932	758 391	843 178	950 098	952 558	1 103 749
GDP (US$, PPP)[a]	322 832	426 695	588 553	561 159	572 094	588 070	688 850	781 243	881 098	960 256	969 488	943 127	1 103 749
GDP (US$ per capita)[a]	2 681	3 379	3 924	2 857	3 349	4 317	5 494	6 720	7 268	9 333	11 463	8 479	10 028
GDP (US$ per capita, PPP)[a]	5 749	6 908	9 160	8 616	8 667	8 794	10 169	11 391	12 692	13 669	13 598	14 106	15 258
Annual GDP growth (%)[a]	9.2	6.7	6.8	–5.7	6.2	5.3	9.4	8.4	6.9	4.6	1.1	0.2	15.9
Short-term debt outstanding (current US$)[b]	9 500	15 701	28 301	16 403	16 424	23 013	31 880	37 103	40 354	41 747	51 793	49 577	54 472
Value added in industry (% of GDP)[a]	25.0	25.8	24.6	23.8	23.2	23.5	23.0	23.0	22.9	22.3	21.9 (6 months)	n/a	n/a
Value added in agriculture (% of GDP)[a]	17.0	15.0	10.7	9.4	11.4	11.1	10.7	10.6	9.4	8.5	8.5 (6 months)	n/a	n/a
Value added in-services (% of GDP)[a]	58.0	59.2	64.7	66.8	65.4	65.4	66.3	66.4	67.7	69.2	69.6 (6 months)	n/a	n/a
Consolidated budget deficit/GNP[c]	–2.3	–3.0	–8.2	–12.4	–11.9	–8.8	–5.4	–1.3	–0.6	–1.6	–1.8	n/a	n/a
Labour force (total, million)[a]	20.5	22.5	23.0	23.4	23.8	23.6	24.2	24.5	23.2	23.5	24.3	24.7	25.6
Unemployment (% total population)[d]	8.04	7.64	6.54	8.44	10.34	10.54	10.34	10.34	9.95	9.95	13.65	14.00	11.90
Official exchange rate (YTL to the US$)[c]	26 076	45 673	623 704	1 224 411	1 505 839	1 493 067	1 422 341	1.34[e]	1.43	1.30	1.29	1.55	1.50
Real interest rate[c]	62.726	106.316	198.956	59.06	44.06	26.06	18.0	13.508	17.506	15.757	15.70	11.60	8.12
Annual inflation rate (%)[a]	60.3	93.6	39.0	68.5	29.7	18.4	9.3	10.5	9.6	8.4	10.06	6.50	6.40

Sources: [a] TURKSTAT, 2009b, 2011b; [b] Turkish Treasury, 2011; Ministry of Finance, 2011; [c] SPO, 2009b; [d] TURKSTAT, 2009d; SPO, 2011.
Note: [e] From 2005, changes were made to the currency and 6 zeros were deleted from the Turkish lira (YTL).

crisis. The unemployment rate increased to 14.0% in 2009 from 11.0% in 2008 (Ministry of Finance, 2010a). It is envisaged that the impact of the global economic crisis will be considerable and will create problems in both the economic and the social spheres. The Turkish Central Bank (*Merkez Bankası*) also reported that the current account deficit has also widened, reaching US$ 37 billion in 2007 (Turkish Central Bank, 2011).

Despite improvements over time, income in Turkey is still very unequally distributed. The Gini coefficient[3] was calculated by the State Planning Organization (SPO (*Devlet Planlama Teşkilatı*)) as 0.51 for 1978, 0.50 for 1986, 0.49 for 1994, 0.42 for 2003, 0.38 for 2005 and 0.39 for 2008 (SPO, 2010; World Bank, 2010).

1.3 Political context

The Republic of Turkey is a parliamentary democracy with a clear separation of executive, legislative and judicial powers. The 1982 Constitution describes Turkey as a democratic, secular and social state governed by the rule of law. The Grand National Assembly (*Büyük Millet Meclisi*) is the legislative body (parliament) acting on behalf of the nation and its power cannot be delegated (Article 7 of the Constitution). The President and the Council of Ministers (Cabinet) exercise executive power (Article 8 of the Constitution). Independent courts handle judicial power (Article 9 of the Constitution).

The major functions of the parliament are to enact, change and repeal laws; supervise the Council of Ministers; delegate authority to the Council of Ministers, issue governmental decrees with the force of law on certain matters; and debate and approve the budget and legislation on the final accounts (Turkish Grand National Assembly, 2006). All legislation, including that related to health care, is enacted by the parliament. There are specialized parliamentary committees where political parties are represented according to their share of seats. Laws can be proposed by members of parliament and the Council of Ministers. The Health, Family, Labour and Social Issues Committee discusses the drafts of health-related laws, and makes amendments if needed, before sending its approved drafts to the parliament for discussion and ratification. Once a law is ratified, the parliament sends the document to the President for approval and the law becomes enforceable after publication in the *Official Gazette*. The President can

[3] The Gini coefficient is a number between 0 and 1, where 0 corresponds with perfect equality (where everyone has the same income) and 1 corresponds with perfect inequality (where one person has all the income, and everyone else has zero income).

veto all or some parts of legislation and in such cases, the parliament discusses it again. If the parliament approves legislation vetoed by the President without making any changes, the President is obliged to approve it. In contrast, if the parliament makes a change in legislation returned by the President, then the procedure begins again, and the President can accept or reject it. Budget laws lie outside of this process. All legal arrangements can be taken to the Constitutional Court on the grounds that all or some parts of the legislation do not conform to constitutional principles. If the Court decides that a law is not compatible with the Constitution, then it can annul all or relevant sections.

In the last parliamentary elections in 2007, seven political parties won seats in the parliament: the ruling Justice and Development Party (340 seats), the Republican Populist Party (98 seats), the Nationalist Movement Party (70 seats), the Democratic Society Party (20 seats), the Democratic Left Party (13 seats) and other small parties and independents (7 seats). These results allowed a single-party government to be formed and strengthened its position, enabling it to implement reforms that previously were not possible under weaker coalition governments.

The Prime Minister and the Council of Ministers form the executive organs of the state. The President represents the Republic of Turkey and assures that constitutional principles are not violated. She/he can convoke parliament if and when needed, call for referenda on constitutional amendments and also call new elections. The President also appoints some members of the supreme courts and other organizations such as the Higher Education Council (*Yükseköğretim Kurumu*). The Council of Ministers Cabinet consists of the Prime Minister and ministers. The Prime Minister is assigned by the President from among the members of the Grand National Assembly. In most instances, the task of forming the government is assigned to the leader of the political party with the highest number of seats. The Prime Minister forms the Cabinet, which must be approved with a vote of confidence from the parliament.

Administratively, Turkey is divided into 81 provinces headed by provincial governors appointed by the central government. The state is highly centralized, although there have been recent (unsuccessful) attempts to change this structure and move to a more decentralized public management system. Provincial governors are the representatives of all ministers at the provincial level. All ministries, including the Ministry of Health (*Sağlık Bakanlığı*), have their own local organizations in the province and the heads of these organizations are responsible to the provincial governor.

The governor's office is the coordinating body for all ministerial functions. Provinces are divided into districts (*ilçe*) and villages (*köy*) according to their population and geographical location. The district administrators are also appointed by the central government, and administrative organization at the district level mirrors the provincial level. The district administrators are responsible to the provincial governor of the area they are geographically part of.

Each geographical area has a municipality, and city mayors and municipality council members, together with provincial council members and village heads, are elected in local elections. Municipalities are responsible for a variety of tasks ranging from the environment to health care, and economic development to transport. They can raise their own revenues from economic activities and can collect certain taxes. However, a considerable number of municipalities are dependent on funds from the central government, which impacts on their level of independence.

Decentralization has long been on the political agenda and special emphasis has been placed since 2003 on empowering municipalities and delegating certain roles from the central government, albeit with little success. A Public Administration Law, which delegated a number of responsibilities currently under central authorities to local governments, was ratified by parliament in 2004. However, the President vetoed it and sent the legislation back to the parliament. After the veto, no concrete attempts have been made to pursue this reform.

Organized interest groups have a very restricted role in the process of health policy-making. The most relevant of such groups are professional organizations, the most influential of which are the Turkish Medical Association (*Türk Tabipleri Birliği*), the Turkish Dentists' Association and the Turkish Pharmacists' Association. These organizations share their views on health policy with the government when a participatory approach is adopted. However, this is mainly a consultative process with no executive powers. In the past, there have been attempts to involve these groups through participatory meetings, but anecdotal evidence suggests that in many instances the stakeholders have complained that their views were not well represented in the final policy.

Turkey is a member of leading international and regional organizations such as the United Nations, the Council of Europe, the North Atlantic Treaty Organization, OECD, World Trade Organization and the Organization of the Black Sea Economic Cooperation. The country is also a candidate member for accession to the EU, with negotiation meetings starting in June 2006. The country has signed major international treaties such as the General Agreement

on Trade in Services (GATS), the Convention on the Rights of the Child, the European Human Rights Convention and the International Convention on Human Rights.

In terms of dealing with corruption and human rights, Turkey has made considerable progress in the last decade. Although instances of breaches of human rights and examples of corruption are still reported by international agencies such as Human Rights Watch, Amnesty International and Transparency International, improvements so far have also been acknowledged. The accession negotiation process with the EU has also contributed to improvements as new legislation is enacted to harmonize Turkish legal codes with EU rules and regulations. Examples include the Access to Information Law (2002) and the Law on Establishing a Public Servants Ethics Commission (2004).

1.4 Health status

Turkey has accomplished remarkable improvements in terms of health status since the early 1980s. Major health indicators such as the infant mortality rate (IMR), life expectancy and maternal mortality have improved considerably. As Table 1.3 shows, these improvements have occurred mainly after the 1980s. The implementation of the Health Transformation Program (HTP (Sağlıkta Dönüşüm Programı)) has also had an important impact, particularly in achieving major declines in infant and maternal mortality. Health data and other official statistics are collected by the Ministry of Health and TURKSTAT.[4] However, there are deficiencies in the data collection process. In particular, mortality statistics cannot be collected accurately at the district and village level, mainly because of current problems with the health information system. However, now that the family practitioner scheme has been extended to the whole country (since the end of 2010; see Chapter 7), it will be possible to collect accurate data at the village level. In addition, mortality statistics and maternal and infant mortality data are now more accurate as they are collected regularly through an active surveillance method, and primary care facilities regularly collect data on immunization rates, follow-up of pregnant women and on children.

[4] Although data collection is not independent from the government, there is no political manipulation of the data collected.

Table 1.3

Mortality and health indicators, 1970–2010 (selected years)

	1970	1980	1990	1993	1998	2000	2003	2005	2006	2007	2008	2009	2010
Life expectancy at birth (years)													
Female	56.3	60.3[a]	69.5[b]	70.6[b]	72.4[b]	73.1[b]	74.4[b]	75.2[b]	75.6[b]	76.0[b]	76.3[b]	76.5	76.8
Male	52.0	55.8[a]	65.4[b]	66.4[b]	68.3[b]	69.0[b]	70.2[b]	71.0[b]	71.2[b]	71.4[b]	71.5[b]	71.7	71.8
Total	54.2	58.1[a]	67.4[b]	68.5[b]	70.3[b]	71.0[b]	72.1[b]	73.0[b]	73.3[b]	73.6[b]	73.8[b]	74.0	74.3
Mortality rate, (per 1000 live births)													
Infant	145.0	117.5	51.5	52.6[c]	42.7[c]	31.6[c]	28.5[c]	18.4[c]	16.9[d]	15.9[d]	17.0[c]	13.1[d]	10.1[d]
Under 5 years	201.0[e]	133.0[e]	82.0	61.0[c]	52.0[c]	44.0	37.0[c]	29.0[e]	28.7[d]	26.6[d]	24.0[c]	17.0	13.0

Sources: OECD, 2008a.; specific data: [a]WHO Regional Office for Europe, 2008; [b]TURKSTAT, 2010c; [c]Hacettepe University Institute of Population Studies, 1994, 1999, 2004, 2009; [d]Ministry of Health General Directorate of Mother and Child Health and Family Planning, 2010, (unpublished data); [e]World Bank, 2009.

As seen in Table 1.3, life expectancy at birth has improved consistently over the last 45 years. Life expectancy at birth was 71% of the OECD average in 1960 whereas it stood as 93% of the OECD average in 2009. The OECD and IBRS/World Bank report (2008) stated that life expectancy in Turkey was about average for a country with its health care spending levels but slightly below the average for its income level compared with other upper middle income countries. Although there have been improvements in the past few years in the IMR, it is still the highest rate among OECD countries (10.1 per 1000 live births in 2010). The main reasons for this are the low level of socioeconomic conditions in some parts of the country, low female education levels and the prevalence of infectious diseases. Regional variations are also of special importance. Some studies (Hacettepe University Institute of Population Studies, 2004; Ministry of Health & Başkent University, 2004) have shown that there are wide discrepancies in terms of the IMR between the eastern and western parts of the country. According to the 2004 Turkish Demographic and Health Survey (*Türkiye Nüfus ve Sağlık Araştırması*) (Hacettepe University Institute of Population Studies, 2004), the IMR per 1000 live births was 41 for the east and 22 for the west in 2003, and 39 for the east and 16 for the west in 2008. More recently, regional variations have been getting smaller: according to the Ministry of Health General Directorate of Mother and Child Health and Family Planning (unpublished data, 2010), the IMR was 14.1 per 1000 live births for the east (south-eastern Anatolia Region by NUTS-1) and 7.5 for the west (Istanbul Region by NUTS-1) in 2010.[5]

[5] Nomenclature of territorial units for statistics (NUTS) is a geocode standard with three levels developed and regulated by the EU for referencing the subdivisions of countries for statistical purposes; a similar system is used for candidate countries.

A similar geographical discrepancy was found in the past for life expectancy at birth. According to the burden of disease (*hastalık yükü*) study, life expectancy at birth in 2001 was 69 years for females living in the eastern part of the country and 73.4 for the west. The figures were 65.5 and 69.3 years, respectively, for males (Ministry of Health & Başkent University, 2004).

The maternal mortality ratio per 100 000 live births is also high in Turkey but falling rapidly. A national study in 2006 (Hacettepe University Institute of Population Studies, 2006) found the national ratio to be 28.5 per 100 000 live births. This study highlighted distinct regional variations, with a ratio of 7.4 for the west and 68.3 for the north-east of the country. Major progress in improving maternal mortality has been noted in the last few years, with a decline from a national average of 19.4 per 100 000 live births in 2008 to one of 16.4 in 2010. A World Health Organization report (2010a) highlights that Turkey is one of 14 countries that have achieved more than 5.5% annual declines in maternal mortality over recent years. Regional variations have also been alleviated; the maternal mortality rate was 10.6 in western Anatolia Region by NUTS-1 in 2010, and 25.6 in the middle eastern Anatolia Region by NUTS-1 (Ministry of Health, 2011b).

According to the most recent burden of disease study (Ministry of Health & Başkent University, 2004), which was conducted in 2004 and bases its calculations on population data from 2000, ischaemic heart diseases seem to be the major cause of death, followed by cerebrovascular disease. Thus, Table 1.4 reflects that Turkey has a similar disease burden as the majority of developed countries. However, as can also be seen from Table 1.4, prenatal causes and infections of the lower respiratory tract are among the five major diseases that cause death. This finding can explain the high IMR and under-five mortality rates recorded in the country (see Table 1.3), although, as mentioned above, these have been declining steadily in the last few years. More recent TURKSTAT data on the main causes of death in 2009 indicate that these were diseases of the circulatory system (39.9%); malignant neoplasms (20.7%); diseases of the respiratory system (8.9%); endocrine, nutritional and metabolic diseases (6.4%); and external causes of injury plus poisoning (4%) (TURKSTAT, 2011a). The burden of disease study also looked at health-adjusted life expectancy and loss of healthy life expectancy (Table 1.5). Other factors that adversely affect health status and mortality rates are the high rates of road accident injuries and deaths (Table 1.6).

Table 1.4

Main causes of death, 2004

Rank	Causes of death	% of total deaths
1	Ischaemic heart disease	21.7
2	Cerebrovascular disease	15.0
3	Chronic obstructive pulmonary disease	5.8
4	Perinatal causes	5.8
5	Lower respiratory infections	4.2
6	Hypertensive heart disease	3.0
7	Trachea, bronchus and lung cancers	2.7
8	Diabetes mellitus	2.2
9	Road traffic accidents	2.0
10	Inflammatory heart disease	1.9
11	Congenital anomalies	1.6
12	Diarrhoeal diseases	1.5
13	Stomach cancer	1.3
14	Nephritis and nephrosis	1.1
15	Leukaemia	1.0

Source: Ministry of Health & Başkent University, 2004.

Table 1.5

Health-adjusted life expectancy and loss of healthy life expectancy for all age groups at the national level for males and females, 2004

Age (years)	National HALE	LHE	Males HALE	LHE	Females HALE	LHE
0	62.49	7.28	60.8	7.83	64.0	7.94
1	63.89	7.48	62.2	7.76	65.4	8.16
5	60.71	7.25	59.0	7.46	62.2	7.94
10	56.10	7.09	54.4	7.29	57.6	7.75
15	51.42	6.92	49.8	7.06	52.9	7.58
20	47.05	6.56	45.4	6.80	48.5	7.14
25	42.70	6.21	41.2	6.39	44.2	6.63
30	38.35	5.85	36.9	6.02	39.8	6.25
35	34.02	5.48	32.6	5.66	35.5	5.80
40	29.74	5.12	28.4	5.24	31.3	5.30
45	25.54	4.78	24.2	4.92	27.1	4.88
50	21.64	4.30	20.4	4.39	23.2	4.29
55	17.91	3.86	16.8	3.91	19.5	3.66
60	14.39	3.48	13.4	3.54	15.9	3.15
65	11.37	2.89	10.6	2.92	12.7	2.49
70	8.65	2.41	8.1	2.39	9.8	1.91
75	6.32	1.99	5.9	2.02	7.4	1.34
80	4.29	1.80	4.0	1.83	5.6	0.74
85+	2.25	2.11	1.9	2.30	2.6	1.92

Source: Ministry of Health and Başkent University, 2004.
Notes: HALE: Health-adjusted life expectancy; LHE: Loss of healthy life expectancy.

Table 1.6
Factors affecting health status, 1970–2007 (selected years)

Indicators	1970	1980	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007[a]
Prevalence COPD (%)	n/a	0.08	0.14	0.19	0.23	0.23	0.26	0.29	n/a	n/a	n/a	n/a
Pure alcohol consumption (litres per capita)	1.10	1.78	1.39	1.65	1.47	1.42	1.37	1.45	1.37	1.31	1.20	1.32
RTAs with injury (per 100 000)	49.6	53.6	156.0	185.4	202.8	169.6	167.2	168.3	190.0	213.8	231.7	267.8
Persons killed or injured in RTAs (per 100 000)	61.29	62.78	167.36	194.81	211.00	176.40	173.90	173.90	n/a	n/a	n/a	n/a
Average calories available per person per day (kcal)	3 017	3 281	3 539	3 444	3 372	3 347	3 357	n/a	n/a	n/a	n/a	n/a

Sources: WHO, 2006a. [a]TURKSTAT, 2009c.
Notes: COPD: Chronic obstructive pulmonary diseases; RTA: Road traffic accident; n/a: Data not available.

Smoking is a major public health problem in Turkey, and smoking rates are high compared with European countries. In 2003, the average daily smokers in the population aged 15 and over was 31.2% (17.8% for females and 51.1% for males) (OECD, 2008a). According to the Global Tobacco Survey for Adults, which was conducted by TURKSTAT in 2008, 11.6% of females, 43.8% of males and 27.4% of the total population aged 15 or over are daily smokers, indicating a slight decline in the smoking rate over the five years from 2003 (TURKSTAT, 2009c). A survey conducted by the Ministry of Health's General Directorate of Primary Care Services in 2010 shows similar rates for daily smokers (11.6% of females, 38% of males and 24.7% of the total population) (Ministry of Health, 2011b). Although some measures were instituted in the past, such as restricting cigarette advertisements, prohibiting smoking in public places and increasing taxes on tobacco and alcohol, implementation of these policies was not very successful until the introduction of a new Law on Tobacco and Tobacco Products in 2008. The Law prohibited smoking in all closed public and private areas, including restaurants; all transport vehicles, including taxis; and other places open to the public. It took full effect in July 2009 after a transition period that started in May 2008, making Turkey one of the smoke-free countries in the WHO European Region, ranked fourth in the Tobacco Control Scale in Europe, 2010 (Joossens & Raw, 2011). It is envisaged that this measure will have a positive impact on the incidence and prevalence rates of smoking-related diseases in the medium to long term.

According to the *World Health Statistics* (WHO, 2010b), 99% of the population has access to improved drinking water sources. This figure is 100% for the urban population and 96% for the rural population. Moreover, 90%

of the population has access to improved sanitation facilities (sewage system, septic tank or other hygienic means of sewage disposal). These figures are very similar to those in European countries (WHO, 2010b).

In terms of child health, the mean number of decayed, missing or filled teeth for a child aged 12 years was reported as 2.5 in 2004 (WHO, 2006b). This figure is low according to the WHO classification of mean values for decayed, missing or filled teeth at 12 years of age (Nithila et al., 1998).

In 2008, 98% of infants were breastfed at 3 months of age, falling to 95.9% at 6 months of age. In 2003, the ratios were 95.7% and 92.1%, respectively. Moreover, immunization rates have improved considerably. In 2010, 98% of infants were vaccinated against diphtheria, tetanus and pertussis, 97% against measles and 96% against hepatitis B (Ministry of Health, 2011b; see also Chapter 6). With its falling incidence rates for measles, from 30 000 cases in 2001 to 34 in 2006, Turkey is exceeding most OECD countries in preventing this illness (OECD & IBRD/World Bank, 2008). All of the seven cases reported in 2010 were extrinsic, with no local cases (Ministry of Health, 2011b). Regional discrepancies in immunization rates have also diminished. For example, in 2003, 63% of children in western regions were fully immunized, whereas this figure was only 34.8% for the eastern part of the country (Hacettepe University Institute of Population Studies, 2004). Five years later, in 2008, 84.6% of children were fully immunized in the west, and 64.3% in the east (Hacettepe University Institute of Population Studies, 2009). In terms of specific vaccines, regional differences have almost disappeared. For example, for the combination vaccine for diphtheria, acellular pertussis, tetanus, inactive polio and *Haemophilus influenzae* type b (DaPT-IPA-Hib), the southeastern Anatolia region had the lowest immunization rate of 93% (in 2010) and for the BCG vaccination (for tuberculosis), the lowest rate of 95% was recorded in the middle eastern Anatolia region (Ministry of Health, 2011b).

Turkey was among the countries affected by the avian influenza outbreak in the late 2000s. In 2006, 12 human cases of the disease were detected with four deaths recorded (WHO, 2006a). Since 2002, there has been an increase in the number of cases and deaths for Crimean haemorrhagic fever. In 2006, 438 cases were detected, of which 27 patients died. In 2007, these figures increased to 717 cases and 33 deaths (Ministry of Health, 2008).

2. Organizational structure

2.1 Overview of the health system

The basic principles of the Turkish health care system are to provide equal, accessible and high-quality health care services to the whole population. At the national level, the parliament is the main policy-making body. The Ministry of Health is the main agency responsible for the provision of health care services. Before 2005, there was a very fragmented structure with several public organizations providing health care to their members with different rules and regulations. However, with the transfer of these facilities to the Ministry of Health in 2005, the Ministry became the dominant provider in the system. At the moment, apart from the Ministry of Health, universities and the Ministry of National Defence (*Milli Savunma Bakanlığı*) own health care facilities in the public sector. The provincial directorates of the Ministry of Health within each province implement health policies at the operational level. Municipalities also have some health-related roles and responsibilities but these are generally restricted to public health measures. Private providers also operate within the health care system, providing services on a contractual basis for the beneficiaries of social health insurance and directly to patients.

Turkey has recently undergone a major restructuring of its social health insurance framework.[6] In 2008, three of the five main social security funds, which also cover social health insurance, were transferred to the newly created Social Security Institution (SSI (*Sosyal Güvenlik Kurumu*)).[7] This was followed by the transfer of the Active Civil Servants Scheme in January 2010, while the Green Card (*Yeşil Kart*) scheme for the poor is planned to be transferred in 2011 (see below). The benefit packages of the four transferred schemes were

[6] Social insurance funds in Turkey are mixed funds for pensions, health and welfare. There are no autonomous health insurance funds but only health branches of the social insurance organizations. Wherever this report uses the terms "social security funds or schemes", "social insurance funds or schemes" and/or "social health insurance funds or schemes", this refers to health branches.

[7] Legislation to transfer the schemes to the SSI was passed in 2006, but a challenge in the Supreme Court delayed implementation until 2008.

equalized in the run up to their transfer to the SSI. The new General Health Insurance Scheme (GHIS (*Genel Sağlık Sigortası*)), which began operation under the SSI in 2008, now includes those previously covered under the four transferred social security schemes as well as everyone joining the social health insurance system for the first time.

2.2 Historical background

The Turkish Parliament, after its foundation on 23rd April 1920, considered health care services to be among the state's primary responsibilities and made the Ministry of Health the main authority for the provision of such services. In line with the domestic conditions at the time, the Ministry's primary functions were to solve the country's post-war health problems, to increase the number and quality of health care personnel, to expand health care services from major urban areas to villages and to extend the coverage of preventive health care services.

Historically, the development of health care services can be divided into four periods. The first period commences with the first Minister of Health, Refik Saydam, who during his term between 1921 and 1937 brought radical changes to the health care system, some of which are still in effect today. The most prominent of these was the Law on Public Hygiene, establishing the framework of public health with detailed rules and regulations. This period also witnessed the establishment of provincial health directorates and government medical offices which still constitute the backbone of the rural health care system.

The establishment of the Public Hygiene Institute in 1928 was also an important step in preventive care. The Institute produced various vaccines between 1930 and 1940.[8] During this period, inpatient treatment was considered to be the responsibility of local governments. The Ministry of Health established special hospitals called *numune* hospitals (model hospitals) to lead as an example for local governments. The initial plan was to transfer these hospitals to local governments but this was never put into practice. Instead, a strictly centralized organizational structure was established over time. Increasing the number of people working in the health care sector became another focal area during this period. The government introduced compulsory medical service in order to

[8] These included toxoid diphtheria and tetanus vaccines, sample type rabies vaccine, pox vaccine, rabies serum and vaccines for pneumococcus, typhoid fever, cox-type typhus fever, typhoid fever–typhus combination, typhus–diphtheria combination, intradermal BCG, plague–cholera combination, plague–cholera–typhus combination, diphtheria–tetanus combination, whooping cough–diphtheria combination, and influenza–typhoid fever–diphtheria–tetanus combination.

achieve equal geographic distribution of already scarce medical staff. Moreover, the state supported poorer students in medical schools with additional benefits such as free accommodation, which led to an increase in the number of doctors to 1182 in 1930 (from 554 in 1923) and to 2387 in 1940. Health care workers in preventive services were paid more than their counterparts at other levels in order to improve preventive health care services.

The second period, which covers the years between 1937 and 1960, saw increasing importance given to inpatient care and decreasing attention to preventive health care services. The organization of the health care system also changed radically. The country was divided into 7 regions with 21 different types of health care facility, ranging from general hospitals to psychiatric hospitals and sanatoriums, and hospitals for communicable diseases to day-care centres. In order to unify and gather all health care facilities under one umbrella, all facilities attached to other ministries, including the Ministry of National Defence and municipalities, were transferred to the Ministry of Health. This centralization of health care services was the turning point in the Turkish health care system. A 10-bed health centre was built for every 40 villages, with health officers, nurses and midwives educated in village institutes and other schools located in villages. A health officer and a midwife were appointed for every 10 villages. The plan was to establish 1000 health centres across the country that would be responsible for integrating preventive and curative care. Establishing a medical school in each region was also part of the plan. The liberal government at the time also encouraged the participation of the private sector.

Another important event in this period was the introduction during the 1940s of vertical organizations[9] established to fight against communicable diseases such as malaria, tuberculosis and trachoma, and which still exist today. A number of laws establishing the basic principles of the health care system were also enacted during the first and second periods and they are still in effect, with some revisions over time; examples include Law on Forensic Medicine (Law No. 38, 1920), Law on Pharmaceutical and Medical Preparations (Law No. 1262, 1928), Law on Medicine, Pharmacy and Medical Practice (Law No. 1219, 1929), Law on Pharmacies and Pharmaceuticals (Law No. 1962, 1928), Law on Public Hygiene (Law No. 1593, 1930) and Law on the Organization of the Ministry of Health and Social Assistance (Law No. 3017, 1936).

[9] Vertical organizations are all subject to the authority of the Ministry of Health but are largely independent of one another and operate without any clear connection with other departments or agencies within the Ministry.

The third era commenced in 1961 with the introduction of the Law on the Socialization of Health Care Services (Law No. 224, 1961). At the beginning of the 1960s, two-thirds of the Turkish population was living in rural areas with no access to even basic health care services. No services were available in rural areas except for malaria, trachoma, syphilis and tuberculosis, provided through the vertical organizations mentioned above. Low health status indicators, geographical inequalities in terms of health care personnel and unequal access to care were the major problems facing the country during this period. The new organizational model emphasized an integrated population-based structure with special emphasis on community participation, intersectoral action and a referral chain. The law enforced the establishment of 'health centres' with a doctor and other staff per 5000 population and a 'health post' with a nurse–midwife per 2000 population. The new system began implementation from the poorest region from 1963, and by 1983 it covered the whole country (see Chapter 6). However, the long period of implementation was due to a variety of reasons, most importantly the lack of adherence on the part of relevant stakeholders, lack of infrastructure and problems related to the policy-making process.

A number of developments also occurred in terms of social security during this period. In 1965, the Social Insurance Organisation (*SSK, Sosyal Sigortalar Kurumu*) was established, covering "blue collar" workers (employees performing manual labour) and their dependants. The SSK opted for direct provision of health care services and established its own hospitals and other health care facilities over time. This parallel structure continued until 2005 when all SSK facilities were transferred to the Ministry of Health, making it once again the dominant provider of health care services. Other employment-based social security schemes were established in 1950 (Government Employees' Retirement Fund (GERF), *Emekli Sandığı*) and in 1971 (Social Insurance Agency for Merchants, Artisans and the Self-employed (*Bağ-Kur*)).

Another important development during the 1960s was the preparation of development plans, which aimed to plan all sectors, including health, every five years. Although there were severe problems in the implementation of these plans, they acted as major health policy documents over the years. For example, the introduction of universal health insurance was first mentioned in these plans and the first draft was prepared in 1976.

The fourth period commenced in the 1980s. From the beginning of the decade, Turkey started to introduce liberal policies for both economic and social life. In 1982, a new constitution guaranteeing health care as a state responsibility was adopted. Article 56 of the constitution provided for general

health insurance to be established. Based on this provision, universal health insurance occupied the health care agenda for the following three decades. In 1990, the SPO published the Turkish Health Sector Master Plan (SPO, 1990). The study recommended reforming health care based on a purchaser–provider split, the introduction of a general health insurance scheme and the establishment of a family practitioner scheme. This study and its recommendations formed the starting point for a concerted health care reform process in Turkey. In 1992, the first National Health Congress was organized, followed by a second one in 1993. The main aims of these congresses were to explore, discuss and plan the future of the health care sector, with wide participation from related stakeholders. In 1993, the Ministry of Health published a document, the *National Health Policy* (Ministry of Health, 1993), outlining reform proposals. The critical components of the proposed reforms were to introduce general health insurance and achieve universal coverage, establish a family practitioner scheme and to grant financial and managerial autonomy to hospitals.

The reform programme in Turkey was accelerated with loan agreements signed between the Turkish Government and the World Bank. The first project signed with the World Bank in 1990 had two main components: reorganizing and strengthening health care services in selected provinces and improving institutional development. The second health project, which commenced in 1994, targeted the promotion of public health in project provinces; the alleviation of preventable diseases and deaths; the improvement of the quality, utilization and accessibility of primary health care services; the improvement of efficiency in health care provision; the enhancement of management capacity, both at the centre and the periphery; and the support of health care reforms.

The period between 1990 and 2002 also witnessed deep political turmoil in the country. Hung parliaments during the 1990s resulted in failures to implement reform proposals. Laws on general health insurance and family practitioner schemes were drafted but did not get onto the parliamentary agenda. After the general elections in 2002, a single party took office with a strong commitment to reforming all spheres of social and economic life, including health. The new government declared its urgent action plan immediately with major reform proposals for the health care sector. The main difference between the reform proposals of 2002 and 1990s lay in the manner of their implementation.

After 2003, under the major reform framework of the HTP (Ministry of Health, 2003b), changes were made to the health care system, including the transfer of SSK and other health care facilities to the Ministry of Health and the passage of the Social Insurance and General Health Insurance Law (which

would eventually bring together existing health insurance schemes), starting pilot projects for family practitioner schemes, expanding or developing new programmes for preventive and primary health care, merging all social security schemes under one umbrella and last, but by no means least, extending coverage, particularly to the poor. Details of these reforms will be discussed in the relevant sections of this report.

2.3 Organizational overview

Historically, the Turkish health care system had a very complex organizational and financial structure. With the implementation of health care reforms since 2003, this structure has changed considerably. Table 2.1 outlines health care organizations by their function.

Table 2.1

Health care organizations by functions in Turkey

Function	Organization
Policy-making	Grand National Assembly (parliament)
	State Planning Organization
	Ministry of Health
	Higher Education Council
	Supreme Court
Administrative decision-making	Ministry of Health
	Provincial Health Directorates
Health services financing	Ministry of Finance
	SSI
	Private insurance companies
	Self-financed institutions
	International agencies
Delivery of health care services: public	Ministry of Health
	University hospitals
	Ministry of National Defence hospitals
Delivery of health care services: private	Private hospitals
	Foundation hospitals
	Minority hospitals
	Independent general practitioners/specialists
	Out-patient treatment clinics
	Laboratories and diagnostic centers
	Pharmacies medical devices and equipment sellers
NGO	Kızılay (Red Crescent)
	Various foundations and associations

Source: Yardım et al., 2007.

The Turkish Grand National Assembly is the highest policy-making authority for all sectors, including health, and all legislative arrangements need to be ratified by the parliament. Other policy-making bodies include the SPO, Ministry of Health, the Higher Education Council and the Supreme Court. The SPO, through five-year development plans, outlines the general direction of all sectors including health. The Ministry of Health is the most important actor in health care policy-making, both as the leader of the majority of policy initiatives and as the major agency involved in implementation. The Higher Education Council is involved in the policy-making process through universities and the education of health related personnel. In addition, the Supreme Court has an important role in health policy-making; in the past, the court has cancelled a number of laws (or particular sections), hindering the implementation of policies. In the Turkish legal system, the Supreme Court is authorized to annul any law that is considered to infringe legal and constitutional rights, and the annulment of parts of the Social Insurance and General Health Insurance Law is an example in this respect (see below).

Administratively, the Ministry of Health and provincial health directorates attached to the Ministry have overall responsibility for health care services. Provincial health directorates implement health care regulations in rural areas and act as a coordinating body for the Ministry of Health. Provinces have governors as the highest administrative and political authority, representing the state, government and all ministries. Provincial health directors communicate with the Ministry of Health via the governor, and vice versa. All health-related issues, including budgetary matters, follow this route.

In Turkey, financing of health care is complex. As outlined in Chapter 3, five different social health insurance schemes with different benefit packages and beneficiaries were developed over time. This led to inequalities among the population as some schemes offered wider coverage and higher-quality health care services with better access. In 2006, the parliament ratified the Social Insurance and General Health Insurance Law to bring the five existing schemes under one umbrella, effective from January 2007. Implementation began in October 2008.

The three main social health insurance schemes, SSK, *Bağ-Kur* and GERF, were transferred to the newly created SSI in 2008. In January 2010, the Active Civil Servants Scheme was also transferred to the SSI, leaving only the Green Card Scheme for the poor outside this body. The Green Card Scheme is also

planned to be transferred in 2011 but at the time of writing this had not occurred. Private insurance companies, self-financed institutions and international organizations have a small share in health financing (see Chapter 3).

The Ministry of Health is the main provider of health care services in Turkey. Before 2005, service provision was very disparate and complicated, leading to inequalities in access. In particular, the SSK had its own facilities that delivered health care to its beneficiaries. These facilities were transferred to the Ministry of Health in 2005. Currently, there are also university hospitals and Ministry of National Defence hospitals operating in the public sphere. As a result of favourable reforms, the private sector has also been flourishing since the mid-1990s, particularly as the different health insurance schemes were able to purchase increasing amount of services from this sector. Private hospitals, physician offices, outpatient clinics, laboratories and diagnostic centres still operate fully within the health care system (see Chapter 6). Fig. 2.1 outlines the health care system and the roles and responsibilities of the Ministry of Health and other organizations.

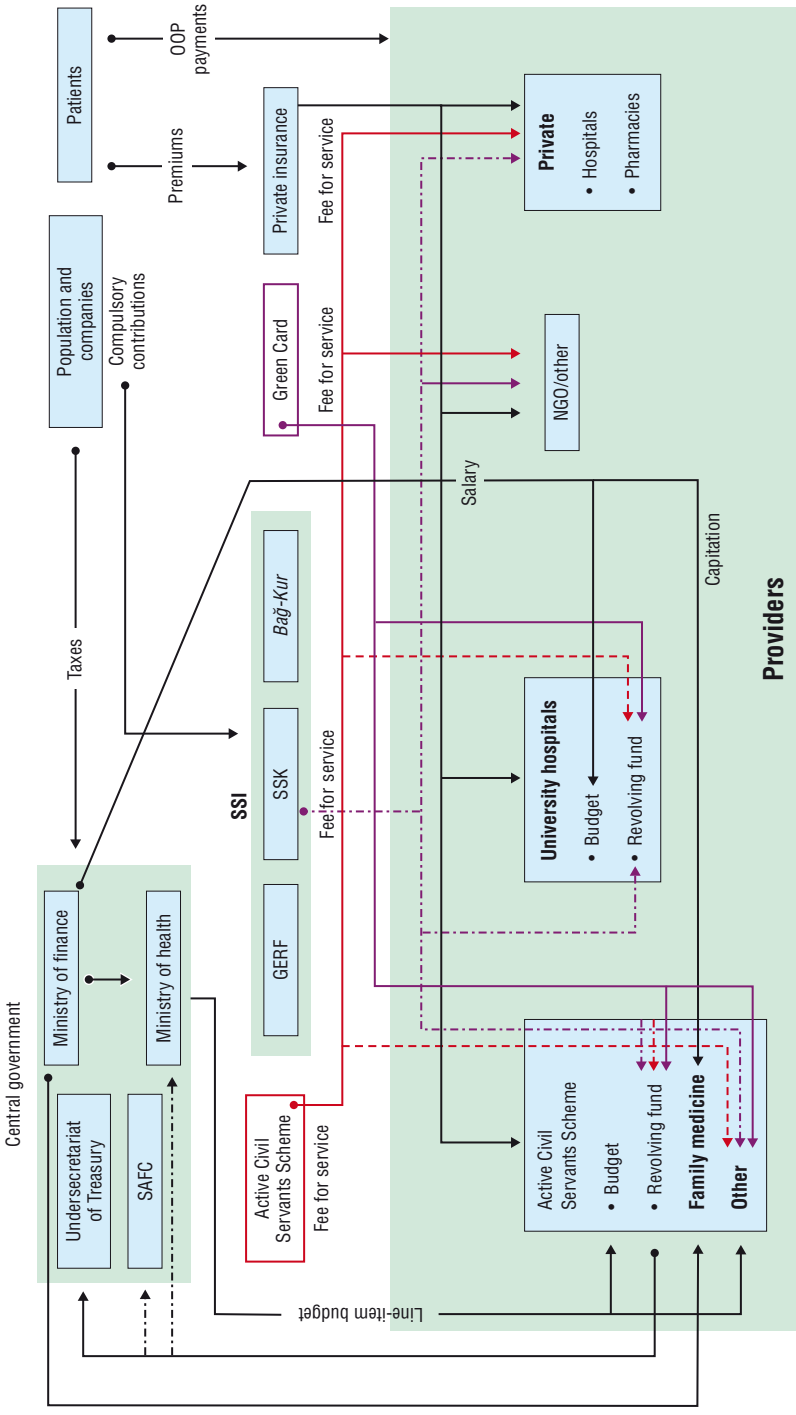
2.3.1 Ministry of Health

The Ministry of Health is primarily responsible for setting health policies, implementing national health strategies and directly delivering health care services. The Ministry of Health is the main provider of primary and secondary care, maternal and child care, and family planning services. It is also the single provider of preventive services through family health centres and population health centres (which replaced "health posts" and "health centres" in 2011; see Chapter 6). All public hospitals, dispensaries and health care facilities belonging to other bodies were transferred to the Ministry of Health in 2005;[10] at this point the Ministry had 848 hospitals, 4 371 health centres and 7 224 health posts (see Chapter 6). The Ministry has different organizational structures at the central (Fig. 2.2) and at the provincial/district (Fig. 2.3) levels.

Provincial health directors are physicians working within the boundaries of the province. They are responsible for planning and implementing health care services in their provinces and are obliged to seek approval from both the provincial governor and the Ministry of Health's central administration. The governor is the first contact person, who coordinates the efforts of different ministries at the provincial level. This high dependence on a deconcentrated administrative system often leads to inefficiencies and delays at these administrative levels.

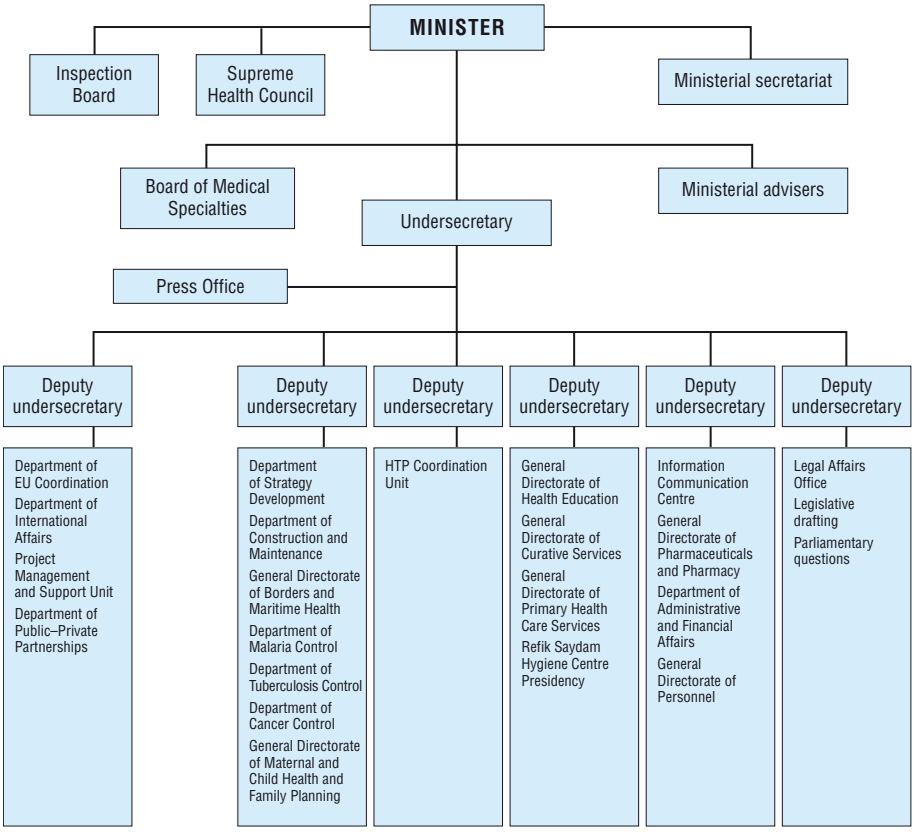
[10] Law No. 5283, effective from 19 February 2005.

Fig. 2.1
Overview of the health system



Source: Based on Mollahaliloğlu et al., 2007a.
Notes: Solid lines represent managerial links; dotted lines represent financial relationships.

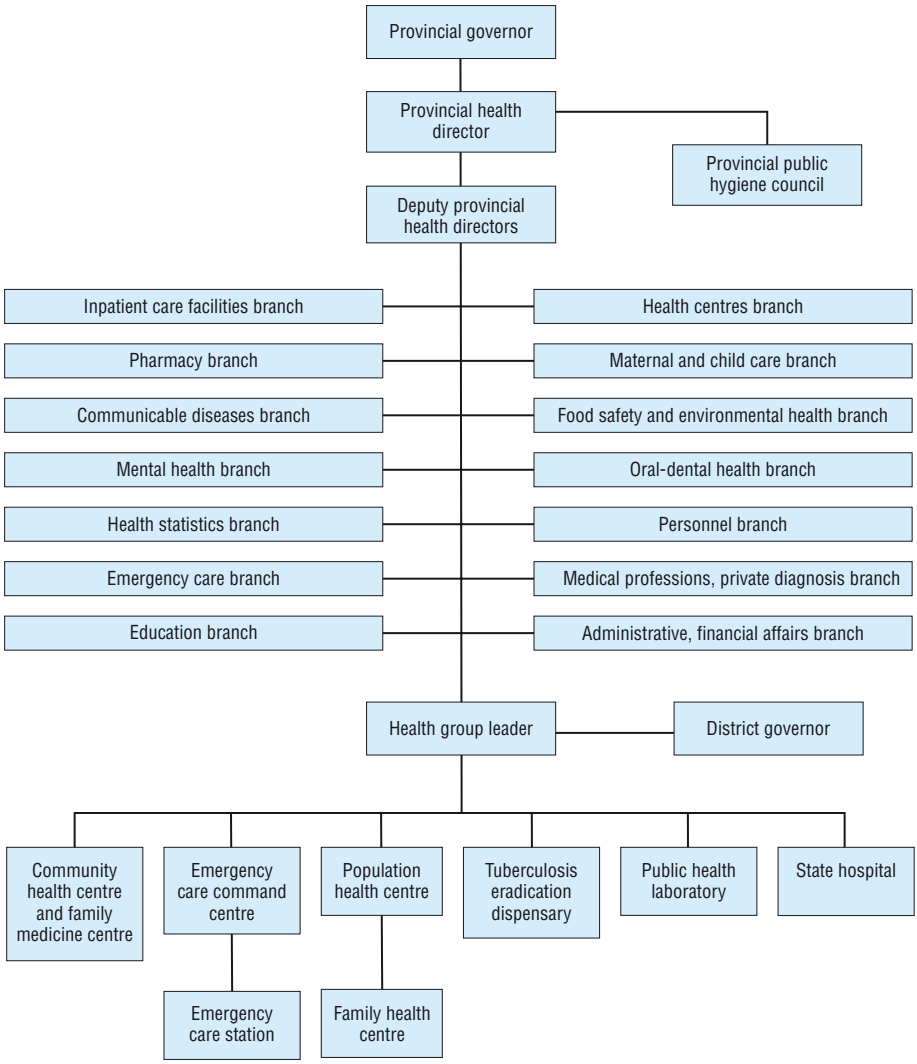
Fig. 2.2
Central organizational structure of the Ministry of Health



2.3.2 Ministry of Labour and Social Security

The Ministry of Labour and Social Security (*Çalışma ve Sosyal Güvenlik Bakanlığı*) has two main responsibilities: regulation of working life (working conditions, industrial relations, preventive measures such as promoting a work–life balance and good workplace practices) plus supervision of business and commercial affairs, and ensuring social justice, social welfare and social security. The Ministry was involved in both the delivery and the financing of health care services until the transfer of its facilities to the Ministry of Health in 2005.

Fig. 2.3
Organizational structure of the Ministry of Health in provinces



2.3.3 Social Security Institution (SSI)

In terms of financing, as part of reform initiatives enacted in 2006, three of the major social insurance schemes (GERF, SSK and *Bağ-Kur*) were brought together under one new body, the SSI, which became operational in 2008. Before 2006, these schemes had different administrative and financial structures with varying benefit packages, rules and regulations. In the run up to the transfer of the funds, major improvements were made to equalize and develop a single benefit package and to allow better access to health care services. After the transfer of the Active Civil Servants Scheme to the SSI at the beginning of 2010, only the Green Card scheme, which covers the poor, now lies outside the SSI.

Box 2.1 outlines the main features of the social insurance schemes that were transferred to the SSI.

2.3.4 Other stakeholders

Political parties, when not part of the government, and trade unions have limited influence on the health care system. Although health policies often feature in election manifestos, frequently there are differences in stated policies and actual practice. At a minimum level, political parties contribute to discussions in parliamentary committees and to Grand General Assembly debates through their elected members. There are a few trade unions covering health personnel but their role is often limited; for example, the right to strike is not allowed in the public sector and there is no strong tradition of lobbying. There are also professional associations and associations for certain providers in the private sector. The Turkish Medical Association, Turkish Dentists Association, Turkish Pharmacists Association and Turkish Nurses Association are the most powerful of these. However, their actual influence on health policy is questionable, given their different views regarding health policies and the difficulties they face in reaching consensus on specific issues.

The pharmaceutical sector does exert a degree of influence on pharmaceutical policies. There is a growing generic industry in Turkey but the market is mainly driven by multinational companies. Since 2004, the pharmaceutical sector has been the most heavily regulated market in the health care sphere, and a number of new policies have been introduced covering market approval, pricing and reimbursement (Chapter 6). The three industry associations established by generic companies and research-based companies (the Association of Research-Based Pharmaceutical Companies, the Pharmaceutical Manufacturers Association of Turkey and the Turkish Pharmaceutical Manufacturers Association) actively participate in the pharmaceutical policy formulation process.

Box 2.1

Health insurance funds transferred to the SSI in 2008 and 2010

SSK

The SSK had the largest population share (46.9% in 2008) and covered private sector employees and blue collar public sector workers. It was affiliated with the Ministry of Labour and Social Security and covered industrial accidents, occupational diseases, illness, births, disabilities, old age, injuries and deaths, as well as collecting health insurance contributions separately. The scheme was introduced in 1946 and was fully established under legislation in 1965. The organization then began the direct provision of health care services and provided both social security benefits and health care services across the country with its 118 hospitals, 219 health stations (similar to the health posts of the Ministry of Health) and 189 dispensaries (similar to the health centres of the Ministry of Health). All these facilities were transferred to the Ministry of Health in 2005. The SSK itself was transferred to the newly established SSI in 2008 along with its central and rural organizations, staff, property and assets.

Bağ-Kur

Bağ-Kur was established in 1971 (Law No. 1479) as a social security scheme for self-employed people, artisans and merchants (and their dependants), but the scheme was later extended to cover the unemployed, housewives, the elderly, foreign residents in Turkey and unemployed spouses of Turkish people working abroad. The scheme further extended its coverage to self-employed farmers in 1983 (Law No. 2926). Health insurance was included in the system in 1985–1986 and farmers benefited from health coverage from 1999. The scheme covered 20.7% of the total population in 2008. Bağ-Kur never owned its own facilities but purchased health care services from both the public and the private sectors. It had offices in all of Turkey's 81 provinces, along with a financial and administrative authority. The organization was transferred to the SSI in 2008.

GERF

GERF covered retired government employees and their dependents, providing both old age pension and health care benefits. Coverage for this group is still financed by the contributions of active civil servants (not the retired beneficiaries themselves) and subsidies from the state. Contributions are not premium based: rather active civil servants and their employers, the government, each contribute a percentage of wages. In the past, GERF was the most advantaged scheme in terms of coverage and access to health care services. The Fund purchased health care services from both the public and the private sectors. It was transferred to the SSI in 2008.

Active Civil Servants Scheme

This scheme, covering government civil servants who are currently still working, is paid for out of the general budget. Its administration was transferred to the SSI in January 2010.

The role of the private sector is more organized in terms of provision than financing. Private insurance companies represent a very small segment of total health care expenditure. With the implementation of the GHIS, this sector may develop towards providing complementary insurance; however, no major developments are expected in the foreseeable future. On the provision side, by comparison, the private sector has increased its role with the introduction of new policy initiatives since 2003. The increased purchasing by social security schemes of both inpatient and outpatient care from the private sector, coupled with political rhetoric emphasizing the increased role of this sector, has resulted in the construction of new private facilities (see Chapters 5 and 6).

It is true to say that the role of health care stakeholders has changed dramatically since the reform process began in 2003. First of all, previously active actors, such as the World Bank, have lost their influence in the policy-making process.[11] Second, the changing role of particular institutions in the health care sector also has had an impact on the responsibilities of major actors. For example, the SSK, on the one hand, was a major provider and financier of health care services before 2005, but exited its role as a major provider and became a financing organization only. On the other hand, with the transfer of SSK facilities, the Ministry of Health took over major responsibility for the provision of all services. Moreover, after 2005 all the insurance schemes started to have a major influential role within the health care system and started to contribute more to health policy. In the future, the SSI is expected to be the major stakeholder in determining what services are provided by the health care system as it is now the main reimbursement agency (see Chapter 3).

2.3.5 Policy formulation process

Currently, the health policy agenda is driven collaboratively by the Ministry of Health and the SSI, although parliament is the ultimate authority where policies gain legal status. While all actors in the health care system have some say in the policy-making process, in reality, their views are reflected only if they are not radically in conflict with the incumbent government's policy agenda and if they do not jeopardize the implementation of policies.

Currently, the Ministry of Finance (*Maliye Bakanlığı*) and the SSI are responsible for financing and resource allocation, whereas the delivery of health care services and planning of health care fall mainly under the responsibility of the Ministry of Health. The Ministry of Health regularly publishes data

[11] Currently, the World Bank provides limited assistance on research projects.

on the progress of the reform implementation (Akdağ, 2007). Some internal performance assessments also exist, but the majority of these are not available to the public.

2.4 Decentralization and centralization

Turkey has a highly centralized administrative structure. The country is divided administratively into 81 provinces based on geographic areas, economic conditions and public service requirements. Provinces are further divided into districts (*ilçe*) and villages (*köy*). Decentralization is based on deconcentration principles; that is, some administrative authority is given by the central government to local offices of its ministries. A provincial governor, appointed by the Ministry of the Interior, is the representative of the President and each Ministry within the boundaries of the province. All ministries also have a peripheral unit in the province but the directors of these units are responsible to the governor for their activities. All decisions from the centre (Ministry of Health) are sent to the provincial governor before they are referred to the provincial health directorate for action. The same route is followed from the provincial health director to the Ministry of Health.

There are also two types of local government in Turkey: municipalities and provincial private organizations. Municipality elections are held every five years to determine the mayors and members of the provincial/district councils. These have some health care responsibilities, particularly in public health. However, in many cases municipalities are heavily controlled by the central government through the Ministry of the Interior. This interdependence is mainly a result of the country's general administrative structure together with the financial weakness of local authorities: many provinces and districts are heavily dependent on central funds for their survival. The provincial private organizations are private bodies headed by the governor of the province and they generate income through private enterprises. The profits of these organizations are then spent on provincial economic and social activities.

Decentralization of the public administration system has been on the current government's agenda since 2003. It should be noted that decentralization of the Ministry of Health in isolation would not be efficient unless similar attempts were made for the entire public administrative structure. To this end, in 2004, parliament ratified the Public Administration Law, which changed the administrative structure of the country radically. The proposed new system

was based on the principle of greater empowerment of local governments and would have given them more financial and administrative authority. However, the President vetoed some parts of the legislation, hindering its implementation.

In this context, the decentralization of health services was also considered. It was envisaged that, in future, the Ministry of Health would have more of a stewardship role rather than actively manage and own health care facilities. Thus, planning, coordination and regulation were seen as the core responsibilities of the future Ministry of Health. Moreover, in this decentralized system, hospitals would be transferred to local authorities. However, as the Law was vetoed, only new arrangements that would grant autonomous status to hospitals are being considered. In the long run, the expectation is still that the Ministry of Health will be more involved in regulation and overall management of the system rather than the direct provision of health care services.

2.5 Patient empowerment

The Turkish health care system has become more patient-centred since 2003. The transformation programme puts 'people' at the focal point of reforms. The Ministry of Health has taken both legal and organizational measures to empower patients and improve patient rights and patient satisfaction. This section will focus on information for patients, patient rights, patient choice, patient safety and compensation, complaint procedures and patient participation and satisfaction.

2.5.1 Patient information

The Ministry of Health and SSI are the main providers of information to patients. The web sites of both institutions contain relevant information on accessibility, coverage, rights and procedures to follow for claims. In addition, health care facilities have their own web sites. However, these measures may not be adequate because of the low level of Internet utilization in the country, particularly in rural areas. The Ministry of Health also has a call centre (SABİM; accessible 7 days a week, 24 hours a day) where callers can obtain information about procedures and rights. Patients can also voice their complaints, recommendations and demands through this call centre. In 2007, the Ministry of Health released a publication, *Patient Guidance* (Özlü & Bostan, 2007), providing detailed information on such topics as patient rights, providers and other related issues. Currently, there is no publicly available information about the quality of health care services.

2.5.2 Patient rights

The Patient Rights Decree (Ministry of Health, 1998a) defines the rights of patients. The Decree clarifies that patients have the right to choose their medical institution and health personnel and have the right to be informed about their condition, treatment options, recommended treatment and the possible outcomes of rejecting treatment. The Decree also outlines the boundaries of privacy, the right to informed consent and what measures to take in cases where rights are violated. The Decree classifies patient rights under the following headings.

Right to health care. This includes the right to health care under just and equal conditions, the right to information, the right to choose and change health care organization, the right to choose and change health care personnel, the right to ask for prioritization, and the right to adequate diagnosis, treatment and care. Under this heading, euthanasia and interventions against medical needs are prohibited.

Right to information about health status. Patients are given the right to ask for information about their general health status, to review their patient records and to ask for amendments to such records. Cases where providing information may be prohibited are also outlined: that is, in cases where the provision of information can have a negative effect on the general health status of the patient, health providers are allowed to withhold information on the diagnosis.

Ensuring patient rights. This section outlines guidelines for respecting privacy, asking for informed consent for medical interventions and respecting confidentiality.

Informed consent. This section outlines the rules and obligations regarding patient consent.

Medical research. This section outlines the rules and regulations regarding medical research, patient rights and the Ministry's responsibilities.

Other rights include providing security, religious facilities, visiting rights, respecting human values and the right to ask to be accompanied.

The legal route that a patient should follow when rights have not been respected, or in cases of mistreatment, differs for public and private institutions. If the case occurs in a public hospital, the patient can sue the institution, not the individual physician. If there is material, physical or psychological loss as a result of wrongdoing on the part of a physician working in a public institution, the patient could take the case to the relevant administrative unit in the health

care institution and demand compensation. If the health care institution does not consider the claim or does not uphold the patient's claim, then the patient can file a lawsuit within one year. If the wrongdoing occurs in a private institution, then the patient can sue the physician directly. In parallel, the patient can also file a complaint with the Turkish Medical Association, which has the power to prohibit the physician from practising for up to six months. If a health professional is proven, within a court, to have mistreated or violated the rights of a patient, the court notifies the Ministry of Health of the guilty verdict and the latter withdraws the practitioner's licence.

Another option is to send a claim to the Higher Health Council (*Yüksek Sağlık Şurası*), which meets regularly under the Ministry of Health. If the Council supports a claim, the patient may resort to litigation. A third option for the patient would be to directly seek redress in court. In such cases, the court generally calls upon the Turkish Medical Association or Higher Health Council and generally acts upon their advice. According to the Turkish Medical Association, approximately 400 lawsuits are filed annually and only half result in a conviction. The main reason behind the low level of convictions is the lack of concrete evidence to prove malpractice.

On 15 May 2003, the Directive on Patient Rights in Health Care Institutions was prepared to enforce the Patient Rights Decree. In 2005, a patient rights unit was established within the Ministry of Health's General Directorate of Curative Services. In these units, patients' complaints are considered and assistance is provided by social service experts. The Ministry of Health also has a web site on patient rights (Ministry of Health, 2009d) that is accessible to the public. All Ministry of Health hospitals have patient rights units. There is also an NGO called the Organization of Patients' and Patients' Relatives' Rights (*Hasta ve Hasta Yakını Hakları Derneği*), with its web site providing information on patient rights (*Hasta ve Hasta Yakını Hakları Derneği*, 2009).

2.5.3 Patient choice

Patient choice has received increased emphasis since the implementation of reforms, and the Ministry of Health has taken a number of measures to improve this area. At the moment, patient choice has improved more in terms of provision than financing. In the past, people's choice of insurer was limited by their professional category. A blue collar employee could only be a member of SSK and civil servants could only be members of the Active Civil Servants Scheme. Now, under the GHIS, all citizens effectively are covered by the SSI so there is no patient choice on the financing side.

As far as provision is concerned, free choice of provider was only available to GERF members before June 2007 and the rest of the population was restricted to certain referral rules depending on their social health insurance scheme. Patients now enjoy freedom of choice at all levels of the health care system. The referral chain was abandoned in June 2007 as part of attempts to equalize the rights of patients under different insurance schemes; an attempt to reintroduce a referral system in parallel to piloting a family practitioner scheme has not been successful (see Chapter 6). Patients are also free to choose from a list of family practitioners and are free to switch their practitioners after a certain time period.

2.5.4 Patients and cross-border health care

In recent years, Turkey has become an option for cross-border health care, particularly for Middle Eastern, central Asian and EU countries. Provision of high-quality and cost-effective services, coupled with an overload of patients in the health care systems of other countries, has started to attract foreigners, particularly for selected interventions. In recent years, Turkish spas also have become an option for middle-aged and elderly foreigners and they have become the main attraction facilities for health tourism. Regulations for these organizations are prepared collaboratively by the General Directorate of Primary Health Care Services, the General Directorate of Curative Services and the Public Hygiene Institute of the Ministry of Health.

Turkish citizens with certain conditions also have the right to seek treatment abroad. The main principle for reimbursement of these patients is the certification that the specific treatment is not available in Turkey. This certification can only be made by authorized health care institutions and has to be approved by the Ministry of Health. Only in such cases will treatment abroad be reimbursed. The treatment period is restricted to one year after each medical report and there are no restrictions regarding which countries provide the treatments.

2.5.5 Complaints procedures

Complaints procedures are outlined in detail in the Patient Rights Decree, which clearly states that patients have the right to pursue their complaints and sue an institution (in the public sector) or individual practitioner (in the private sector) (Article 42). Patients can also put their claims through the Ministry of Health hotline (184). Procedures for making claims against health care providers are outlined in Section 2.5.2.

2.5.6 Patient safety and compensation

The Ministry of Health is the ultimate authority that deals with medical malpractice issues. The Ministry appoints public sector inspectors to assess the claims of patients. For public sector malpractice claims, cases are made against the facility not the staff (Article 13 of the Government Employees Law No. 657). However, the facility has the right to ask for indemnification from staff if found guilty. The private sector, by comparison, is covered by labour law, where the responsibilities of employers and physicians are defined. Accordingly, any damage incurred unintentionally would be compensated by the employer whereas intentional damage is compensated by individuals. Currently, health care providers are not obliged to have liability insurance but new legislation to require it is being prepared.

Adverse pharmaceutical reactions are reported to the General Directorate of Pharmaceuticals and Pharmacy (*İlaç ve Eczacılık Genel Müdürlüğü*) in the Ministry of Health. Health care providers notify the Directorate by filling in the Adverse Effect Notification Form. All monitoring activities and evaluations of drug safety are carried by TUFAM (Turkish Pharmacovigilance Centre). In addition, Turkey has been a member of the WHO Programme for International Drug Monitoring since 1987.

2.5.7 Patient participation and satisfaction

Patients' participation in health care policies and decisions is quite limited in Turkey. However, proposed reform measures are being considered that would improve the situation. As part of the health technology assessment (HTA), the Ministry of Health has emphasized patient satisfaction in all recent policy documents, and it has already incorporated satisfaction levels of patients and their relatives as an input in determining institutional performance. Two survey questionnaires for both inpatients and outpatients have been designed, and hospitals are asked to carry out these surveys periodically. Apart from this, TURKSTAT also has a module on satisfaction with health care services in the general Life Satisfaction Survey. In 2005, the overall level of satisfaction with health care services was found to be 55.2%, compared with 39.5% in 2003 (Ministry of Health General Directorate of Curative Services, 2006), while the latest figure for 2010 is 73.04% (TURKSTAT, 2010d).

2.5.8 Physical access for the disabled

Physical access to health care institutions by disabled people is governed by law. However, there is no clear evidence regarding its enforcement. Local administrations may also have facilities for transportation of the disabled to health care facilities, particularly in big cities.

3. Financing

Sources of health expenditure and its share of GDP have always been contentious topics in Turkey. As will be outlined in detail in this chapter, because of the different approaches taken to calculate GDP in different time periods, the share of health expenditure as a proportion of GDP can range from 7.5% to 5.4% for the same year (TURKSTAT, 2009e; Yardım et al., 2007). According to the most recent official statistics, 81.9% of the population was covered by one of the (then) available social security schemes in 2007 (SSI, 2008). This figure does not include Green Card holders, who only have health care coverage (17.9% of the population in 2007) (SSI, 2008). The benefit package is quite comprehensive in Turkey, covering both inpatient and outpatient care. There are co-payments for pharmaceuticals (20% of the prescription for active workers and 10% for retirees) and medical devices such as prostheses. Co-payments for outpatient care have been introduced for all those covered by the SSI who visit hospitals without a referral from a primary care physician (GP); patients pay 8 TL (€ 3.6) and 15 TL (€ 6.8) to public hospitals and private hospitals, respectively. Visits to primary care facilities do not require a co-payment. Some over-the-counter medicines that were reimbursed in the past were excluded from the positive list in 2006. The remaining over-the-counter medicines on the positive list incur the same co-payments as prescription drugs.

In 2008, 73% of health care expenditure came from public sources and around 60% of this came from social health insurance (TURKSTAT, 2009e). Historically, pooling of resources has been complex and fragmented. In the past, the scene was more complicated as there were five different schemes covering different segments of the population, with varying resource pooling rules and benefit packages. However, this has been simplified since 2008, with the transfer of the main health insurance funds to the SSI.

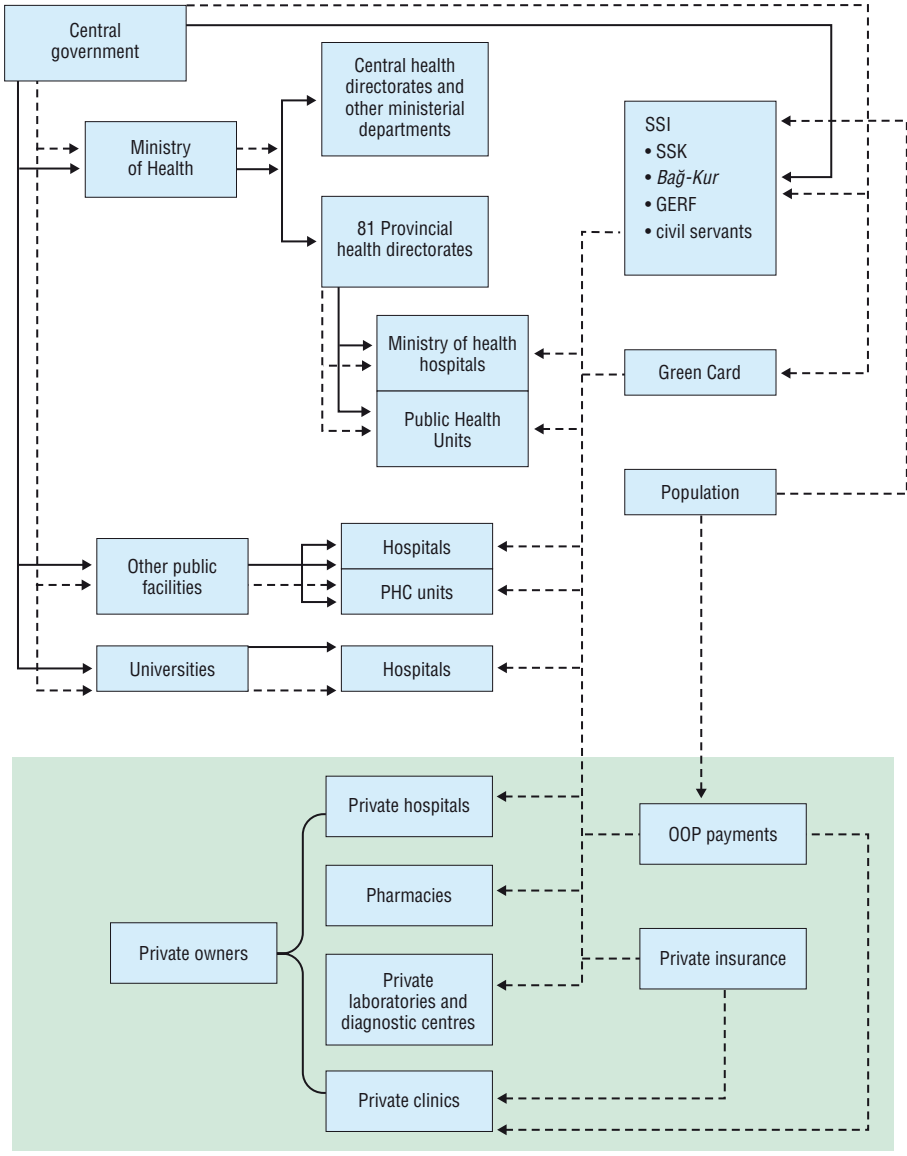
Since 2003, as an important component of the government's HTP (see Chapter 7), radical steps have been taken in the area of financing. According to the National Health Accounts (NHA) study in 2000,[12] Turkey spent 19.8% of its resources on inpatient care and 28.4% on outpatient care. The same study concluded that 27.8% of health care expenditure was spent on pharmaceuticals in the same year (Ministry of Health RSHCP School of Public Health, 2004). There is also a complex provider payment system. Public hospitals and university hospitals are allocated annual budgets from the government, but they are also paid by the SSI and patients on a fee-for-service basis for services provided. The amount paid directly to the hospital either by the SSI or individuals is pooled in the hospital's revolving fund. Individual providers are paid by salary and are also given a certain amount of money through the revolving fund of the hospital based on a formula taking into account the "performance" of both the provider and the hospital during the previous month. Fig. 3.1 outlines the financial flows within the Turkish health care system. The following sections will provide further details on this complex health financing structure.

3.1 Health expenditure

Turkey had its first internationally comparable health expenditure estimations for the years 1999 and 2000 with the publication of the first NHA study (Ministry of Health RSHCP School of Public Health, 2004). Although until 1999 the Ministry of Health estimated public and private expenditure (Ministry of Health, 1998b, 2001a, 2001b), these estimates were not based on an internationally acceptable methodology and nomenclature. The NHA study revealed considerable underestimation for both the public and the private sector. For example, the last Ministry of Health expenditure study concluded that Turkey spent 4.8% of its GDP on health care in 1998 (Ministry of Health, 2001b), whereas the NHA study estimated the figure for the following year as 6.4% (Ministry of Health RSHCP School of Public Health, 2004). No noteworthy policy changes had taken place that would have increased health expenditure radically within one year, and, in fact, the difference between the two estimations results from the differing methodologies employed. For the period 1999–2000, the NHA study used the System of Health Accounts (SHA) methodology developed by the OECD to derive its estimations. Although the NHA study placed special emphasis on continuing its work in ensuing years,

[12] The first NHA study was conducted by the Ministry of Health for 1999–2000. Subsequent NHA studies have been carried out by TURKSTAT with technical assistance from the Ministry of Health, but these follow-up studies are not as comprehensive as the first one and provide only basic information about health care expenditure.

Fig. 3.1
Financial flows in the Turkish health system



Notes: Solid lines represent administrative relationships; dotted lines represent financial relationships.

it was not repeated in the same way and with the same detail for the following years, mainly because the responsibility for the study moved to TURKSTAT from 2000. Currently, there are attempts by TURKSTAT to compile health expenditure data according to requirements stipulated by the European statistical agency Eurostat.

Table 3.1 shows health expenditure figures for selected years between 1980 and 2008. However, the data should be treated cautiously as the sources of information and methodologies used to estimate expenditure do not allow direct comparisons over years. The figures between 1980 and 1995 are taken mainly from Ministry of Health data and the central government budget. Calculating health expenditure is complicated by the fact that during the period under consideration Turkey had a very complex health care system with multiple providers and funding sources. In addition, there has always been large out-of-pocket (OOP) expenditure that is not covered fully in the estimations prior to 1999. Reliable and comparable health expenditure data became available only after 1999, with the publication of the NHA studies. Increases in health expenditure in the period 2000–2004 can be attributed mainly to various reform initiatives that improved access to health care services and to changes in the provider payment system. This trend has continued with rises in the share of public expenditure on health as well as public health expenditure's share of GDP, from 2.9% in 1999 to 4.4% in 2008 (TURKSTAT, 2009e). This increase mainly reflects improvements in the public provision and financing of health services, which decreased the share of OOP expenditure. Table 3.2 illustrates more clearly some of these trends.

Table 3.1

Health expenditure in Turkey, 1980–2008 (selected years)

	1980	1985	1990	1995	2000[a]	2005[a]	2007[a]	2008
Total expenditure on health/capita (US$ PPP)	70	68	155	195	458	622	813	902
Total expenditure on health (% of) GDP	2.4	1.6	2.7	2.5	4.9	5.4	6.0	6.1
Public expenditure on health (% of total expenditure on health)	29.4	50.6	61.0	70.3	62.9	67.8	67.8	73.0

Sources: OECD, 2006; [a]TURKSTAT, 2009e.

Fig. 3.2 shows comparative figures on health expenditure as a percentage of GDP for a selection of European countries. These data show that there has been a significant increase in Turkey's expenditure since 1995, reaching approximately 5% in 2008. Although this is below the EU average, the growth rate between 1995 and 2008 has been much greater than that in the EU as a whole (56% growth versus 13%). It should be noted, however, that changes in

Table 3.2.
Trends in health expenditure in Turkey, 1980–2008 (or latest available year)

	1980–1985	1985–1990	1990–1995	1995–2000	2000–2008 (or latest available year)
Mean annual real growth rate in total health expenditure (%)[a]	0.8	9.6	5.0	6.4	15.2
Mean annual real growth rate in GDP (%)[a,d]	4.8	5.7	3.2	3.8	2.8
Total government spending (% GDP)[b]	n/a	n/a	n/a	26.8–42.7[e]	42.7–38.9
Government health spending (% total government spending)[b]	n/a	n/a	n/a	10.1–9.8[e]	9.8–13.9
Government health spending (% of GDP)[b]	0.7–0.8	0.8–1.6	1.6–1.8	1.8–3.1	3.1–4.4 (2007)
Private health spending (% total expenditure on health)[c,f]	76.5–49.4	49.4–39.0	39.0–29.7	29.7–37.1	37.1–27.0 (2007)

Sources: [a]TURKSTAT, 2008c, 2009e; SPO, 2008; [b]WHO, 2006b; [c]OECD, 2006.

Notes: [d]Calculated as the mean of the annual growth rates in national currency units at 1995 GDP prices. New GDP deflators were calculated by 1995 prices; then, real growth was calculated by dividing each period's GDP by new GDP deflators; finally, mean annual growth rates for five-year time periods were calculated; [e]1996–2000; [f]Range shows value at beginning of period and end of period; n/a: Data not available.

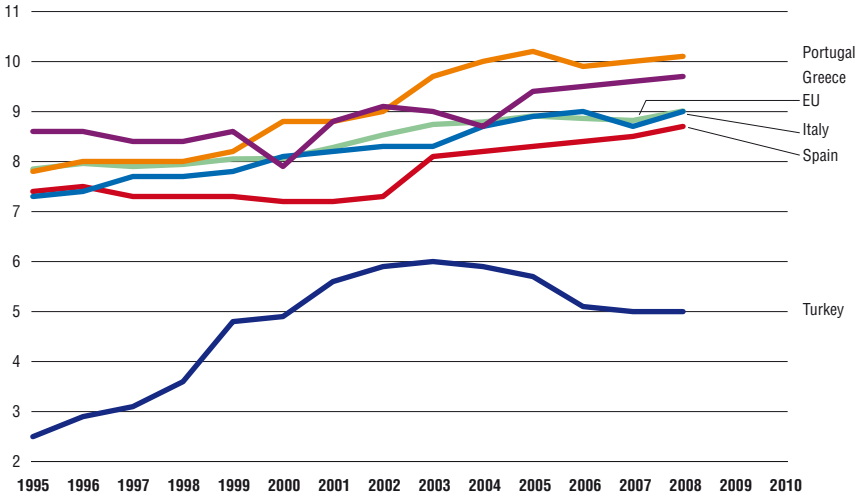
the way GDP is calculated by TURKSTAT impacts on the estimates of health expenditure as a share of GDP. First, the base year was changed from 1987 to 1998 and, second, foreign trade in economic free zones was included in the GDP calculation, thus increasing the volume of exports. In addition, new methods were used to incorporate the informal economy into the calculation. Table 3.3 compares the old and new calculations of GDP and the share of total health expenditure.

The data in Table 3.3 lead to contradictory conclusions about health expenditure trends in Turkey. If the old GDP calculations are taken into account, then Turkey, with a 7.3% share of GDP (in 2006), spends a considerable amount of its GDP on health. The implications of these data are that although Turkey spends a considerable amount of its economic wealth on health services, there is room for improvement in the utilization of these resources for better health outcomes. In contrast, if the new GDP calculations are taken into account, then Turkey, with a 6.1% share of GDP (in 2008), spends a lower amount of resources than other countries with a comparable income. Prior to the new GDP calculations, the first conclusion prevailed and policy-makers focused more on improving the use of resources. However, the new data changes the situation and the issue of increasing the amount of resources allocated to health care may be placed on the political agenda.

Fig. 3.3, taken from the WHO Health for All database, outlines the health expenditure per capita (PPP) for the countries of the WHO European Region. From these data, Turkey lies in the group of countries in the bottom third of the graph, spending below € 600 per capita PPP.

Fig. 3.2

Trends in health expenditure as a share (%) of GDP in Turkey and selected other countries WHO estimates,1995–2008



Source: WHO Regional Office for Europe, 2011.

Table 3.3

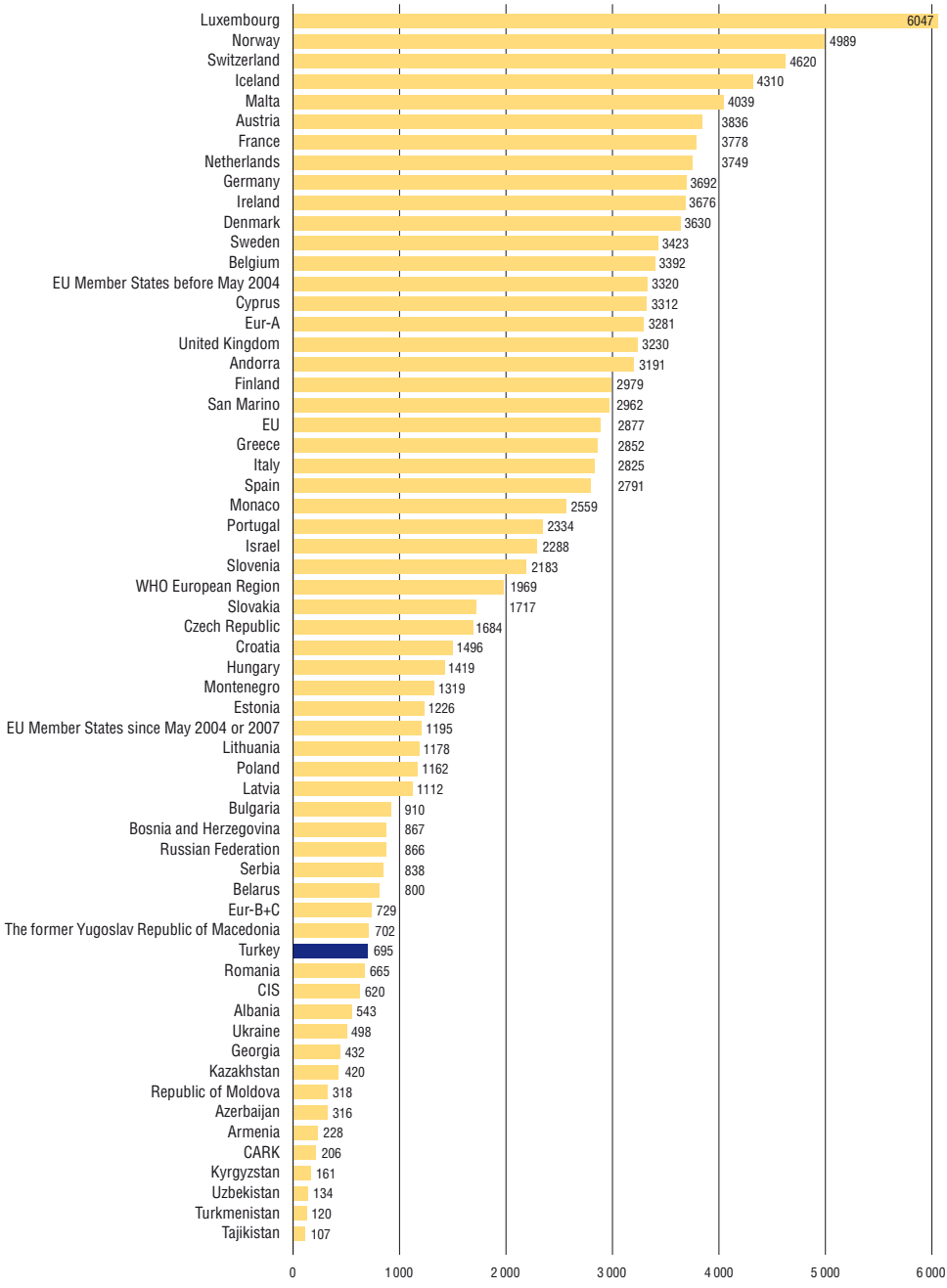
Health expenditure and GDP (at current prices), 1998–2008

Years	GDP (million old TL)	GDP (million YTL)	Total health expenditure (million TL)	Share of health expenditure (% old GDP)	Share of health expenditure (% of new GDP)
1998	52 225	70 203	n/a	n/a	n/a
1999	77 415	104 596	4 985	6.4	4.8
2000	124 583	166 658	8 248	6.6	4.9
2001	178 412	240 224	12 396	6.9	5.2
2002	277 574	350 476	18 774	6.8	5.4
2003	359 763	454 780	24 279	6.7	5.3
2004	430 511	559 033	30 021	7.0	5.4
2005	487 202	648 932	35 359	7.3	5.4
2006	576 322	758 391	44 069	7.6	5.8
2007	n/a	843 178	50 904	n/a	6.0
2008	n/a	950 354	52 320	n/a	6.1

Sources: TURKSTAT, 2008c, 2009e; Yardım et al., 2007.
Note: n/a: Data not available.

Fig. 3.3

Total health expenditure per capita (US$ PPP) in the WHO European Region, 2008, WHO estimates



Source: WHO Regional Office for Europe, 2011.

Data on the distribution of health expenditure by type of expenditure come from the NHA study in 2000, and figures for more recent years are not available. As Table 3.4 shows, inpatient care and public health care services in 2000 were predominantly paid for from public sources. Private sources (that is, private insurance, OOP payments and other private sources) and public sources (central and local government plus social security funds) contributed more or less equally to outpatient services. The estimates for 2000 show that 83.1% of total health expenditure was on personal health care services and goods, which included inpatient and outpatient services as well as pharmaceuticals and other medical goods. Nearly 60% of this expenditure was derived from government sources, with social security funds having the largest share. The share of pharmaceutical expenditure as a proportion of total health care expenditure was high in 2000 (27.8% of the total) compared with other OECD countries, but country-specific reasons should be considered before interpreting these results. Liu, Çelik and Şahin (2005) and Tatar (2007) have outlined the reasons for relatively high pharmaceutical expenditure in Turkey.

- In the Turkish health care market, pharmaceutical prices reflect international market prices, whereas labour costs are normally based on national wage structures. This means that other elements of health care expenditure are relatively underestimated because of the relatively lower domestic prices of these other components of the health care system.
- Public facilities are highly subsidized in Turkey. According to the NHA study (Ministry of Health RSHCP School of Public Health, 2004), 35% of Ministry of Health hospital revenue in 2000 came from the general budget, meaning that social security organizations were paying less for hospital services than the actual service costs. However, pharmaceutical expenditure was based on prices determined by the Ministry of Health by referencing the lowest price in five EU countries (France, Greece, Italy, Portugal and Spain) and there was no subsidy.
- Access to pharmaceuticals is easier compared with other components of the health care system. As a result, there is a high level of self-medication and of polypharmacy practised by doctors. According to the NHA Household Survey[13] (Ministry of Health RSHCP School of Public Health, 2004), 26.6% of people who assessed themselves to be in need of health care opted for self-care. Many products with strict prescription rules in other countries can be freely obtained from pharmacies in Turkey. In other words, if patients are willing to pay out of pocket, then they can

[13] The NHA Household Survey is a subcomponent of the NHA study.

obtain a wide range of products from pharmacies without a prescription. This situation contrasts with that in countries with better regulation of pharmacists' activities. Turkey's relatively high percentage of pharmaceutical expenditure as a proportion of total health spending, when compared with OECD countries, could also be related to the OECD's SHA methodology. In the SHA, only the retail sale of pharmaceuticals, (that is, pharmaceuticals sold in pharmacies) is included under the pharmaceuticals category. Pharmaceuticals used during an inpatient or outpatient episode in a hospital are classified under either the "inpatient" or the "outpatient" category. In Turkey, there is evidence from both the NHA Household Survey and other sources (Tatar et al., 2007) that patients are asked to purchase their prescriptions from retail pharmacies even when they are hospitalized. The NHA Household Survey indicated that 29.7% of people purchased their inpatient medicines in this way (Ministry of Health RSHCP School of Public Health, 2004). This practice, therefore, artificially increased the estimates for pharmaceutical expenditure for 2000. In 2007, the government issued a decree forbidding this practice, and hospitals became obliged to meet the pharmaceutical requirements of their inpatients from hospital stocks. The impact of this policy change on total pharmaceutical expenditure is yet to be assessed.

- In OECD countries, the majority of health care spending occurs for inpatient services, indicating that quite a large amount of pharmaceutical expenditure is absorbed into the "inpatient expenditure" category. In contrast, in Turkey pharmaceutical spending is intensive for outpatient care and prescriptions have a higher share in the treatment of patients.

Table 3.4

Total health expenditure by type of service and financing agent, 2000[a]

	Inpatient care (%)	Outpatient care (%)[b]	Prevention and public health services (%)	Medical supplies given to outpatients (%)[c]
Central government	37.9	19.6	95.8	14.3
Local government	1.1	0.5	0.3	0.8
Social security funds	46.1	25.2	0.0	46.8
Private insurance	4.4	3.0	0.1	1.4
Household expenditure	8.7	42.8	0.0	32.9
Other private expenditure	1.8	8.9	3.8	3.8

Source: Ministry of Health RSHCP School of Public Health, 2004.
Notes: [a]Latest year where financing data are available by type of service is 2000; [b]Primary care services are included in this category; [c]Includes pharmaceuticals.

The SSI now accounts for the largest share in pharmaceutical spending. After extending Green Card coverage to outpatient prescriptions and improving access to private pharmacies for all social security schemes, the share of public sources in pharmaceutical expenditure also increased. Prevention and public health expenditure had only a 2.3% share of total current health expenditure in 2000, and 96.1% of this expenditure was made from public sources.

3.2 Population coverage and basis for entitlement

Prior to 2008, Turkey had five independent financing schemes with different entitlements and rules of access. Merging all social security schemes under one umbrella had been a long-standing desire, and concrete steps to this end were made under the HTP of the new government that took office in 2003.

The year 2006 can be regarded as a watershed in Turkey's social security policies, with the introduction of two crucial pieces of legislation to set up the GHIS. First, the Social Security Institution (SSI) Law instigated the transfer of three of the major social security schemes – SSK, *Bağ-Kur* and GERF – to the newly created SSI. The Active Civil Servants Scheme was subsequently transferred in January 2010. The health care needs of poorer citizens who qualify for the Green Card Scheme currently are financed by the Ministry of Finance, but there are plans to also transfer administration of the Green Card to the SSI in 2011. Second, the Social Insurance and General Health Insurance Law was ratified by parliament in 2006 (Law No. 5489) and it eventually began implementation on 1 October 2008. As a transitional solution, the government took concrete steps to equalize benefit packages, entitlements and access rules and regulations for all five of the schemes in operation.

Since the merger of the schemes, most of the Turkish population is covered by the GHIS. All employees who entered the social insurance system after 1 October 2008 are recorded as members of the newly established SSI. Employees who entered the system before this date are still kept in their relevant schemes in terms of benefits but the schemes are now administered by the SSI.[14] The Health Implementation Guide (HIG (*Sağlık Uygulama Tebliği*)), published annually, covers the rules and regulations for the benefits package and there is a unified guide that covers all existing schemes.

[14] The social security schemes that existed before October 2008, which contained a social health insurance component, cannot be formally annulled as in Turkey, by law, any rights or benefits that have been acquired cannot be cancelled. Therefore, the strategy that was pursued was to equalize the majority of the rules and regulations for the pre-existing health insurance schemes before their administrative transfer to the SSI.

3.2.1 General Health Insurance Scheme (GHIS)

The GHIS came into effect on 1 October 2008. Article 60 of the Social Insurance and General Health Insurance Law states that the following population groups are covered by the GHIS: previous members of the SSK, *Bağ-Kur*, GERF and active civil servants and their dependants; citizens with personal monthly income less than one-third of the base wage rate;[15] specific populations receiving a monthly salary from the government (such as war veterans, Olympic medal winners, etc.); refugees; foreign residents who do not have social security coverage in their home country;[16] people benefiting from unemployment insurance; and all citizens who are covered by previous social security laws (Table 3.5). The following people are not included: conscripts undertaking their military service, foreigners with their own social insurance coverage in their home country, people working in country representative offices abroad with social security coverage in the host country, tourists or short-term visitors, illegal immigrants and prisoners.[17]

The General Health Insurance Law also determined the rules for entitlement. Accordingly, in order to benefit from the scheme, the insured should have paid a minimum of 30 days of general health insurance contributions in the last year. The self-employed (in other words, those who were formerly under the *Bağ-Kur* scheme) and those who were not previously covered by any other scheme should have paid at least 60 days of contributions. In addition, there has been an extension of the coverage period for previous members of SSK and *Bağ-Kur* as well as for active civil servants when they cancel their membership for any reason. Previously, they were covered for up to 10 days after cancellation; now both they and their dependants can benefit from the GHIS for 90 days provided they have paid 90 days of contributions in the last year.

3.2.2 Green Card Scheme

The Green Card Scheme covers the poor: that is, those who can certify that their income is lower than one-third of the base wage rate determined by the state. There were 9 377 850 Green Card holders in 2008 (13.2% of the population), which was a decrease from 2007 when 17.9% of the population were holders

[15] Currently, this group falls under the criteria to qualify for a Green Card, which will be placed under the remit of the SSI in 2011.

[16] Where there is a reciprocal agreement with the other country, foreign residents from that country must have lived in Turkey for one year in order to be eligible to join.

[17] There are health care facilities within prisons to provide public health care services to the prisoner population. If secondary or tertiary care is needed, the Ministry of Justice covers the health care costs of prisoners.

Table 3.5
Health insurance coverage and contribution rates

Population group	Coverage mechanism	Contribution source and rate	Compulsory or voluntary membership	Coverage for dependants
Private sector employees	GHIS	12.5% of wage (7.5% employer, 5% employee)	Compulsory	Yes
Blue collar public sector workers	GHIS	12% of wage (7% employer, 5% employee)	Compulsory	Yes
Self-employed, artisans and merchants	GHIS	12% of income, determined as the base for premium [a]	Compulsory for those whose income is more than the minimum wage	Yes
Agricultural workers	GHIS	12% of income, determined as the base for premium [a]	Compulsory for those whose income is more than the minimum wage	Yes
Active civil servants	GHIS	General budget, 12% of salary	Compulsory	Yes
Retired civil servants [b]	GHIS	No premium is paid as this group made contributions when they were active civil servants	Compulsory	Yes
Citizens with personal monthly income less than one-third of the base wage rate	Green Card Scheme	General budget	Subject to means test to qualify	No
Unemployed people with unemployment insurance [c]	GHIS	General budget	When they are eligible	No
Foreigners residing in the country [d]	GHIS	12% of income, determined as the base for premium	Voluntary	No

Notes: [a]The income bands from which premiums are calculated are related to the base wage rate set by the government, with the highest (maximum) band being 6.5 times this amount. The insured person chooses the relevant premium rate within this range; [b]The health expenditure of government retirees are financed by the government and the contributions of active civil servants, not the retirees themselves. The revenues paid in from these two sources cover retirement, old age and health care benefits. There is no specific health care premium per se. The government also provides substantial additional subsidies from general revenues as there is always a gap between income and expenditure; [c]Unemployment insurance is at its infancy in Turkey (began in 1999) and is paid to the unemployed for 180–300 days depending on a person's previous social security premium payments; [d]Only if they have legal permission to reside in the country and they do not have social security in their country of origin. They have to reside in the country for at least one year to become eligible.

(SSI, 2008).[18] A Green Card is issued personally and assessments are made on an individual basis. Until 2004, the coverage of this scheme was limited to inpatient care, with outpatient and pharmaceutical expenditure excluded. However, since 2004, the scheme has covered all expenditure, although a 20% co-payment for pharmaceuticals and other outpatient co-payments are applied (see Section 3.3).

3.2.3 Population coverage by health insurance

Official figures estimate that 94.2% of the entire population was covered by public health insurance in 2008, compared with 99.8% in 2007: 13.2% by the Green Card and 81% by the four social security schemes that were in place

[18] The decrease can be explained by the fact that an audit of the financial status of Green Card holders was carried out by the Ministry of Health, and ineligible people had their Green Cards revoked.

before their transfer to the SSI (SSI, 2008). However, a word of caution is required about the calculations on the dependent population in these estimations. In 2003, government statistics stated that around 80% of the total population was covered by one of the available schemes. However, two national household surveys found the coverage rate to be 67% for the same year (Ministry of Health RSHCP School of Public Health, 2004; Ministry of Health & Başkent University, 2004). A follow-up study by TURKSTAT found a similar result (Kartal, Özbay & Erişti, 2004). The discrepancy occurs because of the calculation method used in official figures: the number of beneficiaries is calculated by counting a person's official health card but the overall number of dependants is calculated by multiplying the number of card holders by the average size of households. This clearly results in double counting in some cases.

Voluntary health insurance (VHI (*Gönüllü Sağlık Sigortası*)) is in its infancy. According to the NHA study (Ministry of Health RSHCP School of Public Health, 2004), only 3.7% of total health care expenditure was made by VHI in 2000. The majority of people with such insurance are "white collar" (clerical or professional), private sector employees insured by their companies. At the moment, the available data do not provide detailed information about the distribution of beneficiaries in terms of gender, socioeconomic status or regional distribution. VHI holders can use both public and private facilities depending on the rules and regulations of their policies. There are no special accessibility benefits for VHI holders in public facilities.

3.2.4 Definition of benefits

The benefit package is quite comprehensive. In the past, there were substantial differences between the different schemes, but in 2005 benefits were equalized by implementing one standard guideline for all of them.

In the past, the Ministry of Finance determined the scope of benefit packages by publishing the Budget Implementation Guide (*Bütçe Uygulama Talimatı*) annually. However, the Guide was binding only for the two schemes covering active and retired civil servants, the other social security schemes determining their own rules and regulations. As part of the plan to merge all social security schemes and to equalize benefits, in 2006 the Guide became binding for all social security schemes. In 2007, the SSI introduced the HIG, which replaced the Budget Implementation Guide. Initially only for the SSK, *Bağ-Kur* and GERF schemes, the HIG now applies to the GHIS across the board.

Reimbursement decisions for human medical products and pharmaceuticals are made by the Reimbursement Commission (*Ödeme Komisyonu*) comprising members from the SSI, the Ministry of Health and the Ministry of Finance. The Reimbursement Commission makes its final decision based on inputs from the Medical and Economic Evaluation Commission (*Tibbi ve Ekonomik Değerlendirme Komisyonu*). The Commission is made up of members from the SSI, the Ministry of Health, the Ministry of Finance, universities and representatives from industry. The Commission has published its guideline for reimbursement, effective from October 2008. Briefly, the functions of the Medical and Economic Evaluation Commission are as follows:

- to assess the content and data of individual application dossiers;
- to publish the changes in prices of medicines resulting from changes in reference pricing and discounts by firms;
- to assess applications from a pharmacoeconomic point of view, in terms of budget impact, market share and epidemiological, pharmacological, clinical and societal perspectives, and to present the results to the Reimbursement Commission;
- to prepare and present reports to the Reimbursement Commission on drugs to be excluded from the positive list;
- to make assessments on equivalent drug groups and report the results to the Reimbursement Commission;
- to propose rules for prescription and reimbursement of drugs included in the positive list; and
- to prepare data standards guidelines and forms for application dossiers.

The Reimbursement Commission meets bimonthly and has additional (extraordinary) meetings if needed, whereas subgroups of the Commission meet weekly. The recent guideline for reimbursement applications has made pharmacoeconomic analysis compulsory. The implicit criterion at present is the budget impact of inclusion/exclusion of a procedure/technology from the positive list. HTA is at its infancy in Turkey; there is not yet sufficient capacity to undertake or evaluate HTA principles and methodologies (see section 4.2.1).

There are co-payments for pharmaceuticals, for outpatient care in hospitals accessed without a referral and for medical devices. However, there are also exemptions from co-payments for certain diseases (e.g. cancer) and chronic conditions. Upon receipt of a medical report from a group of doctors that a patient has a chronic condition requiring regular medication (e.g. diabetes mellitus or

hypertension), 100% of the prescription charge is reimbursed. Moreover, new regulations since 2004 have been applied to prescribing and reimbursement of certain medical procedures as part of a wider cost-containment package. For example, reimbursement of certain drugs (such as statins or drugs to treat diabetes mellitus) requires laboratory tests to verify the state of the condition, and these drugs are reimbursed only at a certain level of severity.[19] In addition, some prescriptions are restricted only to certain specialties (e.g. new-generation antidepressants). There are also new co-payments for outpatient visits (see section 3.3).

Volumes of care are also specified in the HIG. For example, prescriptions for outpatient visits are restricted to four items and only prescriptions for 10 days are reimbursed. The doctor should clearly indicate the daily dose of the drug in the prescription so that the package volumes are controlled. There are exemptions for chronic conditions and doctors can prescribe a three-month supply with the verification of a medical report. Another area where volume is specified is in-vitro fertilization. The most recent HIG states that public schemes can reimburse two trials of in-vitro fertilization for women under the age of 40.

Primary health care services are provided by family health centres, population health centres and some other units such as dispensaries in the public sector and doctors' private offices and private clinics. These units are described in detail in section 6.3. Services at public units are free of charge, and expenditure at these centres is met from the central budget. Currently, there is no compulsory referral system, so all patients can visit a hospital (secondary or tertiary level) without being referred by a primary level facility. However, co-payment exemptions have been introduced in order to encourage people to visit primary care services to obtain any necessary referrals.

Until 2006, all schemes had their own rules and regulations for reimbursement. When all the schemes were merged under the same rules, all their services were also incorporated into the coverage framework. However, with rising pressure to control rapidly increasing health care expenditure and pressure to contain public spending in general, revisions were made to the benefit package. This mainly occurred in the area of pharmaceuticals. From 2005, some of the over-the-counter medicines previously reimbursed by the public schemes were excluded from the positive list, mainly vitamins, common cold preparations and

[19] For example, statins are reimbursed only if the patient's low density lipoprotein level is above 1.6 mg/l. For patients with diabetes mellitus, acute coronary syndrome, coronary artery disease, myocardial infarction and stroke, this level is reduced to 1.0 mg/l and for patients over 65 years it is 1.3 mg/l.

similar items. However, this process and the underlying reason for the exclusion of certain drugs were not made explicit and, in response, there was substantial public opposition. Some NGOs took these decisions to court, resulting in some of the drugs being reinstated. However, neither the exclusions nor the court decisions were based on scientific evidence or transparent principles.

Turkey has reformed the structure and content of its health care services for the last two decades, with substantial improvements since 2003. The new GHIS has a very comprehensive benefit package, and reimburses the following services:

- personal preventive health care including preventive care for addictive substances harmful to health;
- inpatient and outpatient services, including medical examinations, diagnostic tests and procedures; all medical interventions and treatments after diagnosis; follow-up and rehabilitative services; organ, tissue and stem cell transplantation; emergency care and medical care given by paramedical staff under a doctor's instruction;
- inpatient and outpatient maternal health care, including medical examinations, diagnostic tests and procedures, delivery, all medical interventions and treatments after diagnosis, follow-up services, abortion, sterilization, emergency care and medical care by paramedical staff under doctors' orders;
- inpatient and outpatient oral health care, including oral and dental examinations, diagnostic tests and procedures, all medical interventions and treatments after diagnosis, tooth extraction, conservative dental treatment and endodontic treatment, follow-up services, oral prosthesis, emergency services, and orthodontic treatment for children under 18;
- in-vitro fertilization services, reimbursed up to two attempts; to be able to benefit from this service, the insured (both women and men where the woman is a dependant) should have a medical report proving that this is the last resort solution, the woman should be aged between 23 and 39, the failure of other methods in the last three years should be certified, and the insured should be a member of the GHIS for at least five years, with 900 days of paid contributions;
- blood and blood products, bone marrow, vaccines, medicines, prosthesis, medical goods and medical equipment, including their installation, maintenance, repair and renewal services;
- treatment abroad under certain conditions;

- free health care provision for children under 18 regardless of their insurance status;
- pharmaceuticals and medical devices.

The benefit package excludes aesthetic interventions based only on aesthetic concerns (that is, not related to work accidents or congenital anomalies), all interventions that are not classified as medical services by the Ministry of Health and the treatment of foreigners with pre-existing chronic diseases.

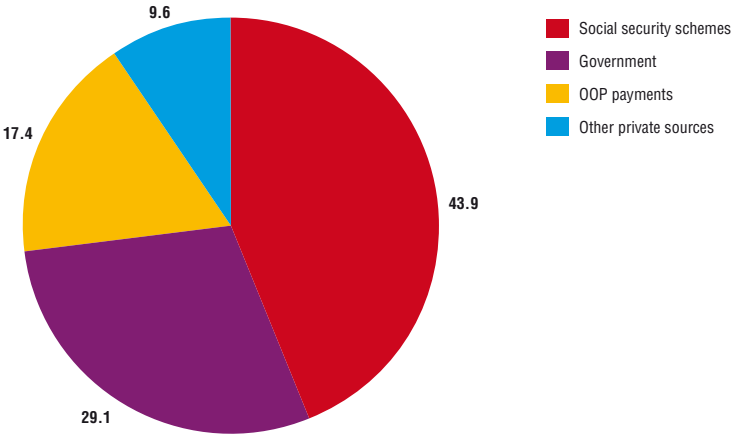
VHI schemes outline their own benefit packages. Currently, such policies are predominantly purchased by private companies for their employees. Benefit packages vary depending on the premium arrangements. In practice, there is usually a co-payment for outpatient care and prescriptions but inpatient services are fully covered.

3.3 Revenue collection/sources of funds

Turkey finances health care services from various sources. According to the most recent TURKOSTAT data, 43.9% of funds came from social health insurance in 2008, followed by 29.1% from government sources, 17.4% from OOP payments and 9.6% from other private sources (Fig. 3.4) (TURKSTAT, 2009e). In recent years, a number of radical changes have had an impact on the composition of funding sources, particularly OOP payments, which have decreased since 2000 when they formed 27.6% of total health care expenditure (Ministry of Health RSHCP School of Public Health, 2004). This decrease results from considerable improvements in accessing publicly funded health services. For example, in 2003 active and retired civil servants and their dependants were permitted to obtain reimbursable health services from private facilities as well as public ones, in 2005 Green Card coverage was extended to outpatient care and prescriptions, in the same year SSK members were allowed to purchase their prescriptions from public facilities (in addition to private pharmacies) and, finally, with the transfer of all health care facilities to the Ministry of Health, the number of facilities accessible to the whole population has increased (Table 3.6).

Fig. 3.4

Percentage of total expenditure on health according to source of revenue, 2008



Source: TURKSTAT, 2009.

Table 3.6.

Sources of revenue as a percentage of total expenditure on health, 1980–2008 (selected years)

Selected ratio indicators for expenditures on health	1980[a]	1985[a]	1990[a]	1995[b]	2000[c]	2005[c]	2007[d]	2008[d]
THE (% of GDP)	2.4	1.6	2.7	2.5	4.9	5.4	6.0	6.1
Public expenditure on health (% of THE)	29.4	50.6	61.0	70.2	62.9	67.8	67.8	73.0
General government expenditure (% of THE)	n/a	n/a	n/a	43.1	28.0	28.2	29.1	29.1
Social security funds (% of THE)	n/a	n/a	n/a	27.1	34.9	39.6	38.7	43.9
PHE (% of THE)	76.5	49.4	39.0	29.8	37.1	32.2	32.2	27.0
OOP payment of private households (%)	n/a	n/a	n/a	n/a	27.6	22.8	21.8	17.4
Prepaid and risk-pooling plans (%)	n/a	n/a	n/a	n/a	4.4	3.6	n/a	n/a
NGOs serving households (%)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
General government expenditure on health (% of total)	n/a	n/a	n/a	n/a	9.8	11.3	12.1	n/a
OOP payments of private households (% of PHE)	n/a	n/a	n/a	n/a	74.8	70.8	67.8	64.4
Prepaid and risk-pooling plans (% PHE)	n/a	n/a	n/a	n/a	11.8	12.8	n/a	n/a

Sources: [a]OECD, 2005; [b]Ministry of Health, 1998b; [c]WHO, 2006b; [d]TURKSTAT, 2009e.
Notes: THE: Total expenditure on health; PHE: Private sector expenditure on health; n/a: Data not available.

Private expenditure on health care still comes predominantly from OOP payments. Historically, problems with access to health care, even by those covered by social insurance schemes, and the increasing involvement of doctors in part-time private practice caused high levels of OOP spending in the country. As detailed below (section 3.3.3), visiting a doctor's private office before using public facilities has become the norm over time. Moreover, problems with accessing health care have resulted in the increased use of "self-care". The NHA study defined "self-care" as any attempt by people to cure themselves with or without the help of others (non-health professionals) and buying a drug directly from a pharmacy when in need of health care without any prescription or advice from a health care professional. The NHA Household Survey carried out in 2003 found that 15.5% of patients did nothing, while 26.6% attempted to cure themselves with or without the help of others (Ministry of Health RSHCP School of Public Health, 2006b). In 2000, the share of OOP payments as a proportion of total health care expenditure was estimated to be 27.6% (Ministry of Health RSHCP School of Public Health, 2004), and in 2008, this share was 17.4% (Fig. 3.4) (TURKSTAT, 2009e). The breakdowns of these payments by function and provider, as well as other survey findings, are detailed in section 3.3.3 below. OOP payments comprise direct payments (to private facilities for self-care etc.), cost-sharing (co-payments for prescriptions) and informal payments.

The share of VHI as a proportion of total health expenditure was 3.7% in 2000 (Ministry of Health RSHCP School of Public Health, 2004). External sources do not have a significant share in the composition of health care funds (0.3% in 2000).

Here, a brief note should be made about the reliability of data. The data for 1980, 1985 and 1990 are from unknown sources declared to international organizations. The data for 1995 is from the health expenditure survey carried out by the Ministry of Health (Ministry of Health, 1998b). It should be noted that this survey is the first comprehensive attempt to identify both total health care expenditure and its breakdown by financing agent and source in the public and private sectors. However, the methodology used in the survey is not explicitly defined. Public expenditure is compiled from public sources but there are serious problems, particularly in private expenditure estimations. Results of the 1998 health expenditure survey concluded that the share of health expenditure as a percentage of GDP was 4.8% (Ministry of Health, 2001b). However, the NHA 2000 study, following the OECD's SHA methodology, found the same figure for 1999 to be 6.6%. As there was no visible policy reason for increasing health expenditure from 1998 to 1999, the discrepancy in the two figures lends

support to a general concern about the reliability of data between 1990 and 1998. Similar concerns exist for data published after 2000 as the NHA study was not repeated in the same way (Ministry of Health RSHCP School of Public Health, 2004).

Currently, data on public health care expenditure are collected from public sources with a high level of precision. However, private sector expenditure is estimated from data that are not clearly identified. Given that health care policies have radically changed since 2003, with considerable impact on expenditure patterns, it is still the case that the impact of these changes on the structure of public and private expenditure has not yet been clearly identified within available data. The health expenditure estimates between 2000 and 2005 are calculated by TURKSTAT, whereas the figures for 2006 come from Ministry of Health estimations. However, the situation will improve in future; as a candidate country for EU membership, in order to meet the extended requirements of the EU *acquis communautaire* in the area of health statistics, TURKSTAT began a project in 2007 to improve the reporting of health expenditure. Accordingly, since 2009, Turkey has reported its health expenditure using the SHA methodology.

3.3.1 Compulsory sources of financing

Taxes are collected by the Ministry of Finance in Turkey. There is an ongoing debate regarding serious problems with compliance. Taxes are collected both at the central and the local level but not at the regional level. Local taxes such as property taxes are collected by municipalities. Tax rates are set centrally and confirmed by parliament. Local authorities cannot raise taxes beyond the level defined by the central authorities. In Turkey, tax revenues predominantly come from indirect taxes (60% of total taxes in 2009) (Ministry of Finance, 2010b).[20] There is no tax relief for OOP payments or private health insurance.

Social insurance contribution rates and premium levels are determined by the central government. The GHIS premium rates are given in Table 3.5. Sources of finance can be the government (as an employer), employers and the employee or the beneficiary. The premiums of white and blue collar workers are paid as payroll taxes by the employer and the employee. The contributions of active civil servants are made by the government. Retired members do not pay any premiums themselves, as they have already contributed when they were working, but active civil servants make contributions for this purpose. The self-employed and agricultural workers can be exempted from the compulsory

[20] The VAT (Value added tax) for pharmaceuticals decreased from 18% (the normal rate) to 8% in 2004.

scheme if their annual net incomes (after tax) are below a predetermined range. If their incomes are higher than this level, their premiums are 12% of the income base for premiums (see Table 3.5).

Historically, all social insurance schemes in Turkey have suffered from deficits in their balance of accounts, resulting in heavy state subsidies to make up shortfalls. For example, in 2006, 22 billion YTL (4.0% of GDP, 12.9% of the general budget) was transferred from the state to the SSI to cover the gap between revenues and expenditure (Yardım et al., 2007).

3.3.2 VHI

VHI does not make up a considerable share in health expenditure, and was estimated at 3.7% in 2000 (Ministry of Health RSHCP School of Public Health, 2004). Currently, there are no substitutive or complementary insurance schemes. In the past, some members of SSK and *Bağ-Kur* were believed to have bought supplementary VHI to improve their benefits and also to provide faster access and increased consumer choice. Individuals or companies purchase private insurance for their employees at their discretion. VHI companies are profit-making companies and currently there are no non-profit-making companies operating in the sector. Premiums, duration of insurance, coverage rules and all other rules are set within individual policies bought by the insured. Insurers are free to set their own policy benefits. They can reject applications or exempt some health care services depending on the health status of the insured. Some policies, after a certain level of contribution, can guarantee life-time coverage. VHI normally provides annual coverage and premiums are group or risk rated. Usual risk factors such as age, gender and health status are used in calculating premiums. The previous history of the insured can be a major determinant in decisions to include or exclude certain diseases from the policy or whether to insure the individual at all. Currently, genetic testing is not required as part of the application process. Dependants are not automatically covered by a policy but, depending on the particular policy offered by a company, additional premiums can be paid to extend cover to dependants. There is usually cost-sharing for outpatient care and co-payments for prescriptions.

There is no obligatory package of benefits or a minimum or standard package for VHI. There are two means of reimbursement. If the insured uses facilities contracted by the VHI organization, then it reimburses the facility directly and the patient only pays any co-payments arising from the contract conditions. If the patient prefers to use non-contracted facilities, then patients pays the facility directly and are reimbursed by their health insurance company

upon making a claim. VHI policies usually set upper limits for outpatient visits, prescriptions, physical therapy and outpatient surgical operations. There are no cross-subsidies from VHI to statutory health insurance and there are no tax subsidies for VHI.

3.3.3 OOP payments

OOP payments constituted 27.6% of total health care expenditure in 2000 (Ministry of Health RSHCP School of Public Health, 2004), decreasing in relative terms as private expenditure overall has decreased over time (Table 3.6). The share of OOP payments was 17.4% of total health care expenditure in 2008 (TURKSTAT, 2009e). OOP payments can be in the form of direct payments, cost-sharing or informal payments. The most comprehensive household health care utilization and expenditure survey in Turkey was undertaken in 2003 as a part of the NHA study. The survey concluded that 13% of OOP expenditure was for inpatient care, 75% was for outpatient care and 12% was for preventive care (Yardım et al., 2007). In this study, outpatient care services included outpatient visits to any facility, visits for prescriptions only, vaccinations, intravenous drugs, dialysis, radiotherapy, chemotherapy, physical therapy, outpatient surgery, day surgery, outpatient mental health care and visits to traditional healers. Preventive services covered personal preventive services such as family planning, prenatal and postnatal care, immunizations, checkups and well baby clinic visits. According to TURKSTAT estimations in 2004, 13.3% of OOP payments were made in hospitals, 44.5% to providers of ambulatory care and 40.5% to retail sales and other providers of medical goods (TURKSTAT, 2008a).

Cost-sharing

There is both direct and indirect cost-sharing in Turkey. The level of cost-sharing is decided at the central level by the HIG and it cannot be changed by any other authority unless there is a cancellation of the regulation by a court. There are no explicit stated objectives regarding cost-sharing policies, but the main drivers are to reduce unnecessary demand, to contain costs and to encourage responsible consumption.

Direct cost-sharing occurs as co-payments for prescriptions, medical devices and outpatient care without a referral. Currently, all active workers pay 20% of prescription charges, as do Green Card holders; retirees pay 10%. There are co-payments for outpatient care in hospitals when that is accessed without a referral from a GP; patients pay 8 TL (€ 3.6) and 15 TL (€ 6.8) to public hospitals and private hospitals, respectively. Visits to primary care facilities do not require a co-payment.

Under the Social Insurance and General Health Insurance Law, the SSI is authorized to determine the co-payment rates for pharmaceuticals and medical devices at between 10 and 20% of the total charge. The co-payment rate is 30% in the first trial of in-vitro fertilization treatment and 25% in the second trial. Co-payments are deducted from the salary of the insured and there are exemptions for certain groups. There are no deductibles in the Turkish health care system.

Extra billing and reference pricing are new methods of indirect cost-sharing that were introduced after 2003. The social security funds purchased health care services from the private sector based on prices set in the HIG. However, in many cases, these prices did not cover the actual costs of the service, in which case private providers requested an additional OOP contribution from patients. There is no documented information on the scope and extent of these payments. Under the previous version of the General Health Insurance Law, extra billing was strictly forbidden and requesting extra payment was regarded as a basis for cancelling contracts with providers who followed this practice. However, private providers expressed concern over this prohibition (given that officially stated prices were not based on the actual costs of services), and, subsequently, new legislation allowed a certain amount of extra payment for private providers; up to January 2010 the accepted ratio was up to 30% of the total bill for the next year. In 2010, however, a committee made up of members from the Ministry of Health and SSI classified private facilities into five categories (from A to E) based on the number of beds, patient operations and so on, and established that these facilities can request extra money from patients according to the classification applied. For example, class A facilities can ask patients for up to 70% of the bill for each episode of care and class E facilities can ask for up to 30%.

There is also an ongoing project to introduce a system based on diagnostic-related groups (DRGs) for inpatient care, and actual costs are being calculated for a number of interventions. Currently, there is a pilot study in a number of hospitals controlled by the Ministry of Health, and there are plans to move to this system in 2012.

Reference pricing, a second type of indirect cost-sharing, was introduced after 2004 as part of reforms in the reimbursement of pharmaceuticals. Accordingly, reimbursable pharmaceuticals are grouped into 333 pharmaceutical equivalent groups. These groups are based on price comparisons between similar dosages with the same active ingredients for the same indication. The reference price is calculated in comparison with the drug with the lowest price within each

pharmaceutical equivalent group. The reimbursement agencies pay the cheapest price plus 15%. If a patient chooses to pay for a prescribed drug that costs above the reference price, s/he pays the price difference. Doctors are free to prescribe a pharmaceutical above the reference price. In these cases, the drug is either replaced by a fully reimbursable one by the pharmacist or the patient pays the difference.

Imposing a benefit maximum, a third type of indirect cost-sharing, is generally used by VHI policies. For certain services, depending on the premiums and policy conditions, the VHI policy determines a limit on the amount that will be reimbursed for a defined period (usually one year). This is mainly applied to outpatient services such as physical therapy, dental care and optician services.

There are no differential charges but there are exemptions for certain diseases (e.g. cancer and mental disorders) and chronic diseases, emergency cases and intensive care. Exemption rules are determined by the HIG. Patients with chronic diseases or other cost-sharing exempted diseases have to provide a medical report from a group of doctors. These reports are valid for two years and have to be renewed using the same process. There is no evidence of fraudulent practices (and given that medical reports must be validated by a group of specialists, it would be very difficult to obtain false documentation). Such patients are exempt from co-payments for pharmaceuticals. However, reference pricing rules apply to all categories of patients. In other words, even patients with medical reports have to pay any differentials of the cost of their prescribed drugs above the reference price. Since the implementation of the GHIS, all health care services have become free for children under 18 without any other social security coverage (as dependants).

Informal payments

Informal payments – their scope, the reasons for their payment and the amounts involved – are widely debated in Turkey. In the 2002–2003 NHA Household Survey, the rate of informal payments was found to be 5.2% of total OOP expenditure (Ministry of Health RSHCP School of Public Health, 2006a). A more recent study aimed specifically to explore the scope and reasons for informal payments found higher shares (Tatar et al., 2007). This study concluded that 25% of total health expenditure fell under the "informal category" for a selected province (Kırıkkale) in Turkey. The main reasons for the difference, again, are attributable to the methodologies used (the first study was a general OOP payments survey, whereas the second was designed explicitly to find out about informal payments), coverage (the first study was representative of Turkey

as a whole, while the second covered only a medium-sized city) and, last but by no means least, considerable differences in the definition of informal payments used in the two studies. The first study defined informal payments loosely as any in-cash contribution made without a receipt and in-kind contributions, whereas the second study defined informal payments as payments (in cash or in kind) made to service providers (person or institution) by people who are entitled to the services given, in addition to any legally defined payment (Tatar et al., 2007).

According to the results of this second study, informal payments were commonly made for outpatient services and in offices of practitioners who work part-time in the private sector. Only 28% of informal payments were in-kind contributions and goods. There is no clear evidence showing the effect of informal payments on access to health care. However, Tatar et al. (2007) shows that 59% of respondents replied that they paid informal payments in the expectation of receiving better quality or more attentive medical care.

There are two aspects of informal payments in Turkey that make the practice challenging to quantify. The first is that allowing doctors to operate in their private part-time practices as well as in the public sector was, until quite recently, a long-standing norm,[21] making it difficult to gauge the level of payments made in the private realm. Several reasons can be given for the existence of such payments but the most salient are the fact that part-time private practice allows private medical offices to be a bridge to accessing public facilities and doctors in the public sector earn relatively low salaries. This may change in future due to the passage of new legislation, the Law on Full-Time Medical Practice of University and Public Sector Health Personnel, in January 2010, which requires health care professionals working in Ministry of Health facilities to choose whether they will work exclusively in the public sector and discontinue any work in the private sector.[22] The second aspect of informal payments is that since they take place illegally (that is, "underground"), by definition, it is almost impossible to obtain information from sources or to discuss challenges.

[21] In the 1970s, an attempt was made to halt this dual practice but it met with enormous opposition from professionals and the government had to change its stance.

[22] Those working in university facilities can continue to work in both sectors as long as their daily full-time hours in the public sector are fully met before undertaking any private work.

3.3.4 Parallel health systems

Before 2005, certain ministries (such as transport and education) had their own facilities to provide health care services for their employees. However, in 2005 all these facilities were transferred to the Ministry of Health, leaving only the Ministry of National Defence and municipalities with their own facilities. The Ministry of National Defence facilities serve staff and their dependants as well as conscripts undertaking their military service. Facilities are open to the public (only 5% of their capacity). In terms of financing, these facilities are funded through the Ministry of National Defence's allocated budget. Municipality facilities serve the public and are financed from the central government budget and their revolving funds.

3.3.5 External sources of funds

The share of external funding sources is meagre in the Turkish health care system. According to the 1999–2000 NHA study (Ministry of Health RSHCP School of Public Health, 2004), these funds formed 0.3% of total health care expenditure in 2000.

3.3.6 Other sources of financing

According to the NHA study, occupational health services and other medical benefits to employees provided by companies or private employees constituted 3.7% of total health care expenditure in 2000 (Ministry of Health RSHCP School of Public Health, 2004). By law, companies employing 50 or more employees are obliged to employ a medical doctor and have a health care unit within the facility. The NHA study found that the share of non-profit-making institutions serving households was 1.5% of total health care expenditure (Ministry of Health RSHCP School of Public Health, 2004).[23]

3.3.7 Mental health care financing

It is impossible to separate mental health financing from the general financing of health care services. The implementation of community-based mental health services began in 2011, with the establishment of 26 such centres providing services in 24 provinces (see Chapter 6). Mental health services are financed by the GHIS covering the patient. Low-income patients are covered by the Green Card. In 2000, mental health hospitals represented a 0.22% share

[23] A special survey was carried out to estimate this expenditure as there is no other information regarding this aspect of health care financing.

of total health care expenditure (but this excluded mental health wards in general and university hospitals) (Ministry of Health RSHCP School of Public Health, 2004).

3.3.8 Long-term care financing

Long-term care is not well developed in Turkey except for some private initiatives that have started to flourish recently. However, currently there are no data on the scope of this sector.

3.4 Pooling and allocation of funds

3.4.1 Pooling agencies and allocation methods

Currently, the public "funders" in the Turkish health care system are the SSI and the government. For previous SSK, *Bağ-Kur* and GERF members, funds are collected and pooled separately under the umbrella of the SSI. Payroll taxes for the SSK are collected by the SSK, which also collects contributions for pensions and unemployment. The contributions for health are collected separately and are not mixed with other contributions. Any annual deficits are covered by the state, with the difference directly transferred to SSK's accounts. Similarly, premiums for *Bağ-Kur* and GERF members are collected and the state subsidizes any deficits.

For the Active Civil Servants Scheme and Green Card, funds are allocated through the government budget. The size of the budget for these schemes is based on the previous year's budget plus the inflation rate and other envisaged changes. If the budgeted money is less than the funds used during the year, supplementary funds are transferred to the schemes.

The premiums of employees entering the system after October 2008 are pooled by the SSI. Currently, the SSI manages the premium income on behalf of the social insurance schemes and also controls all expenditure, except that of the Green Card programme. By law, the government is obliged to transfer 25% of the SSI's collected premium income each month as a government subsidy. The basic principle is eventually to have a health insurance system that can balance its books, but it is envisaged that at the beginning the government will need to provide subsidies until the system becomes self-sufficient.

3.4.2 Mechanisms for allocating funds among pooling/ purchasing agencies

For the SSI, revenue collection, pooling and purchasing functions are integrated. Services are purchased from public and private providers as per global budget and service contracts (see section 3.5).

For the Green Card and Active Civil Servants Schemes, a global budget is set for overall spending. The allocation process is made annually through the state's general budgeting procedures. The magnitude of the budget is historical, based on the previous year's budget plus any other expected increases for the coming year. The budget is set out in annual legislation so it is enforceable for all public facilities. However, there are no penalties for overspending. In cases where expenditure is more than the budgeted amount, a supplementary allocation is made. Overspending has always been an issue in Turkey, particularly with recent increases in health care expenditure by public agents. There are no regional or local budgets, nor are there separate budgets for mental health, long-term care rehabilitation, and so on. However, the specific vertical programmes within the Ministry of Health, such as the directorates of tuberculosis control, malaria control and cancer control, have their own budgets. But these programmes are specifically directed towards prevention and health promotion and not to patient care.

The SSI currently allocates a global budget to Ministry of Health hospitals. Accordingly, a predetermined amount of money is transferred to the Ministry of Health for the services provided by its facilities for SSI members. This has triggered a debate between the SSI and the private sector as the SSI is now considering whether to implement the same payment method for private hospitals and drugs. However, the initiative is strongly opposed by the affected parties.

3.5 Purchasing and purchaser–provider relations

For Ministry of Health hospitals, a global budget is set for overall spending. These budgets are set by parliament based on the requests made by the Ministry of Health as a part of the annual state budgeting process. Every year, the Ministry of Health determines the next year's budget based on the previous year's budget plus new investments and programmes and the inflation rate, minus completed investments and programmes. The draft budget is prepared internally within the Ministry based on draft budgets from various departments. The draft is

then sent to parliament for ratification as part of the general state budget. Before ratification, the budgets of each Ministry and public institution are discussed by the Budget Commission, where the previous year's budget is also cleared. When a budgeted amount is exceeded during the year, a supplementary amount is transferred from the state for activities that cannot be cancelled or stopped midstream. Ministry of Health hospitals also have additional funds from their revolving funds, which receive money from reimbursement agencies (SSI, VHI insurers) or households for services provided.

University hospitals also have dual budgets. The first financing stream comes from the state following the same procedures as Ministry of Health hospitals. University hospitals also have revolving funds from which they generate income from reimbursement agencies and patients. In reality, for both Ministry of Health and university hospitals, the state budget covers the majority of medical personnel expenses but other expenditure is increasingly covered by the revolving funds.

Before 2006, the SSK had an integrated budget as hospitals and other health care facilities were directly owned by the organization. However, after the transfer of SSK facilities to the Ministry of Health, the purchaser and provider functions were clearly split. At the point, the SSI and private insurance funds purchased health care services from both public and private facilities. For public (that is, Ministry of Health and university hospitals and facilities) and private institutions, the prices and service delivery rules are determined by the HIG and providers are reimbursed only if they follow these rules.

For public sector providers, there are no contractual agreements where facilities are owned by the Ministry of Health; the SSI transfers a global budget to the Ministry of Health for services provided to its beneficiaries. For private sector facilities, contracts are negotiated and concluded between the SSI and providers.[24] The duration of a contract is usually one year. Currently, the monitoring process is quite loose. The provider organization is not reimbursed if it deviates from the agreed contract but there are no mechanisms to assess and monitor the quality and appropriateness of the services provided. In theory, if a provider deviates from the agreed terms and conditions, the contract should be cancelled. However, there is little evidence on what happens in practice. The SSI contracts selectively with the private sector; consequently, not all private providers have contracts with the SSI. Contracts are generally on a case by case basis for selected services, such as cardiovascular diseases, or certain

[24] This has been compulsory since July 2007.

operations, such as bypass or cataract surgery. Currently, as the SSI does not cover Green Card holders, the Ministry of Finance signs separate contracts with private health care providers.

In some cases, patients may be asked to pay any difference to bridge the gap between the reimbursed price and the actual cost of the service. Under the GHIS, private providers can request from 30 to 70% of the bill from the patient based on their classification (see section 3.3.3). Given the flourishing private sector and the current high level of unmet demand, there is currently no competition among health care providers, although it is envisaged that in the long run, with increasing numbers of public and private providers, this will change. Some private hospitals have already entered into block contracts with other countries for cross-border health care provision; however, currently there are no data to assess the extent of these contracts.

The impact of supplier-induced demand is causing concern in Turkey. In particular, since the introduction of a performance-based payment system for health professionals in public facilities in 2004 (see section 3.6.2), a link has been established between the number of interventions and the income of the facility and the health professional. Therefore, it is believed by some that supplier-induced demand has played an important role in the increasing number of health care interventions and rising expenditure in recent years. However, there is no formal evidence to support this claim. The impact of the new payment system is detailed in section 3.6.2.

3.6 Payment mechanisms

3.6.1 Paying for health services

Both prospective and retrospective payment mechanisms are used in Turkey. Health care facilities have resources from the state (through the general budget) and the SSI and private health insurance funds (which pay for services supplied, with the income going into a facility's revolving funds). The state budget is predominantly used to pay staff salaries; all other items are financed through the revenues generated by the hospital/medical facility. The budget is calculated on an historical basis, based on the previous year's allocation adjusted for inflation and budget growth. Revolving funds are paid retrospectively. Providers are reimbursed after services are delivered based on the prices in the HIG. Until August 2008, the reimbursement agencies made their payments both on a fee-for-service basis and through so-called "package prices". For example,

primary care providers were paid 11 YTL (€ 6.5) for each visit regardless of services provided in that visit. There were also comprehensive arrangements for package payments both in secondary and tertiary care. The HIG outlined the services under a package payment, along with their prices. However, in August 2008, this arrangement was challenged successfully in the courts and services are now paid for only on a fee-for-service basis. Currently, the SSI allocates a global budget to Ministry of Health hospitals. Accordingly, a predetermined amount of money is transferred to the Ministry for the services provided by its facilities to SSI members.

Two radical changes are expected in the foreseeable future. First, there is a proposal to move to a DRG-based system for the reimbursement of inpatient care. Comprehensive cost-analysis research is being undertaken in eight selected hospitals. It is envisaged that the GHIS will purchase inpatient services from all hospitals based on DRG groups after the finalization of the project. The second change involves the payment of family practitioners. The family practitioner scheme started implementation on a pilot basis in 2004 and was extended to cover the whole country at the end of 2010 (see Chapter 6). Family practitioners will now be paid on a per capita basis with an additional component based on performance (see section 3.6.2).

Public health services are mainly the responsibility of the Ministry of Health, although some responsibilities also fall within the jurisdiction of municipalities. These services are funded extensively from the state budget and are delivered through family health centres and population health centres (see Chapter 6). As described above, family practitioner services in primary/ambulatory care settings are paid for on a capitation basis as part of the family practitioner scheme, but other facilities which provide such services are reimbursed through retrospective payments (on a fee-for-service basis). Inpatient care, by comparison, is paid for by both prospective payments (through Ministry of Health budget payments) and retrospective payments (by reimbursement agencies and patients paying into hospital revolving funds). Pharmaceuticals are reimbursed retrospectively but there is a co-payment for active workers (20%), Green Card holders (20%) and retirees (10%).

Outsourcing of diagnostic services and other services such as hospital catering and cleaning is quite common in Turkey. A survey conducted by the Ministry of Health in 2008 with the aim of making an economic assessment of outsourcing practices found that 244 hospitals analysed saved a total of 32.3 million TL by outsourced cleaning services, while 131 hospitals saved a total of 38.7 million TL by outsourced catering services. With regard to medical

services, a magnetic resonance test cost 81.80 TL in hospitals that conducted the test on their premises but cost 42.8 TL for hospitals that preferred outsourcing. Similarly, a computed tomography scan cost 65.0 TL when conducted in-house and 41.30 TL when outsourced (Ministry of Health, 2010).

3.6.2 Paying of health care personnel

Turkey has a mixed payment system for health care personnel. With the introduction of family practitioner scheme and a performance-based payment system (see below), the overall system has become more complicated. Moreover, as mentioned above, hospitals are financed both by central government budgets and their own revolving funds. A medical degree is the prerequisite for a position in the public health care system.

As mentioned earlier in this section, following the full implementation of the family practitioners scheme, family doctors are paid by capitation, which is the only payment method for these practitioners. According to the payment model, individuals register on a family practitioner's list. Specific coefficients are determined for specific population groups (Table 3.7).

Table 3.7
Coefficients used to determine family practitioner payments

Population/patient group	Coefficient applied
Children under 5 years of age	1.6
Children and adults aged between 5 and 65 years	0.79
Adults over 65 years	1.6
Pregnant women	3.0
Prisoners	2.25

The number of people in each group on the family practitioner's list is multiplied by the relevant coefficient to derive a total number of points. Up to 1 000 points, a fixed amount is paid to the family practitioner, but this varies according to the status of the physician: for specialists and physicians without any specialty, this figure is 2 167 TL, and for family practitioner specialists the figure is 3 139 TL. Over 1 000 points, the remaining points are multiplied by a coefficient of 1.4418 and the resulting amount is paid to the family practitioner. Family practitioners are also paid allowances to cover rent for the premises they work in, for their staff and for specific preventive measures they oversee.

Hospital-based doctors are paid both by salary and through revolving funds based on their performance in the previous month under the new performance-based payment system. There is no differentiation between medical specialties as performance is graded by medical procedures. The system has identified 5 300 different medical procedures, such as medical examination, operation and invasive diagnostic techniques, with different coefficients based on the difficulty of the procedure and its time demands. The coefficients change for part-time practitioners, specialists and for some departments such as intensive care, dialysis, operating rooms and emergency.

Universities have their own hospitals where academics teach, conduct research and undertake clinical practice. University hospitals can be either public or private depending on the ownership of the university. If the university is public then the university doctors are paid a salary from the government budget and also are paid from their hospital's revolving fund. If the university is private, the doctors are paid directly from university resources. Finally, there are Ministry of Health teaching hospitals providing specialty education for doctors. These doctors are paid both by salary and through additional revolving funds subject to performance.

The performance-based system is applied in all Ministry of Health facilities and determines the rules and payment levels that will be applied from revolving fund revenues. The main factors that determine the amount that will be paid from the revolving fund to health personnel are type of job, title, working conditions and hours of work per week; length of service; performance; part-time or full-time status; and the number of consultations, operations and all other medical interventions undertaken. The system started in 2003 in 10 hospitals and 1 provincial health directorate as a pilot study, and countrywide implementation commenced at the beginning of 2004. Initially, only individual-based criteria and quantified performance criteria were used, but later in 2005 institutional criteria were also included in the system. For primary health care facilities, the provision of preventive services was added to the measurement of performance in addition to curative services. For hospitals, the system differentiates between teaching hospitals and others, as teaching and research activities need to be considered in the former case.

The starting point of the system was to determine the relative cost rates of 5 300 medical procedures undertaken by doctors from start to finish. Each procedure is given a specific number of points. A doctor's individual performance is calculated by adding all the points attributed to the procedures s/he has undertaken each month. After adding up the points of all the doctors

in the hospital, an arithmetical average is calculated to determine institutional performance. For hospital managers, doctors in non-clinical specialties, other health personnel (technicians, nurses, etc.) and other staff working in the hospital (ancillary staff, civil servants), a coefficient is determined based on their duration of work, title, tasks and working conditions. These coefficients are multiplied by the average institutional performance points of the facility to calculate net performance points. Consequently, in this system, the performance of clinicians is measured directly and the performance of other staff is measured indirectly. There are additional points for those who work full-time in the facility in order to motivate full-time practice. The points of the staff are multiplied by a monthly determined monetary coefficient to define the extra payments from the facility's revolving fund. This monthly coefficient is determined by the revolving fund committee by dividing the money that would be distributed to the personnel from the revolving fund by the total net performance points of all staff.

In 2005, institutional performance was added to the system. There are four measures of institutional performance: the outpatient coefficient; the quality coefficient, based on hospital staff's self-evaluation of the quality of services provided; the physical facility coefficient; and the patient satisfaction coefficient. The last factor is determined by periodic questionnaires applied to patients and their companions. The institutional performance appraisal is determined by calculating the arithmetic average of these four aspects. The calculated outcome is a coefficient between 0 and 1. By law, only 40% of revolving fund revenues can be distributed to health personnel, and only institutions achieving 1 as their institutional performance coefficient can access this maximum of 40%; the lower the coefficient, the lower the amount that can be distributed to staff. In this way, not only individual performance but also the performance of the institution as a whole is taken into account in determining additional revolving fund disbursements to staff every month.

There are no clear-cut nursing specialties in Turkey. Nurses and midwives are paid based on the salary scale that reflects their experience rather than their specialty. These members of staff are salaried but may receive an additional share from their institution's revolving fund. Nurses can undertake postgraduate nursing programmes in internal medicine, surgical nursing, gynaecology, psychiatry, paediatrics, public health and nursing management.

Dental practitioners, both specialists and primary care dentists, predominantly work in private practice and are paid on a fee-for-service basis. Only the services of dentists working in public sector facilities are reimbursed by the SSI, and these dentists are paid by salary and a facility's revolving funds.

Other health care workers, including allied health professionals, managerial staff, social workers and pharmacists working in the public sector, are paid by salary plus revolving fund payments. Pharmacists are predominantly community pharmacists working in the private sector and are paid by the SSI and patients.

4. Regulation and planning

This chapter outlines the principles and practice of regulation and planning in the Turkish health care system. Table 4.1 outlines the main legislative arrangements upon which the health care system is based.

Table 4.1

Health system legislation in Turkey

Law	Year adopted	Details
Health Care Personnel Law	1928	Outlines the rules and working conditions of health care personnel
Pharmaceutical and Medical Preparations Law	1928	Regulates all rules governing the production, distribution and use of pharmaceutical or medical products
Law on Public Hygiene	1930	One of the basic laws of the health care system; it details the role of the Ministry of Health, control of infectious diseases, hygiene regulations and so on
Law on Establishment of the Central Hygiene Institute	1940	The institute was established to conduct scientific research and investigations, including laboratory diagnosis, for the protection and improvement of public health; the production and regulation of specific biological products; training; and research
Pharmacists and Pharmacies Law	1953	Sets out the rules governing pharmacists and the establishment of pharmacies
Revolving Funds Law	1961	Establishes revolving funds in public organizations and sets out their rules and regulations
Socialization of Health Care Services Law	1961	Outlines the principles and rules of the socialized health care system
Compensation and Working Conditions of Health Personnel Law	1980	Outlines the rules and regulations governing the payment and working conditions of health care personnel
Legislative Decree on the Organization and Functions of the Ministry of Health	1983	Establishes the structure, role and functions of the Ministry of Health and its departments
Family Planning Law	1983	Regulates the principles of family planning, abortion, sterilization, and procurement and manufacturing of contraceptives
Basic Law on Health Care Services	1987	Outlines the main principles of the provision of health care services
Law on Meeting the Health Care Expenditures of the Poor through the Green Card	1992	Outlines the eligibility criteria for the Green Card and sets the rules and regulations regarding health care expenditure
Social Security Institution Law	2006	Establishes the SSI and sets the rules for merging the main social security organizations (SSK, *Bağ-Kur* and GERF) under this new body
Social Insurance and General Health Insurance Law	2006	Outlines social security rules in general and the General Health Insurance scheme, in particular; law came into effect 1 October 2008

As can be seen from Table 4.1, some of the basic legislation used in health care is quite old; however, the dates mentioned are the acceptance dates of the laws and each has undergone several revisions over time, reflecting changes in the health care environment. In the Turkish health care system, decrees and directives also play an important role. Laws create the main legislative framework, and successive decrees and directives may be issued for the purposes of implementation.

4.1 Regulation

The parliament is the ultimate political decision-making authority in Turkey, whereas implementation of health care policies falls mainly under the responsibility of the Ministry of Health. The Ministry has sole authority in regulating both the public and the private health care sectors. Its role extends over hospitals, all health care units, all agencies that have an impact on health, the pharmaceutical industry and pharmacies. The Ministry of Health executes this regulatory function through its directorates and departments. In some cases, commissions are established to support the Ministry of Health in its activities, such as the commissions for the registration of pharmaceuticals. At the provincial level, the Ministry of Health undertakes its responsibilities through provincial health directorates. Another regulatory authority with growing importance is the SSI, established in 2006. With the implementation of financing reforms in late 2008, it has formally gained a monopsonic power to purchase and reimburse health care services through the GHIS. As the dominant purchasing authority, the SSI has become an influential partner in determining health care policies.

The third regulatory actor is the Ministry of Finance. This Ministry is responsible for the allocation and use of governmental budgetary resources. Currently, the health care expenditure for active civil servants and Green Card holders is covered through the government budget.

There is no single comprehensive health plan for health care services. In 1993 the *National Health Policy* document (Ministry of Health, 1993) was published based on the principles of the WHO Health for All policy, and this remains the most comprehensive policy document to date. The most recent health reform document dates back to 2003, although it does not cover health policies overall; rather, it focuses mainly on organizational and financial changes (Ministry of Health, 2003b). Turkey has also produced policy documents on the United Nations Millennium Development Goals and the WHO *Health21* objectives

(WHO Regional Office for Europe, 1999). In particular, the Ministry of Health has published a document analysing the current status and outlook for meeting the *Health21* objectives (Ministry of Health, 2007b).

4.1.1 Governance and regulation of third party payers

Organization

As outlined in Chapter 3, there are three main organizations purchasing health care services: the SSI, the Ministry of Finance (financing Green Card holders and active civil servants) and private health insurance companies. With the full implementation of the GHIS, all public funds have been merged under the SSI. The SSI is a public organization attached to the Ministry of Labour and Social Security but has financial and administrative autonomy. The organization has three organs: the General Council, Board and Presidency. The General Council comprises representatives from relevant public organizations, academics, trade unions and professional organizations; it meets once every three years. The Council mainly advises on social security policies, evaluates the balance of accounts, assesses performance goals and their attainment and selects the members of the Board. The Board is the ultimate decision-making authority and comprises the president of the organization and a vice-president; representatives from the Ministry of Labour and Social Security, Treasury and Ministry of Finance; and representatives from employers, employees, the self-employed, civil servants and retirees. The Board has 10 members and meets every week. The president has the highest managerial authority and is responsible to the Board for all of the SSI's activities. The president's main responsibilities are described in the legislation as follows: to manage the organization in line with the policies and strategies determined by the cabinet, national development plans and annual implementation programmes; to develop organizational policies and strategies and performance indicators; to prepare the budget; to coordinate, monitor and assess the SSI's activities; to implement the decisions of the Board; to represent the SSI at all levels; to determine the ethical rules to be followed by staff; to purchase goods and services up to a limit and make proposals to the Board for amounts exceeding this limit; to make public announcements regarding the employers with outstanding premium debts; and to cooperate with other related organizations.

The provision of VHI is overwhelmingly private and profit-making. The 2000 NHA study (Ministry of Health RSHCP School of Public Health, 2004) counted 36 private insurance firms operating in Turkey, accounting for a 3.6% share of total current health care expenditure. In 2010, there were 32 insurance companies in the health field with 1 792 007 insured people but 10 of these did

not collect premiums for health and worked in other branches such as accidents or fire (Prime Ministry Undersecretariat of Treasury Insurance Supervision Board, 2010).

Financing for purchasers

Those who were in the SSK and *Bağ-Kur* social security schemes prior to the enactment of the GHIS now pay their contributions to the SSI.[25] Also under the SSI, GERF receives its revenues from the contributions of active civil servants and public organizations as their employers.[26] However, in cases of budget deficit, the shortfall is covered by state sources. The expenditure for the Green Card and Active Civil Servants Schemes is fully met through the government budget. For these last two schemes and GERF, the government undertakes a risk pooling role for purchasers. The government, by deciding the rules and prices to purchase health care services, has extensive regulatory authority. This function is mainly carried out by the SSI in that the quantity and prices of the services provided are determined by the SSI in the HIG. As there are no explicit public health priorities within the system, they cannot be reflected in purchasing plans. All purchasing authorities are highly centralized as all rules and regulations are determined centrally.

As mentioned above, the SSI publishes its purchasing rules in the HIG. In the past, there were different rules and regulations for different purchasing agents, which led to equity problems. However, with the implementation of reforms, all groups now enjoy equal benefits. The HIG defines the package of services to be purchased and their prices. Since 2004, there have been rising concerns that these decisions are based mainly on cost-containment objectives. All public purchasing regulations and decisions are made nationally. There are still branches of SSK, *Bağ-Kur* and GERF at the regional and provincial level but they mainly act as liaison offices. Purchasing organizations are accountable to the Ministry to which they are attached, the cabinet and parliament. Their budgets are audited annually by the Turkish Court of Accounts (*Sayıştay*).

Private insurers are free to set their own rules and to enter into contractual arrangements with providers. They need only to comply with commercial law and relevant tax regulations.

[25] Although these contributions are pooled under the SSI, those making the contributions are still identified as SSK or *Bağ-Kur* members.

[26] The beneficiaries of GERF, retired civil servants, actually do not contribute revenues as this is an intergenerational scheme where active civil servants finance the fund on behalf of their retired colleagues.

For cross-border purchasing and provision, the HIG sets the rules and conditions for public purchasing agents. Turkish citizens covered by public schemes can go abroad for treatment if it is certified that treatment is not available in Turkey. The duration of treatment and coverage is for one year, but with certification from the foreign health care facility this can be extended to two years if necessary.

4.1.2 Governance and regulation of providers

Organization

There are both public and private organizations providing health care services. Among the public organizations, there are hospitals, family health centres, public health centres, family practitioners and dispensaries. Private organizations include hospitals, office-based physicians, laboratories, diagnostic centres, pharmacies and clinics. These are described in Chapter 6.

Public organizations are owned, governed and managed by public entities. Although there are some non-profit-making hospitals with foundation status, private organizations are predominantly profit-making in Turkey. Since the 1990s, there has been an explicit intention to transform public hospitals into autonomous entities. In 1987, the Basic Law on Health Care Services was passed with the aim to pilot such autonomy in some hospitals before extending the programme to the whole country. However, the Supreme Court cancelled some parts of the law as they were found to be in conflict with constitutional principles. The HTP launched in 2003 (Ministry of Health, 2003b) once again stated that transforming hospitals into autonomous organizations was an important component of the reform process. Although concrete developments have been achieved in other important aspects of the reform programme (such as establishing a family practitioner scheme and moving towards full implementation of the GHIS), this component has advanced at a slower pace.

Government plays an important role in relation to providers. In terms of provider organizations, the Ministry of Health is the sole authority that regulates and sets standards for public and private facilities. All private hospitals, diagnostic centres, clinics and laboratories have to be licensed by the Ministry of Health upon proof that they have met all the standards set in related regulations. Before February 2008, the private sector could establish a facility anywhere in Turkey provided that it met the relevant legislative standards. In February 2008, the Ministry of Health issued a new decree and restricted the geographical areas in which the private sector can invest. Accordingly, the Ministry will declare the areas eligible for private investment once a year

and facilities can be established only in these areas. With this measure, the government aims to regulate the unprecedented increase in private facilities and to control their distribution across the country.

The diplomas of health care professionals have to be certified by the Ministry of Health before they can start working in either the public or the private sector. All the relevant regulations and standards are publicly available but not any individual assessments and results. All facilities are periodically audited to monitor whether standards are being followed, and checks are also made if any complaints are received by purchasers. Penalties for not meeting the criteria include not allowing the facility to provide services or halting its services temporarily until it complies.

All medical devices and equipment require certification (a CE certificate and/or Declaration of Conformity) under a process detailed in a Ministry of Health decree issued in 2007. The Ministry of Health authorizes certain organizations to issue such certificates and these organizations provide CE (*Conformité Européenne*) certificates to manufacturers meeting the required standards. The General Directorate of Pharmaceuticals and Pharmacy of the Ministry of Health licenses all drugs to be sold in the Turkish market. Details are outlined in Chapter 6. Basically, pharmaceutical companies apply to the Ministry of Health, submitting documents outlined in the relevant regulatory framework, and after evaluation from various technical committees, the product is given market approval as well as its price.

Quality

Quality of care has been given a greater emphasis in the reforms introduced since 2003. The introduction of the performance-based payment system for health care personnel has strengthened this focus as quality indicators have become an important component of institutional performance. In 2006, the Ministry of Health issued a directive to regulate the quality improvement and performance-evaluation process in hospitals. Accordingly, quality units have been established at the ministerial, provincial and organizational levels. These units mainly provide two quality-related functions. First, health facilities are assessed in terms of institutional infrastructure and process evaluation criteria. The Ministry of Health has developed 150 criteria covering access to health care services, administration, information management, laboratories, radiology, operating rooms, clinics, patient and staff safety, infection control and prevention, intensive care units, dialysis centres, institutional safety, pharmacy, emergency room, kitchen, laundry, patient records and the mortuary. The Ministry of Health assesses hospitals three times a year according to these

criteria and through standard patient surveys, which are undertaken twice a year. The results form the basis of calculating institutional performance grades as part of the performance-based payment system. Currently, the results of these assessments and surveys are not made available to the public. Second, the units are involved in the design of a database to monitor quality improvement studies in hospitals and to register the results of hospital assessments.

In recent years, voluntary external quality assessments have also increased in both public and private facilities. Hospitals try to obtain International Organization for Standardization certification from the Institute of Turkish Standards, which confirms that the hospital meets nationally agreed quality standards. It is envisaged that, following full implementation of current reform proposals, there will be a more competitive environment among providers and this process of quality assessment will grow as facilities compete to attract more patients. Clinical quality assessments are not on the agenda at the moment.

Currently, there is no specific unit monitoring medical negligence and medical errors. There is a Higher Health Council within the Ministry of Health whose membership includes both medical and legal experts; this evaluates complaints concerning medical negligence and errors when such complaints are made. The Council's decisions are an important input in any litigation that may ensue. The new Legal Code enacted in 2004, which regulates all crime-related issues in Turkey, has introduced penalties for professionals' medical errors. However, the law has come under criticism by professional organizations. Cases are not systematically reported to the public but the media may report on a particular story. Currently, the Ministry of Health is working on draft legislation on medical malpractice in order to reduce the prevalence of such errors. However, it is not expected to be debated in parliament soon. As there are limited nationwide studies on this issue, the extent of medical errors in the country is not well known. In a study that reviewed 366 malpractice cases notified to the Higher Health Council by criminal courts between 1995 and 2000, 93 cases related to general surgery malpractice. Of these, 34.2% related to gynaecologists, 25.4% to general surgeons and 16.9% to orthopaedists (Tümer & Dener, 2006). Of the surgeons sued for malpractice, 50% were found not guilty by the Higher Health Council, indicating that half of the litigations were without legitimate grounds (Tümer & Dener, 2006). Should the Ministry of Health's malpractice law be enacted, a commission for malpractice monitoring and assessment will be established within the Ministry of Health and, in parallel, a quality assurance unit will be established within health facilities.

The Blood and Blood Products Law (2007) regulates blood supply issues for both the public and private sector. The Law defines three main types of unit: regional blood centres, transfusion centres and plasma product manufacturing units. The Red Crescent (*Kızılay*) has played a pioneering role in establishing regional blood centres. The other two units can be situated in either public or private institutions. Private blood centres have to be registered by the Ministry of Health upon proof of meeting the conditions and standards determined in the Law. In the HIG, providers are urged to acquire their blood and blood product supplies first from the Red Crescent, but in cases where this is not possible private providers can be used to meet demand. The Red Crescent tests blood supplies for HIV, hepatitis B and C and syphilis before releasing it for public use. Blood suppliers in either the public or private sectors must ensure the safety of the product and keep records for 30 years.

Continuing professional education and development is left to the individual health professional's choice, as there are no compulsory programmes for continuing professional education as part of the accreditation process of health personnel. In-service training is carried out in some cases by the Ministry of Health or professional organizations (see Chapter 5).

4.1.3 Governance and regulation of the purchasing process

Third party payers enter into contracts with private providers and sign protocols with public providers. Contracts are usually treatment based; that is, the purchaser buys specific services (specific operations or diagnostic and laboratory tests, etc.) with predetermined prices. Contract prices are based on the HIG prices published by the SSI. The SSI has a standard contract that it uses for all private providers. While contracts usually do not define quality indicators, only licensed facilities are eligible to enter into contracts. Currently, there is no systematic review process to monitor the quality of services. However, the bills from providers are thoroughly examined to avoid fraud and contracts can be cancelled if evidence of such is detected. In this regard, the introduction of the MEDULA electronic information management system in 2007 (see section 4.2.2) is a watershed in that all invoices for services are processed online, making the monitoring of bills much easier than in the past. There is no competition between purchasers and providers for contracts, but the internal market envisaged by the most recent reform proposals on giving autonomous status to public hospitals is expected to make this a significant factor in future.

Public providers sign protocols with the SSI, with services supplied at prices published in the HIG. Currently, there are no quality monitoring mechanisms between the parties.

4.2 Planning and health information management

Health care and services planning falls under the responsibility of various organizations. The Ministry of Health is the dominant actor followed by the SPO. However, the Ministry of National Education, SSI and Higher Education Council also have some responsibilities. Public sector investment plans on capital investments are prepared by the SPO using a set procedure. The SPO disseminates the *Rules of Investment Programme Preparation* annually to all public institutions in June. Institutions with forward investment plans prepare investment proposals and feasibility reports according to the principles in this document and submit them to the SPO. These investment proposals are then analysed and assessed throughout August and September while, concurrently, the Ministry of Finance, SPO, Treasury and Central Bank collaborate on determining the overall budget size and balances for the forthcoming investment programme. At the end of this process, the SPO finalizes the annual programme covering all sectors and sends it to the Higher Planning Council for approval. Budget allocations for public investments are made within the framework of this programme.

Policies are developed by parliament, Ministry of Health, Ministry of Finance and the SSI. There is no explicit priority-setting process. The Ministry of Finance and the SSI have started to play an important role in this area, implicitly through the purchasing guides where reimbursement conditions for therapies and drugs are determined for the public sector.

4.2.1 HTA

HTA has a limited place in the Turkish health care system. HTA was introduced initially as part of the reform package of 2003, but practices have progressed at a slow pace and mainly in the pharmaceutical sector. One of the reasons for the late introduction of HTA principles lies in the historic lack of health system goals, such as emphasizing efficiency, performance and effectiveness. In the past, the health care system has not been systematically held to account for its reportedly low performance and inefficient use of resources. The budgets for institutions are set on a historical basis, with adjustments for inflation and new investment requirements, with financial deficits covered by the Treasury.

After the 2003 reforms, health expenditure increased dramatically, with increases in access and coverage. This led to new measures aimed at containing costs and making effective and efficient use of resources. As outlined in detail in Chapter 6, radical changes were made in the pricing and reimbursement policies for pharmaceuticals. In February 2005, an interministerial Reimbursement Commission, mainly responsible for determining reimbursement rules, was established. The SSI coordinates the Commission, which has members from the Ministry of Health, SPO, Treasury, SSK, GERF, *Bağ-Kur* and the Ministry of Labour and Social Security. The Commission's terms of reference were given by the General Directorate of Budget and Fiscal Control (*Bütçe ve Mali Kontrol Genel Müdürlüğü*) (General Directorate of Budget and Fiscal Control, 2006):

- to assess the drugs that will be included or excluded from the positive list based on the decisions of the technical committee (a subcommittee established under the Commission with representatives from universities and specialists);
- to eliminate uncertainties regarding discount rates, registration dates and reference pricing;
- to assess and implement additional discount requests by pharmaceutical firms;
- to undertake assessments on drug equivalence groups and to assess the market share and period of the cheapest drug on the market that will be the basis for setting the ceiling price;
- to demand pharmacoeconomic assessment reports for drugs from selected firms and internationally accepted institutions when needed;
- to make recommendations on prescription rules;
- to present reports and recommend precautionary measures on developments in public pharmaceutical expenditure;
- to ensure common action by reimbursement agencies on reimbursement rules and contracts with health care, pharmaceutical and medical product providers; and
- to determine views on the reimbursement methodologies for drugs on the positive list and make proposals to relevant ministries.

As can be seen, this Commission has been established as the main body responsible for determining and implementing reimbursement rules for pharmaceuticals and it decides the content of the positive list. The Commission meets monthly and evaluates applications for inclusions in the

positive list. In 2007, a technical subcommittee, the Medical and Economic Evaluation Committee, was established to describe the rules and principles of reimbursement applications. The committee decided that pharmacoeconomic assessment reports would be mandatory for all applications starting from 20 October 2008.

There are different requirements for the assessment reports on generics and for original pharmaceuticals. Generics only need to show the cost-reduction effects they will have by entering the positive list while originals need to demonstrate their pharmacoeconomic benefits. Only cost-minimization and cost–effectiveness analyses are accepted by the evaluation committee; cost–utility analysis, based on an analysis of quality-adjusted life-years, do not form a compulsory part of the evaluation process but can be submitted as supporting evidence for cost-minimization or cost–effectiveness analyses. Pharmacoeconomic analyses are not mandatory for orphan drugs, different forms or dosages of pharmaceuticals that are already in the positive list, the co-marketing of pharmaceuticals or new indications for pharmaceuticals. Assessment reports are submitted by pharmaceutical companies for their products and are evaluated first by the technical subcommittee and then by the Reimbursement Commission. However, a lack of expert knowledge within both the pharmaceutical industry and within the Reimbursement Commission, coupled with an overall lack of data required for economic evaluation, has raised some concern over the viability of such procedures in the short term.

The HTP introduced two new organizations that potentially can have a leading role in HTA in future: the National Pharmaceutical Institute and the National Medical Devices Institute. These organizations will have autonomous status in order to avoid any potential political pressure. The National Pharmaceutical Institute will be responsible for determining pharmaceutical policies, licensing of drugs, regulating production, drug promotion, sales, and research and development of pharmaceutical products. Special emphasis has been placed on the public sector purchasing drugs on the basis of pharmacoepidemiological and pharmacoeconomics assessments. The National Medical Devices Institute will be responsible for the standardization and supervision of medical devices in the health care sector. At the time of writing, the legislative process to establish these two organizations is still in the initial stages and it is difficult to comment on their role in the future. The most recent discussions centre on whether or not the two bodies should be established as a single organization.

Clinical practice guidelines in primary care represent another practical initiative in HTA in Turkey. Developed in 2003 by the Ministry of Health (Ministry of Health, 2003a), the main aims behind the guidelines are:

- to constitute the basis for rational drug utilization;
- to increase efficiency in primary care;
- to increase the quality of patient care; and
- to develop scientific and evidence-based general guidelines needed by physicians.

During the development stage of the guidelines, the Ministry of Health took the leading role and coordinated a consultation process with a wide group of stakeholders. Several working groups for diseases that are frequently diagnosed and treated within primary care were established and these groups determined the basic rules for diagnosis, treatment, monitoring and referral principles in each category. Currently, implementation of the guidelines is not compulsory and is left to individual physicians.

At present, HTA does not extend to other components of "health technology" and is only mandatory for pharmaceuticals. Moreover, economic evaluation is mandatory only for new drugs and there are no plans to extend the practice to pharmaceuticals already available on the market.

4.2.2 Health Information systems

The Ministry of Health introduced the Basic Health Statistics Module (*Temel Sağlık İstatistikleri Modülü*) in 1996 with the aim of monitoring and managing health care services in rural areas. In 1997, an information system, comprising four components – human resource management, materials management, financial management and pharmaceutical management – was introduced and this is used by all non-urban hospitals.

Since 2004, a number of initiatives have been introduced to improve the health care information system. In parallel with the overall improvements, both the Ministry of Health and the SSI are designing new information systems with the aim of monitoring different functional levels of the health care system and improving financial management.

An integrated health information system is required to harmonize all the components of the HTP. To this end, the Ministry of Health developed an e-health project: *Sağlık-NET* (Health-NET). Work then started on developing the National Health Information System. The Ministry of Health initiated

e-health activities based on the Turkish Health Informatics System Action Plan launched in January 2004 (Ministry of Health, 2006b). In 1996, a Basic Health Statistics Module was developed and began implementation through the Internet after 2005. In this module, all provinces send their data from the health centres and the Ministry can follow all health activities at that level monthly. In 1997, a core resource management system was developed to manage the Ministry of Health's human, material, financial and pharmaceutical resources and the system started to be used through the Internet in 2005. The system has several subsystems that cover different areas such as medical equipment and materials recording, Green Card information, performance monitoring and hospital information forms. Other initiatives include the publication of the *National Health Data Dictionary* in 2008 as the basis for all information system procedures and minimum health data sets.

The Ministry introduced the Family Medicine Information System (*Aile Hekimliği Bilgi Sistemi*) in 2006 to monitor the performance and activities of family practitioners. Family practitioners periodically send information on their activities through the Internet, which allows their performance to be thoroughly examined. The system covers patient-based information on age, gender, place of residence, social insurance status, risk assessment, mortality rates, diagnosis (ICD-10), treatment procedures, follow-up of women aged 15–45 years and of pregnancies and babies. In addition, there are some studies aimed at introducing tele-medicine practices into the health care system. The Tele-Medicine Project was developed to cover the gap in human resources in radiology, to meet the need for second consultations in complex medical cases, to increase patient satisfaction and to undertake correct diagnosis and treatment procedures. The pilot project, covering 18 hospitals, was completed in December 2007; based on the assessment of the pilot, the project was enlarged to cover the whole country in the second half of 2008. Hospitals provide Internet-based information about their activities to the Ministry of Health on a quarterly basis using standard forms designed for this purpose. The information gathered through this process is used internally by the Ministry of Health and is not made available to the public.

The SSI has started to play an important role in the health care system as the main reimbursement agency. It has introduced the MEDULA information system, which will be used in reimbursement procedures. Currently, all facilities at the secondary and tertiary care levels providing services to the SSI can be reimbursed only through this Internet-based information system. Although the main aim of the system is to monitor reimbursement practices, health utilization data are also collected independently from reimbursement

data. MEDULA provides information on age, gender, insurance status, provider, type of service (inpatient, outpatient), diagnosis (ICD-10), referral, expenditure, status of discharge, co-payments, and so on. When a patient visits a health care facility, the provider institution should use this information system to confirm the insurance status of the patient and receives an ID number to follow all the procedures related to the visit. The provider agency can only be reimbursed after procedures end and approval of all expenditure has been given by the SSI. The system currently covers only the population under the SSI, and Green Card holders are not yet included. After the full implementation of the current reform programme, the entire Turkish population will be covered by this comprehensive information system.

4.2.3 Research and development

Research and development is mainly undertaken in universities and the private sector. Universities undertake research mainly using private sector funds and research budget grants sourced from universities' own research and development funds. Currently, 10% of all revenues generated by universities are transferred to the research and development budget and universities support scientific research from these resources. As the research fund capacities of all universities are not equal, this may cause inequalities among them. A government agency, the Scientific and Research Council of Turkey (*Türkiye Bilimsel ve Teknolojik Araştırma Kurumu* (TÜBİTAK)), also provides grants for scientific studies. In the private sector, as in all other countries, the pharmaceutical industry is the leading actor for health care research. However, because of strict rules and considerable bureaucracy, this capacity is not used to its full extent in Turkey.

5. Physical and human resources

5.1 Physical resources

5.1.1 Infrastructure

The Ministry of Health's General Directorate of Curative Services is responsible for licensing health care institutions and major medical technologies in Turkey. The Directorate also is in charge of establishing health care institutions of the Ministry of Health and increasing their capacity; licensing private and public sector facilities (except those affiliated with the Ministry of National Defence); and carrying out authorizations and certification proceedings for imported medical devices (Decree No. 181, Article 10, 1983).

Currently, 191 481 beds out of 199 950 are considered to be acute care beds that meet OECD criteria. The remaining 8469 beds are located within diabetes hospitals, psychiatric hospitals, physical therapy and rehabilitation centres, leprosy hospitals and oncology hospitals. Table 5.1 shows trends in the number of hospitals and hospital beds in Turkey since 2000.

Health reform legislation, together with the HTP, has had a major impact on the organization of health care services. Table 5.1 shows that the total number of hospitals decreased slightly from 2000 to 2010 as a result of this process. After the transfer of the SSK hospitals and other public hospitals (excluding those belonging to the Ministry of National Defence) to the Ministry of Health, some were merged to improve efficiency. However, the transferred SSK hospitals subsequently experienced a significant increase in the number of patients treated. Compared with the figure in 2004, approximately 24 million more patients were treated in these hospitals in 2006 (Ministry of Health General Directorate of Curative Services, 2006, 2007), mainly as a result of parallel reforms that facilitated access by certain groups in the population, more efficient use of resources and the performance-based payment system, which created incentives for hospitals to treat more patients (see Chapter 3).

Table 5.1

Hospitals (public and private) and their bed capacities in Turkey, 2000–2010 (selected years)

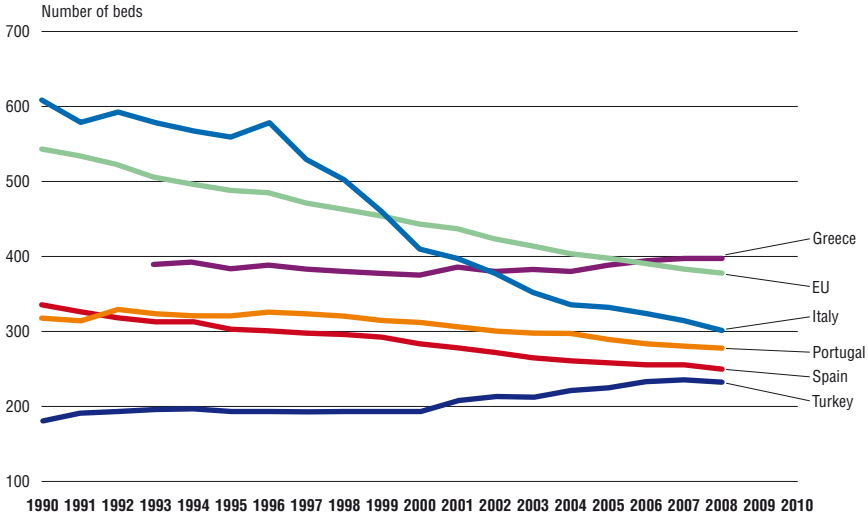
	2000		2006		2007		2008		2009		2010	
	No. hospitals	No. beds	No. hospitals	No. beds	No. hospitals	No. beds	No. hospitals	No. beds	No. hospitals	No. beds	No. hospitals	No. beds
Acute care hospitals												
General	1 065	125 978	1 032	153 292	1 140	157 162	1 171	157 778	1 219	166 002	1 266	170 710
Health centres	141	1 062	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Obstetric and paediatric hospitals	61	8 528	71	10 353	73	11 473	74	11 527	63	10 662	63	10 554
Chest disease hospitals	30	5 687	23	4 940	22	4 506	22	4 468	19	4 090	18	3 916
Chest and cardiovascular surgery centres	6	977	6	2 056	6	2 058	7	2 403	11	2 983	11	2 950
Cardiology institutes	5	293	5	316	5	331	5	605	1	200	1	116
Paediatric hospitals	9	1 573	10	2 407	10	2 563	8	2 333	6	2 056	7	2 260
Ophthalmology hospitals	6	333	10	357	15	366	18	475	24	559	26	598
Venereal diseases hospitals	2	99	1	79	1	79	1	79	1	79	1	31
Emergency and traumatology hospitals	6	425	5	317	5	320	5	320	3	186	2	115
Occupational diseases hospitals	3	104	2	160	2	152	2	156	2	156	2	156
Renal health and dialysis centres	348	n/a	679	n/a	762	n/a	837	n/a	854	n/a	841	n/a
Dispensary and infirmary beds	13	82	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Dental hospitals	1	12	3	38	4	38	3	55	5	77	5	75
Total	**1 696**	**145 153**	**1 847**	**174 315**	**2 045**	**179 048**	**2 153**	**180 199**	**2 208**	**187 050**	**2 243**	**191 481**
Long-term care hospitals												
Diabetes	3	69	2	64	2	64	2	64	2	66	2	61
Mental health and mental diseases	8	3 627	10	4 443	10	3 507	11	4 359	12	4 742	12	4 692
Bone and bone diseases	3	816	3	762	3	714	3	635	3	686	3	636
Physical therapy and rehabilitation	11	1 340	14	1 642	13	1 704	12	1 660	12	1 660	14	1 736
Leprosy	2	160	2	150	2	150	2	175	1	50	1	50
Oncology	4	829	4	1 475	4	1 004	4	973	5	1 295	5	1 294
Tropical diseases	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total	**31**	**6 841**	**35**	**8 536**	**34**	**7 143**	**34**	**7 866**	**35**	**8 499**	**37**	**8 469**
Overall total	**1 727**	**151 994**	**1 882**	**182 851**	**2 079**	**186 191**	**2 187**	**188 065**	**2 243**	**195 549**	**2 280**	**199 950**

Sources: Ministry of Health, 1988, 2010.
Note: n/a: Data not available.

The number of beds per 1000 population has also gradually increased in Turkey from 2.06 in 1982 to 2.71 in 2010 (Ministry of Health, 2011b). Figures from the WHO Health for All database show that the growth trend in the number of acute beds per 100 000 population is in contrast to the EU average, which has experienced a steady decline since 1990. While Turkey now has a similar number of beds to Spain, its stock is still lower than in countries such as Portugal, Italy and Greece (Fig. 5.1).

Fig. 5.1

Beds in acute hospitals per 100 000 population in Turkey and selected countries 1990 – latest available year



Source: WHO Regional Office for Europe, 2011.

In line with increases in health care infrastructure, hospital utilization rates also have steadily increased. In 2002, the hospital utilization rate was 0.079 per inpatient and 1.79 per outpatient, while the figures were 0.106 and 2.98, respectively, for 2006 (Ministry of Health General Directorate of Curative Services, 2006).

The bed occupancy rate for Ministry of Health hospitals was 64.4% in 2010, compared with 61.5% in 2000. In 2010, the bed occupancy rate for all hospitals was 63.9%; the average length of stay was 4.1 days and the ratio of hospitalized patients to those visiting hospitals was 3.5%. Table 5.2 summarizes operating indicators for selected hospitals.

Table 5.2
Operating indicators for selected hospitals, 2008

Hospitals[a]	Bed occupancy (%)	Average length of stay (days)	Bed turnover rate (%) (patient)[b]	Turnover interval (days)	Ratio of hospitalized patients (%)	Crude death rate (%)
General	62.2	4.0	56.9	2.4	3.2	1.4
Chest diseases	82.4	8.9	33.6	1.9	5.6	2.8
Obstetrics and paediatric	70.8	2.6	98.0	1.1	7.3	0.3
Mental health and mental diseases	78.5	23.6	12.2	6.5	4.9	0.7
Osteopathic	59.8	10.3	21.1	6.9	3.3	0.0
Chest and cardiovascular surgery	66.9	5.8	41.8	2.9	4.9	3.0
Physical therapy and rehabilitation	81.1	18.2	16.3	4.2	3.6	3.1
Total	63.9	4.1	57.2	2.3	3.5	1.3

Source: Ministry of Health General Directorate of Curative Services (unpublished data).
Notes: [a]Excludes Ministry of National Defence hospitals; [b]Calculated by dividing the total number of patients by the total number of beds.

In line with OECD criteria, the following hospitals are considered to be long-term care hospitals in Turkey: diabetes hospitals, psychiatric hospitals, physical therapy and rehabilitation hospitals, leprosy hospitals and oncology hospitals.

Over the years, the number of beds in acute care hospitals has increased gradually, from 87 494 in 1992 to 191 481 in 2010. The number of beds in long-term care hospitals has increased from 6 841 in 2000 to 8 469 in 2010. At the same time, the share of long-term care beds as a proportion of total beds has decreased over time (from 9% in 1982 to 4.2% in 2010). An overall assessment of all hospitals in Turkey shows that the bed turnover rate is very close to the average of OECD European countries. The rate was 44.2% in 2005 and 57.2% in 2010 (Ministry of Health, 2011b).

5.1.2 Capital stock and investment

The Ministry of Health has the highest number of hospitals and largest bed capacity, with 843 hospitals and 119 891 beds in 2010, followed by universities with 62 hospitals and 35 001 beds (Ministry of Health, 2011b). These hospitals, of varying size and age, are distributed throughout the country. The Ministry of Health is also the dominant provider of primary health care services through family health centres, public health centres (see Chapter 6) and family practitioners. There is no inventory on the physical condition and other aspects of capital stock.

Capital investments for public facilities are financed either through the state budget or through revenues generated by the facilities themselves through their revolving funds. For public sector investments, the SPO acts as an approval agency before the allocation of resources from the state budget. For the private sector, there are incentives such as tax exemptions for projects undertaken in underdeveloped areas of the country. Moreover, owing to changes in the health care system since 2004 that lifted barriers and increased the role of the private sector, private infrastructure investment has increased. Despite the fact that private hospitals seem to be highly represented in the total number of hospitals, with 489 hospitals, their bed capacity is not commensurately large. In fact, in 2010 private hospitals made up 34.0% of the total number of hospitals, while private beds formed only 14.0% of total beds. In parallel, private hospitals have seen an increase in the number of patients served, from 4.4 million in 2002 to 46.2 million in 2009, indicating that private hospitals mainly focus on outpatient care rather than inpatient care. The Ministry of Health issued a decree in February 2008 introducing some restrictions on the location of private sector investments. Before that, there were no restrictions on their location and new private facilities only had to meet relevant regulatory criteria. Since February 2008, the Ministry has declared (on an annual basis) a list of approved areas for private health sector investment and hospitals or other health centres can only be built within these designated areas.

In recent years, following revisions to legal arrangements, the public sector can rent facilities from the private sector and operate from these buildings. In addition, there are examples of a new type of private-finance initiatives (known as "build-operate–transfer" initiatives) where the private sector invests in public facilities and operates them for 10 to 50 years before transferring the facility back to the public sector at the end of the agreement term.

5.1.3 Medical equipment, devices and investments

Procurement of medical equipment and devices in Turkey differs for primary, secondary and tertiary care. Prior to the full implementation of the family practitioner scheme in 2010, medical devices and materials were purchased at the primary care level via provincial health directorates, which bought the medical devices and equipment for primary care units after assessing their requests. With the family practitioner scheme fully in place, medical equipment and devices are now purchased by family physicians working within primary care units (see Chapter 6). The funding for these procurements comes either from the state budget or from revolving funds. The equipment or devices are purchased through a competitive tendering process or are leased from the

private sector. Mobile health care teams work as part of primary health care services and provide services with mobile vehicles in regions without family health centres or public health centres. The medical materials and equipment needed for the provision of these services are provided by the provincial health directorates.

Medical devices and equipment for secondary and tertiary levels of care are purchased or leased through a public competitive tendering process. Minimum standards for the required equipment are advertised by the hospital and a minimum of three proposals are required to perform the tender. The decision is made according to the most appropriate proposal. Medical goods are purchased from the bid that is cheapest and corresponds to standards that are advertised by the purchaser. For the required equipment, each hospital establishes a procurement commission and follows the rules outlined in the Public Procurement Law. Hospitals can purchase these medical goods through either the public budget or their revolving funds. As the Ministry of Health procures quite a large number of medical devices and services for its facilities, the Ministry has devised the Medical Device Service Procurement Tenders Module for more detailed monitoring.

A specialized committee for medical devices was established in 1993 with the remit of specifying the procurement procedures for medical devices and deciding on investment permits. The committee meets every two weeks with representatives from Ministry of Health hospitals, Ministry of National Defense, medical and science/engineering faculties of the Higher Education Board and the SPO. Its members assess the applications from various institutions for the procurement of expensive high-technology medical devices, with special emphasis on factors such as infrastructure, human resources and the capacity of the institution prior to drafting its recommendations. The Ministry of Health's General Directorate of Curative Services functions as the secretariat of the commission.

Purchasing medical devices with a unit value of more than 150 000 YTL (€ 75 000) or installing integrated units of medical devices with this value requires the permission of the specialized committee. Permission is not required for repair and maintenance work, spare parts or consumables, but permission is a prerequisite for modifications exceeding 150 000 YTL if the functions of a medical device or a system will be changed.

Decisions on medical device requirements and the method of procurement for hospitals are based on the most cost-efficient method of procurement (purchasing and leasing), number of potential patients, availability of personnel

and repair–maintenance requirements. The hospital procurement committee may open a tender without ministerial approval for medical devices up to 150 000 YTL; however, the Ministry should be informed after procurement.

Medical technologies for diagnosis, treatment and medical interventions can be funded from local sources (hospital revolving funds, donations and grants, and provincial private administrations), the general state budget and from transfers from the central revolving fund held by the Strategy Development Department (see Chapter 3). If a hospital can finance the required medical devices from its own revolving fund, then it publicizes a tender and procures the device according to public sector procurement rules. If the revolving fund cannot finance the medical device, then funds from the Ministry of Health general budget and the Strategy Development Department's central revolving fund are alternative sources. If the tendering process cannot be completed even though an allocation has been made from the general budget for a hospital, the money is transferred to the relevant provincial private administration until the tender has taken place. Following the completion of the tender, the money is transferred to the hospital.

The existing accounting and information systems are not equipped to monitor the total amount of spending from these three different sources for the procurement of medical devices, medical consumables and pharmaceuticals. However, as spending items have been recorded in detail since 2002, spending for pharmaceuticals, medical materials and devices from revolving fund sources can be tracked in detail. In 2006, US$ 1 093 087 000 was spent on these items, of which US$ 710 355 000 was for medical materials, US$ 270 104 000 for pharmaceuticals, US$ 66 619 000 for medical devices and US$ 46 008 000 was for repairs and maintenance (Ministry of Health General Directorate of Curative Services, 2007).

There are legal arrangements to monitor and inspect the medical devices and laboratories of private hospitals.[27] Medical devices and advanced technologies used in government and private hospitals are monitored by the General Directorate of Curative Services. Private organizations are obliged to notify the Ministry of Health about the procurement of high-technology equipment; however, the flow of information is not very good. Furthermore, medical devices operating with ionizing radiation must be licensed by the Turkish Atomic Energy Agency (*Türkiye Atom Enerjisi Kurumu*). Unfortunately, this process does not operate effectively at the moment. The Agency is trying to apply various control mechanisms to oversee purchasing, selling, manufacturing,

[27] Law No. 992, enacted 1927, revised 1968.

import, export, transportation, storage and utilization of radiation-generating or radiation-emitting ionizing radiation sources; disposal of waste materials; and licensing and auditing radiation sources. Table 5.3 lists the number of selected medical devices by region.

Table 5.3
Items of diagnostic imaging technologies by region, 2010

Region	Population	No. CT	CTs per million population	No. MRI	MRIs per million population
Mediterranean	9 423 231	111	11.78	80	8.49
Western Anatolia	7 018 194	95	13.54	72	10.26
Western Black Sea	4 518 786	57	12.61	41	9.07
Western Marmara	3 164 048	42	13.27	32	10.11
Eastern Black Sea	2 516 167	32	12.72	24	9.54
Eastern Marmara	6 841 607	69	10.09	52	7.60
Aegean	9 693 594	128	13.20	93	9.59
South-eastern Anatolia	7 592 772	65	8.56	47	6.19
Istanbul	13 255 685	197	14.86	178	13.43
North-eastern Anatolia	2 202 106	19	8.63	14	6.36
Central Anatolia	3 849 267	48	12.47	32	8.31
Mid-eastern Anatolia	3 647 531	45	12.34	31	8.50
All regions	73 722 988	908	12.32	696	9.44

Source: Ministry of Health, 2011b.
Notes: CT: Computed tomography scanner; MRI: Magnetic resonance imager.

As can be seen from Table 5.3, there are variations in the distribution of diagnostic imaging devices among regions. The Istanbul region is the most advantaged and south-eastern Anatolia the least advantaged region. As the majority of state hospitals, private institutions and university hospitals are located in the Aegean and Istanbul regions, the quantity and ratio of devices in those regions are high.

The Turkish Court of Accounts (*Sayıştay Başkanlığı*) published a performance assessment report in March 2005 on the *Management of Pharmaceuticals, Medical Consumables and Medical Devices in Ministry of Health Hospitals.* The main points and recommendations of the report can be summarized as follows (Turkish Court of Accounts, 2005).

- During the appointment of hospital personnel, the Department of Biomedical Engineering Services must be consulted in order to match staff skills with the availability of medical devices. Where this cannot be done, there is a risk of underutilization of medical equipment. However, current data collection and planning practices do not allow for the effective use of this consultation strategy.

- The Ministry of Health and hospitals already organize systematic and periodical training programmes, but there should be more training activities on the use and operation of medical devices. Intensive training activities will facilitate appropriate familiarization with new advancements in medical technologies by staff and also avoid a potential loss of working hours arising from the inaccurate operation of medical devices.
- Hospitals do not make use of Biomedical Engineering Services in their procurement, maintenance and repair of medical devices. Cost-decreasing, effective solutions will become possible in the procurement, maintenance and repair of medical devices if such services are utilized. Medical device registration cards containing life-cycle records of devices and files containing their history of maintenance and repair should be kept and an efficiency analysis should be conducted by comparing this information against the economic life-cycle of the device.
- The efficiency of high-technology medical devices will increase and unnecessary use will be avoided if the Ministry of Health identifies medical standards and guidelines pertaining to the diagnosis and treatment of diseases.

5.1.4 Information technology

The use of information and communication technologies has grown very rapidly in recent years. However, despite these changes, the number and proportion of households with access to the Internet is still considerably low. According to recent figures, the percentage of households with Internet access is 30% (TURKSTAT, 2009a).

Despite the fact that almost all secondary health care institutions and the majority of primary health care facilities use some form of information technology (IT), quantitative data on the use of this technology in primary and secondary health care services are not available. Following the introduction of revolving funds in primary health care facilities in 2003, investments in computers and Internet access have gained momentum and a parallel growth has been experienced in the use of IT. For example, the use of IT has become mandatory for the family practitioner scheme (Ministry of Health, 2006b).

Specific initiatives are under way to establish a central basic database and information system with reliable access for all health care institutions and Ministry of Health health care personnel, as well as the public. In recent years,

in parallel with the reform initiatives, data collection has been centralized and stored in databases through various health information system modules created at the Ministry of Health. Some examples of these modules are the Turkish Healthcare Information System/e-Health (*Türkiye Sağlık Bilgi Sistemi*), the Core Resource Management System (*Çekirdek Kaynak Yönetim Sistemi*), the Basic Health Statistics Module (*Temel Sağlık İstatistikleri Modülü*), the Patient Follow-up System (*Hasta Takip Sistemi*), the Green Card Information System (*Yeşil Kart Bilgi Sistemi*), the Public Procurement Information System (*Sağlık Bakanlığı İhale Bilgi Sistemi*), the Communication Centre System (*Sağlık Bakanlığı İletişim Merkezi*), the Medical Device and Material Registration System (*Tıbbi Cihaz ve Malzeme Kayıt Sistemi*), the Family Medicine Information System (*Aile Hekimliği Bilgi Sistemi*), the Geographical Information System (*Coğrafi Bilgi Sistemi*) and the Uniform Accounting System (*Tek Düzen Muhasebe Sistemi*) (Ministry of Health, 2006b).

These systems provide reliable sources of information to health care institutions, Ministry of Health personnel and the public. The public can access only health information and health statistics, while public health care institutions and Ministry of Health personnel can access only information for which they have the relevant level of authorization. Moreover, individuals can directly contact the Ministry of Health with questions and complaints, such as finding out about the family practitioner on duty at a specific clinic or reporting any problems relating to the health care system. This direct communication is seen as essential contact between the health care system and the individuals it serves.

The HTP clearly states that Turkey's health information system should provide a health inventory, store individuals' medical records, enable the flow of information between referral steps and collect data on primary health care (Ministry of Health, 2003b). After its publication, the Ministry of Health's Department of Data Processing drafted an *Action Plan for a Health Care Information System in Turkey*, which outlined a national strategy for the health sector (Ministry of Health, 2004b). This was followed by the *e-Transformation in Health Report* published in 2006 (Ministry of Health, 2006b). In line with the national strategy, the Ministry of Health initiated and completed a number of IT projects, including the Family Practice Information System, the National Health Data Dictionary, the Health Coding Reference Server, the Tele-education and Tele-practice, the Green Card Information System, the Physician Information Bank, the Core Resource Management System, the Basic Health Statistics Module, the Uniform Accounting System and the Patient Follow-up System.

The SSI has started to use MEDULA to monitor its reimbursement procedures (see section 4.2.2). All health care facilities providing services to the organization have to use the system to obtain approval for completed medical procedures before payment. The system also collects utilization data.

5.2 Human resources

Developments in the Turkish health care sector increased the importance of effective and efficient human resources management on a national scale as a prerequisite to achieving reform goals. Table 5.4 summarizes the number and densities of selected key health care personnel in 2010.

Table 5.4
Health care workforce in Turkey, 2010

Physicians	
Total number active (all categories/public and private sectors)	118 641
Per 100 000 population	167.0
GPs per 100 000 population	53.0
Specialized physicians per 100 000 population	86.0
In public sector (%)	80.5
In private sector (%)	19.5
Nurses	
Total number (all categories/public and private sectors)	114 772
Per 100 000 population	156.0
In public sector (%)	15.0
In private sector (%)	85.0
Ratio of doctors to nurses	1.08
Midwives	
Total number (public and private sectors)	50 343
Per 100 000 population	68.0
Auxiliary workers	
Total number (public and private sectors)	94 443
Per 100 000 population	128.1
Dentists	
Total number (public and private sectors)	21 432
Per 100 000 population	29.0
In private sector (%)	60.6
Pharmacists	
Total number (public and private sectors)	26 506
Per 100 000 population	36.0

Sources: Ministry of Health, 2011b; Ministry of Health General Directorate of Personnel, 2011.

5.2.1 Trends in levels of human resources

Despite a significant increase in the number of health care personnel, there is still scarcity across most categories. In addition to insufficient numbers, geographical distribution is still a considerable problem. Table 5.5 below highlights the trends in the numbers of various health care personnel between 2001 and 2009.

Table 5.5
Health care personnel in Turkey, 2001–2010

	2001	2002	2003	2004	2005	2006[a]	2007[a]	2008	2009	2010
Specialized physicians	41 907	43 660	46 563	53 344	53 103	54 075	54 439	56 973	60 655	63 563
GPs	34 974	36 545	35 559	33 255	36 585	33 753	34 559	35 763	35 911	38 818
Hospital residents (specialty training)	13 876	14 985	15 641	17 627	17 010	18 201	19 404	20 415	22 075	21 066
Active physicians	90 757	95 190	97 763	104 226	106 698	106 029	108 402	113 151	118 641	123 447
Dentists	15 866	17 108	18 073	18 363	18 771	18 089	19 278	19 959	20 589	21 432
Pharmacists	22 922	22 322	23 632	24 615	21 344	24 280	23 977	24 778	25 201	26 506
Auxiliary personnel	45 560	49 324	50 432	57 723	58 599	57 698	78 439	83 993	92 061	94 443
Nurses	75 879	79 059	82 246	82 616	83 411	85 550	94 661	99 910	105 176	114 772
Midwives	41 158	41 513	41 273	42 649	43 429	43 616	47 175	47 673	49 357	50 343

Sources: Ministry of Health Health Statistic Yearbooks 2001–2010; Ministry of Health 2011b; [a]Ministry of Health General Directorate of Personnel, 2011 (December for 2006 and March for 2007).

Under the HTP, arrangements such as compulsory medical service for newly qualified doctors and the employment of contracted personnel, substitute nurses and midwives have ensured a significant improvement in the geographical distribution of health care personnel. The duration of compulsory medical service for physicians after graduation depends on the particular branch of medical residency and the region, and takes about one to two years. Turkey's regions are classified under the National Development Index. After their six-year medical education and also after completion of specialist training, physicians pick a region on the list and serve in relatively deprived areas of the country. Although some measures have been taken to attract health personnel to deprived areas, such as bonus payments and higher salaries, there are still distribution problems. It is envisaged that the recent increases in current staff numbers will alleviate some of these problems. In 2010, the population per nurse was 642, per midwife 1 464, per family practitioner 1 899, and per specialized physician (including residents) 1 160. The highest ranking province in terms of the number of people per specialized physician was 13.9 times higher than the lowest ranking province in December 2002. In contrast, this figure fell to 4.8 times higher in 2010. A similar trend is observed for family practitioners

(8.6 times higher in 2002, falling to 1.8 times in 2010) and nurses and midwives (7.9 times higher in 2002 to 3.2 times in 2008) (Ministry of Health General Directorate of Personnel, 2011).

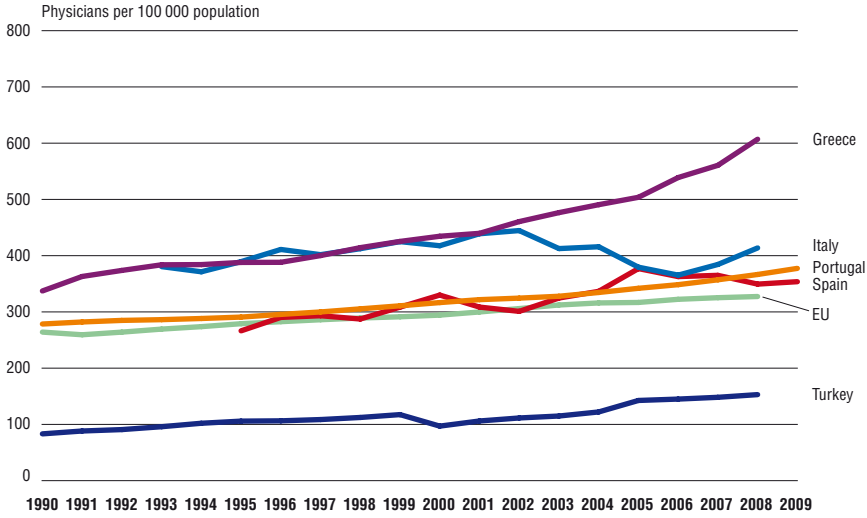
The scarcity of physicians is cause for continuing debate between the government and professional organizations, as the latter persistently argue that the number of physicians in Turkey is not sufficient. A legislative proposal is now on the agenda to issue work permits to foreign physicians educated in Turkey. This measure would override the current legislation, which does not allow physicians of other nationalities to practise in the country. The Ministry of Health also recognizes medical diplomas obtained by Turkish citizens abroad. In 2005, 27 physician and 45 nurse diplomas obtained abroad were recognized.

A comparative analysis with other European countries clearly shows the scarcity of health care personnel in Turkey. In particular, while the number of physicians per 100 000 people (158.2 in 2008) has grown moderately but steadily over the last two decades, it is still significantly below that of other Mediterranean countries such as Greece, Italy, Spain and Portugal as well as that of the EU average (Fig. 5.2).[28] Similarly, the number of nurses per 100 000 people (139.7 in 2008) is the lowest among the selected Mediterranean countries featured in Fig. 5.3 and among the countries of the WHO European Region. Among the countries of the WHO European Region, Turkey has the second lowest ratio of physicians per 100 000 population (Fig. 5.4) and the lowest ratio of nurses (Fig. 5.5). Another striking feature regarding the numbers of health care personnel is the low nurse/physician ratio (1.33), including nurses and midwifes, in 2007 (Mollahaliloğlu et al., 2007). Efforts to increase the quantity of health care personnel in Turkey should be coupled with activities that will also improve the allied health care personnel/physician ratio. Historically, national health policies have given priority to secondary health care services and there has been the most demand for services from specialist physicians. The better earning capacity, prestige and career opportunities of specialist physicians have encouraged family practitioners to become specialists. For example, there are more incentives to specialize in medical branches, there is greater social respect for specialists and specialists are more frequently preferred for higher-ranking management positions. The imbalance in the nurse/physician ratio can be attributed to the lack of effective human resources planning and management, which for many years has tended to prioritize physicians over nurses and to neglect the gaps in nursing and other health care personnel.

[28] However, it should be noted that Greece is generally considered to have an oversupply of doctors (Economou, 2010).

Fig. 5.2

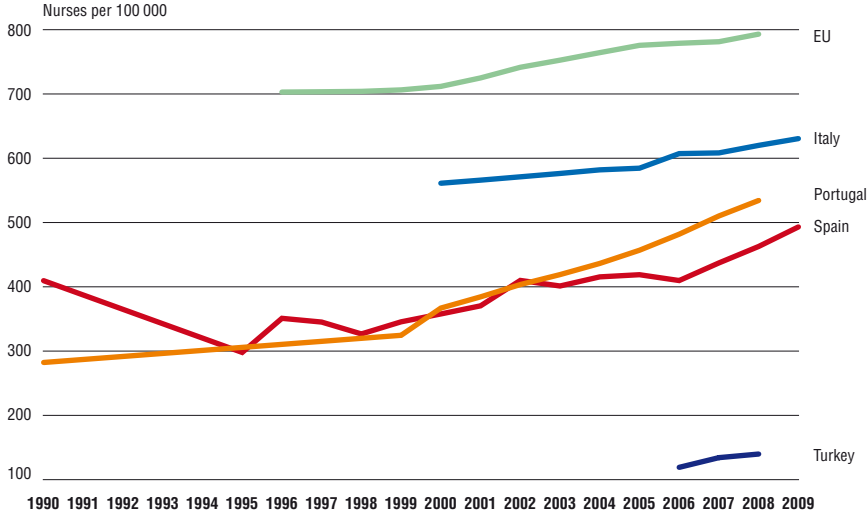
Number of physicians per 100 000 population in Turkey and selected countries, 1990 to latest available year



Source: WHO Regional Office for Europe, 2011.

Fig. 5.3

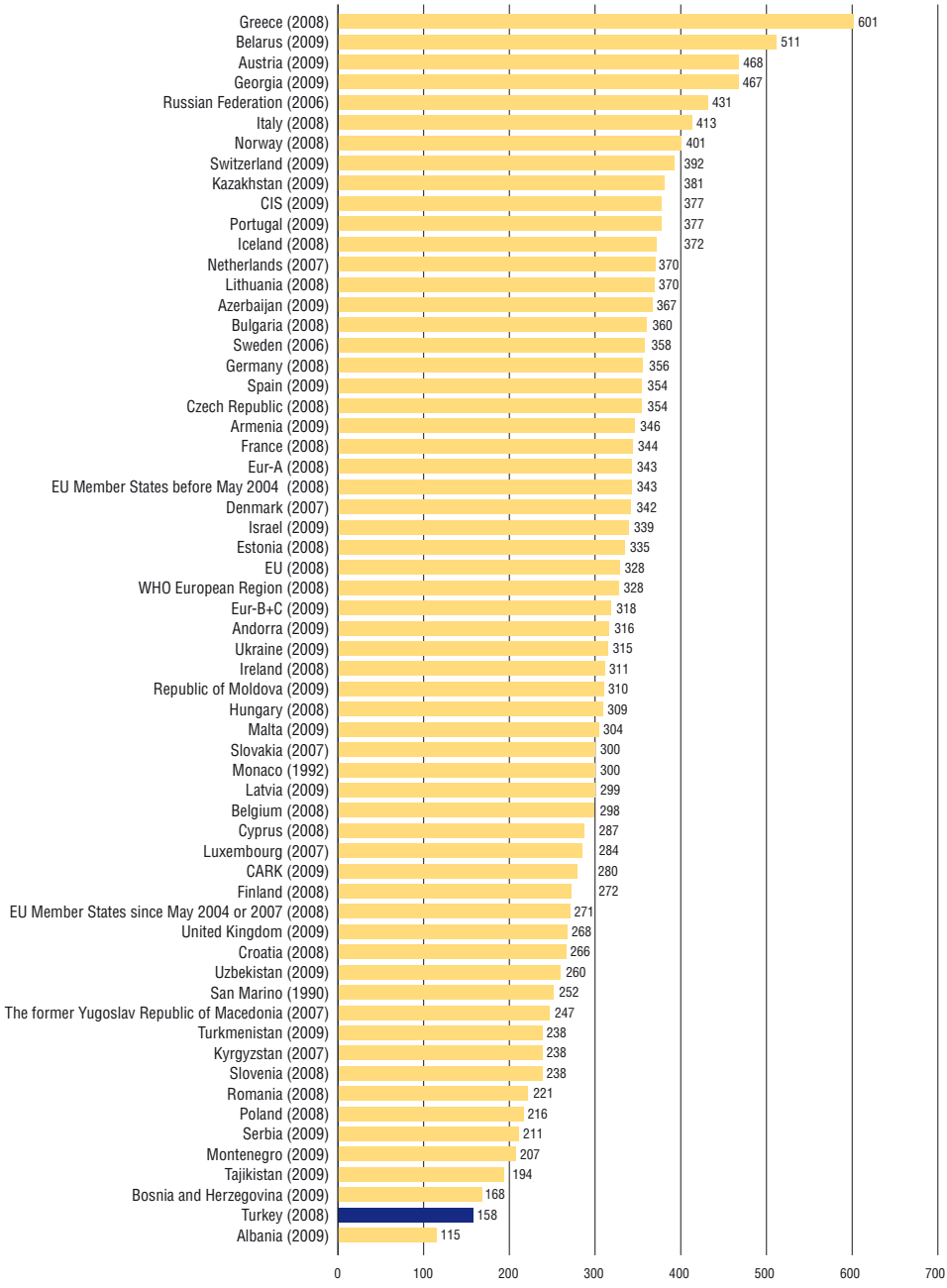
Number of nurses per 100 000 population in Turkey and selected countries, 1990 to latest available year



Source: WHO Regional Office for Europe, 2011.
Note: Data for Greece not available.

Fig. 5.4

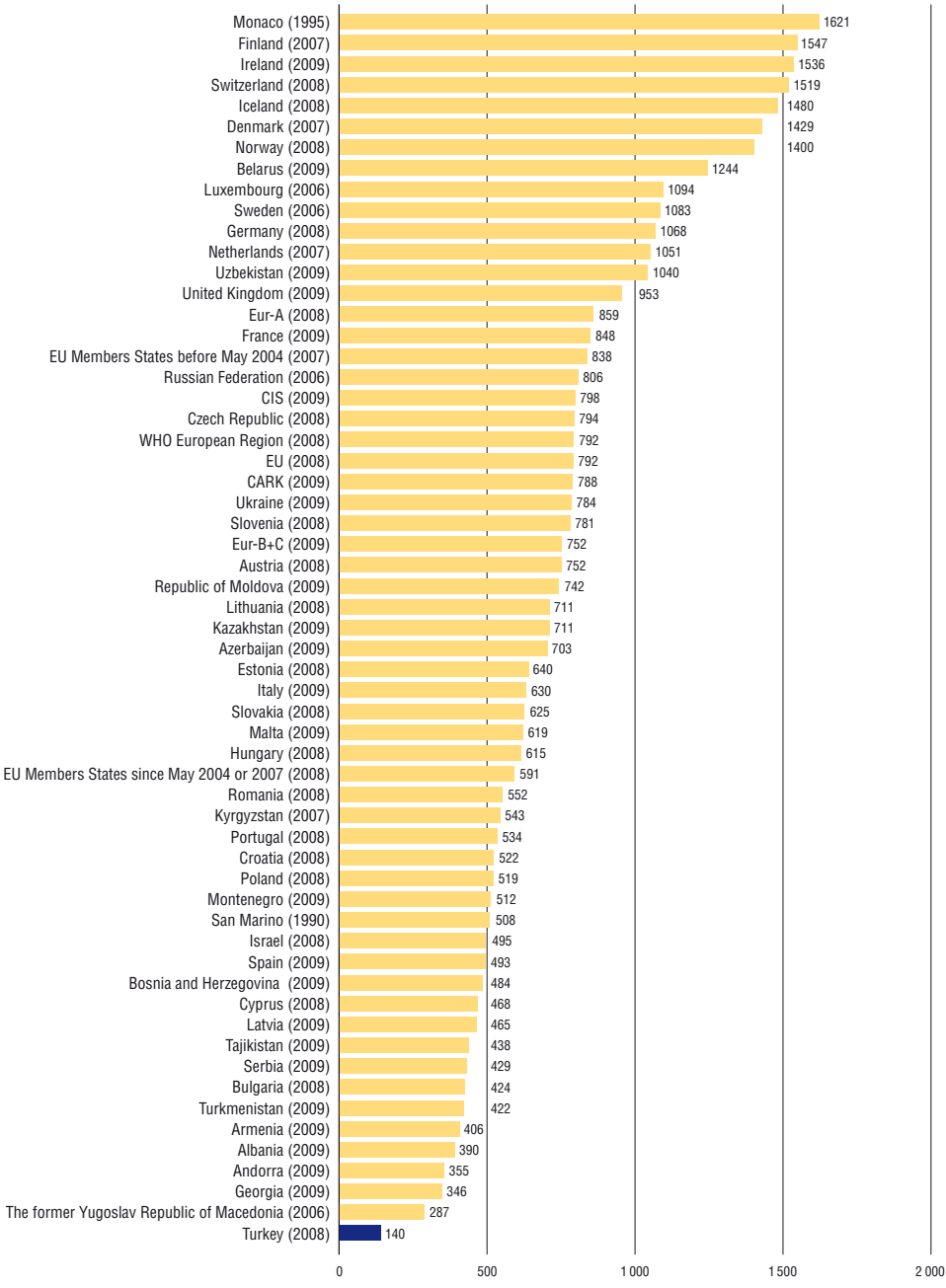
Number of physicians per 100 000 population in the WHO European Region, latest available year



Source: WHO Regional Office for Europe, 2011.

Fig. 5.5

Number of nurses per 100 000 population in the WHO European Region, latest available year

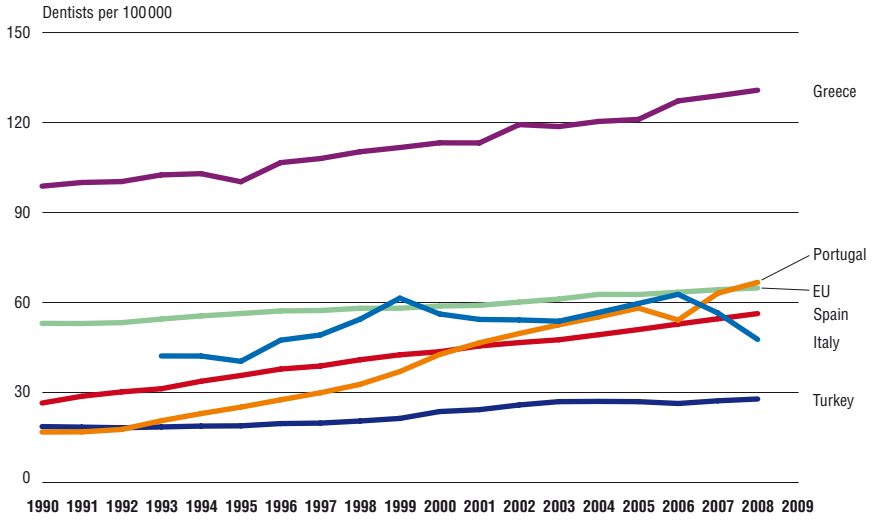


Source: WHO Regional Office for Europe, 2011.

Fig. 5.6 shows the number of dentists per 100 000 population in Turkey and some selected Mediterranean countries. Again, there is a significant difference between the countries, with Turkey having the lowest number (27), Spain, Portugal, Italy and the EU average clustering at around the 50–65 mark and Greece having by far the highest number (130) in 2008. Most dentists in Turkey work in the private sector. The SSI covers dental care in private practice if the patient cannot be treated in public facilities. Although the number of dentists may seem low compared with other European countries, as far as the supply–demand balance is concerned, this number is sufficient to meet the country's needs as there are no waiting lists.

Fig. 5.6

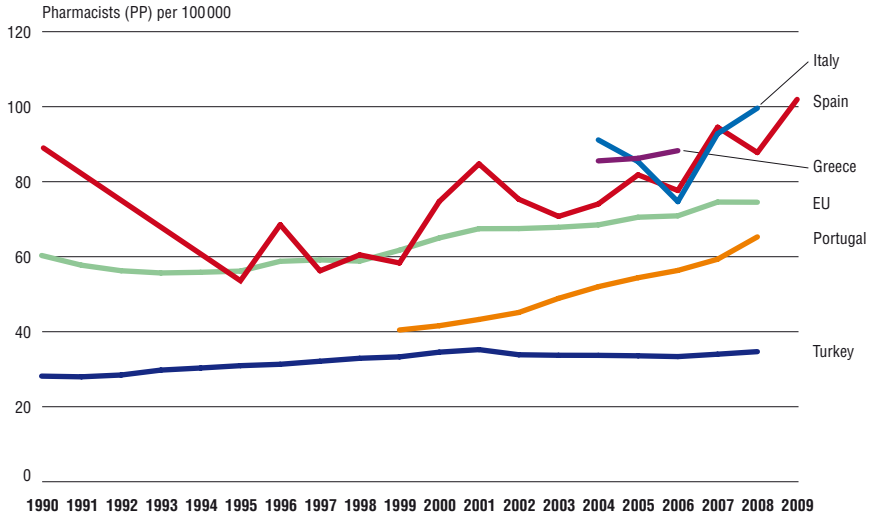
Number of dentists per 100 000 population in Turkey and selected countries, 1990 to latest available year



Source: WHO Regional Office for Europe, 2011.

Lastly, Fig. 5.7 highlights the number of pharmacists per 100 000 population in Turkey and selected Mediterranean countries within Europe. According to data from the WHO Health for All database (WHO Regional Office for Europe, 2011), other countries tend to cluster around the 75–100 mark, while in 2007 Turkey had approximately 35 pharmacists per 100 000 population, which is sufficient to meet demand. Most pharmacists work privately.

Fig. 5.7
Number of pharmacists per 100 000 population in Turkey and selected countries, 1990 to latest available year



Source: WHO Regional Office for Europe, 2011.

5.2.2 Human resource planning

There are a number of institutions responsible for developing human resources policies for health care: the SPO, the Higher Education Council, the State Department of Personnel and the Ministry of Health. The Ministry of Health provides information to the Ministry of Finance and the State Department of Personnel on the staffing requirements of all relevant health-related institutions. A committee, comprising two representatives from the state department of Personnel and the Ministry of Finance and a representative from the relevant institution, examines the estimates of reported need and the rationales underpinning them. The analysis is then communicated to the Ministry of Health and the Office of the Prime Minister. Coordination and secretariat services for this committee are provided by the state department of personnel. The Ministry of Finance gives final approval on spending.

According to the current legislation, the General Directorate of Health Education (*Sağlık Eğitimi Genel Müdürlüğü*) is responsible for workforce planning on behalf of the Ministry of Health. However, apart from this Directorate, the General Directorate of Personnel, the General Directorate of Basic Health Care Services, the General Directorate of Curative Services,

the Strategy Department, the ICT Department, the Department of European Coordination and the School of Public Health also undertake certain activities in this area.

As mentioned, Turkey has a shortage of health care personnel at almost all workforce levels. Entry into the health care professions is organized by the central university examinations system and applications are restricted, with quotas in university departments. The *numerus clausus* is in place mainly because the number of medical schools in Turkey is not adequate to fully respond to the excessive demand by students who take the university entrance examination. Medical specialization education is provided by either university or Ministry of Health teaching hospitals. These hospitals also have quotas for applicants and entry is achieved through the central medical specialization examination. Health care personnel other than physicians who want to work in the public sector enter the central public personnel selection examination and are placed according to their scores in this examination.

There are no closed or restricted areas for health care personnel. Appointment of Ministry of Health personnel is made by the Ministry and there are certain incentives such as increased wages for those working in deprived areas. Each facility has its own number of personnel determined by the number of beds and other specific characteristics, and appointments are made to fill any positions that become vacant.

Professional cross-border mobility is not an important issue at the moment. The number of health care personnel migrating to foreign countries is negligible and there is not a considerable brain drain, although there is a lack of research on this issue. Recruitment of medical staff from abroad is not permitted in Turkey.

5.2.3 Training of health care personnel

Institutions from the public and private sectors, foundations, professional chambers and associations undertake training of health care professionals. Training can be classified into three stages: undergraduate, graduate and continuous professional education. According to the current legislation, the Ministry of Health is a coordinating authority and should cooperate with the Higher Education Council on the training of health care personnel. However, this coordination does not work as effectively as it should.

University faculties and colleges provide undergraduate education (e.g. four years for nursing and two years for a medical secretary). Only faculties and colleges that provide four-year courses can offer postgraduate education. Teaching hospitals affiliated with either universities or the Ministry of Health are responsible for providing specialized education for physicians. In order to pursue postgraduate training, undergraduates need to have succeeded in national university examinations before being placed in university departments according to their grades and choices. In 2010–2011, there were 69 medical faculties, 66 teaching hospitals for medical specialization (belonging to the Ministry of Health), 27 faculties of dentistry, 15 faculties of pharmacy, 84 schools of nursing, 1 school of health administration and 49 colleges for allied health personnel (Ministry of Health, 2010, 2011b; Student Selection and Placement Centre, 2009).

Medical education in medical faculties has been standardized since 2002 through the National Core Education Regulation. Education lasts six years (5500 training hours), with a hospital internship taking up the last 52 weeks of the programme. Between 2000 and 2006, 29 672 new students were enrolled in medical faculties and 28 215 of these graduated. After completing a medical undergraduate degree, a physician can practice within the health care system as a "practitioner" without having to undertake further education. These physicians usually work at the primary care level. Moreover, a continuous training programme has been designed for physicians operating in the family practitioner scheme. After this training, such physicians are given the title of family practitioner and will constitute the backbone of the new primary care system.

The proposed new family medicine training system consists of three stages (Yardım et al., 2007):

First stage. Ten days of training with three days allocated for the training of trainers and seven days is for the training of participants. Approximately, 11 000 trainees have attended training so far.

Second stage. One year's training to be provided through distance learning methods; 75% will cover theoretical aspects and 25% will cover practical aspects. Training content will consist of 40 modules. This training has not been launched as yet.

Third stage. Details have not yet been clarified. The training will be conducted via the central medical specialization examination and will be provided on a part-time basis so that active family physicians are able to participate.

Medical specialization requires further education following completion of the undergraduate degree. The duration of training for each specialty differs according to the specific requirements of the specialty. After graduation from a medical faculty, a candidate for specialization enters the central medical specialization examination (*Tıpta Uzmanlık Sınavı*) carried out twice a year. Candidates are placed according to their grades and choices in teaching hospitals. After meeting the requirements of the medical specialty, graduates can work as specialists. Currently, there is compulsory medical service in deprived areas for these qualified physicians. The duration of the compulsory service usually is one to two years, although this depends on the official "development level" of the regions to be served.

Consequently, the difference between "physicians" and "specialized physicians" in terms of training and practice is as follows. A physician is a health professional who has graduated from a six-year basic medical education programme. In the last year of medical school (that is, in the sixth year), the medical student becomes an intern. Upon graduation, the physician practises in a primary care facility or a hospital providing primary care services. A specialist physician is a health professional who has additional specialty medical education consisting of between three and seven years, depending on the specialized branch of medicine.

Dentistry education lasts five years, with three years of preclinical and two years of clinical education. The curricula of dentistry faculties mainly focus on the provision and protection of oral and dental health, treatment of dental and gum diseases, dental surgery and mentoplasty, and prosthetic replacement of missing teeth. Dentistry faculties also provide postgraduate education and select students via their own examinations rather than through a centralized examination as in the case of medical faculties. During 2010–2011, there were 1998 students enrolled in the country's 27 dentistry faculties (Ministry of Health, 2010, 2011b).

Pharmacy education now lasts five years (previously it was four years) and covers subjects such as obtaining pharmaceutical raw materials of synthetic, semisynthetic and biological origin, analysing and evaluating their physical, chemical and biological properties, high-quality pharmaceutical production, and the analysis, quality control and storage of pharmaceuticals. Postgraduate

education is also provided by the pharmacy faculties, based on their own selection process. In 2010–2011, there were 15 faculties of pharmacy, which produced 815 graduates (Ministry of Health, 2010, 2011b).

University education in nursing lasts four years, equivalent to 4600 hours. A minimum of one-third of this programme should be theory-based and at least half should be practical education. Since 1972, graduates of nursing schools can also proceed to PhD programmes. Nursing degrees can be followed up with specialization opportunities in several branches such as internal medicine, surgerical nursing, gynaecology and obstetrics, psychiatry, paediatrics, public health, management in nursing and professional principles. Before May 2007, there were also vocational nursing schools that corresponded to lycées and graduates of these schools could work as nurses without university education. However, in line with the EU harmonization process (Law No. 5634), nursing education was restricted to university education in May 2007. In the past, nursing was defined as a female occupation by law, but after 2007, the occupation was extended to both sexes. All other health care personnel such as physiotherapists or dieticians also undertake four-year degree programmes in universities, and graduates can continue with postgraduate education.

There is no standardized practice with regard to the continuous education of health care personnel. In line with its own needs, the Ministry of Health organizes in-service training programmes in order to meet ad hoc requirements. Among these, the most important is the Family Medicine Certificate Programme (see section 5.2.3). In addition, the Ministry of Health has organized other certificate programmes in emergency medicine, blood transfusion, family planning, intensive care nursing and emergency care nursing.

In some cases, professional associations, universities and hospitals design their own health service training programmes. For example, the Turkish Medical Association undertakes training programmes in collaboration with relevant institutions and universities and organizes training workshops, conferences and certification programmes in order to ensure the continuity of medical education and professional development. The Turkish Medical Association gives credits for certain continuous medical training programmes. This practice is voluntary and no sanction/reward system is exercised. Moreover, the School of Public Health (formerly the Turkish Institute of Health (TUSAK)) organizes in-service training at national and international level for the purpose of improving health care services and capacity building. In addition, the School offers health

management and health business administration training via Internet-based distance learning methods to Ministry of Health personnel. Since mid 2008, the School has provided training to a total of 8250 trainees through this method.

There are no health education accreditation institutions in Turkey. All new programmes have to be approved by the Higher Education Council. However, this approval does not ensure consistency in the curricula of different departments training the same professionals. As there are no accreditation institutions, there are obvious disparities in terms of the quality of education and working conditions between developed and developing areas and between university and Ministry of Health teaching hospitals. Within the framework of the HTP, initiatives to establish a national accreditation institution have begun. Standardization activities are being carried out by the Medicine and Health Council, a subcommittee of the Inter-Universities Institution.

In general, training of health professionals does not yet conform to EU standards for the purposes of mutual recognition. However, certain changes have been made in the education of nurses and pharmacists (see above) to bring them into line with EU standards.

5.2.4 Registration/licensing

According to the Basic Law on Health Care Services (Law No. 3359), the Ministry of Health is responsible for ensuring the coordination of the education of health care personnel and their employment within the health care system. Accordingly, the Ministry of Health plans employment to achieve a balanced distribution of health care personnel and carries out in-service training for staff in cooperation with universities and other public institutions to improve quality and to meet the needs of the country. The degrees of health care practitioners are registered by the Ministry immediately after graduation from an undergraduate or graduate programme, but there is no periodic re-licensing afterwards. There is no compulsory education and certification system supporting the postgraduate professional development of health care personnel.

5.2.5 Career paths for doctors

Doctors can work either as practitioners in health facilities after completing the six-year undergraduate degree or can undertake further education and become specialists. For the latter, a graduate has to be successful in the central medical specialization examination. Practitioners may also obtain certificates in certain fields rather than specialization areas through certain training programmes

such as the dialysis course certificate programme and the emergency medicine certificate programme. Physicians holding these certificates can work in relevant hospital units.

Doctors can also become clinic directors, assistant directors and chief residents in Ministry of Health hospitals. Appointments for positions in Ministry of Health training and research hospitals are made in accordance with principles outlined in the Basic Law on Health Care Services. Candidates for such positions are chosen from among professors, associate professors and specialized physicians in the relevant field. Positions are announced by the Ministry of Health and applicants provide necessary documentation including their publications and other scientific work. The Ministry forms an evaluation committee comprising five people in the relevant field. Three of the five people are clinic chiefs working in different Ministry of Health teaching hospitals and the other two are academics from universities. Specialized physicians without professor or associate professor status must pass special examinations to become clinic directors, assistant directors and chief residents. After appointment to these positions, the Ministry of Health assesses the scientific capacity and performance of doctors at five-year intervals. At the end of the assessment, those fulfilling the predetermined scientific and performance criteria are re-appointed. Those who fail to fulfil the criteria are transferred to positions as specialized physicians. Moreover, the chief physicians[29] in teaching and research hospitals, service and laboratory directors or chief assistants, associate professors or professors of medicine can be appointed and these positions may also be held by specialized physicians, physicians with a PhD in medicine or physicians who have an undergraduate, postgraduate or PhD degree in law, public administration, economics, management or health care management.

Design and delivery of certificate programmes mainly depend on requests by the participant, but hospital managers can play a decisive role in Ministry of Health hospitals. The participation of physicians in training workshops, symposia and conferences to improve their skills is supported at ministerial level. However, hospital management has the right to intervene in physicians' participation in these activities in specific circumstances. Physicians can also attend private special certificate programmes and programmes designed and credited by the Turkish Medical Association. Moreover, the Turkish Civil Servants Law (Law No. 657) allows physicians to go abroad to improve their training and skills. After their return, they must complete a period of compulsory service that is twice as long as the period they spent abroad.

[29] The hospital manager in the highest position is called the "chief physician".

In universities, after graduating from a specialization programme, a physician may remain at the university and continue his/her academic career (if there is a vacancy). Universities are free to fill these positions using their own criteria. An academic career has three main steps: assistant professorship, associate professorship and professorship. The Higher Education Council sets the general rules for these positions and also organizes examinations at the associate professorship level. However, in recent years, it has become almost the norm, particularly for long-established and esteemed universities, to require additional scientific work for candidates to be appointed to these positions.

Prior to January 2010, physicians could work on a part-time basis in both the public and the private sector. However, in recent years, following the implementation of reforms, particularly the introduction of the performance-based payment system creating better financial incentives in the public sector, the number of part-time practising physicians has decreased considerably, from 89% in 2002 to 8% in 2010 (Ministry of Health General Directorate of Personnel, 2011). As mentioned in Chapter 3, the Full Time Law[30] prohibits doctors from working in both the public and private sectors. However, after a Supreme Court challenge, as of July 2010 the new arrangements now require only Ministry of Health doctors to practise exclusively in the public sector, while university-based doctors can still practise in both sectors as long as their daily public commitments are fully met.

5.2.6 Career paths for other health staff

The career paths of other health care staff are similar. After completing an undergraduate degree, these graduates can continue to postgraduate education or start working in the public or private sector. For public sector employment, graduates must take national examinations, and selection for vacant positions is based on individuals' scores in these examinations. In some cases, additional examinations and interviews are carried out by the relevant departments. Facilities in the private sector follow their own procedures in recruiting staff.

Generally, health care staff, other than physicians, prefer to work in the public sector because of limited employment opportunities outside this sector. However, low salaries in the public sector are a demotivating factor despite the fact that staff working in public hospitals and primary care units can obtain additional remuneration through the revolving funds of their institutions as part of the performance-based payment system. A number of studies analysing motivational factors for health care personnel have concluded that low salaries,

[30] Law no 5947, enacted on 21st January 2010.

intensive workloads and long working hours were among the major reasons for low levels of satisfaction among health care staff (Aykanat & Tengilimoğlu, 2003; Gürbüz et al., 2000; Şahin & Şahin, 2000).

5.2.7 Career paths for pharmacists

Pharmacy education is carried out by pharmacy faculties within universities. Pharmacies are private entities in Turkey and hospitals have their own pharmacies only to serve inpatients. There are no incentives to open pharmacies in rural areas nor is there an explicit policy on regulating location, leading to a geographically unbalanced distribution of pharmacies. There were 26 506 pharmacies in 2010 with 0.36 pharmacies per 1000 inhabitants (Ministry of Health, 2010, 2011b). After 2005, with radical changes in the reimbursement system, pharmacies were affected considerably both in terms of profit margins and the changing operational environment (see Chapter 6).

6. Provision of services

6.1 Public health

The Constitution gives the Ministry of Health the responsibility to protect and improve public health in Turkey. However, certain aspects of public health require intersectoral collaboration. As will be discussed below, the Ministry of Health leads the process in areas where this collaboration is needed. The Ministry of Health undertakes this responsibility both through its centralized departments and through the provincial health directorates. Prior to the full implementation of the family practitioner scheme nationwide (at the end of 2010), health posts and health centres in rural areas undertook the majority of disease prevention, health education and other public health-related measures. Now, these activities are carried out by population health centres. Centrally, both the General Directorate of Primary Health Care Services and the General Directorate of Maternal and Child Health and Family Planning are responsible for public health. In addition to these, the departments for malaria control, cancer control and tuberculosis control in the Ministry of Health and the Refik Saydam Hygiene Centre Presidency also undertake public health measures.

The Ministry of Health, Ministry of Agriculture and Rural Affairs, the Ministry of Environment and Forestry, and the municipalities are the main organizations responsible for environmental health in Turkey. In the Ministry of Health, the Department of Environmental Health, under the General Directorate of Primary Health Care Services, undertakes the following activities: planning, research, regulation, development and supervision of services related to the protection of water resources; planning research and supervising services related to eliminating or reducing noise and air pollution; regulating public places where people eat, sleep, have recreation and perform cleaning functions; undertaking research, regulation, development and supervision for industrial organizations and all enterprises that can have harmful effects on health; sanitary arrangements for sewage systems, and planning services related to waste, compost or (parasitic) vectors; and controlling pesticides and other

environmental pollutants for the protection of natural resources. The department also collaborates with other related institutions to improve environmental health and it conducts pilot studies at national and international level. In rural areas, the provincial health directorates are mainly responsible for coordinating all health-related activities of public and private organizations within their provincial borders. Environmental health technicians located within health care centres carry out environmental roles and duties.

The Ministry of Agriculture and Rural Affairs also has environmental and health responsibilities and these are coordinated by departments for environment and disaster services, food control services, public health services, and animal health services under the General Directorate of Protection and Control. At the local level, provincial and district directorates undertake these responsibilities. Similarly, the General Directorate of Environment Management, under the Ministry of Environment and Forestry, also has responsibilities in terms of environmental conditions. In addition to these, municipalities have a major role in environmental health.

In the past, there were 39 communicable diseases that should be notified in Turkey and reported from all health facilities. More recently, a group of 60 people from universities and teaching and research hospitals conducted a study to review the communicable disease reporting and notification system using WHO and the US Centers for Disease Control and Prevention publications. The study defined the standard diagnosis criteria for diseases in the context of the Turkish setting. Taking into account recent developments, it produced an updated list of notifiable diseases: 51 diseases with four different notification types (groups A–D) (Ministry of Health, 2004a).

The diseases in group A require data collection from all institutions in the health system, starting from the primary level. Diseases in this group are HIV/AIDS, acute bloody diarrhoea, pertussis, brucellosis, diphtheria, gonorrhoea, mumps, measles, rubella, cholera, rabies and suspected rabies contacts, meningococcal meningitis, neonatal tetanus, poliomyelitis, syphilis, malaria, anthrax, cutaneous leishmaniasis, tetanus, typhoid fever, tuberculosis and acute viral hepatitis. For the majority of these diseases, the patient's first point of contact is the primary care level. The physician notifies the disease, to the extent it can be diagnosed, and initiates the necessary research. Where there are limited opportunities for diagnosis, physicians refer patients or patients directly present themselves to a secondary level health care institution. In both cases, while diagnosing and initiating treatment, the relevant medical personnel must report all patient information to the health authorities (health care facilities notify the Ministry of Health's database electronically, while

family health centres and population health centres notify the provincial health directorate either electronically or by submitting a form). The rationale behind this reporting mechanism is to identify whether there are similar cases among people living in the same neighbourhood and/or to examine the source of the disease. All health institutions across Turkey can notify the diseases in this group (Ministry of Health, 2004a).

Group B diseases must be reported as soon as an outbreak is suspected in accordance with the WHO 1969 International Health Regulations. These are smallpox, yellow fever, epidemic typhus and the plague. These diseases have either never been seen in Turkey or not been seen for a long time. All health institutions must report to the Ministry of Health directly and quickly if there is a suspected case of these diseases. At the international level, only the Ministry of Health has the authority to notify these diseases. There are also diseases that should be notified internationally within the framework of WHO's International Health Regulations (Ministry of Health, 2004a).

Group C diseases are acute haemorrhagic fever, Creutzfeldt–Jakob disease, echinoccoccosis, *Haemophilus influenzae* type b infection, influenza, kala-azar, congenital rubella, legionellosis, leprosy, leptospirosis, subacute sclerotic panencephalitis, schistosomiasis, toxoplasmosis, trachoma and tularaemia. Most of these diseases were added recently to the notification system. These diseases are traced through the "sentinel surveillance" method, although the reasons change according to the disease. Some of the diseases in this group can be defined starting from the secondary level or higher specialist institution or laboratory, and notification from these institutions is sufficient. In the case of an influenza outbreak, the rule is to examine a sufficient sample of cases to identify the agent; therefore, not all cases are examined. In some other cases (Creutzfeldt–Jakob disease, congenital rubella), collecting information and notification at the primary care level does not contribute practically to the surveillance system. Instead, each health institution at the secondary level or above that can provide services for diagnosis and treatment in relation to their specialty capacities are responsible for the notification of these diseases. Consequently, notification of group C diseases is not undertaken through all health care institutions, but only those specified by the Ministry of Health (Ministry of Health, 2004a).

Differing from the other groups, group D defines the notification of "infectious agents". This requires the direct involvement of laboratories in the notification system. The purpose is to collect more information on aetiological agents of some communicable diseases that are still important public health issues, and to be able to undertake advanced epidemiological research. It is

noteworthy that a laboratory can give notification only if it can diagnose with a minimum level of acceptable techniques (Ministry of Health. 2004a). In this group, not the disease but the infectious agent (e.g. *Campylobacter jejuni, Salmonella* spp. and *Entamoeba histolytica*) should be notified. Responsibility for the notification of group D infectious agents rests with laboratories at state hospitals, university hospitals and other public hospitals; provincial public health laboratories; and district and central hygiene laboratories that are authorized by the Ministry of Health (Ministry of Health, 2004a).

Health promotion and public health education activities are mainly the responsibility of the Ministry of Health's General Directorate of Primary Health Care Services, while in-service education activities are the responsibility of the Ministry of Health's General Directorate of Health Education. However, other departments of the Ministry, such as the School of Public Health (*Hıfzıssıhha Mektebi*), provincial health directorates and universities, also undertake these activities. The General Directorate of Primary Health Care Services develops policies and prepares plans for public health education activities, which focus on vaccination, preventive health services, environmental health, food safety, emergency health care services, prevention of tobacco and alcohol usage, prevention of obesity and chronic diseases. The media is also an important actor in these activities, through campaigns on preventive health services including tobacco and alcohol usage, and obesity. In addition, universities, upon the Ministry of Health's request, collaborate in these activities as major sources of information.

At the provincial level, provincial health directorates prepare their annual training plans, considering the needs and teaching requirements within their provinces. Health education for the public is conducted under the coordination of the directorates' training departments with intersectoral cooperation. Although NGOs conduct some small-scale training activities for health improvement, there are no large-scale profit-making or non-profit-making organizations in health education.

The Ministry of Education's Department of Health Affairs also undertakes activities aimed at increasing awareness of certain aspects of health, particularly in schools. The School Health Project carries out screening activities in schools and provides basic health education to pupils. There is also an oral and dental training project; an adolescent training project that covers education on sexual behaviour, well-balanced diet and physical activity, and harmful use of alcohol, tobacco and other substances; a drug addiction control project; and a first-aid training project for school-aged children.

Immunization, family planning and antenatal services are the responsibility of the General Directorate of Primary Health Care Services. Prior to the implementation of the family practitioner scheme, health centres, maternal and child health care centres and dispensaries provided these services in the regions; now family practitioners conduct these activities through family health centres. The regulation of immunization services is among the major responsibilities of the Ministry of Health. The Ministry undertakes this responsibility by following the recommendations of the Immunization Advisory Board, comprising 30 academics, and the recommendations of international organizations.

In the provinces, the communicable diseases branches of the provincial health directorates implement eradication, elimination and control programmes for communicable diseases; undertakes immunization programmes; and monitors these activities within the boundaries of the province. Turkey implements the Expanded Programme on Immunization (*Genişletilmiş Bağışıklama Programı*) aimed at eliminating infant and child deaths and disabilities caused by pertussis, diphtheria, tetanus, measles, rubella, mumps, tuberculosis, poliomyelitis, hepatitis B, invasive pneumococcal diseases caused by streptococcal pneumonia, and other diseases caused by *Haemophilus influenzae* type b. The programme has been evaluated as successful since its implementation and through adding three new conditions (rubella, mumps, *Haemophilus influenzae* type b infection) to the programme in 2006 (Ministry of Health General Directorate of Primary Health Care Services, 2006). By the beginning of 2008, the DaPT-IPA-Hib was added. Turkey now carries out the same vaccine schedule as developed countries (Ministry of Health, 2009a). Since 2008, the pneumococcal vaccine has been included in the routine vaccination scheme. The Ministry of Health also provides a rabies vaccine and antiserum together with other vital antiserums (snake, scorpion, tetanus, diphtheria, etc.). Vaccination is free at public facilities, and vaccines are provided through the general public procurement regulations. The vaccination schedule is displayed in Table 6.1.

Family planning and antenatal services are the responsibility of the General Directorate of Mother and Family Planning and Child Health, which also has branches within the provincial health directorates. Prior to the implementation of the family practitioner scheme, these services were primarily provided by maternal and child health centres and health centres; now family physicians provide these services, but secondary health care institutions can also provide these services (Ministry of Health, 2007a). Health care services at the primary care level are free of charge and there is also some limited support for these services from international organizations such as the United Nations Population Fund and the EU.

Table 6.1
Vaccination schedule for children

	Birth	End of 1 month	End of 2 months	End of 4 months	End of 6 months	12 months	18–24 months	Primary school, 1st grade	Primary school, 8th grade
Hepatitis B	I	II			III				
BCG			I						
DaPT-IPA-Hib			I	II	III		B		
CPV			I	II	III	B			
MMR						I		B	
DaPT-IPA								B	
Oral polio vaccine					I		II		
Diphtheria–tetanus (adult type)								I	II

Source: Ministry of Health, 2010.
Note: CPV: Conjugated pneumococcal vaccine.

Occupational health services are the responsibility of several organizations in Turkey, including employers. At the national level, the General Directorate of Occupational Health and Safety under the Ministry of Labour and Social Security determines policies and monitors their implementation. There are six occupational health and safety centres in the provinces and these centres mainly take measurements (radiation, noise, lighting, etc.) at workplaces upon request and also provide advice and training services. By law, all employers with 50 or more employees should have a health unit with a physician and a sufficient number of auxiliary health personnel. These workplace units should ensure a healthy and safe working environment, determine measures for the prevention of risks and implement and monitor these measures. They also provide first aid and emergency care and refer employees to relevant institutions for further care. However, there are very few workplaces in Turkey with 50 or more employees. In fact, in 2004, 98.7% of enterprises had fewer than 50 employees. In addition, 98% of occupational accidents occurred in enterprises without health units. In such cases, all required health care is covered by the SSI (Ministry of Labour and Social Security, 2008).

Screening in Turkey can be classified as opportunistic. There are national screening programmes for breast, cervical and gastrointestinal cancer, tuberculosis, phenylketonuria and congenital hypothyroid. The last two programmes are organized by the Ministry of Health in collaboration with universities. The increasing burden of cancer and its impact on the health care budget have led to more emphasis on cancer-screening programmes rather than screening of other diseases. The Ministry of Health has established centres for

early diagnosis and screening of cancer in 47 provinces, with support from the EU. There are currently 122 such centres and they aim to screen 35% of the target population in the short and medium term, and at least 70% in the long term (Asian Pacific Organization for Cancer Prevention, 2010). These centres conduct opportunistic screening services and resources are allocated from the Ministry of Health budget. Screening services are provided free of charge. With regard to tuberculosis, mobile screening teams, which had been undertaking their activities under the Department of Tuberculosis Control since 1952, were transferred to the provincial health directorates in 2006. New teams have been added under the new arrangements, thus strengthening radiological tuberculosis screening in community residential areas and within organized communities such as prisons, nursing homes and kindergartens.

The topic of inequalities in health has been high on the policy agenda in recent years. It is widely accepted that health inequalities are a reflection of the overall inequalities within a country. Turkey had a Gini coefficient of 0.40 in 2004 (SPO, 2006) and 0.39 in 2008 (World Bank, 2010), indicating that there is large scope for improvement in this area. With the implementation of the HTP, the country has introduced a number of initiatives to reduce these inequalities, which are directly related to health and health services, but there are also other initiatives aimed at reducing poverty. The Green Card Scheme was the first initiative aimed at covering the health care expenditure of the poor, hence contributing to decreasing health inequalities. The scheme is fully financed by the government budget (see Chapter 3). Initially, the scheme covered only inpatient services but later coverage was equalized with other social security schemes and now it covers all levels of care.

The introduction of the GHIS (in October 2008) can be regarded as a key component of the HTP that will have a positive impact on reducing financial obstacles to accessing health care. According to the NHA study (Ministry of Health RSHCP School of Public Health, 2004), in 2003 Turkey had very high OOP payments (28% of total health expenditure), indicating problems in financial risk coverage. Another study concluded that both formal and informal payments were made by the poorer segments of society (Tatar et al., 2007). After the planned transfer of the Green Card Scheme to the SSI, theoretically, no one will be outside the insurance system. Gradually, the plan is to dismantle the Green Card Scheme and the government will pay the contributions of the population under a specified poverty line; as a result, the poor and the unemployed will have extra protection under the new system. Currently, the GHIS also provides free health care services for all children under 18.

The General Directorate of Social Aid and Solidarity[31] provides an economic and social support fund for citizens experiencing economic and social deprivation. Its provincial branches determine the families in need of assistance and provide both in-cash and in-kind benefits. Until 2004, this fund financed the outpatient fees and prescription charges of Green Card holders, after which these expenses were incorporated into the Green Card Scheme itself. At present, the General Directorate of Social Aid and Solidarity meets the health care expenses of uninsured people and others who do not qualify for a Green Card, as well as the medical needs of disabled people that are not covered by the SSI, such as prostheses, hearing devices and wheelchairs.

There is also a Social Risk Mitigation Project initiated in collaboration with the World Bank in 2001. The project provides direct in-cash support to the poor. The "conditional cash transfer" component of this project falls under the responsibility of the Ministry of Health and the Ministry of National Education. This component covers assistance for citizens who are negatively affected either socially or economically by economic crisis. Within the framework of the project, monetary aid is provided for preschool children aged between 0 and 6 years to benefit from primary care services. In addition, expectant mothers receive cash benefits for prenatal care, deliveries at health care facilities and postnatal care (Prime Ministry General Directorate of Social Aid and Solidarity, 2008).

6.2 Patient pathways: referral and centre-referral system

Until 2003, Turkey had a very complex health care provision and financing system. Patient pathways differed substantially according to the coverage status of individuals. Through the rapid reforms that have occurred since 2003 under the HTP, patient pathways have almost been standardized. Accordingly, SSI beneficiaries can directly access an inpatient or outpatient health care facility using their identity cards. Currently, there is no formal gatekeeping system in place.[32] However, now that the family practitioner scheme has been implemented nationwide, people are encouraged to contact their family physician or to visit a primary care facility first and then to be referred to appropriate secondary or tertiary health care facilities if necessary. Primary care visits are free of

[31] Attached to the Prime Minister's Office (Law No. 5263 of 1 December, 2004).

[32] The formal referral system was abolished in 2007 because of the lack of sufficient primary care doctors who could act as gatekeepers.

charge (i.e. no co-payment is levied) as an incentive. Moreover, co-payments at secondary level facilities are waived if the patient has a referral from a primary care physician.

Patients with a Green Card can apply directly to primary, secondary and tertiary health care facilities (except for university hospitals). The secondary or tertiary health care facilities that provide care for Green Card holders can refer such patients to university hospitals if medically necessary.

6.3 Primary/ambulatory care

Prior to the implementation of the family practitioner scheme in 2010, health centres, health posts and other units such as dispensaries provided primary care services. Since 2011, and the start of a new family medicine system nationwide, family physicians, family health centres and population health centres (in the public sector), doctors' private offices and private clinics are the main providers of primary and ambulatory health care services in Turkey.

Health posts and health centres were the key primary care components outlined in the Law on Socialization of Health Care Services (1961). The socialization model, reflecting the basic health services movement of the 1960s, required the establishment of a health post per 2000 population and a health centre per 5000–10 000 population. However, population size differed in some areas, particularly after periods of rapid urban expansion. Generally speaking, one health centre per 20 000 was established in metropolitan areas, one centre per 10 000 in provincial centres, one centre per 5000 in districts, and one health post per 2500 population in towns and villages. Following the legislation, these units were established as the backbone of the health care system, usually being the first point of contact for patients. Health posts and health centres provided primary health care services. Health posts were staffed by a nurse/midwife and provided mainly maternal and child health care services, basic sanitation, health education and so on. Health centres, by comparison, were a reflection of the "multipurpose health care service in a limited area" model. Accordingly, these centres provided both preventive and curative care. The model covered the whole country in 1984, although, as indicated by the two decades it took to implement changes, there were serious drawbacks that impeded progress (e.g. a lack of human resources). Moreover, there was a certain degree of fragmentation in the delivery of services.

As part of the new family medicine system, family health centres and population health centres have replaced health posts and health centres. They provide, free of charge, preventive and community health care services such as immunization, follow-up of women between the ages of 15 and 49, follow-up of pregnant women and new mothers, infant and child health care, school health services, public health training and similar services. In 2010, there were 6367 family health centres and 961 population health centres across the country (Ministry of Health, 2010, 2011b).

Family health centres are health care facilities where one or more family physicians and allied family health personnel offer family health care services. Apart from focusing specifically on providing primary care services, one of their aims is to reduce costs and to provide flexible working hours for family physicians. Family health centres can be established in eligible areas that meet demographic and transportation criteria set out by the Ministry of Health, with the family physicians signing individual contracts with the Ministry. Family physicians, individually or jointly, can employ other people (allied health care personnel such as midwives, nurses, health officers, medical secretaries), who also sign individual contracts, and can purchase security, cleaning, heating and secretarial services. With the agreement of the Ministry of Health, family health centres can be used for training purposes. This type of group practice is being actively encouraged and is seen to be advantageous with regard to creating solidarity, fostering teamwork and promoting training and service continuity.

A family physician is expected to undertake the following main tasks and responsibilities:

- provide integrated patient-specific preventive health care services and diagnostic, curative, rehabilitative and counselling services at the primary care level;
- provide maternal–child health and family planning services in addition to health promotion and protection;
- make home visits and contact registered patients on their lists within six months of their registration in order to conduct an initial medical assessment;
- provide follow-up and monitoring of registered patients according to age, sex and disease groups (cancer, chronic diseases, pregnancy, newborn, infants, child health, adolescent health, adult health, health for the elderly);

- conduct regular (annual) health checks and medical examinations and update patient records;
- refer patients whose conditions require further diagnostic and treatment options;
- provide primary level preventive health, diagnosis, treatment, rehabilitation and other service for people at home when necessary (for the disabled, elderly or bedridden who are detected during home visits and whose home follow-up is obligatory) or organizing mobile health care services;
- evaluate the feedback on examinations, tests, diagnosis, treatment and hospitalization data of referred patients;
- coordinate secondary and tertiary level treatment and rehabilitation services and home care services; and
- manage family health centres, supervise colleagues and provide them with in-service training.

Population health centres are health facilities that develop and protect people's health and address health-related risks and problems, providing health care services that include health protection and prevention. Under the leadership of district health directorates, they also play a role in evaluating the effectiveness of services and coordinating relations between health care facilities and the other institutions and services in their catchment area to aid public health. In every district, including central urban districts, at least one population health centre is being established under the directorship of the district health directorate. These centres provide services that include diagnostic and medical tests and health services that are not provided by family physicians. In accordance with the Ministry of Health's annual programme, population health centres provide logistical support to family physicians with regard to vaccinations, mother and child health/family and planning. These centres employ public health specialists, who play a vital role in overseeing the centres' public health functions in an integrated manner. Population health centres also function as training and planning centres.

Population health centres carry out the following key activities (among others): registration, statistical collection and planning of public health services; cooperation with universities; monitoring and evaluating services; controlling communicable diseases; controlling noncommunicable diseases; reproductive health services; emergency health services; protective services for accidents and injuries; screening and laboratory services; environmental health services;

occupational health and safety services; disaster services; health promotion; health education services; community life and school health services; and social services.

The restructuring of primary health care delivery is a result of a major initiative under the HTP – the introduction of the family practitioner scheme. Although this policy had been cited extensively as a needed reform measure since the beginning of the 1990s, concrete results have been achieved only since 2003. The scheme was piloted in 2008, with 23 out of 81 provinces participating. In June 2009, the family practitioner scheme was operating in 33 provinces (Ministry of Health General Directorate of Primary Health Care Services, unpublished data 2009) and by the end of 2010 it had been extended to the whole country. In addition, once there are a sufficient number of doctors participating nationwide in the scheme, the government plans to relaunch compulsory gatekeeping in the health system, with family practitioners acting as the first level of contact.[33] Family practitioners are now paid by capitation (receiving an additional performance-based payment where appropriate) and the patient list size is restricted to 4000.

In terms of accessing primary care services, residents within a particular area are expected to visit the relevant family or population health centre to facilitate access to services. Currently, each family practitioner is assigned a population according to his/her location in the provinces. However, after six months, patients can change their family practitioner. There is no limit to the number of times patients can change their family practitioner.

Hospitals also provide ambulatory outpatient services in Turkey. As there is not an effective and active referral system at the moment, the majority of outpatient visits tend to be for problems that could easily be dealt with at the primary care level. The data on outpatient visits are separate for hospitals and primary health care units but it is possible to give the total number of visits by patients in a year.

In 2010, there were 18 279 GPs and 891 specialist physicians (in family health centres), making a total of 19 170 physicians practising at the primary health care level (Ministry of Health, 2010, 2011b). In 2006, the highest number of physicians was in the Marmara region (21%) and the lowest in eastern

[33] Following the experiences of a gatekeeping pilot programme, which made referrals by a family practitioner compulsory in four provinces, the government decided to abolish the programme. Three months into the pilot programme, it was clear that the new gatekeeping responsibilities for family practitioners had negative effects: they increased daily workloads, waiting lists grew, consultation times were decreased to five minutes, preventive care activities were curtailed and the referral rates increased by more than 30%. These problems were mainly caused by the insufficient number of family practitioners.

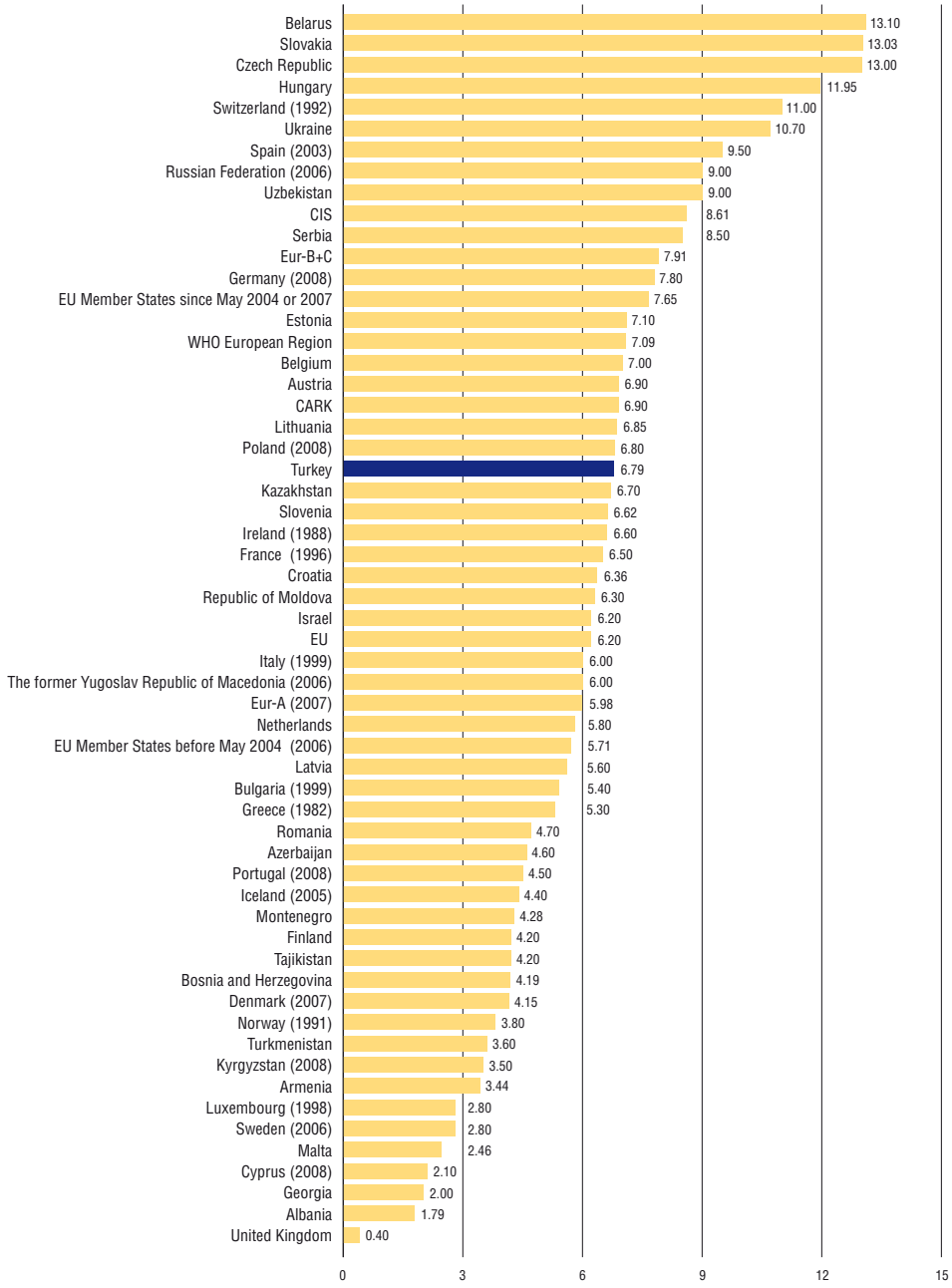
Anatolia (7.3%). The average population per physician was 5061 in the Marmara region, 4846 in south-eastern Anatolia, 4948 in eastern Anatolia and 3021 in the Aegean region. These figures were indicative of the wider inequalities in the distribution of physicians by regions (Ministry of Health General Directorate of Curative Services, 2006). By 2010, the imbalance in the distribution of physicians had improved: the total number of physicians per 1000 population was 1.67 in Turkey, with the highest ratio (2.84) in western Anatolia and the lowest (1.14) in south-eastern Anatolia. Consequently, even the region with the lowest value has come closer to the average (Ministry of Health, 2010, 2011b).

Quality of care has been on the Ministry of Health agenda since the early 2000s. In 2006, TURKSTAT undertook a Satisfaction with Health Care Services survey to explore potential areas for improvement (Ministry of Health, 2006c). There is a quality unit within the General Directorate of Primary Health Care Services whose major responsibility is to plan, implement, coordinate and supervise quality studies undertaken at the provincial and health facility level. A rise in the number of patient visits to health centres now family health centres and a decline in referral rates can be treated as indicators of increasing quality within the primary care sphere. In this respect, the number of per-patient visits to health centres increased from 0.86 in 2001 to 1.46 in 2005. In 2010, the number of visits per person was 2.7. Data on family physicians are also included. The referral rate decreased from 14.4% in 2001 to 10.2% in 2005 (Ministry of Health Gneral Directorate of Primary Health Care Services, 2005). In 2010, the rate was reduced further to 0.4% (Ministry of Health, 2010, 2011b).

The number of outpatient contacts per person has risen dramatically in Turkey over the years. While there were 2.78 annual outpatient contacts per person in 2002, this number increased to 6.28 in 2008, close to the EU average of 6.86 (in 2007). As for the WHO European Region as a whole, the average number of outpatient contacts per person in 2009 is reported as 7.0 (Fig. 6.1).

Fig. 6.1

Outpatient contacts per person per year in the WHO European Region, 2009 or latest available year



Source: WHO Regional Office for Europe, 2011.

6.4 Secondary care: specialized ambulatory care/ inpatient care

Secondary and tertiary care services are predominantly under the control of the Ministry of Health. In 2010, the Ministry of Health owned 58.6% of hospitals and 59.9% of hospital beds (Ministry of Health, 2011b). The Ministry of Health operates both general hospitals (secondary care) and teaching hospitals (tertiary care). Ministry of Health teaching hospitals provide specialist training in all medical branches. In addition, universities owned 4.3% of hospitals and 17.5% of hospital beds in 2010. These are highly specialized and complex hospitals providing services at the tertiary level. However, because of problems with the current referral system, these hospitals are also used by patients as primary level points of contact, impacting adversely on the efficient use of resources.

In 2010, the private sector owned 33.9% of hospitals but just 14.0% of hospital beds. In parallel, private hospitals have seen an increase in the number of patients served, from 4.4 million in 2002 to 46.2 million in 2009, indicating that this sector is more involved in providing outpatient care than inpatient care. The Ministry of National Defence had 2.9% of hospitals and 7.9% of hospital beds in 2010. Before 2004, SSK was also an important partner in the provision of hospital services but since the transfer of its facilities to the Ministry of Health in 2005, the SSK no longer has this function (see Chapters 2 and 3).

Hospital outpatient departments, both public and private, doctors' private offices and private outpatient centres are the main providers of specialized ambulatory medical services. Under the statutory system, outpatient clinics in public hospitals are staffed by physicians and other hospital staff, with physicians being responsible for both inpatient and outpatient care. The SSI purchases health care services from both public and private providers (with the exception of private physicians' services). Outpatient services in public hospitals are paid for by the patient's health insurance scheme (the GHIS or the Green Card), along with the appropriate co-payment; alternatively, OOP fees are paid by patients directly to the hospital's revolving fund (see Chapter 3).

In the private sector, specialist ambulatory care is provided by outpatient clinics in private hospitals, private part-time and full-time practitioners and private outpatient centres. All these facilities are profit-making. Until 2010, physicians had been able to work in both the public and the private sector on a part-time basis; this led to an upsurge in private outpatient centres in recent years, mainly opened by groups of specialists. In January 2010, a new law prohibiting doctors from practising in both the private and public sector

was passed, with financial incentives to keep doctors in public facilities. However, the law was challenged in the Constitutional Court and under the revised arrangements, staff in Ministry of Health facilities cannot work in both the public and private sectors while staff at university medical facilities are allowed to work in their private clinics only after completing their full-time job commitments in the public/university sector (that is, after working the full day there instead of half a day, which until now has been the common practice).[34]

Hospital categories are classified in the Regulation on the Administration of Inpatient Health Care Facilities 2005. Hospitals are defined in the Regulation as facilities where the ill and injured are diagnosed, treated and rehabilitated both as inpatients and as outpatients and where babies are delivered. Hospitals are classified into five groups:

District/town hospitals. These facilities provide health care services at the secondary level of care. They provide inpatient and outpatient diagnosis and curative services, together with delivery rooms and ambulance services. They do not all have medical specialization branches, only essential ones. If patients require advanced diagnostic and treatment facilities they are referred to a higher level facility.

Day hospitals. These facilities provide outpatient care on a daily basis. They have at least five observation beds available 7 days a week/24 hours a day and coordinate services with other hospitals.

General hospitals. These hospitals include all medical departments and have at least 50 beds. They provide fairly complete and comprehensive care. In situations where further attention is needed, the patient is transferred to tertiary care.

Specialist hospitals. These hospitals provide services for specific age or gender groups and for specific diseases. Examples include children's hospitals and oncology hospitals.

Teaching hospitals. These are tertiary hospitals that provide specialty training and undertake research. They can be either Ministry of Health or university hospitals.

[34] As the Court declared its decision in July 2010, currently there is a lack of clarity about how the new arrangements will be implemented and enforced.

Currently, the management of public hospitals is under government control. The chief physician is the manager of the hospital and is assisted by hospital managers responsible for administrative, financial and technical issues and by chief nurses responsible for nursing services. In 1995, with the Basic Law on Health Care Services, the government attempted to grant autonomous status to hospitals and change their management structure. However, as discussed in Chapter 4, the Constitutional Court cancelled some vital provisions of the law and the newly envisaged management structure was only implemented in one pilot hospital in Ankara. Since the beginning of the HTP (in 2003), this issue has taken centre stage once again. A new draft law on hospital autonomy is currently being discussed by parliament.

Under the statutory (public hospital) system, the government employs hospital staff, with the exception of a limited number of contracted personnel who are hired by the revolving fund of the hospital. The government pays the salaries of the staff it employs, and the revolving fund pays the salaries of the contracted personnel. Hospital hotel services, such as catering, laundry, cleaning and diagnostic imaging services, can be outsourced through contracts. Services are purchased according to the rules set out in the Public Procurement Law (2002) and are predominantly paid for by hospitals' revolving funds.

Hospitals are either public or private in Turkey. Private hospitals are predominantly profit-making, although there are some examples of not-profit-making hospitals attached to foundations such as the Foundation for Leukaemia. This foundation owns leukaemia treatment facilities and provides services free of charge.

The rules governing the relationship between primary and secondary care are determined by the HIG (see Chapter 3). In the past, there were different rules for beneficiaries of different health insurance schemes, causing gross inequalities in terms of access. However, in the lead-up to the implementation of the GHIS, reimbursement rules were equalized among all the health insurance agencies. Moreover, since there is currently no gatekeeping system, patients can bypass the primary care level for a referral and go directly to a secondary or even a tertiary care facility. Only Green Card holders need to obtain a referral to access tertiary care. However, once problems with lack of personnel are overcome, the longer-term plan is for family practitioners to play a gatekeeping role and all patients will have to be referred from the primary care level in order to be reimbursed. In the interim, co-payment exemptions are in place to act as an incentive for people to first obtain a referral before accessing secondary and tertiary care.

There are two main public agencies that undertake social care in Turkey. The first is the Social Services and Child Protection Agency (SHÇEK, Sosyal Hizmetler ve Çocuk Esirgeme Kurumu) attached to the office of the Prime Minister. This organization provides social services to children, the elderly and the disabled. Social services can be in the form of institutional care or in-kind and cash benefits. The organization has general facilities for these vulnerable groups and health care is provided if needed. The second is the General Directorate of Social Aid and Solidarity, also attached to the Prime Minister's office (see section 6.1). The Directorate's main aim is to provide social assistance, health care and education services to people in lower socioeconomic brackets, particularly vulnerable groups. Health assistance includes provision of medical devices to the poor and disabled. Before the extension of Green Card coverage, the Directorate met the costs of outpatient and prescription charges for the poor. The Directorate also provides conditional in-cash benefits to mothers of pre-school age children for routine health check-ups.

Home care is in its infancy in Turkey. The Ministry of Health issued a regulation in 2005 outlining the rules and principles for providing home care services in the private sector, including the tasks and responsibilities of home care service providers and inspection rules. Currently, home care services are not covered by social security funds; however, the Society for the Protection of Children, funded by the state general budget, makes payments to disabled dependants in order for them to purchase home care services. In addition, the Society monitors whether or not disabled dependants are provided with the appropriate level of home care services and whether they have access to the services they need.

There is no clearly defined cooperation between secondary care and social care providers and, consequently, the link between the two sectors is very weak. According to the Regulation on the Administration of Inpatient Health Care Facilities 1983, hospitals can have a social worker within their facilities. Social workers should have a university degree in social services and work in collaboration with the chief physician of the hospital. Hospital-based social workers mainly coordinate the social services needed by patients with other related members of the health care team, assess the financial status of patients and collect information for the purposes of granting free or discounted care, organize events to increase patient morale and manage volunteers in the facility. They also coordinate the needs of discharged patients who need continued social care with local agencies. In 2008, 401 social workers worked in Ministry of Health hospitals (Akdağ, 2009).

The integration of primary and secondary care providers is also weak, mainly because of the lack of a referral system. One of the most important dimensions of the HTP, the family practitioner scheme, is designed to meet global standards for primary care. The longer-term plan is to reintroduce the gatekeeper/referral system through the family practitioner scheme. Family practitioners will then be expected to refer patients to secondary and tertiary care and to follow up on patients who have undergone procedures. Currently, tests undertaken at the primary level are often also taken at the secondary level and medical records do not follow the patient. Under the family practitioner scheme, the exchange of information will be a prerequisite.

6.4.1 Day care

The concept of day care is relatively new in Turkey and is mainly provided in hospitals and family health centres. The HIG defines day care as care provided in health care facilities within 24 hours without the application of inpatient rules. The following procedures are classified under day care: chemotherapy, radiotherapy (excluding planning of radiotherapy), all diagnostic and small surgical operations not requiring admission as an inpatient, dialysis and intravenous drug treatments. Day hospitals are facilities providing outpatient care (examination, diagnosis, treatment and medical care) in more than one medical branch on a daily basis. Such hospitals have a minimum of five monitoring beds. Day hospitals either form part of a normal public or private hospital functioning 24 hours/7 days a week or are coordinated by such hospitals. Currently, there are no available data on the proportion of day care undertaken in Turkey. Day-care services are reimbursed by social health insurance.

The SHÇEK provides day care for the disabled. There are family consultancy services attached to this organization and they provide both rehabilitative care to disabled people and counselling services to families.

6.5 Emergency care

The Decree on Emergency Health Care Services (Ministry of Health, 2000) regulates emergency care services. Emergency care is defined as all health care services provided by a health care team trained for this purpose in cases of accident, disease and injury. Emergency care is organized at the ministerial, regional and provincial level. At each of these levels, committees determine the principles of emergency care, organize accident and emergency training and coordinate the activities of various organizations. There is a command and

control centre in each province backed up by a number of stations scattered within the geographical area. In an emergency, citizens call 112 and the command and control centre coordinates the response to the emergency call. The centre assesses emergency calls, prioritizes cases, directs necessary teams to the location and keeps records of all services delivered.

There are three types of ambulance station. Type A stations provide emergency care 24 hours a day and can contain more than one ambulance, teamed with permanent staff. Within type A, there are stations with a physician (type A1) and without a physician (type A2) in the team. Type B stations are integrated into either hospitals or primary health care units. They provide continuous ambulance services, and team members in these stations are permanent staff of the facility (type B1 is attached to a hospital; type B2 is attached to a family health centre). Type C stations provide services only within determined times of the day. When a call is received, an ambulance is directed to the location and the patient is transported to the nearest or most convenient health care facility. Hospitals also have emergency departments that patients can access directly to receive emergency care.

6.6 Pharmaceutical care

Pharmaceutical care has been the most fiercely debated component of health care in Turkey in recent years. The main reason behind this attention is the large share of pharmaceutical spending within the total health care expenditure, and the government's drive to curtail public expenditure. The level of pharmaceutical expenditure will be discussed in detail below. Tatar (2007) provides a detailed account of the Turkish pharmaceutical sector. There are various authorities shaping the different aspects of pharmaceutical policy. The General Directorate of Pharmaceuticals and Pharmacy of the Ministry of Health is the main body responsible for market authorization, pricing, classification and regulation of pharmaceuticals at various levels. The Law on Pharmaceuticals and Medical Preparations (1928) regulates medicinal products, with appropriate updates to meet contemporary developments.

As outlined in Chapters 2 and 3, both the Ministry of Finance and the SSI determine the reimbursement rules, but more recently the SSI, as the main purchaser of pharmaceuticals since the implementation of the GHIS, has taken the lead. The HIG, which the SSI issues annually, identifies the pharmaceuticals that are subject to reimbursement, and the list is published on its web site.

Market authorization is the responsibility of the General Directorate of Pharmaceuticals and Pharmacy within the Ministry of Health, assisted by a number of commissions made up of academics, pharmacologists, clinicians and other experts. Only pharmaceutical companies located in Turkey can apply for a market authorization, and foreign importers make an application for their products through a resident company or a Turkish brand of their own company. The company prepares a dossier with information on safety, efficacy, bioequivalence (for generics), bioavailability (for originals), active ingredient information and the Characteristics of Pharmaceutical Product form, and include information about the authorization status of the drug in other countries. Application documents are first assessed by the Advisory Committee for Authorization of Medicinal Products for Human Use and then by the Advisory Commission for Technology and Pharmacology. Price setting is a part of the marketing authorization process and takes place after the assessment has been conducted by the above committees. For both generics and originals, the pricing procedures (outlined below) and assessments for bioequivalence and bioavailability may occur concurrently or consecutively. After assessment by all the committees, the product is authorized by the Ministry of Health to be placed on the market and a sales permit is issued.

The Turkish Patent Law, valid retrospectively from 1 January 1995, was endorsed on 1 January 1999. This legislation does not contain any provisions for marketing exclusivity or a Supplementary Protection Certificate. Issues around intellectual property rights protection were the main area of conflict between the government and pharmaceutical companies in the early 2000s. After long negotiations and consultations, on 19 January 2005, the Ministry of Health introduced a six-year period of marketing exclusivity under certain conditions. However, the protection brought by this arrangement covers only products registered from 1 January 2005. The protection term begins from the first registration date in any of the EU Customs Union Zone countries and the protection term is limited to the patent terms of the concerned molecule. Marketing exclusivity also covers molecules registered from 1 January 2001 if there is no generic in the Turkish market or no generic application was made as of 31 December 2004 for these molecules.

Direct-to-consumer advertising of prescription and non-prescription drugs is not permitted in Turkey. Companies can only advertise the availability of their products to physicians. Similarly, mail order/internet pharmacies are not permitted.

Like marketing authorizations, the Ministry of Health is the only pricing authority in Turkey, and free pricing is not allowed. There is a pricing committee working within the pricing department of the General Directorate of Pharmaceuticals and Pharmacy. Turkey changed its pricing system from a cost-plus approach to external price referencing in 2004. Pricing decisions are made at the manufacturer level, with wholesaler and pharmacy mark-ups and value added tax (VAT) added later. The prices of original products are determined by using a basket of five EU countries (France, Greece, Italy, Portugal and Spain). The lowest ex-factory price in one of these countries forms the maximum ex-factory price of an original product. If there is no ex-factory price for a product in the reference countries, then the maximum price of the product is the sale price to the wholesaler, calculated by deducting any mark-ups and VAT from the pharmacy retail price. In cases where the ex-factory price of a product is lower in the country from which it is imported, the price in the country of importation is taken as a reference. If the product is authorized and available only in one of the reference countries, the ex-factory price in that country is taken as a reference. In cases where the product is not authorized in any of the reference countries, then the cheapest ex-factory price in the EU is taken as a reference. If the product is not authorized in any of the EU Member States, then the original country of importation is taken as a reference. For generics, prices are set at 80% of the original product and these prices cannot be higher than the original's reference price or the highest price of the equivalent generic in the market. The pharmacy retail price is determined by adding mark-ups for the wholesaler and pharmacies plus VAT (8%).

Wholesaler and pharmacy remunerations are made by tapering mark-ups with strict margins. Accordingly, for the wholesaler, the maximum mark-up as a percentage of ex-factory price is 9% for drugs with an ex-factory price that is less than 10 TL, 8% for drugs between 10 and 50 TL, 7% for drugs between 50 and 100 TL, 4% for drugs between 100 and 200 TL and 2% for drugs that have an ex-factory price of more than 200 TL. Pharmacy mark-ups are 25%, 25%, 25%, 16% and 12%, respectively.

There are also in-cash and in-kind commercial and statutory discounts within the system. In-kind discounts are made both from manufacturers to wholesalers and from wholesalers to pharmacies as free goods. In-cash discounts are important, particularly for injecting competitiveness into hospital procurements. There is no clawback system that returns some of these benefits to the public sector.

A public sector statutory discount is set at the time of pricing both for manufacturers and pharmacies. Regardless of whether products are originals or generics, the discount rate is set at 11% for pharmaceuticals. However, a 4% discount on the retail sale price (including VAT) is applied to pharmaceuticals that cost 3.56 TL (€ 1.70) or less at retail sale. A pharmacy discount is also calculated on this price. A pharmacy discount is applied on the price determined after the manufacturer's discount. Pharmacy discounts are calculated based on the previous year's sales revenue excluding VAT. The rates are 0.5% for pharmacies with annual revenue up to 350 000 TL (€ 168 000), 1% for annual revenue of 350 001–600 000 TL (€ 168 000–287 000), 1.5% for annual revenue of 600 001–900 000 TL (€ 287 000–431 000) and 2% for pharmacies with annual revenue over 900 000 TL (€ 431 000). Companies can apply to the Reimbursement Commission for further reductions.

Turkey has a positive list for the reimbursement of pharmaceuticals. There is an interministerial Reimbursement Committee under the SSI that sets reimbursement principles and lists. Until 2008, these principles and the operation of the committee were not transparent to all stakeholders, but there have been considerable improvements in this area. There is a subcommittee (the Medical and Economic Evaluation Committee) that provides technical support to the main reimbursement committee. More recently, pharmacoeconomic analysis has become a prerequisite for companies applying for reimbursement.

The reimbursement price differs from the market price of the product. In this system, all pharmaceuticals in the positive list are grouped into pharmaceutical equivalent groups by a technical committee. Currently, there are 333 groups. Equivalent groups are based on price comparisons between similar dosages with the same active ingredients for the same indication. The reimbursement price is calculated as the lowest price in equivalent groups and the GHIS reimburses the cheapest price plus 15%. If patients prefer to purchase a prescribed but not reimbursed pharmaceutical, they have to pay the difference themselves. Doctors can prescribe any pharmaceutical regardless of its reimbursement status; however, a pharmacist can substitute it with a reimbursable drug without the physician's approval. Again, where there is any difference in cost between the chosen pharmaceutical and the reimbursable price, the patient pays the difference. There are co-payments and exemptions in the reimbursement system. For active workers, the co-payment is 20% of the prescription charge while for retired people, this rate is 10%. Green Card holders also pay a 20% co-payment. However, if the patient has a chronic disease such as diabetes, hypertension or cancer, the patient receives full reimbursement.

Improving cost-effective consumption of pharmaceuticals has long been on the Ministry of Health agenda. In 1991, the number of pharmaceuticals in one prescription was limited to a maximum of five items; a 10-day treatment period per prescription was introduced and a negative list was established. In 2001, the number of items per prescription was reduced to four. In addition, the 2004 Budget Implementation Guide introduced special restrictions on prescription practices for certain drugs. Some pharmaceuticals were allowed to be prescribed only by specialists under certain conditions. Doctors are not obliged to prescribe generically and must prescribe by brand. Currently, there are no active, organized and systematic attempts to promote generics among doctors, patients and pharmacists. However, the reimbursement policy described above allows for generic substitution by pharmacists.

Since 2001, the Ministry of Health has promoted several training activities under the heading "rational use of drugs". Currently, this topic is also included in the curricula of 18 medical faculties. In addition, the Ministry of Health published the *Diagnosis and Treatment Guidelines for Primary Care* in 2003 (Ministry of Health, 2003a). As discussed in Chapter 4, HTA is in its infancy in Turkey and hence, discussions on this "fourth hurdle" are quite new. Pharmacoeconomics, although discussed extensively in all quarters, is also a new subject. The SSI now requires pharmacoeconomic assessment reports for all new drugs to be reimbursed within the health care system. However, there are some concerns about current human and data capacities to undertake such analyses.

As discussed in Chapter 3, the most accurate data on health care expenditure in Turkey goes back to the 1999 and 2000 NHA studies. In 2000, 25% of total current health expenditure was for pharmaceuticals and 64% of this expenditure was from public sources. Compared with OECD countries, Turkey seems to spend more resources on pharmaceuticals. However, country-specific conditions provide evidence that this expenditure is not "out of control" (Liu Çelik & Şahin, 2005; Tatar, 2007). Although the NHA study was not repeated in subsequent years, TURKSTAT has found similar results in ensuing years. Table 6.2 provides data on drug expenditure for outpatient treatment.

Table 6.2
Drug expenditure for outpatient treatment in Turkey, 1999–2008

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Health expenditure per person (US$)	95	110	133	144	149	159	165	148	174	189
Public drug expenditure (% public THE)	25.6	27.3	28.5	30.2	29.2	28.6	29.1	36.1	34.6	32.8
Public drug expenditure (% GNP)	1.0	1.1	1.5	1.6	1.6	1.6	1.5	1.4	1.4	1.5
Public drug expenditure (% total drug expenditure)	57.3	61.9	67.6	71.3	71.9	72.2	70.9	73.6	74.4	78.5
OOP payments (% THE)	9.9	9.2	7.9	7.1	6.7	6.5	6.9	8.4	7.6	6.0

Sources: Ministry of Health RSHCP School of Public Health, 2006a, 2009 (unpublished report).
Note: THE: total health expenditure.

The main funding source for pharmaceuticals is the social health insurance system. However, pharmaceuticals also have the highest share in OOP expenditure. Based on the NHA Household Survey, Liu et al. (2005) found that 41.4% of total OOP expenditure was for pharmaceuticals in 2003. There is a share of co-payments in this figure but a considerable amount is attributable to self-medication. Self-medication used to be very common in Turkey. The NHA Household Survey in 2003 revealed that 28% of the Turkish population purchased pharmaceuticals directly from pharmacies when they felt in need of care (Ministry of Health RSHCP School of Public Health, 2006b). A similar conclusion was reached by a study on informal payments (Tatar et al., 2007). The impact of policy changes on this practice is not known. Under normal conditions, this rate would be expected to decrease with radical policy changes improving access to health services and prescribed medicines.

Pharmaceuticals are dispensed only through private pharmacies. The distribution channel is through manufacturers to wholesalers and pharmacies. As of 2005, there were 491 wholesalers and 22 600 pharmacies in the market. There is a high level of competition among pharmacies, but 70% of the market is represented by two wholesalers. Hospitals have their own pharmacies for inpatients. Only Turkish citizens with a diploma from a Faculty of Pharmacy can open a pharmacy. A pharmacist can open only one pharmacy and pharmacy chains are not allowed. There is no explicit policy regulating location or the geographical distribution of pharmacies.

A defined daily dose system is not implemented in Turkey. According to IMS statistics in 2008, antimicrobial medicines occupied first place in usage, with a share of 15%, followed by cardiovascular medicines (9%) (IMS, 2009).

Turkey manufactures pharmaceuticals, with approximately 300 companies operating in the country. Of these, 52 are international. Eleven of these international companies manufacture products in Turkey and the rest are importers. The largest 20 companies control over 75% of the market. National companies are producers of generics. In 2005, there were 138 active ingredients and 3667 products in different forms (approximately 7000) (Kanavos, Costa-Fonta & Ustel, 2005). Generics and domestic products are larger in volume but smaller in value.

In June 2005, Hacettepe University, based on a protocol signed with the Ministry of Finance, Ministry of Health and the Ministry of Labour and Social Security, started a project on devising reimbursement methods for health care services, activity-based budgeting and medical supplies management on behalf of the government. The project, which aims to develop financing methods to control health care costs, has three components. First, the payment structure for hospital services will be revised to a DRG-based payment system. This component has begun implementation. The second component involves a review of the HIG's fee schedule. The third component focuses on developing an infrastructure for pharmaceuticals and medical supplies management. The aim of this component is to establish an information system that facilitates effective management of pharmaceuticals and medical supplies.[35]

6.7 Rehabilitation/intermediate care

Rehabilitative care for patients falls under the responsibility of the Ministry of Health. In 2006, the Ministry had 11 physiotherapy and rehabilitation hospitals, with 10 in 2010 (Ministry of Health, 2011a). In addition, there are physiotherapy and rehabilitation wards in general hospitals. Rehabilitation services for the elderly, disabled and children are the responsibility of SHÇEK, a unit attached directly to the office of the Prime Ministry. More detailed information about this institution is presented in section 6.8. The institution provides rehabilitative care through rehabilitation centres and rest homes. In 2010, there were 72 rehabilitation centres and 97 rest homes scattered around the country (SHÇEK, 2010).

[35] Although the plan was to launch this information system in 2011, the initiative is currently on hold.

6.8 Long-term care

SHÇEK is responsible for planning, managing and supervising systematic and integrated services at local and national level to meet the needs of special groups with economic and social requirements (families, children, the disabled, the elderly and others) (SHÇEK, 2010).

As in other countries, the number of elderly people is growing in Turkey. As a result of rapid changes in the social structure, elderly people have an increasing need for state support and professional services. This need is met by both public and private agencies. However, it should be noted here that traditional family relationships (and ties with other relatives) are still very strong in Turkey, and that the majority of long-term care is still undertaken by family members at home.

Improving services and the development of new services for the elderly are based on three regulations: (1) the Regulation on Nursing Homes, Care and Rehabilitation Centres for Elderly People, (2) the Regulation on Private Nursing Homes and Care Centres for the Elderly, and (3) the Regulation on the Organization and Operation Principles of Nursing Homes to be Established in Public Agencies. The first regulation covers nursing homes, care and rehabilitation centres for the elderly and social services agencies affiliated with SHÇEK. In accordance with the second regulation, private nursing homes take care of people aged over 55 who are in need of social and/or economic assistance and need specialized aid and support. The third regulation aims to identify establishment, operation, supervision and inspection principles for such facilities and to ensure the provision of services such as social, medical, cultural and preventive health services.

As of May 2011, SHÇEK had 98 nursing homes, with a capacity of 9527 people. Private nursing homes are owned by foundations and associations, minorities and individuals. Foundations and associations own 32 nursing homes, with a capacity of 2459; minorities own seven nursing homes, with a capacity of 911, and there are 121 private nursing homes, with a capacity of 4632. Apart from these, there are also nursing homes that are affiliated with other public agencies. Other ministries have six affiliated nursing homes, with a capacity of 2039, while municipalities have 22 nursing homes serving 2104 people (SHÇEK, 2011).

The Regulation on Day Care to be Given within Care Centres for the Elderly and Home Care Services[36] (No. 26960) aims to provide day-care services for the elderly in good health, who live alone or with their families, and for the elderly who suffer from conditions such as dementia or Alzheimer's disease, with an emphasis on improving their living environment and allowing them to enjoy leisure time activities; receive assistance for their social, psychological and health needs; and access professional counselling services. As mentioned in the Activity Plan (SHÇEK, 2009a), five nursing homes for the elderly served about 940 people in total in 2009. In addition, a small-scale, home care scheme was piloted in 2009 in İzmir province and 15 elderly people receive home care at present. The Regulation also introduced home care services for elderly people who are in good mental and physical health, not needing medical care, but who need social support from family members or other relatives. For such people, home care services will provide support to promote good living conditions at home and to assist with daily tasks.

Within the framework of the *International Plan of Action on Aging* (United Nations, 1982), a national committee was established by various representatives of public agencies (including the Ministry of Health, Ministry of Finance, Ministry of Labour and Social Security, local administrations), NGOs and a university (Hacettepe University) under the coordination of SHÇEK and the SPO. This committee conducted studies on the "Status of elderly people in Turkey" and a "National plan of action on aging" covering issues such as the promotion of healthy ageing, creation of a safe, facilitating and supportive environment, and the implementation and supervision of national projects and programmes (see www.shcek.gov.tr).

There have been a number of initiatives over the last few years to develop the quality of services in this area. The Ministry of Health developed diagnosis and treatment guidelines for elderly people within the scope of implementing the family practitioner scheme. In addition, trainers' guidelines for geriatric health have been prepared for trainers to be assigned to public training programmes, and these guidelines will be published soon. A geriatric health instrument kit, which was developed by WHO for use in primary health care services, is being translated and will be provided to family physicians. Inspections are also being carried out at hospitals and population health centres to ensure that facilities are able to offer special outpatient health care services to elderly people. The Ministry of Health is continuing its efforts to issue a circular on positive discrimination for elderly people and has prepared a regulation that primarily

[36] *Official Gazette*, 7 August 2008.

focuses on geriatric health. Finally, the "Elderly platform" was established by 33 participating NGOs on 16 January 2008. The platform aims to conduct research and to provide services and education on age-related issues. As an NGO, the platform also aims to increase awareness of age-related issues, influence public policies and coordinate activities of other related organizations.

6.9 Services for informal or unpaid carers

There are no support services or policies for informal caregivers in Turkey. However, there are certain obligations for family members to look after dependants in their families.

According to the Turkish Civil Code, all citizens are liable to provide a living allowance (assistance) to their children, parents and siblings who would otherwise be impoverished. The level of the assistance is decided according to the social and economic situation of the dependants in question. The level of living allowance is also determined by considering the income level of the payer and the needs of the payee. The Code also states that citizens who are in need of care will be cared for by relevant agencies and that these agencies may request the relatives responsible to cover the costs and expenses of such care. According to the Turkish Penal Code, a citizen abandoning a person who is incapable of self-care because of old age or disease (and, therefore, is in need of protection), will be imprisoned for a period of three months to two years if the neglected person becomes ill, injured or dies as a result of abandonment. Similarly, a citizen who does not help a person incapable of self-care because of old age, disease, injury and/or any other reasons depending on his/her socioeconomic status, or who does not report the case to the responsible authorities, will be imprisoned for up to one year or be given a fine. If a citizen does not help or report a person who is old, ill, injured or in a dependent condition, and if this person dies for any of these reasons, then the citizen can be imprisoned for a period of one to three years.

According to TURKSTAT, 6.8% of the total population was aged 65 or over in 2008. When the number of available places in rest homes is considered (total capacity of 20 970), there was only 1 bed per 232 people in the 65+ age group in 2008. SHÇEK operates three bodies: care and rehabilitation centres, which produce inpatient care and provide disabled persons with services; family counselling and rehabilitation centres, which provide day services; and the provincial social services directorates, which represent the general directorate in provinces and which ensure coordination among institutions. As of August

2009, SHÇEK offered service to 192 419 disabled persons, 186 457 of whom received home care by their families; 4039 received care in the official care and rehabilitation centres, 417 in family counselling and rehabilitation centres and 1506 in private care centres (SHÇEK, 2009b). Given the lack of institutional capacity overall, one can easily estimate that a considerable amount of services are provided by informal carers.

6.10 Palliative care

Palliative care is another dimension of the health care system without a national policy or guidelines in Turkey. Few oncology teaching hospitals have patient-specific palliative care training in their curricula. There are no palliative care units in health care facilities. Similarly, the "hospice" concept is very new and there is no legal framework covering this type of organization.

6.11 Mental health care

In terms of the burden of mental health diseases, mental health is a major public health problem in Turkey. According to the results of the Burden of Disease study completed in 2004, in terms of disability-adjusted life-years, neuropsychiatric diseases came second after cardiovascular diseases, with unipolar depressive disorders causing the most years lost owing to disability (Ministry of Health & Başkent University, 2004). This illustrates that, although Turkey is focusing more attention on cardiovascular diseases and cancer, mental health is still a major public health problem that requires more attention and resources. Furthermore, because of the lack of reliable data, the full extent of mental health disorders in Turkey is not known.

Turkey has both mental health hospitals and mental health wards in general and teaching hospitals. In total, there were 12 mental health hospitals in 2009 across 81 provinces, acting as regional hospitals providing mental health services across the regions. Although general hospitals provide psychiatric services or mental health services, there are not enough beds in general hospitals to adequately address need. In mental health hospitals there were 4692 beds in Turkey in 2010 (Ministry of Health, 2011a, 2011b). There were 57 008 mental health inpatients in 2010 and the ratio of psychiatric beds per 10 000 population was 0.6 for the same year. There was one private psychiatric hospital with a total of 50 beds in 2007. Considering the extent of mental health problems

in the country, this figure is very low, illustrating the lack of resources in Turkey. There was one psychiatrist, one psychologist and one social worker per 100 000 individuals in Turkey in 2006 (Ministry of Health, 2006a). According to data from January 2009, the Ministry of Health deployed 625 psychiatrists; four of them were assigned to primary health care services while the others were assigned to inpatient health care facilities (Ministry of Health General Directorate of Personnel, unpublished data 2009). For the same year, there were 272 psychiatrists practising at university hospitals and 475 practising in the private sector. There were 142 child psychiatrists, 47 of whom work under the Ministry of Health, with 80 practising at university hospitals and 15 in the private sector. There were 998 psychologists and 517 social workers in Turkey.

Turkey has highly institutionalized care, with large hospitals generally acting as places of shelter. In 2006, the Ministry of Health published the National Mental Health Policy Document, which emphasized modern approaches to mental health policy based on the seven modules recommended by WHO (Ministry of Health, 2006a). In 2011, the National Mental Health Action Plan was launched, which reiterated a commitment to offer community-based mental health services. As of September 2011, 26 community-based mental health centres provide services in 24 provinces across Turkey, with plans for a further 236 to be established by the end of 2016. There are also sporadic programmes in place, but these are on a project basis supported by a restricted number of NGOs. This inevitably causes sustainability problems when the NGO withdraws its support from the programme or funding runs out. Moreover, Turkey does not have a strong framework for providing primary care, making it difficult for psychiatric care and mental health issues to be tackled at this level of the health care system. Mental health preventive and promotion programmes do not really exist. Therefore, it could be said that a shift of paradigm is needed to improve the country's mental health care sector, although the difficulties of implementing relevant new policies should not be underestimated.

Turkey does not have a mental health care law per se but provisions relating to mental health issues exist within different legal arrangements such as the Turkish Criminal Code and the Turkish Civil Code. Turkey's first mental health policy document was published in 2006 (Ministry of Health, 2006a), describing how mental health care services should be provided in the future. The policy document makes various promises about improving community care and deinstitutionalization, but no concrete attempts have been made to this end since the policy's publication. The policy document also includes several strategies on financing mental health care services.

6.12 Dental care

Both public and private providers offer dental care in Turkey. Dentists generally practise in their own offices in the private sector, but there are also Ministry of Health dental care clinics. The costs of dental care services are identified annually by the HIG, and a minimum wage scale for the private sector is also determined by the Turkish Dentists Association with Ministry of Health approval. In Turkey, the annual consumption of toothpaste per capita is 85–90 g, and tooth brush consumption is one-third per capita, indicating that there is room for improvement in terms of preventive measures.

Dental care services in the public sector are provided by family health centres, general and teaching hospitals, dental and oral health centres and dental care hospitals. The private sector is mainly organized as private offices or clinics and as units in hospitals. Dental care services are largely financed by the Ministry of Finance, the GHIS, private insurance companies and OOP payments. Services by private dentists are reimbursed by the GHIS if certain conditions, clearly defined in the HIG, are met. The reimbursement price in this case is the public price for the same service. A member of SSI should first contact a public facility to obtain dental treatment. If the public facility refers the patient to a private dentist then the patient is allowed to obtain the service from the private sector. The private sector dentist who carries out any referred work should clearly report on the treatments that have been undertaken and the public sector referring dentist should certify that the treatment was completed properly to claim reimbursement from the SSI.

Chief physicians in public health care facilities can refer patients to self-employed dentists in districts where dentists are not available in public facilities. In the case of such a referral, a representative of the chamber of dentists in that region should confirm that treatment has been completed properly. As fees are based on the public sector fees, usually a patient referred to a private dentist pays the difference between the public and private sector fees.

6.13 Complementary and alternative medicine

Complementary and alternative medicine practices do not have a long history in Turkey. The medical establishment is still very suspicious and resistant to this approach and the area is largely left to the personal views of patients and physicians. Among various complementary and alternative medicine systems, acupuncture has always been the most popular alternative medicine

option in Turkey. In 1988, the Higher Health Council convened and discussed complementary and alternative medicine methods and decided that acupuncture should have a legal framework and should be carried out in a scientific manner. The Ministry of Health established a technical committee in collaboration with universities and the Council defined the rules and principles of acupuncture applications. These rules were updated in 2002 and 2004.

Alternative medicine options other than acupuncture are trying to find a place in the Turkish health care system. Homeopathic products, permitted by the Ministry of Health, are sold in pharmacies but there are no established homeopaths to guide patients on the use of these remedies. All these methods are accepted as complementary to modern medicine and, therefore, are regarded as supportive applications. Some university departments have introduced alternative medicine systems to their curricula. For example, some teaching hospitals teach acupuncture as a supplementary module to interested doctors, and phototherapy and aromatherapy have been introduced into the curricula of some university pharmacy departments.

There is a licensing or certification process only for acupuncture. By law, acupuncturists should have a certificate awarded by physicians and the Ministry of Health. Professionals who are trained at national (certified by the Ministry of Health) or international training facilities should certify the programmes they attended. A committee within the Ministry of Health evaluates these applications and if the course and contents are accepted, an acupuncturist's licence is awarded. The general acupuncture training curriculum takes 480 hours, of which 160 hours of total teaching hours are practical learning. In order to obtain a licence, an acupuncturist should work on at least 30 different cases. Currently, there are approximately 400 physicians with an acupuncture certificate in Turkey and 60% of these are specialists of modern medicine branches. All complementary and alternative medicine practices are paid out of pocket as the GHIS does not reimburse these services.

6.14 Health care for specific populations

In Turkey, basic health care services – together with other services that are provided particularly for vulnerable groups and lower socioeconomic groups – are based on the understanding that Turkey is a "social state". Transitional immigrants, who use Turkey as a bridge to Europe or other developed countries, constitute an example of such groups. The Ministry of Health, with the Ministry of the Interior, undertakes activities within the framework

of the National Work Force to Fight Human Trafficking.[37] In parallel, health care services are free for those covered by specific legislation. According to this legislation, individuals who have been identified as victims of human trafficking and who require medical treatment should be transferred to health care institutions to receive treatment free of charge (CARIM, 2005).[38] In 2005, the Ministry of Health organized a series of meetings with related health care personnel in the provinces and several NGO representatives to establish procedural arrangements to provide health care services free of charge to people discovered to be victims of human trafficking during their stay in Turkey.

The second category under the definition of vulnerable group is homeless children, which has become an important issue in Turkey since the late 1990s. There have been some attempts by ministries, municipalities and NGOs to provide a better environment for these children. The health care costs of children who live and/or work on the street and do not have any social insurance are funded by SHÇEK. There are also "children's and youth centres" providing crime prevention and rehabilitative services for homeless children. These centres generally focus on children who have already committed a crime or are under risk of being involved in crime.

In addition, children under the age of 18 benefit from health care services under the GHIS. Those aged over 65 have access to state-provided health care services through legislation that grants a monthly allowance to this group, the poor and those who have no family members who can provide support, while eligible people on low incomes are provided with health services free of charge through the Green Card Scheme.

[37] Issued through a Cabinet Decision in 2006.

[38] Resolution No. 2003/6565 of the Council of Ministers, 5 December, 2003.

7. Principal health reforms

Health care reform has been given the utmost importance on Turkey's policy agenda since the late 1980s. In 1989, the SPO's Master Plan Study (SPO, 1990), which was developed through a World Bank loan, introduced new concepts to the Turkish health care system. The Plan suggested splitting the functions of purchasing and provision, developing an internal market, implementing general health insurance, formulating a family medicine system at the primary health care level and giving autonomy to state hospitals. From 1990 to 1993, intensive efforts were undertaken to reshape the health care system in a way that reflected global trends and approaches. The World Bank had an important role in developing this process. The *National Health Policy* (Ministry of Health, 1993) presented the first comprehensive analysis of priority health care policies and also set out future strategies. However, a decade of political and economic instability (1993–2003) led to reform proposals that remained as blueprints with no concrete steps for implementation. Health policy projects, which were supported by the World Bank, focused on building capacity by means of training programmes, nationwide surveys (such as the NHA study) and studies on the burden of disease and cost–effectiveness. In 2003, after many years of hung parliaments, a single-party government took office and introduced a new and ambitious social and economic programme. The health care system benefited from this new environment and health care reform once again figured prominently on the political agenda. This time, however, with the government's HTP, concrete steps were taken to ensure implementation (Ministry of Health, 2003b).

7.1 Analysis of recent reforms

Table 7.1 provides a brief description of major reforms and policy initiatives implemented since 1989.

Table 7.1

Major health reforms and policy measures in Turkey, 1989–2010

Year	Description
1989–1990	Master Plan study is released, containing an analysis of the health care system and proposals for the future. Concepts such as the purchaser–provider split, internal market, family practitioners and general health insurance are used for the first time
1992	Introduction of the Green Card Scheme. Citizens under a determined poverty line are eligible to benefit from inpatient services free of charge
1993	National Health Policy document is released, analysing the current situation and identifying problems and strategies for the future
2003	Active and retired civil servants start to use private hospitals
	Legal arrangements for patient rights are put into place and hospitals start to establish patient rights units
	Contract-based appointments start for health care staff in rural and less developed regions
	A communication centre (SABIM) is established to open up ways of communicating with citizens; patient rights arrangements create authorities where patients can seek out their rights
	Total quality management is introduced within the Ministry of Health
	The individual performance-based payment system is piloted in 10 Ministry of Health hospitals
	Vaccination days are organized under the national vaccination campaign against measles
	Ambulance services offered free of charge for the first time
2004	Pilot family practitioner scheme starts in Duzce province and is subsequently extended to 23 other provinces
	Expansion of the "Extended Programme on Immunization" (including rubella, mumps and meningitis vaccinations). The number of baby-friendly hospitals is increased. New projects such as "informed mothers and healthy babies", "Turkey as Strong as Iron" and "Programme for Preventing Rickets" are launched. Community health centres are established
	Conditional cash transfers start. Grants in cash are given to the most deprived 6% of the community on condition that pregnant women and children in that community undertake the relevant medical checks
	Substantial changes are made to pharmaceutical policy regarding pricing and VAT. External reference pricing is introduced, resulting in considerable reductions in the prices of pharmaceuticals and saving the government US$ 1 billion
	VAT is reduced from 18% to 8% for pharmaceuticals
	Patients are given the opportunity to choose their physicians; the "right to choose physician" policy is also designed to encourage competition among service providers in the public sector, including Ministry of Health hospitals, for the first time
	The Reimbursement Commission is established for reimbursement decisions
	Iron supplements are distributed free of charge to pregnant women nationally
	The individual performance-based payment system begins implementation in Ministry of Health-affiliated health care facilities
2005	Green Card coverage is extended to outpatient care and prescriptions. Although initially there were no co-payments, a 20% co-payment for pharmaceuticals was introduced later in the year because of the accelerating pharmaceutical expenditure
	Transfer of public health care facilities to the Ministry of Health, apart from Ministry of National Defence and university hospitals. A purchaser–providers split is achieved by transferring SSK hospitals to the Ministry of Health
	SSK members start to purchase their prescriptions from private pharmacies in line with other social health insurance schemes
	New regulations on pharmaceutical licensing are passed by the Ministry of Health
	Vocational medical high schools, which used to be affiliated to the Ministry of Health, are transferred to the Ministry of National Education. This move contributes to the Ministry of Health being able to concentrate further on core functions
	Institutional and quality criteria are incorporated into the performance-based supplementary payment system in Ministry of Health facilities
2006	Compulsory service for doctors is re-introduced, having been abolished in 2003. The main aim is to obtain a geographical balance in the distribution of doctors, especially in rural and deprived areas of the country

Year	Description
	The Social Insurance and General Health Insurance Law is enacted, but certain articles are annulled by the Constitutional Court and implementation is delayed
	The Social Security Institution Law (Law No. 5502) comes into effect. Three of the major social security schemes (GERF, SSK and *Bağ-Kur*) are to be brought together under one new body, the SSI. Full implementation is delayed until 2008
	A system is established within SSI to monitor pharmaceutical expenditures. Work also starts to set up a system to integrate reimbursement claims and establish an electronic management system for the SSI (MEDULA)
	Parliament adopts the Law on Public–Private Partnerships For Health
	The MMR vaccine is incorporated into the routine vaccination programme
	Free primary health care services are made available to all citizens, even those not covered by any social security scheme
	Global budgeting is introduced for Ministry of Health hospitals
2007	The new Law on the Health Budget contains the following provisions: • SSK and *Bağ-Kur* beneficiaries no longer need a referral from Ministry of Health hospitals to university hospitals; • Patients suffering from chronic diseases are now allowed to refill their prescriptions at pharmacies without prior physician approval; • Fixed-price payments for outpatient and inpatient procedures based on CPT (Current Procedural Terminology) and ICD-10 are introduced in all Ministry of Health-affiliated hospitals, as well as university hospitals and private hospitals that contract with the SSI; • Hospitals contracted with the SSI are required to provide inpatient pharmaceuticals and medical devices free of charge (now covered by insurance) and are fined if patients are charged out ofpocket; and • All Ministry of Health-affiliated hospitals, university hospitals and private hospitals under contract with the SSI are required to process reimbursement claims through the MEDULA system
	New services are established to improve access to health care services, particularly for those living in remote areas, including snow-tracked ambulances, the marine ambulance system and motorbike emergency teams. Furthermore, the coverage rate for mobile health care services reaches 80%
2008	Parliament adopts the necessary amendments to the Social Insurance and General Health Insurance Law and the legislation is ratified by the President
	The GHIS begins implementation
	The DaPT-IPA-Hib vaccine is introduced into the routine immunization programme
	The Law on Tobacco and Tobacco Products, which bans smoking in closed and open public areas, is passed by parliament
	More vehicles are added to the mobile health care services stock to further improve access for people living in areas that are hard to reach in winter, including 75 snow ambulances, 4 marine ambulances and 6 air ambulances
	The new Ministry of Health Regulation on Private Outpatient Treatment and Diagnosis Centres is adopted; the provision of "need based licensing" is added and new licensing procedures are accepted by the Ministry of Health
2009	The Health Services Strategic Plan for 2010–2014 is developed by the Ministry of Health and approved
	Health System Performance Assessment study starts
	Co-payments are introduced for physician and dentist consultations in outpatient health care services
2010	Health premium payments of government employees and their dependants are devolved to the SSI
	The Draft Law on Public-Hospital associations is submitted to parliament. Once the Draft Law is enacted, secondary and tertiary health care facilities will be restructured as associations and these health care facilities will be managed by executive boards
	The Law on Full-Time Medical Practice of University and Public Sector Health Personnel is adopted, paving the way to legally enforce full-time practice of health services personnel in the public sector. However, after a challenge in the Constitutional Court, the new arrangements (as at July 2010) require only staff at Ministry of Health facilities to choose between full-time public or private practice, while staff based in university facilities can still practise in both sectors, provided that their daily full-time public duties are met first
	Big cities such as Ankara and Istanbul are included in the family practitioner scheme, which begins implementation nationwide

7.1.1 Aims and background to reforms

This section outlines the formal statements in policy documents on health care reform. In the main policy document of the government's HTP (Ministry of Health, 2003b), the Ministry of Health underlined that the programme was not designed to introduce a different approach to previous reform initiatives, and this is why the term "transformation" was preferred over "reform". The objectives of the reform measures were to achieve "effective, efficient and equitable organization, financing and provision of health care services". Effectiveness was defined as improvements in the health care status of the population. To this end, preventive services were regarded as key to attaining this objective, and decreasing maternal and child mortality was regarded as a main indicator of success. Efficiency was defined as the provision of more services with the same resources. The equity principle was defined as access to health care services according to need and contribution to the health care financing system according to income. The aim of reducing inequalities between social groups, the urban and rural population, and regions falls under this objective. The main principles of the HTP were listed as follows (Ministry of Health, 2003b).

Individuals at the centre of the system. Planning and provision of health care services should focus on individuals, their needs, demands and expectations.

Sustainability. The new system will be consistent with the conditions and resources of the country and will be sustainable in the long run.

Continuous quality improvement. This principle focuses on creating a feedback system to provide information in order to learn lessons from results and mistakes.

Participation. This principle states that during the development and implementation of the improved health care system, a constructive environment will be created with the participation of all stakeholders.

Consensus building. All segments of the health care system should work on the basis of consensus, meeting the interests of all stakeholders.

Volunteerism. This principle emphasizes that all units in the system should work together to meet its goals and objectives.

Division of power. This principle emphasizes the need to split financing, planning, monitoring and provision functions within the health care system, thus yielding more efficient and high-quality health care services.

Decentralization. Health care facilities and institutions should have less dependence on central bodies and a decentralized health care system should be established in line with contemporary governance approaches. Institutions with administrative and financial autonomy will have efficient and rapid decision-making mechanisms and will use resources more efficiently.

Competition. A competitive environment for health care providers will be established in order to advance continuous quality improvement and to decrease costs.

Based on these principles, the HTP outlined the following concrete components to be achieved (Ministry of Health, 2003b).

A Ministry of Health with planning and control functions. The programme (and subsequent policy documents) reiterate the need for the Ministry to have a predominantly stewardship function, planning and supervising both the public and the private sector. With this new structure, the Ministry of Health will focus on prioritization, quality assurance and improvement, accreditation and licensing, public health measures and infectious diseases.

A general health insurance scheme covering everyone under a single organization. This component focuses on the establishment of the GHIS where individuals benefit according to need and contribute according to their financial status.

Widespread, easily accessible and friendly health care system. The HTP emphasizes that the "socialization model" of health care was compatible with the epidemiological and social conditions of the 1960s and now needs to be reviewed to meet the challenges and problems of the 21st century. The creation of a competitive environment, which also involves the private sector in the provision of health care services, is stated as a key component of the reform strategy.

Strengthened primary health care services. This component emphasizes the introduction of a family practitioner scheme and the importance of health care services at the primary care level.

Effective referral system. Strengthening primary care services and the introduction of a family practitioner scheme is a prerequisite for an effective referral system. This component emphasizes the possible contribution of a referral system to reducing costs and outpatient visits to hospitals and also the importance of continuity of care. A patient may bypass the referral chain if she/he chooses to pay the extra cost of this preference.

Health enterprises with administrative and financial autonomy. This component focuses on restructuring public hospitals as part of a new competitive environment. In the new system, all hospitals will enter into contracts with the SSI, in competition with one another, thus requiring changes to their administrative and financial structures to operate in such an environment. Public hospitals will finance their activities with their own revenues and will be responsible for the quality and efficiency of services.

Highly motivated and skilled human resources. The success of transformation depends on the quality and devotion of health care personnel. This component requires new job descriptions for different health care professionals in line with EU requirements, a review of curricula of education programmes, a balanced distribution of health care personnel throughout the country and the introduction of incentives in human resources policies.

Academic institutions supporting the new system. This component emphasizes the need for professionals in health policy, health care administration, health economics and health care planning to undertake sectoral analyses, and to plan, research and advise on new policies. Emphasis is placed on public health and the revision of medical schools' curricula, with plans to establish a new institution for this purpose.

Quality and accreditation for effective health care services. This component focuses on establishing an autonomous "national quality and accreditation institution" to regulate registration, certification and accreditation in health care services. The institution will develop systems for the measurement of health outcomes and use these as a basis for performance measurement.

Establishment of institutions for pharmaceuticals and medical devices. This component covers the establishment of autonomous institutions that will be responsible for the regulation, registration, pricing, accreditation, certification, planning and purchasing of these two important inputs of the health care system.

Health information system. This component proposes the establishment of a health information system aimed at collecting and processing adequate data for developing health policies, identifying problems and priorities, planning health care services, assessing the quality of services and undertaking scientific research.

While the political impetus and implementation of the HTP is ongoing, a new policy cycle to strengthen the transformation process has been identified, with the following components (Akdağ, 2009).

Problem identification and diagnosis. The concept of health is related to almost every moment in an individual's life and heads the list of factors that affect social welfare. Therefore, adopting an approach that gives priority to identifying and redressing health problems that should not exist at the country's current level of development is crucial. In particular, identifying problems within the scope of defining the health care system's performance objectives is a realistic and sustainable way to improve policies. In order to establish an accurate and objective picture of the current situation, some specific criteria should be applied, including an emphasis on basic primary health care indicators, as well as indicators on protecting citizens against financial risk and citizen satisfaction.

Policy development. Following the identification of problems, health care policies should be developed to address the challenges presented, tailoring policies in accordance with domestic conditions. The HTP promotes accessibility, quality and efficiency as priority criteria during the policy development process.

Political decisions. The adoption of transformative policies in the health care sector is not only related to political will but also to establishing an effective policy strategy. Whether or not a reform measure will be adopted is related to the willingness, interest and capabilities of parties and the political strategy used. In particular, the political position of the authorities or institutions that are responsible for the implementation of particular policies is crucial, as is the support of the government headed by determined ministers. Under the HTP, the contribution of the current Prime Minister has played a significant role in implementing many radical changes.

Implementation. As in all reform processes, effective monitoring is required so that any problems may be identified and corrective measures taken. In this respect, an appropriate supervision and reporting system is required. The overriding objectives of providing effective, good quality and accessible health care services can be achieved by monitoring strategically chosen performance outputs, including those measured by primary health care indicators, indicators protecting citizens against financial risk and citizen satisfaction.

7.1.2 Policy process and reform implementation

Health care reform proposals reflected global trends in the 1990s and 2000s. In practice, the impetus for reform and the design of the reform agenda started with the involvement of the World Bank in the Turkish health care system at the end of the 1980s. Potential membership of the EU has also affected the reform

agenda and policy in recent years, with a number of legal changes being made to harmonize with EU regulations. Until the 1990s, a topdown approach was adopted, with little or no participation from different stakeholders; however, during the preparation of the *National Health Policy* document (Ministry of Health, 1993), a more participatory approach was used.

The reform proposals that preceded 2003 were not implemented mainly because of political and economic instability in the country. The 1990s and beginning of the 2000s were characterized by turmoil in both the social and economic spheres. The country went through two major economic crises and the political environment was very volatile, with unstable coalition governments. This environment considerably affected the launch and implementation of health care reforms as governments had other priorities to address. This was true for many other policy areas in addition to health care.

The Urgent Action Plan, declared by the Government on 16 November 2002, laid out the primary objectives that were identified for the health care sector under the heading "Health for All". Immediately after the Urgent Action Plan was developed, the HTP was formulated in early 2003, announced to the public and carried out under the strong leadership of the Minister of Health and the Prime Minister. Based on the strengths of the system and aiming to address its weaknesses, the content of the HTP can serve as a "model" for reforms to be undertaken in other countries with similar health care systems to that of Turkey in the pre-2003 period. The incremental steps taken to implement the HTP paved the way for major improvements to the health care system. While this process is by no means complete (see section 7.2), since 2008 both the SSI and the Ministry of Health have implemented important measures to provide Turkish citizens, most of whom have severe health needs, with reasonable access to health care services and to improve insurance coverage (see Table 7.1).

The health status of the population in Turkey has been improving rapidly in recent years and is catching up with the WHO–European Region and OECD averages in some aspects. New public health initiatives have had a considerable impact. The number of malaria cases, which was more than 10 224 in 2002, decreased to 78 in 2010. Similarly, the number of measles cases, which was 7810 in 2002, decreased to only 34 cases in 2006 and 7 reported cases in 2010, which is a direct result of the measles elimination programme (Ministry of Health General Directorate of Primary Health Care Services, unpublished data, 2009; Ministry of Health, 2011b). Free iron supplements are provided to pregnant women in order to protect infants and women against anaemia, benefiting 1 million women annually and 4 225 000 infants between May 2005 and August 2008. In addition, vitamin D, which supports bone growth

in infants, is provided free of charge, benefiting 4 020 000 infants between 2005 and 2008 (Akdağ, 2008). A rapid improvement has also been noted in the maternal mortality ratio, which was about 70 per 100 000 live births in 1998, and decreased to 16.4 per 100 000 in 2010. The IMR has decreased to 10.1 per 1000 live births in 2010 (Ministry of Health General Directorate of Mother and Child Health and Family Planning, unpublished data, 2009, 2010), from an estimated 22.8 in 2003 (Hacettepe University Institute of Population Studies, 2004). Moreover, additional immunizations were incorporated into the standard schedule of vaccinations in 2006 and 2008, and the vaccination ratio for the targeted child population at national level has improved considerably from about 78% in 2002 to 96% across the country in 2007 (Akdağ, 2008). Finally, the importance given to preventive and primary health care services and relevant studies conducted in this area have led to a major reduction in the incidence and prevalence of communicable diseases and the number of such cases reported.

In terms of citizen satisfaction with the health care system, according to the results obtained from the Life Satisfaction Survey, which is periodically conducted by TURKSTAT, overall satisfaction with health care services among the public was 39.5% in 2003, when the HTP began, and 73.04.% in 2010 (TURKSTAT, 2010d). A recent EUROPEP survey (OECD & IBRD/World Bank, 2008), which was conducted in September 2008, investigated satisfaction with primary care services in a large sample of patients across 81 Turkish provinces. In many aspects, the gap between patient satisfaction in Turkey and patient satisfaction in other European countries has almost disappeared. Although satisfaction levels had improved in most aspects of services in the provinces that had not yet adopted the new family practitioner scheme, satisfaction levels with health care services improved on a much larger scale in the 23 provinces where the family practitioner pilot scheme had been implemented, either approaching or going beyond the European average.

The full implementation of the wide-ranging structural reforms outlined in the HTP has been much slower. The challenges that lie ahead are discussed in the next section.

7.2 Future developments

Since the beginning of the HTP, significant progress has been made to realize the reform agenda. Some initiatives were delayed because of legal obstacles. For example, the most important component of the reforms, the introduction of the

GHIS, was delayed by more than a year through rulings by the Constitutional Court (see Chapters 2 and 3); however, implementation to integrate all of the social security funds began in October 2008, with the transfer of the three major schemes (GERF, SSK and *Bağ-Kur*) to the umbrella organization, the SSI. This was followed up by the transfer of the Active Civil Servants Scheme in 2010. Critical steps have been taken to implement the family practitioner scheme nationwide, public–private partnerships, the purchaser–provider split and the internal market.

The next steps in the health care reform programme will be the full implementation of the GHIS, finalizing the legal process to grant autonomy to hospitals and granting greater decentralization of powers to health facilities. In addition, the enactment of auxiliary legislative arrangements, which would further clarify the implementation of the law, is essential for the successful achievement of universal health insurance for the Turkish population. Other important components of the reform agenda, such as the completion of DRG studies to pave the way for regulating the payments made to health service providers and establishing clear contractual agreements between the SSI and providers (both public and private), are needed to improve the functioning of the health care system.

Apart from these priority areas, the current (inadequate) levels of human resources within the health care system have to be raised in order to achieve the reform programme's targets and to meet the country's needs. The gap is enormous, particularly with regard to the number of nurses and physicians. Despite the increases in employment and university admissions, particularly in recent years, neither the supply of physicians nor that of nurses has managed to reach an adequate level. Consequently, both the Ministry of Health and other relevant agencies need to take further action to address this issue as a matter of urgency. Another strategic area of concern is the implementation of a referral chain between primary and secondary care, which would contribute to gaining a greater control over costs and in some areas may even induce cost-saving efficiencies. In effect, greater use of less-expensive primary health care services, and a commensurate decrease in the utilization of more expensive hospital services, would allow the SSI to allocate payments between health care levels more efficiently. Improvements in the referral chain are expected now that the family practitioner scheme is operational throughout the country, making it more feasible to reactivate the family practitioner gatekeeping function, which was suspended because of the lack of physicians (see Chapters 3 and 6). Plans are also under way to establish a home care system, a centralized hospital

appointment system, mobile pharmacies and a drug-monitoring system; a stem cell coordination centre is also being mooted. A more systematic system to monitor and assess health care services will also be required.

In the more general public management reform proposals that accompanied the HTP, there were statements indicating that local authorities would be empowered to deliver and manage health care services and that greater administrative devolution would occur. However, such an ambitious objective has not materialized. It requires major reforms to the overall structure of public administration in Turkey, an area where historically, attempts at reform have not been successful. Therefore, it is clear that the decentralization of health care services will only ever occur in tandem with a more wide-sweeping reform of the country's public administration system.

The most challenging reform initiatives in the next few years will be the granting of autonomous status to hospitals and creating an internal market for the provision of health care services. Although the legal procedures for other major reforms are almost complete, this section of the HTP is still being discussed. At the same time, the development, implementation and improvement of health insurance, sustaining capacity building for the Ministry of Health's stewardship role, raising human resources for health to adequate levels and ensuring the financial sustainability of the health care system will need further emphasis over the next few years.

In many respects, the HTP presents a picture of the successful attempts that have been made to develop and implement major health sector reforms, including the expansion of health insurance coverage of the population through the establishment of the GHIS. According to the OECD and the IBRD/World Bank (2008), the government's strong commitment and leadership, accompanied by strong economic growth, have resulted in the implementation of long-desired reforms in the health services delivery system.

8. Assessment of the health system

As highlighted in various chapters, Turkey is undergoing concerted health care system reform (the HTP) to improve health care services and, hence, to enhance the health status of the population. This section assesses the Turkish health care system and will discuss the improvements made in the last five years. However, it should be noted that effective implementation of reforms started after 2004 and the most crucial parts are still in the process of implementation. This is why, although there have been improvements in access, coverage and quality of health care services, the impact of these changes is yet to be seen.

8.1 The stated objectives of the health system

The 1982 Turkish Constitution (Article 56) states that everyone has the right to live in a healthy and balanced environment. The Socialization Law (1961) emphasized social justice as the primary aim of health care services. The *National Health Policy* document of 1993 (Ministry of Health, 1993) stated that the ultimate objective of the health care system is to create a healthy community made up of healthy members. The document emphasized that this aim cannot be reached by health care services alone and stressed the need for intersectoral action.

The HTP (Ministry of Health, 2003b), launched in 2003, added effectiveness and efficiency as goals, setting primary objectives such as increasing the health status of the population (effectiveness), using resources in the best possible manner and at low cost (efficiency), accessing services according to the need and contributions according to ability to pay. These latter goals indicate an underlying concern with equity.

8.2 The distribution of the health system's costs and benefits across the population

Turkey has long suffered from barriers to access to care associated with financial, geographical and supply-related factors. Population coverage has always been a contentious issue. According to official figures, in 2006, 91% of the population was covered by one of the available health insurance schemes in operation at the time (SPO, 2006). However, there are problems in calculating the number of dependants in the population. In official records, the number of active members in the insurance scheme is multiplied by the average family size (currently four) to estimate the number of dependants. However, this may not reflect reality. In the NHA and Burden of Disease household surveys, coverage was found to be 67% for 2003 even though the official figure for the same year was declared to be 85% (SPO, 2003). In 2010, the SSI's data indicated that social security coverage was 83% (SSI, 2010). The crucial point in terms of coverage is the existence of an informal employment market. According to recent figures, 41.9% of employment is unrecorded in Turkey (TURKSTAT, 2008b). A high unemployment rate and weak sanctions for companies are the main reasons behind this. It is feared that the large informal labour market may impact negatively on the financial sustainability of the new GHIS, which will require an adequate level of contributions from the population it serves to meet expenditure.

In 2006, 31.4% of total health expenditure came from taxes and 41.0% from social security schemes, indicating that both tax and social security revenues are important sources of health care expenditure in Turkey (Yardım et al., 2007). In assessing the distribution of the health care system's costs, it is necessary to look into the fairness and distributive characteristics of the tax structure. In Turkey, indirect taxes are the government's main sources of income (66% of total taxes in 2007; Ministry of Finance, 2008). Therefore, a high level of dependence on these taxes may hinder progressive funding as they are not directly related to people's incomes.

In terms of horizontal equity, contributions (either by premiums or direct taxes) are based on a person's income. Those in similar circumstances pay similar amounts and, after the most recent reforms, receive similar benefits. Before the HTP, benefits varied grossly across different social security schemes. Active and retired civil servants had the most comprehensive benefits package, with relatively easy access to health care facilities, whereas the members of other social security schemes were faced with geographic and financial accessibility problems and a more restricted benefits package. Both a study of

the NHAs (Ministry of Health RSHCP School of Public Health, 2006b) and subsequent household surveys (Tatar et al., 2007) revealed that this segment of the covered population spent considerable amounts of money on formal and informal OOP payments in order to overcome access problems. After 2004, the rules and content of the different benefits packages were harmonized for all schemes, including the Green Card for those on very low incomes. The extension of the Green Card benefits package can be regarded as an attempt to enhance vertical equity. By definition, Green Card holders, as poor people, do not directly contribute to the health care system but receive benefits free of charge (with the exception of drug co-payments) when they need care.

Geographical access is still a problem in certain areas of the country. There is compulsory service for physicians after graduation and after specialization mainly in deprived regions. The duration of this service varies, being approximately one to two years depending on the socioeconomic development level of the province. There are also incentives for health care personnel working in these areas, such as housing and special allowances. The policy seems to have had a positive impact on the accessibility of specialist physicians. In 2002, the population per specialist was 1746 for the province with the lowest ratio and 24 228 for the province with the highest. In 2010, the figures fell to 559 and 2705, respectively. However, the situation for GPs is mixed. In 2002, the population per GP was 875 for the province with the lowest ratio and 7571 for the province with the highest. In 2010, this figure increased to 1257 for the lowest ratio province but fell to 2291 for the highest (Yardım et al., 2007; Ministry of Health General Directorate of Personnel, 2011).

Inequalities in access to health care have improved somewhat since the implementation of recent reform measures. The population under 18 years of age is entitled to free access to health care services under the GHIS, regardless of whether they are formally covered in their own right or as dependants. Adults over 18 and who are under the poverty line can apply for the Green Card Scheme, which provides free health care services. However, the problem of informal employment should not be underestimated, as it leaves a significant number of people without formal health coverage. Another group at risk of falling through the coverage net comprises those who are not part of the social security system and are not eligible for the Green Card. However, the number of people in this situation currently is not known.

Although there are also still discrepancies among regions in terms of health status, the inter-regional gaps have diminished to a large extent since 2003 in particular. For example, several studies have shown that there were wide

discrepancies in terms of IMR and life expectancy between different parts of the country. According to the 2004 Demographic and Health Survey (Hacettepe University Institute of Population Studies, 2004), the IMR was 41 per 1000 live births for the east and 22 per 1000 for the west in 2003; by 2008 these figures had fallen to 39 for the east and 16 for the west.

A similar discrepancy was found for life expectancy at birth. According to the Burden of Disease study, life expectancy at birth was 69 years for females living in the eastern part of the country and 73.4 for the west. The figures were 65.5 and 69.3, respectively, for males (Ministry of Health & Başkent University, 2004). A national study in 2006 (Hacettepe University Institute of Population Studies, 2006) reported that the maternal mortality rate was 7.4 per 1000 for the west and 68.3 for the north-east. Recent figures show a decline in the maternal mortality rate but regional differences still exist (12.1 in the west and 22.9 in the north-east in 2008) (Ministry of Health General Directorate of Mother and Child Health and Family Planning, unpublished data, 2009). More recently, regional variations have been getting smaller: according to the General Directorate of Mother and Child Health and Family Planning (unpublished data, 2010), the IMR was 14.1 per 1000 for the east (south-eastern Anatolia Region by NUTS-1) and 7.5 for the west (Istanbul Region by NUTS-1) in 2010. In terms of the maternal mortality rate, major progress has been noted in the last few years, with a decline from a national average of 19.4 per 100 000 live births in 2008 to one of 16.4 in 2010. Regional variations also have improved; the maternal mortality ratio was 12.1 in the western Anatolia Region by NUTS-1 in 2008, and 26.1 in the middle eastern Anatolia Region by NUTS-1 (Ministry of Health General Directorate of Mother and Child Health and Family Planning, unpublished data, 2010).

8.3 Efficiency of resource allocation in health care

Since the 1980s, much emphasis has been placed on primary health care as the most important level of care for increased human and capital investment. Almost all policies published after the 1960s have emphasized the importance of primary health care and the need to strengthen it. Until 2004, health posts and health centres (see Chapter 6), established under the Socialization Law 1961, were the main public providers of care at this level. The private sector is involved in the provision of primary care through the private practices/offices of physicians and private clinics. A considerable amount of primary care is also provided through outpatient departments of secondary and tertiary care

facilities. This is mainly because of the lack of a referral system. In the past, although there was a referral system on paper, referring did not work effectively, partly because there were too few family practitioners working at the primary care level, and in 2007 the system was abolished altogether. This alone indicates the efficiency problems within the current health care system. Although the GHIS requires that a referral system from primary care facilities (family health centres, family practitioners) to secondary and tertiary care be put in place, currently no such system exists. At the beginning of 2009, an attempt was made to introduce a referral system as a pilot study in four provinces, which were also pilot provinces for the family practitioner scheme. However, after a very short implementation period, the pilots were cancelled and the scheme was postponed indefinitely because of lack of human resources (in particular, insufficient numbers of family practitioners to act as gatekeepers) and long queues in front of primary health care facilities.

Unfortunately, current health expenditure data do not allow for the provision of information on allocation of resources by providers and functions. Consequently, it is not possible to estimate the impact of recent reforms on the allocation of resources to primary, secondary and tertiary care or of preventive versus curative care. The Ministry of Health states that in recent years the allocation of resources to preventive services has almost trebled from 1883 million TL in 2002 to 2973 million TL in 2008 (Akdağ, 2009). However, it should be noted here that this figure covers only allocations from the Ministry of Health budget and with the inclusion of other organizations' resources, such as municipalities, this figure will be higher (Yardım et al., 2007).

Improvements in primary health care services may contribute to an efficient use of resources, as the cost of services provided at this level are lower than secondary and tertiary level services. Between 2002 and 2010, the number of outpatient visits to all primary health centres increased from 60 million to 199 million. A similar trend also occurred for hospital outpatient care. The number of visits to hospitals increased to 303 million in 2010, from 124 million in 2002, and the number of patients per physician decreased by 30% (Akdağ, 2009; Ministry of Health, 2011b). This was a result of improvements in accessibility and increased capacity building by health care facilities. During the same period, the number of referrals from health centres to hospitals also fell to 1.3% in 2008 from 20% in 2002. All these figures indicate that there are signs that resources are being used more efficiently within the health care system compared with the past but, of course, there is still much room for improvement.

Resources are allocated according to the previous year's allocation plus additional funds to cover any new programmes and the inflation rate. There is no needs-based or other kind of formula. This indicates that any misuse of resources in one year may be replicated in following years. In other words, as the same pattern of resource allocation continues each year, if resources are allocated wrongly from the beginning, then there will be no correction in subsequent years. For government hospitals, the state budget allocation pays predominantly for staff salaries, while the hospitals' revolving funds have a larger share in a system where the "money follows the patient". The revolving funds of the majority of hospitals currently pay for operational requirements such as water supply, heating, electricity, drugs, medical goods, food and cleaning. In 2002, the government attempted to change the budgeting system with a pilot study. In 2003, all organizations were asked to prepare both programme and analytical budgets. In 2004, the Analytical Budgeting Law was enacted and all central government organizations started to prepare their budgets using this new approach. The budgeting system is based on the Government Finance Statistics and the European System of Integrated Economic Accounts (ESA 95). Government Finance Statistics is a macroeconomic statistical system supporting fiscal analysis. The economic and functional classification of the new budgeting system provides more detailed data, although there are still problems with disaggregating expenditure among functions such as inpatient and outpatient care and among providers such as hospitals and primary health care facilities.

8.4 Technical efficiency in the production of health care

The available data in Turkey are insufficient to assess whether the system provides good value for money. Until the 1999 and 2000 NHA studies (Ministry of Health RSHCP School of Public Health, 2004), it was believed that health care resources were very low and this was regarded as the main reason for poor population health indicators. However, the NHA study revealed that Turkey spends relatively high levels of its revenues on health care. These findings lend support to the view that the problem is related less to the level of resources spent and more to how they are utilized. Therefore, technical efficiency has become one of the priorities of the health care system. The NHA study also revealed other signs of inefficient use of resources. For example, the study highlighted that a considerable amount of hospital expenditure was spent on outpatient care,

indicating that hospitals are still used mainly as primary care providers, with commensurate resource utilization inefficiencies (Ministry of Health RSHCP School of Public Health, 2004).

Since 2004, major changes have been introduced in the pricing and reimbursement of pharmaceuticals. The external reference system (see Chapter 6) resulted in public sector annual savings of US$ 900 million (Yardım et al., 2007). The reimbursement system also encourages the use of generics in the equivalent drug groups and this has contributed to lowering pharmaceutical expenditure.

8.5 Quality of care

The focus on quality of care increased in the late 1990s, but concrete attempts to measure quality began after the acceleration of reforms in 2003. As discussed in Chapter 4, quality units have been established at the ministerial, provincial and institutional levels following a Ministry of Health directive on the regulation of quality improvement and performance evaluation in hospitals. The introduction of the performance-based payment system for health care personnel and the inclusion of quality as a criterion for assessing institutional performance have been a turning point. Institutional performance scores, which determine the level of payments to providers in a particular institution, are based on an assessment form designed by the Ministry of Health and containing 150 criteria as part of the internal assessment procedure (see Chapter 4). The other aspect of this system concerns the issue of patient satisfaction as a factor in the hospital performance formula. Hospitals have to carry out patient satisfaction surveys periodically and satisfaction coefficients are also included in the assessment of institutional performance. In recent years, there has been an increase in the level of satisfaction with health care services. According to research carried out by the Ministry of Health and TURKSTAT, patient satisfaction increased from 39.5% in 2003 to 73.1% in 2010 (TURKSTAT, 2010d, 2011c). After the full implementation of the current reform package, quality will be an important dimension within a competitive health services environment.

There have also been attempts to improve patient rights (see Chapter 2). Currently, there is no regulatory framework for medical negligence, but there are certain articles in the Turkish Code of Law that cover some aspects of this area. An example is crimes related to negligence, an area which also covers medical practice that causes death or injury to the patient through negligence of health care personnel.

8.6 The contribution of the health care system to health improvement

Turkey has achieved considerable improvements in the health status of the population in the last few decades. For example, a child born in 2000 was expected to live 20 years longer than someone born in 1960 (Liu, Çelik & Şahin, 2005). The IMR has fallen from 134 per 1000 live births in 1971 to 10.1 in 2010 (Ministry of Health, 2010, 2011b) and diseases such as smallpox, measles and polio have lost their importance as public health problems. However, it is very difficult to estimate the contribution of the health care system to these improvements. In particular, general economic improvements in the country have also played a considerable role in improving health outcomes. Although there are inequalities in the distribution of this economic wealth among different population groups, the country's economic structure and capacity is not comparable to the situation 20 years ago. Since then, Turkey has become part of the global economy and a player in both production and consumption of the world's resources. Moreover, being a candidate country for EU membership has accelerated procedures to harmonize all aspects of life with EU regulations and rules. The Ministry of Health has an EU Coordination Department that is responsible for initiating and monitoring the harmonization of EU Directives into Turkish legislation. Examples include toy safety regulations and legislation regarding medical equipment and pharmaceuticals.

Although there is still great scope for development, public health policies and changes in lifestyles will play an important role in improvements in health status. The Law on Tobacco and Tobacco Products, with its rules and penalties, came into effect in January 2008. Accordingly, since 19 May 2008, smoking has been banned in public places, health and education organizations, taxis, restaurants and bars.[39] It is hoped that this legislation will have an important impact in the long run, particularly on reducing figures for coronary heart diseases and cancer.

Recent reforms have particularly focused on increasing access to health care services for the poor and needy. Since 2004, radical changes have been made to eliminate inequalities in access, with the implementation of both demand and supply-side arrangements. The most important of these was the removal of different accessibility rules between social security schemes and applying the same rules to all of them. The implementation of the GHIS further cemented the commitment to universal coverage. Extending the coverage of the Green Card

[39] The Law came into effect for restaurants and bars in June 2009.

Scheme is another example. In parallel, Turkey has had a high economic growth rate and is becoming an attractive centre in the region for foreign investment. All these developments may contribute to improvements in population health status in both the short and the long term.

9. Conclusions

Turkey has achieved considerable health status improvements since the 1980s in major health status indicators. However, although infant mortality, child mortality and maternal mortality rates have decreased, and life expectancy at birth has increased over time, the indicators are still not compatible with the current development level of the country. In addition, regional inequalities constitute a challenge for the years ahead. Improved access to health care services in recent years has contributed positively to the improvements in health status; however, for further improvements, developments in the country's socioeconomic level are also required.

In the past, the Turkish health care system was characterized by its highly complex and fragmented organizational and financing structure. The implementation of health care reforms under the HTP since 2003 has changed this structure to a great extent. The reform attempts in the Turkish health care system date back to the beginning of the 1990s. Although the pillars of the reform framework were established in that decade, the implementation process started after 2003 with the government's HTP. The reform measures include the introduction of major initiatives: a purchaser–provider split, general health insurance covering the whole Turkish population, a family practitioner scheme at the primary level of contact and more autonomous hospitals. During the 1990s, mainly as a result of political and economic instabilities, no concrete attempts were made to make these proposals a reality. In contrast, the period after 2003 witnessed a break with the past, and radical reforms were put into practice.

The health care system prior to 2003 was characterized by fragmented provision and financing systems, inequalities in access to health care by different subpopulations and a system whereby both the providers and the purchasers of the health care system were dissatisfied. Inequalities in access to health care was the major challenge to be dealt with as only a minority of the population had access to timely and relatively high-quality health care services.

The HTP undertook several measures to overcome this problem. First, all public health facilities were merged under the Ministry of Health. This was the first step taken to consolidate the provision of public health care services under one authority. This merger resulted in opening up all public facilities to the whole population and was a first step towards equalizing access to health care. The second major reform was achieved in the financing of health care services with the establishment of the GHIS, which covers the whole population. In the run-up to the full implementation of the GHIS, the benefits provided by the (fragmented) pre-existing social health insurance schemes were equalized and currently the whole population is under the same benefits package umbrella.

The third area of reform was in primary care. A pilot family practitioner scheme was introduced and this scheme was later extended to cover the whole population at the end of 2010. Under this scheme, residents are required to register on the list of a family physician, who is paid on a capitation basis. Currently, there is no compulsory referral system whereby patients are first required to refer to the primary level of care before securing access to secondary and tertiary levels, mainly because of the shortage of family practitioners who can undertake gatekeeping responsibilities. However, in the long term, establishing a referral system is seen as a prerequisite to ensuring the sustainability of the health care system. In the interim, co-payment exemptions at secondary and tertiary level facilities act as an incentive for people to first obtain a referral through a primary care physician.

The fourth area targeted for reform was hospitals. The HTP proposed to increase the administrative and financial autonomy of hospitals. However, the pace of this part of the reforms has been relatively slow, with several setbacks postponing the implementation process to sometime in the future. The major development in the hospital sector after 2003 focused on increasing the role of the private sector. Because the SSI has started to purchase health care services from both the public and the private sectors, and as population access has improved, the private hospital sector has flourished in recent years.

The major impact of the reforms can be seen in the improvements in the number of visits to health care providers in recent years. The annual number of visits per person has almost trebled, with easier access both in terms of provision and financing. The share of public health spending as a proportion of total health expenditure has also increased and OOP payments have decreased.

Within the overall framework of the reforms, payment of health care providers has also changed radically since 2003. A performance-based payment system was adopted to pay health care personnel, performance being

mainly measured by the number of services provided. This has enhanced the financial capacities of provider institutions, as providers with higher capacity utilization rates could also improve the income of their staff and their facilities. However, there are some concerns that this payment system may contribute to supplier-induced demand for services. There are also concerns about moving the system to an outcome-based payment system. That is, the system under consideration will link the outcomes of health care interventions to the payment of the provider. For example, nosocomial infection rates, success rates after surgery and rehospitalization rates will be used as inputs in the payment formula. However, this proposal is at its initial planning stage and no concrete implementation details are yet available.

Considerable improvements have been achieved in areas such as patient rights, IT, quality of health care and efficient use of resources. Special units within health care institutions that investigate complaints by patients and providers were established as part of the strengthening of patient rights. Similarly, quality units have been established in all public hospitals, also to improve this aspect of care. Although there is still room for improvement, increasing emphasis on quality can be seen as an initial and essential step. Reflecting these improvements, the satisfaction level of the population with the health care services on offer has improved over time. However, certain areas such as mental health care or long-term care still require special attention.

As can be seen throughout the various chapters of this report, Turkey has embarked on a radical process whereby all essential aspects of the health care system have been questioned and changes made. The main drive behind these changes has been stated as the need to develop easily accessible, high-quality, efficient and effective health care services for the population. Although considerable improvements have been made to this end, there are still challenges ahead. The sustainability of the health system's financing will be a major challenge facing policy-makers in the years to come, particularly in light of improved access (and, therefore, higher demand for health care services), improved technology, an ageing population and higher expectations from citizens. It is clear that the government will have to employ approaches such as HTA in order to improve efficient and effective use of resources. However, another challenge in this respect is related to the regulatory function of public agencies. In particular, the increased role of the private sector in the provision of health care services and overseeing the correct functioning of the performance-based payment system for health care personnel in public facilities require more organized and effective mechanisms of regulation.

10. Appendices

10.1 References

Akdağ R (2007). *The progress so far. Turkey: Health Transformation Program*. Ankara, Sağlık Bakanlığı Hıfzıssıhha Mektebi Müdürlüğü (http://ekutuphane.tusak.gov.tr/kitaplar/the_progress_so_far_health_transformation_program_in_turkey_november_2002__june_2007.pdf, accessed 20 July 2011).

Akdağ R (2008). *İlerleme Raporu 2008. Türkiye: Sağlıkta Dönüşüm Programı [Progress report 2008. Turkey: Health Transformation Program]*. Ankara, Sağlık Bakanlığı.

Akdağ R (2009). *Progress report. Health Transformation Program in Turkey 2009*. Ankara, Sağlık Bakanlığı (http://www.saglik.gov.tr/EN/dosya/2-1186/h/htp2009jan.pdf, accessed 20 July 2011).

Asian Pacific Organization for Cancer Prevention (2010). *Cancer report 2010*. Ankara, "New Hope in Health" Foundation.

Aykanat S, Tengilimoğlu D (2003). Hastanelerde sağlık personelini motive eden faktörlere ilişkin bir alan çalışması [A field survey on factors motivating health personnel at hospitals]. *Hacettepe Sağlık İdaresi Dergisi [Hacettepe Journal of Health Administration]*, 6:71–97.

CARIM (2005). *Turkish national action plan for the adoption of the EU acquis in the field of asylum and migration*. Florence, Consortium for Applied Research on International Migration (http://www.carim.org/public/legaltexts/LE2TUR003_EN.pdf, accessed 19 July 2011).

CIA (2007). *The World Factbook*. Washington, DC, Central Intelligence Agency (https://www.cia.gov/library/publications/the-world-factbook, accessed 19 July 2011).

Economou C (2010). Greece: health system review. *Health Systems in Transition*, 12(7):1–180.

General Directorate of Budget and Fiscal Control (2006). *Ödeme Komisyonunun Çalışma Usul ve Esasları Hakkında Yönerge [Decree on the Working Principles of the Reimbursement Commission]*. Ankara, Bütçe ve Mali Kontrol Genel Müdürlüğü (http://www.bumko.gov.tr/TR/Genel/dg.ashx?DIL=1&BELGEANAH=13861&DOSYAISIM=GeriOdeme2.doc, accessed 24 August 2011).

Gürbüz Y et al. (2000). Birinci basamak sağlık hizmetlerinde çalışan sağlık personelinin iş tatmini düzeyleri [Job satisfaction levels of primary health care workers]. *3 Ulusal Sağlık ve Hastane Yönetimi Sempozyumu [3rd National Health and Hospital Administration Symposium], September 2000*. Ankara, National Health and Hospital Administration.

Hacettepe University Institute of Population Studies (1994). *Türkiye Nüfus ve Sağlık Araştırması 1993 [Turkey Demographic and Health Survey 1993]*. Ankara, Hacettepe Üniversitesi Nüfus Etütleri Enstitüsü.

Hacettepe University Institute of Population Studies (1999). *Türkiye Nüfus ve Sağlık Araştırması 1998 [Turkey Demographic and Health Survey 1998].* Ankara, Hacettepe Üniversitesi Nüfus Etütleri Enstitüsü.

Hacettepe University Institute of Population Studies (2004). *Türkiye Nüfus ve Sağlık Araştırması 2003 [Turkey Demographic and Health Survey 2003].* Ankara, Hacettepe Üniversitesi Nüfus Etütleri Enstitüsü.

Hacettepe University Institute of Population Studies (2006). *Türkiye Ulusal Anne Ölümleri Çalışması 2005 [Turkey National Maternal Deaths Study 2005].* Ankara, Hacettepe Üniversitesi Nüfus Etütleri Enstitüsü.

Hacettepe University Institute of Population Studies (2009). *Türkiye Nüfus ve Sağlık Araştırması 2008 [Turkey Demographic and Health Survey 2008].* Ankara, Hacettepe Üniversitesi Nüfus Etütleri Enstitüsü.

Hasta ve Hasta Yakını Hakları Derneği [Organization of Patients' and Patients' Relatives' Rights] (2009) [website]. Ankara, Hasta ve Hasta Yakını Hakları Derneği (http://www.hayad.org.tr, accessed 21 July 2011).

IMS (2009). *Health Data*. Danbury, CT, IMS.

Joossens L, Raw M (2011). *Tobacco control scale in Europe, 2010.* Brussels, Association of the European Cancer Leagues.

Kanavos P, Costa-Fonta J, Ustel I (2005). *Pharmaceutical reimbursement policy in Turkey.* Ankara, "New Hope in Health" Foundation (http://www.suvak.org.tr/kitap-2ingilizce.pdf, accessed 19 July 2011).

Kartal M, Özbay H, Erişti H (2004). *SHA-based health accounts in 13 OECD countries: country studies Turkey. National health accounts 2000.* Paris, Organisation for Economic Co-operation and Development (OECDT Health Technical Papers Nc. 13).

Liu Y, Çelik Y, Şahin B (2005). *Healthcare and pharmaceutical spending in Turkey.* Ankara, "New Hope in Health" Foundation (http://www.suvak.org.tr/kitap-1ingilizce.pdf, accessed 19 July 2011).

Ministry of Finance (2008). *Gelirler İdaresi İstatistikleri [Revenue administration statistics].* Ankara, Maliye Bakanlığı.

Ministry of Finance (2010a). *İstatistikler [Statistics].* Ankara, Maliye Bakanlığı (http://www.bumko.gov.tr/TR/Genel/BelgeGoster.aspx?F6E10F8892433CFFAAF6AA849816B2EF8B961FBF1711B822, accessed 24 August 2011).

Ministry of Finance (2010b). *2010 Yılı Merkezi Yönetim Bütçe Gerçekleşmeleri ve Beklentiler Raporu [Central Government Budget Actualization and Expenditure 2010].* Ankara, Maliye Bakanlığı.

Ministry of Finance (2011). Statistics. Ankara, Maliye Bakanlığı (http://www.sgb.gov.tr/ESAD/Ekonomik%20Gstergeler%20Yeni/Devlet%20Bor%C3%A7lar%C4%B1/GROSS%20EXTERNAL%20DEBT%20BRUT%20DI%C5%9E%20BOR%C3%87.xls, accessed September 2011).

Ministry of Health (1988). *Türkiye Sağlık İstatistikleri 1982–1986 [Health statistics of Turkey 1982–1986].* Ankara, Sağlık Bakanlığı.

Ministry of Health (1993). *Ulusal Sağlık Politikası [National Health Policy].* Ankara, Sağlık Bakanlığı (http://ekutuphane.tusak.gov.tr/kitap.php?id=15&k=ulusal_saglik_politikasi, accessed 29 August 2011).

Ministry of Health (1998a). *Hasta Hakları Yönetmeliği [Statute on Patient Rights].* Ankara, Sağlık Bakanlığı (Offical Gazette, 1 August, No. 23420).

Ministry of Health (1998b). *Türkiye'de Sağlık Harcamaları ve Finansmanı 1992–1997 [Health expenditure and financing in Turkey, 1992–1997].* Ankara, Sağlık Bakanlığı.

Ministry of Health (2000). *Acil Sağlık Hizmetleri Yönetmeliği [Decree on Emergency Care Services].* Ankara, Sağlık Bakanlığı (*Official Gazette*, 11 July, No. 24046).

Ministry of Health (2001a). *Türkiye'de Sağlık Harcamaları ve Finansmanı 1997 [Health expenditure and financing in Turkey, 1997].* Ankara, Sağlık Bakanlığı.

Ministry of Health (2001b). *Türkiye'de Sağlık Harcamaları ve Finansmanı 1998 [Health expenditure and financing in Turkey, 1998].* Ankara, Sağlık Bakanlığı.

Ministry of Health (2003a). *Birinci Basamak Tanı ve Tedavi Rehberi [Diagnosis and treatment guidelines for primary care].* Ankara, Sağlık Bakanlığı.

Ministry of Health (2003b). *Sağlıkta Dönüşüm Programı [Health Transformation Program].* Ankara, Sağlık Bakanlığı.

Ministry of Health (2004a). *Bulaşıcı Hastalıkların İhbarı ve Bildirim Sistemi: Standart Tanı, Sürveyans ve Laboratuvar Rehberi [Notification and reporting system for communicable diseases: standard diagnosis, surveillance and laboratory guidelines].* Ankara, Sağlık Bakanlığı.

Ministry of Health (2004b). *Türkiye Sağlık Bilgi Sistemi Eylem Planı [Action Plan for a Health Care Information System in Turkey].* Ankara, Sağlık Bakanlığı (http://www.saglik.gov.tr/extras/birimler/bidb/tsbs.pdf, accessed 17 August 2011).

Ministry of Health (2006a). *Republic of Turkey National Mental Health Policy.* Ankara, Sağlık Bakanlığı (http://temelsaglik2.saglik.gov.tr/dosya/Yayinlar/kitaprenkliing.pdf, accessed 20 July 2011).

Ministry of Health (2006b). *Sağlıkta e-Dönüşüm [e-Transformation in health report].* Ankara, Sağlık Bakanlığı Bilgi İşlem Daire Başkanlığı [Department of Data Processing].

Ministry of Health (2006c). *Sağlık Hizmetlerinden Tatmin Araştırması Sonuçları Raporu [Report on the results of satisfaction with health care services survey].* Ankara, Sağlık Bakanlığı.

Ministry of Health (2007a). *Ana Çocuk Sağlığı ve Aile Planlaması Genel Müdürlüğü Genelgesi [Notice of General Directorate of Mother and Child Health and Family Planning].* Ankara, Sağlık Bakanlığı (Paper No. 820-67).

Ministry of Health (2007b). *21 Hedefte Türkiye Sağlıkta Gelecek [Future in health: 21 targets for Turkey].* Ankara, Sağlık Bakanlığı.

Ministry of Health (2008) [web site]. Ankara, Sağlık Bakanlığı (http://www.kirimkongo.gov.tr, accessed 24 August 2011).

Ministry of Health (2009a). *Genişletilmiş Bağışıklama Programı Genelgesi [Circular on the expanded immunization programme].* Ankara, Sağlık Bakanlığı.

Ministry of Health (2009b). *Sağlık Bakanlığı Merkez Teşkilatı Görev Dağılımı [Central organizational structure of the Ministry of Health].* Ankara, Sağlık Bakanlığı (http://www.saglik.gov.tr/TR/resim/1-28264/sb-merkez-sema.jpg, accessed 24 August 2011).

Ministry of Health (2009c). *Sağlık Bakanlığı Taşra Teşkilat Şeması [Organizational structure of the Ministry of Health in the provinces].* Ankara, Sağlık Bakanlığı (http://www.saglik.gov.tr/TR/Dosyalar/teskilat/tasra.htm, accessed 24 August 2011).

Ministry of Health (2009d) [web site]. Ankara, Sağlık Bakanlığı (http://www.sbu.saglik.gov.tr/extras/hastahaklari/piris.html, accessed 14 February 2009).

Ministry of Health (2010). *Sağlık İstatistikleri Yıllığı 2008 [Health statistics yearbook 2008].* Ankara, Sağlık Bakanlığı Hıfzıssıhha Mektebi Müdürlüğü (http://www.saglik.gov.tr/TR/dosya/1-71504/h/saglik-istatistikleri-2008.pdf, accessed 29 August 2011).

Ministry of Health (2011a). *Sağlık İstatistikleri Yıllığı 2009 [Health statistics yearbook 2009].* Ankara, Sağlık Bakanlığı Hıfzıssıhha Mektebi Müdürlüğü (http://www.saglik.gov.tr/TR/dosya/1-71371/h/saglikistatistikleri2009.pdf, accessed 29 August 2011).

Ministry of Health (2011b). *Sağlık İstatistikleri Yıllığı 2010 [Health statistics yearbook 2010].* Ankara, Sağlık Bakanlığı Sağlık Hıfzıssıhha Mektebi Müdürlüğü (http://www.saglik.gov.tr/TR/dosya/1-72577/h/saglikistatistikleriyilligi2010.pdf, accessed 24 August 2011).

Ministry of Health, Başkent University (2004). *National burden of disease and cost effectiveness project: burden of disease final report.* Ankara, Sağlık Bakanlığı (http://www.tusak.saglik.gov.tr/pdf/nbd/raporlar/burdenofdiseaseENG.pdf, accessed 20 July 2011).

Ministry of Health General Directorate of Curative Services (2006). *Yataklı Tedavi Kurumları İstatistik Yıllığı [Statistical yearbook for inpatient treatment facilities].* Ankara, Sağlık Bakanlığı Tedavi Hizmetleri Genel Müdürlüğü.

Ministry of Health General Directorate of Curative Services (2007). *Yataklı Tedavi Kurumları İstatistik Yıllığı [Statistical yearbook for inpatient treatment facilities].* Ankara, Sağlık Bakanlığı Tedavi Hizmetleri Genel Müdürlüğü.

Ministry of Health General Directorate of Primary Health Care Services (2005). *Temel Sağlık Hizmetleri Genel Müdürlüğü Çalışma Yıllığı [Study yearbook of the General Directorate of Primary Health Care Services].* Ankara, Sağlık Bakanlığı Temel Sağlık Hizmetleri Genel Müdürlüğü.

Ministry of Health General Directorate of Primary Health Care Services (2006). *Temel Sağlık Hizmetleri Genel Müdürlüğü Çalışma Yıllığı [Study yearbook of the General Directorate of Primary Health Care Services].* Ankara, Sağlık Bakanlığı Temel Sağlık Hizmetleri Genel Müdürlüğü.

Ministry of Health General Directorate of Personnel (2011). *Aktif Çalışan Personel Araştırması, 2006–2010 [Active personnel survey 2006–2010 by the General Directorate of Personnel].* Ankara, Sağlık Bakanlığı Personel Genel Müdürlüğü.

Ministry of Health RSHCP School of Public Health (2004). Turkey National Health Accounts 1999, 2000. Ankara, Sağlık Bakanlığı Hıfzıssıhha Mektebi Müdürlüğü.

Ministry of Health RSHCP School of Public Health (2006a). *Turkey National Health Accounts Household Health Expenditures 2002–2003.* Ankara, Sağlık Bakanlığı Hıfzıssıhha Mektebi Müdürlüğü (http://ekutuphane.tusak.gov.tr/kitap.php?id=151&k=turkey_national_health_accounts_household_health_expenditures_2002_2003, accessed 21 July 2011).

Ministry of Health RSHCP School of Public Health (2006b). *Ulusal Hane Halkı Araştırması 2003: Temel Bulguları [National Household Survey 2003: basic findings].* Ankara, Sağlık Bakanlığı Hıfzıssıhha Mektebi Müdürlüğü (http://ekutuphane.tusak.gov.tr/kitap.php?id=156&k=ulusal_hane_halki_arastirmasi_2003_temel_bulgulari, accessed 21 July 2011).

Ministry of Labour and Social Security (2008). *Ulusal İş Sağlığı ve Güvenliği Raporu 2006–2008 [National occupational health and safety report 2006–2008].* Ankara, Çalışma ve Sosyal Güvenlik Bakanlığı.

Mollahaliloğlu S et al. (2007). *Human resources in health and policy dialogue workshop.* Ankara, Sağlık Bakanlığı Hıfzıssıhha Mektebi Müdürlüğü.

Nithila A et al. (1998). WHO global oral databank, 1986–96: an overview of oral health surveys at 12 years of age. *Bulletin of the World Health Organization*, 76(3):237–244.

OECD (2005). *Health Data 2005*. Paris, Organisation for Economic Co-operation and Development.

OECD (2006). *Health Data 2006*. Paris, Organisation for Economic Co-operation and Development.

OECD (2008a). *Health Data 2008*. Paris, Organisation for Economic Co-operation and Development.

OECD (2008b). *OECD factbook 2008: economic, environmental and social statistics*. Paris, Organisation for Economic Co-operation and Development.

OECD (2009). *Health data 2009*. Paris, Organisation for Economic Co-operation and Development.

OECD, IBRD/World Bank (2008). *OECD reviews of health systems – Turkey*. Paris, Organisation for Economic Co-operation and Development (http://www.oecd.org/document/60/0,3746,en_2649_33929_42235452_1_1_1_1,00.html, accessed 19 July 2011).

Özlü T, Bostan S (2007). *Hasta Rehberi: Sağlık Hizmetlerinden Yararlanma Kılavuzu [Patient guidance: a guide on utilization of health services]*. Ankara, Sağlık Bakanlığı.

Prime Ministry General Directorate of Social Aid and Solidarity (2008). *Stratejik Plan 2009–2013 [Strategic plan 2009–2013]*. Ankara, Başbakanlık Sosyal Yardımlaşma ve Dayanışma Genel Müdürlüğü.

Prime Ministry Undersecretariat of Treasury Insurance Supervision Board (2010). *Annual report on insurance and private pension activities in Turkey*. Ankara, Turkish Treasury (http://www.hazine.gov.tr/irj/go/km/docs/documents/Hazine%20Web/Sigortacılık%20GM/Ekler/SDKRaporlari/2010/BOLUMI_PDF.pdf, accessed 17 August 2011).

Şahin İ, Şahin B (2000). Hastane Çalışanlarının İş Özellikleri ve İş Doyumu: Ankara Metropolitan Alanda Seçilmiş Üç Eğitim Hastanesi Üzerinde Bir Araştırma [Job specifications and job satisfaction of hospital employees: a survey in three teaching hospitals in Ankara]. *I Ulusal Sağlık İdaresi Kongresi* [*1st national health care administration congress], Ankara, 20–21 May 2000.*

SHÇEK (2009a). *2009 Yılı Faaliyet Raporu [Activity report 2009]*. Ankara, Sosyal Hizmetler ve Çocuk Esirgeme Kurumu [Social Services and Child Protection Agency] (http://www.shcek.gov.tr/userfiles/pdf/SHCEK%202009%20YILI%20FAALIYET%20RAP.WEB.pdf, accessed 24 August 2011).

SHÇEK (2009b). *Özürlü Bakım Hizmetleri Dairesi Başkanlığı Brifing Raporu [Briefing report, Department of Care for Disabled People]*. Ankara, Sosyal Hizmetler ve Çocuk Esirgeme Kurumu [Social Services and Child Protection Agency] (http://www.shcek.gov.tr/userfiles/pdf/SH%C3%87EK%20%C3%96z%C3%BCrl%C3%BC%20Bireylere%20Y%C3%B6nelik%20Hizmetleri%2031.01.2010.pdf, accessed 24 August 2011).

SHÇEK (2010). *İstatistikler [Statistics]*. Ankara, Sosyal Hizmetler ve Çocuk Esirgeme Kurumu [Social Services and Child Protection Agency] (http://www.shcek.gov.tr/2010-yili-aralik-ayi.aspx, accessed 15 August 2011).

SHÇEK (2011). *Yaşlı Bakım Hizmetleri [Elderly care services]*. Ankara, Sosyal Hizmetler ve Çocuk Esirgeme Kurumu [Social Services and Child Protection Agency] (http://www.shcek.gov.tr/yasli-bakim-hizmetleri.aspx, accessed 24 August 2011).

SPO (1990). *Sağlık Sektörü Master Plan [Health Sector Master Plan]*. Ankara, Devlet Planlama Teşkilatı [State Planning Organization].

SPO (2003). *2003 Yılı Programı [2003 program].* Ankara, Devlet Planlama Teşkilatı [State Planning Organization] (http://ekutup.dpt.gov.tr/program/2003.pdf, accessed 15 August 2011).

SPO (2006). *Dokuzuncu Kalkınma Planı 2007–2013 [Ninth development plan 2007–2013].* Ankara, Devlet Planlama Teşkilatı [State Planning Organization] (http://ekutup.dpt.gov.tr/plan/plan9.pdf, accessed 24 August 2011).

SPO (2008) [web site]. Ankara, Devlet Planlama Teşkilatı [State Planning Organization] (http://www.dpt.gov.tr/PortalDesign/PortalControls/WebIcerikGosterim.aspx?Enc=83D5A6FF03C7B4FCC6AECA659BD6F05648192E81EB0C9848AAD19E7579B3250E, accessed 29 August 2011).

SPO (2009a). *Ekonomik ve sosyal göstergeler 1950–2010 [Economic and social indicators 1950–2010].* Ankara, Devlet Planlama Teşkilatı [State Planning Organization] (http://www.dpt.gov.tr/PortalDesign/PortalControls/WebIcerikGosterim.aspx?Enc=83D5A6FF03C7B4FC5A73E5CFAD2D9676, accessed 24 August 2011).

SPO (2009b). *Ekonomik ve sosyal göstergeler 1960–2010 [Economic and social indicators 1960–2010].* Ankara, Devlet Planlama Teşkilatı [State Planning Organization].

SPO (2010). *Bin Yıl Kalkınma Hedefleri Raporu [Millennium development goals report].* Ankara, Devlet Planlama Teşkilatı [State Planning Organization] (http://www.undp.org.tr/publicationsDocuments/TR%202010%20MDG%20Report_TR.pdf, accessed 23 August 2011.

SPO (2011). *Statistics.* Ankara, Devlet Planlama Teşkilatı [State Planning Organization] (http://ekutup.dpt.gov.tr/teg/2011/01/B-9/1-istihdam.xls, accessed September 2011).

SSI (2008). *Aylık İstatistik Bülteni, Haziran [Monthly statistics bulletin, June].* Ankara, Sosyal Güvenlik Kurumu [Social Security Institution].

SSI (2010). *SGK İstatistikleri [SSI statistics].* Ankara, Sosyal Güvenlik Kurumu [Social Security Institution] (http://www.sgk.gov.tr/wps/wcm/connect/660117e2-b9be-460b-9dff-0777729beb16/2010_12_sigortali.xls?MOD=AJPERES&CACHEID=660117e2-b9be-460b-9dff-0777729beb16, accessed September 2011).

Student Selection and Placement Centre (2009). *2008–2009 Öğretim Yılı Yükseköğretim İstatistikleri [2008–2009 Academic year higher education statistics].* Ankara, Öğrenci Seçme ve Yerleştirme Merkezi (http://osym.gov.tr/belge/1-11320/eski2yeni.html, accessed 19 July 2011).

Tatar M (2007). *Turkey pharma profile 2007.* Vienna, Pharmaceutical Pricing and Reimbursement Information Project (http://ppri.oebig.at/Downloads/Results/Turkey_PPRI_2007.pdf, accessed 19 July 2011).

Tatar M et al. (2007). Informal payments in the health sector: a case study from Turkey. *Health Affairs*, 26(4):1029–1039.

Tümer AR, Dener C (2006). Evaluation of surgical malpractice in Turkey. *Legal Medicine*, 8:11–15.

Turkish Central Bank (2011). *Ödemeler Dengesi Raporu 2010–2011 [Balance of payments report 2010–2011].* Ankara, Merkez Bankası (http://www.tcmb.gov.tr/yeni/eng/, accessed 24 August 2011).

Turkish Court of Accounts (2005). *Sağlık Bakanlığına Bağlı Hastanelerde İlaç, Tıbbi Sarf Malzemesi ve Tıbbi Cihaz Yönetimi [Management of pharmaceuticals, medical supplies and medical devices in Ministry of Health hospitals].* Ankara, Sayıştay Başkanlığı (Performans Denetimi Raporu).

Turkish Grand National Assembly (2006). *The constitutional tradition and parliamentary life*. Ankara.

Turkish Treasury (2009). *Hazine İstatistik Yıllığı, 2009 [Treasury statistical yearbook, 2009]*. Ankara, Hazine Müsteşarlığı (http://www.hazine.gov.tr/irj/servlet/prt/portal/prtroot/pcd!3aportal_content!2fcom.hazine.folders.Hazine_Icin_Icerik!2fcom.hazine.folders.Nesneler!2fcom.hazine.folders.Roller!2fcom.hazine.roles.Hazine_Anonim_Kullanici!2fcom.hazine.worksets.istatistikler!2fistatistiki_Veriler!2fcom.hazine.ivews.hazine_istatistik_yilligi?NavigationTarget=navurl%3A%2F%2F37f4a253538ce61ad5f6d2a7db030f5b, accessed 29 August 2011).

Turkish Treasury (2011). *Statistics*. Ankara, Hazine Müsteşarlığı (http://www.hazine.gov.tr/irj/portal/anonymous?NavigationTarget=navurl://9112c820afa766dd72d871ec89aba011, accessed September, 2011).

TURKSTAT (2008a). *Hanehalkı Bütçe Araştırması 2006 [Household budget survey 2006]*. Ankara, Türkiye İstatistik Kurumu [Turkish Statistical Institute].

TURKSTAT (2008b). *Hanehalkı İşgücü Araştırması [Household labour force survey]*. Ankara, Türkiye İstatistik Kurumu [Turkish Statistical Institute] (http://www.tuik.gov.tr/PreTablo.do?tb_id=25&ust_id=8, accessed 24 August 2011).

TURKSTAT (2008c). *Ulusal Hesaplar [National Health Accounts Statistics]*. Ankara, Türkiye İstatistik Kurumu [Turkish Statistical Institute] (http://tuik.gov.tr/PreTablo.do?tb_id=6&ust_id=1, accessed 24 August 2011).

TURKSTAT (2009a). *Hanehalkı Bilişim Teknolojileri Kullanım Araştırması [Household use of information technology survey]*. Ankara, Türkiye İstatistik Kurumu [Turkish Statistical Institute] (http://www.tuik.gov.tr/PreTablo.do?tb_id=60&tb_adi=Bilişim%20Teknolojileri%20Kullanımı&ust_id=2, accessed 19 July 2011).

TURKSTAT (2009b). *Harcamalar yöntemiyle gayri safi yurt içi hasıla (cari fiyatlarla), 1998–2011 [Gross domestic product with the method of expenditure (in current prices), 1998–2011]*. Ankara, Türkiye İstatistik Kurumu [Turkish Statistical Institute] (http://www.tuik.gov.tr/PreIstatistikTablo.do?istab_id=999, accessed 29 August 2011).

TURKSTAT (2009c). *Küresel Yetişkin Tütün Araştırması, 2008 [Global adult tobacco survey, 2008]*. Ankara, Türkiye İstatistik Kurumu [Turkish Statistical Institute] (http://www.tuik.gov.tr/PreHaberBultenleri.do?id=4044, accessed 24 August 2011) (Başbakanlık Haber Bülteni No. 73).

TURKSTAT (2009d). *Nüfus ve Kalkınma Göstergeleri [Population and development indicators]*. Ankara, Türkiye İstatistik Kurumu [Turkish Statistical Institute] (http://nkg.tuik.gov.tr/goster.asp?aile=2, accessed 29 August 2011).

TURKSTAT (2009e). *Sağlık Harcama İstatistikleri 2004–2007 Yılı Sonuçları [Health expenditure statistics. Results of 2004–2007]*. Ankara, Türkiye İstatistik Kurumu [Turkish Statistical Institute] (http://www.tuik.gov.tr/PreHaberBultenleri.do?id=8393, accessed 24 August 2011) (Başbakanlık Haber Bülteni, No. 29).

TURKSTAT (2010a). *Demografik İstatistikler [Demographic statistics]*. Ankara, Türkiye İstatistik Kurumu [Turkish Statistical Institute] (http://www.tuik.gov.tr/VeriBilgi.do?tb_id=37&just.id=11, accessed 19 July 2011).

TURKSTAT (2010b). *Nüfus İstatistikleri [Population statistics]*. Ankara, Türkiye İstatistik Kurumu [Turkish Statistical Institute] (http://www.tuik.gov.tr/VeriBilgi.do?tb_id=39&just.id=11, accessed 24 August 2011).

TURKSTAT (2010c). *Population and development indicators*. Ankara, Türkiye İstatistik Kurumu [Turkish Statistical Institute] (http://nkg.die.gov.tr/en/goster.asp?aile=3, accessed 24 August 2011).

TURKSTAT (2010d). *Yaşam Memnuniyeti Araştırması 2010 [Life satisfaction survey 2010]*. Ankara, Türkiye İstatistik Kurumu [Turkish Statistical Institute].

TURKSTAT (2011a). *Causes of death statistics, 2009*. Ankara, Türkiye İstatistik Kurumu [Turkish Statistical Institute] (Press Release, No. 179, 6 September 2011).

TURKSTAT (2011b). *Statistics tables*. Ankara, Türkiye İstatistik Kurumu [Turkish Statistical Institute] (http://www.tuik.gov.tr/PreIstatistikTablo.do?istab_id=999, accessed September 2011).

TURKSTAT (2011c). *Yaşam Memnuniyeti Araştırması 2010 [Life satisfaction survey 2010]*. Ankara, Türkiye İstatistik Kurumu [Turkish Statistical Institute].

United Nations (1982). *International Plan of Action on Aging*. New York, NY, United Nations.

WHO (2006a). *Avian influenza – situation in Turkey: update 6*. Geneva, World Health Organization (http://www.who.int/csr/don/2006_01_18/en/, accessed December 2011).

WHO (2006b). *The World Health Report 2006: working together for health*. Geneva, World Health Organization (http://www.who.int/whr/2006/en/, accessed 19 July 2011).

WHO (2010a). *Trends in maternal mortality: 1990 to 2008*. Geneva, World Health Organization (http://whqlibdoc.who.int/publications/2010/9789241500265_eng.pdf, accessed 15 October 2010).

WHO (2010b). *World Health Statistics 2010*. Geneva, World Health Organization (http://www.who.int/whosis/whostat/2010/en/index.html, accessed 19 July 2011).

WHO Regional Office for Europe (1999). *Health21: the health for all policy framework for the WHO European Region*. Copenhagen, WHO Regional Office for Europe. (http://www.euro.who.int/en/what-we-publish/abstracts/health21-the-health-for-all-policy-framework-for-the-who-european-region, accessed 19 July 2011).

WHO Regional Office for Europe (2008). [online/offline database]. Copenhagen, WHO Regional Office for Europe (http://data.euro.who.int/hfadb/, accessed 19 July 2011).

WHO Regional Office for Europe (2010). [online/offline database]. Copenhagen, WHO Regional Office for Europe (http://data.euro.who.int/hfadb/, accessed 19 July 2011).

WHO Regional Office for Europe (2011). [online/offline database]. Copenhagen, WHO Regional Office for Europe (http://data.euro.who.int/hfadb/, accessed 19 July 2011).

World Bank (2009). *World Development Indicators and Global Development Finance*. [online database] Washington, DC, World Bank (http://ddp-ext.worldbank.org/ext/DDPQQ/report.do?method=showReport, accessed 19 July 2011).

World Bank (2010). *World Development Indicators*. Washington, DC, World Bank (http://databank.worldbank.org/databank/download/WDIandGDF_excel.zip, accessed 15 September 2011).

Yardım N et al. (2007). *Türkiye'de Sağlığa Bakış 2007 [Health at a glance, Turkey 2007]*. Ankara, Sağlık Bakanlığı Hıfzıssıhha Mektebi Müdürlüğü (http://ekutuphane.tusak.gov.tr/kitap.php?id=162&k=turkiyede_sagliga_bakis_2007, accessed 20 July 2011).

10.2 Useful web sites

Social Services and Child Protection Agency (SHÇEK (*Sosyal Hizmetler ve Çocuk Esirgeme Kurumu*)): www.shcek.gov.tr

Ministry of Finance (*Maliye Bakanlığı*): www.maliye.gov.tr

Ministry of Health (*Sağlık Bakanlığı*): www.saglik.gov.tr

Ministry of Labour and Social Security (*Çalışma ve Sosyal Güvenlik Bakanlığı*): www.csgb.gov.tr

"New Hope in Health" Foundation (SUVAK): www.suvak.org.tr

OECD: www.oecd.org

Organization of Patients' and Patients' Relatives' Rights (*Hasta ve Hasta Yakını Derneği Hakları*): www.hayad.org.tr

Social Security Institution (*Sosyal Güvenlik Kurumu*): www.sgk.gov.tr

State Planning Organization (SPO (*Devlet Planlama Teşkilatı*)): www.dpt.gov.tr

Treasury (*Hazine Müsteşarlığı*): www.hazine.gov.tr

Turkish Medical Association: www.ttb.org.tr

Turkish Pharmacists' Association: www.teb.org.tr

Turkish Statistical Institute (TURKSTAT (*Türkiye İstatistik Kurumu*)): www.tuik.gov.tr

WHO: www.who.int

10.3 HiT methodology and production process

HiTs are produced by country experts in collaboration with the Observatory's research directors and staff. They are based on a template that, revised periodically, provides detailed guidelines and specific questions, definitions, suggestions for data sources and examples needed to compile reviews. While the template offers a comprehensive set of questions, it is intended to be used in a flexible way to allow authors and editors to adapt it to their particular national context. The most recent template is available online at: http://www.euro.who.int/en/home/projects/observatory/publications/health-system-profiles-hits/hit-template-2010.

Authors draw on multiple data sources for the compilation of HiTs, ranging from national statistics, national and regional policy documents to published literature. Furthermore, international data sources may be incorporated, such as those of the OECD and the World Bank. The OECD Health Data contain over 1200 indicators for the 34 OECD countries. Data are drawn from information collected by national statistical bureaux and health ministries. The World Bank provides World Development Indicators, which also rely on official sources.

In addition to the information and data provided by the country experts, the Observatory supplies quantitative data in the form of a set of standard comparative figures for each country, drawing on the European Health for All database. The Health for All database contains more than 600 indicators defined by the WHO Regional Office for Europe for the purpose of monitoring Health in All Policies in Europe. It is updated for distribution twice a year from various sources, relying largely upon official figures provided by governments, as well as health statistics collected by the technical units of the WHO Regional Office for Europe. The standard Health for All data have been officially approved by national governments. With its summer 2007 edition, the Health for All database started to take account of the enlarged EU of 27 Member States.

HiT authors are encouraged to discuss the data in the text in detail, including the standard figures prepared by the Observatory staff, especially if there are concerns about discrepancies between the data available from different sources.

A typical HiT consists of nine chapters.

1. Introduction: outlines the broader context of the health system, including geography and sociodemography, economic and political context, and population health.
2. Organization and governance: provides an overview of how the health system in the country is organized, governed, planned and regulated, as well as the historical background of the system; outlines the main actors and their decision-making powers; and describes the level of patient empowerment in the areas of information, choice, rights, complaints procedures, public participation and cross-border health care.
3. Financing: provides information on the level of expenditure and the distribution of health spending across different service areas, sources of revenue, how resources are pooled and allocated, who is covered, what benefits are covered, the extent of user charges and other out-of-pocket payments, voluntary health insurance and how providers are paid.
4. Physical and human resources: deals with the planning and distribution of capital stock and investments, infrastructure and medical equipment; the context in which IT systems operate; and human resource input into the health system, including information on workforce trends, professional mobility, training and career paths.
5. Provision of services: concentrates on the organization and delivery of services and patient flows, addressing public health, primary care, secondary and tertiary care, day care, emergency care, pharmaceutical

care, rehabilitation, long-term care, services for informal carers, palliative care, mental health care, dental care, complementary and alternative medicine, and health services for specific populations.

6. Principal health reforms: reviews reforms, policies and organizational changes; and provides an overview of future developments.
7. Assessment of the health system: provides an assessment based on the stated objectives of the health system, financial protection and equity in financing; user experience and equity of access to health care; health outcomes, health service outcomes and quality of care; health system efficiency; and transparency and accountability.
8. Conclusions: identifies key findings, highlights the lessons learned from health system changes; and summarizes remaining challenges and future prospects.
9. Appendices: includes references, useful web sites and legislation.

The quality of HiTs is of real importance since they inform policy-making and meta-analysis. HiTs are the subject of wide consultation throughout the writing and editing process, which involves multiple iterations. They are then subject to the following.

- A rigorous review process (see the following section).
- There are further efforts to ensure quality while the report is finalized that focus on copy-editing and proofreading.
- HiTs are disseminated (hard copies, electronic publication, translations and launches). The editor supports the authors throughout the production process and in close consultation with the authors ensures that all stages of the process are taken forward as effectively as possible.

Normally, one of the authors is also a member of the Observatory staff team and they are responsible for supporting the other authors throughout the writing and production process. They consult closely with each other to ensure that all stages of the process are as effective as possible and that HiTs meet the series standard and can support both national decision-making and comparisons across countries.

10.4 The review process

This consists of three stages. Initially the text of the HiT is checked, reviewed and approved by the series editors of the European Observatory. It is then sent for review to two independent academic experts, and their comments and amendments are incorporated into the text, and modifications are made accordingly. The text is then submitted to the relevant Ministry of Health, or appropriate authority, and policy-makers within those bodies are restricted to checking for factual errors within the HiT.

10.5 About the authors

Mehtap Tatar graduated from the Hacettepe University School of Health Administration, Ankara Turkey, in 1984. After completing her MSc in Management of Health Care Institutions at Hacettepe University Institute of Health Sciences, she did her second MSc at the London School of Economics and Political Science on Health Planning and Financing. In 1993, she completed her PhD degree at Nottingham University School of Social Studies and started working as a research assistant at Hacettepe University. She became an associate professor in 1996 and a full-time professor in 2002. She has been the head of the Department of Health Care Management since 2006 and also has worked as the vice dean of the Faculty of Economics and Administrative Sciences between 2007 and 2010. Professor Tatar has been involved in a number of national and international projects both as a team leader and a researcher and has published extensively both in national and internationally recognized scientific journals. Her main areas of research interest are health policy and planning, health care financing, health technology assessment and pharmacoeconomics.

Salih Mollahaliloğlu has a background in medicine, later followed by a PhD in Public Health at Hacettepe University, Ankara Turkey, a postdoctoral fellowship in the Takemi Program in International Health at the Harvard School of Public Health, the United States, and a diploma degree in the International Health and Policy Evaluation programme at Erasmus University, the Netherlands. Dr Mollahaliloğlu has been assigned with various tasks and responsibilities in different departments of the Turkish Ministry of Health and has played active roles in different stages of health reforms since 1996, including the Health Transformation Program in Turkey. He has been the acting director of the Turkish School of Public Health (TUSAK) since 2003. As part of TUSAK's field of activities, Dr Mollahaliloğlu is in charge of coordinating and conducting

a number of studies and initiatives in many health-specific fields, including, but not limited to, health statistics, human resources for health, Internet-based distance health management training, evaluation of health services and programmes, satisfaction surveys, health system performance assessment and health expenditure. Throughout this period, Dr Mollahaliloğlu has implemented several joint projects with WHO, the World Bank and the OECD, and served as a counterpart on behalf of the Turkish Ministry of Health. He has published extensively in his field of interest.

Bayram Şahin received his MSc in 1996 and PhD in 2002 from the Department of Health Care Management, Hacettepe University, Ankara Turkey. He was a visiting researcher in the Department of Health Professions of the College of Health and Public Affairs, University of Central Florida, the United States, working in the Health Services Administration Program in 2005. He has been an associate professor in the Department of Health Care Management at Hacettepe University's Faculty of Economics and Administrative Sciences since 2007. He teaches courses on statistics, research methods and programme planning and evaluation in health care. He has a number of articles published in national and international journals. His current research interests include health outcomes evaluation, performance assessment in the health sector and the application of multivariate models to health care management.

Sabahattin Aydın graduated from the School of Medicine of Istanbul University, Turkey and received his medical specialization in urology from Thrace University, Greece. Professor Aydın became the Deputy Undersecretary of the Ministry of Health in 2003 and worked as the coordinator of the Health Transformation Program in Turkey. He was mainly responsible for the design and monitoring of recent health reforms. He played an active role in the preparation and implementation of various projects, including pharmaceuticals pricing policy, the family practitioner scheme, performance-based payment system and granting greater autonomy to hospitals. He was a member of the interministerial drafting group for the establishment of universal health insurance. He also played an active role in the preparation of the Ministry of Health's strategic plan. He was an executive board member of WHO between 2006 and 2009. He was also elected as an alternate member of the Regional Search Group 2004 and is an active member of the latest Regional Search Group (2009) for the WHO Regional Office for Europe. Recently he was the adviser to Minister of Health and adviser to the President of Istanbul University. He is now the President of Istanbul Medipol University.

Anna Maresso is Research Fellow at the European Observatory on Health Systems and Policies. She is an author and editor of HiT reports and studies and an Editor of the Observatory's health policy journal *Eurohealth*. Her research focus is the health care systems of western Europe and comparative health policy. Anna has an MSc (Econ) in European Studies from the London School of Economics and Political Science, the United Kingdom and a BA (Hons) degree in Political Science from the University of Sydney, Australia.

Cristina Hernández-Quevedo is Research Fellow at the European Observatory on Health Systems and Policies. She holds a PhD in Economics and an MSc in Health Economics from the University of York, the United Kingdom. Research interests include inequalities in health, equity in access to health care services and socioeconomic determinants of health, and she has published articles on these topics in internationally recognized scientific journals.

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