Keywords

DELIVERY OF HEALTH CARE
EVALUATION STUDIES
FINANCING, HEALTH
HEALTH CARE REFORM
HEALTH SYSTEM PLANS – organization and administration
TÜRKİYE
Health Systems in Action

Türkiye
The Health Systems in Action series supports Member States in the WHO European Region that are not in the European Union. The Insights for each country are intended to:

- provide core information and data on health systems succinctly and accessibly
- outline the country health system context in which WHO’s European Programme of Work is set
- flag key concerns, progress and challenges health system by health system
- build a baseline for comparisons, so that Member States can see how their health systems develop over time and in relation to other countries.

The series is co-produced by the WHO Regional Office for Europe and the European Observatory on Health Systems and Policies. It draws on the knowledge and understanding of the WHO Country Offices and of the Division of Country Health Policies and Systems (CPS), the Barcelona Office for Health Systems Financing and other WHO/Europe technical programmes; as well as the Health Systems in Transition series and the work of the European Observatory on Health Systems and Policies.

The Insights follow a common template that provides detailed guidance and allows comparison across countries. The series is publicly available on the websites of the WHO Regional Office for Europe and the European Observatory on Health Systems and Policies.

The mention of specific companies or of certain manufacturers’ products does not imply that they are endorsed or recommended by the European Observatory on Health Systems and Policies in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

The European Observatory on Health Systems and Policies does not warrant that the information contained in this publication is complete and correct and shall not be liable for any damages incurred as a result of its use.

© World Health Organization 2022 (acting as the host organization for, and secretariat of, the European Observatory on Health Systems and Policies).

All rights reserved. The European Observatory on Health Systems and Policies welcomes requests for permission to reproduce or translate its publications, in part or in full.

Please address requests about the publication to: contact@obs.who.int

The views expressed by authors or editors do not necessarily represent the decisions or the stated policies of the European Observatory on Health Systems and Policies or any of its partners.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the European Observatory on Health Systems and Policies or any of its partners concerning the legal status of any country, territory, city or area of its authorities, or concerning the delimitation of its frontiers or boundaries.

Where the designation “country or area” appears in the headings of tables, it covers countries, territories, cities, or areas. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.
Contents

1 ORGANIZING THE HEALTH SYSTEM 8
2 FINANCING AND ENSURING FINANCIAL PROTECTION 9
3 GENERATING RESOURCES, PROVIDING SERVICES AND ENSURING ACCESS 11
4 IMPROVING THE HEALTH OF THE POPULATION 14
5 SPOTLIGHT ON ANTIMICROBIAL RESISTANCE 18
6 EUROPEAN PROGRAMME OF WORK (EPW) 19
Acknowledgements

This Health Systems in Action Insight was written at the behest of the WHO Regional Office for Europe and in the context of the European Programme of Work (EPW), 2020–2025 – “United Action for Better Health in Europe”. It captures for Member States outside the EU core information on their health systems; flags key issues; and allows comparison across countries and over time.

This document could not have been written without the support and insights of the WHO Country Office in Türkiye and the editorial team are grateful to Batyr Berdyklychev, Toker Ergüder, Akfer Karaoğlan Kahilogullari, Melda Keçik, Tufan Nayir and Mustafa Bahadır Sucakli for their valuable comments and inputs.

Colleagues in the WHO Regional Office for Europe kindly reviewed the draft and made crucial inputs and we are grateful to Kotoji Iwamoto, Danilo Lo Fo Wong and Saskia Nahrgang for their constructive comments. Thanks are also due to the WHO Barcelona Office for Health Systems Financing, particularly Triin Habicht and Sarah Thomson.

Keyrellous Adib, Stefania Davia and David Novillo Ortiz were key in delivering the data underlying this report and Marina Karanikolos, Jon Cylus, Ewout van Ginneken, Anna Maresso, Suszy Lessof and Bernd Rechel were all central to the development of the approach used for the series.

This edition of the Health Systems in Action Insight for Türkiye was written by Katherine Polin, Hasan Hüseyin Yıldırım and Ruth Waitzberg.
HEALTH SYSTEMS IN ACTION: TÜRKİYE

Key points

- Governance of the Turkish health system has been highly centralized since 2019. The Ministry of Health and its directorates implement health policies set by the President.

- In 2006, as part of the Health Transformation Programme (2003–2013), five previously existing insurance schemes were merged into one compulsory General Health Insurance Scheme with a single payer.

- The benefit package is comprehensive. Visits to primary care facilities do not require a co-payment. Direct cost-sharing occurs as co-payments for outpatient visits and co-insurance for prescriptions and medical devices.

- Türkiye’s spending on health as a percentage of gross domestic product has decreased since 2009 and is lower than the WHO European Region average. Per person spending on health has increased since 2000 but is still much lower than the WHO European Region average.

- Higher public spending on health and lower private spending compared with other upper middle-income countries have resulted in a smaller burden on households due to out-of-pocket payments.

- Fewer Turkish households face catastrophic expenditure compared with other European countries but, among those that do, half become further impoverished.

- Rates of unmet medical need due to distance, cost or waiting times decreased significantly between 2010 and 2020 and are now similar to the European Union average.

- Türkiye has fewer hospital beds per population than most European countries, though gaps have narrowed over time. The country also has some of the lowest rates of nurses and physicians in the WHO European Region.

- Investments in child and maternal health and health promotion have resulted in nearly universal childhood vaccination rates, as well as increases in life expectancy in the last decade.

- Noncommunicable diseases are responsible for most deaths in Türkiye, and the government is investing efforts in public health to address unhealthy behaviours. Air pollution is another major public health challenge.

- Though decreasing, Türkiye has one of the highest rates of antimicrobial consumption in the WHO European Region and rates of antimicrobial resistance are also higher than in western and northern Europe.

This report looks at the action Türkiye is taking to strengthen its health systems; to achieve the Sustainable Development Goals; to address the priorities of the European Programme of Work; and to ensure that no one is left behind.
1 ORGANIZING THE HEALTH SYSTEM

A social health insurance scheme was introduced in 2006 with a single payer. From 2003 to 2013, the Turkish health system went through a restructuring of its financing, delivery and regulatory functions under the Health Transformation Programme (HTP) (The World Bank, 2018). While attempts to decentralize health care institutions and make hospitals more autonomous were unsuccessful, the HTP introduced several reforms to centralize other health functions. A new social security system, the General Health Insurance Scheme, was established (Anon, 2006), which operationalized compulsory social health insurance (SHI) with a single payer, the Social Security Institution (SSI), merging five existing insurance schemes. The HTP also reformed aspects of health care delivery and support functions, such as unifying public hospitals under the Ministry of Health (MoH) and strengthening information systems.

Since 2019, the health system has been further centralized. Türkiye shifted from a parliamentary system to a presidential republic in 2018–2019 (Sobaci, Köseoglu & Mısı, 2018; CIA, 2022), which resulted in a comprehensive restructuring of its public administration and policy-making functions. Since 2019, the Health and Food Policies Council has set policy under the President. The MoH and its provincial directorates serve as implementers of health policies, overseeing workforce planning, the regulation of medicines, vaccines, cosmetics and medical devices, and health research and development.

Concomitant with increased access due to the main components of HTP, patient satisfaction with the health system increased overall until 2011, after which it has fluctuated (Koca, 2021; TÜİK/TURKSTAT, 2022).

SHI enables nearly universal coverage. Population coverage has steadily increased since the advent of the HTP and General Health Insurance Scheme. The HTP significantly expanded public health insurance coverage, especially for the poorest population groups, which has increased access to care and financial protection (Atun et al., 2013).

In 2019, 98.8% of the population in Türkiye had SHI, up from 71.6% in 2003 and 93.2% in 2008 (OECD, 2022a, 2022b). Meanwhile, 9% had voluntary private health insurance, primarily to cover care in private hospitals not under (or under limited) contract with the SSI, or as complementary health insurance to cover services outside the basic benefits package. Most long-term residents of Türkiye are eligible for SHI. Moreover, several types of individuals are covered for free without eligibility requirements. These include children, and those who require long-term medical support, care for infectious diseases, services related to drug abuse and addiction prevention, childbirth services, and emergency care (Republic of Turkey, n.d.). The state is also responsible for ensuring coverage to individuals receiving social benefits and those with a monthly per capita income of less than one third of the gross minimum wage.

Türkiye has provided access to care for registered Syrian refugees. According to the Office of the United Nations High Commissioner for Refugees, 63.3% of all Syrian refugees since 2011 are registered in Türkiye (Assi, Özger-İlhan & İlhan, 2019). The government has introduced several regulations to enable registered refugees to benefit from expanded services at primary, secondary and tertiary health care centres free of charge. This includes Migrant Health Centres, established and operated by the MoH, which strengthen access to integrated primary health services. Through employment of Syrian refugee health care staff, these centres provide culturally and linguistically friendly services to refugees. Registered refugees enjoy similar coverage to that of the general population. Unregistered refugees and migrants, and those with a precarious legal status, however, do not have full coverage of services. Despite the universal right to primary and emergency care regardless of registration status, practical barriers related to the health care registry system and limited information about existing health care centres undermine access, for these populations, to services that are available on paper. Financial costs of refugees are covered by the Directorate General of Migration Management.

A comprehensive benefits package is determined by the SSI, but there is cost sharing for medicines. Since 2007, the SSI has determined annually what services are covered publicly via the Health Implementation Guide (Tatar et al., 2011). The current benefit package is comprehensive and finances almost all services in preventive, inpatient and ambulatory care, except cosmetic surgery. There are also some limitations to specific assisted reproductive methods and dental treatments (Republic of Turkey, n.d.). Direct cost-sharing occurs as co-insurance for prescriptions and medical devices (at 20% of price; 10% for retirees) and co-payments for outpatient visits (at a fixed-rate) (Social Security Institution Department, n.d.). Co-payment exemptions for primary care are meant as incentives for people to first obtain a referral before accessing secondary and tertiary care.
Most care is delivered in the public system and primary care is organized according to geography and population metrics at the provincial level.

The public system dominates health service delivery in Türkiye. Private providers operate within the health system on a contractual basis with the SSI or can provide care directly to patients who pay out-of-pocket (Türkiye Cumhuriyeti Sosyal Güvenlik Kurumu, n.d.).

In the public system, primary care is overseen by provincial health directorates. A family practitioner scheme was introduced in 2011 whereby family physicians (in solo practice) and family health centres (one or more family physicians and allied health workers) are the main providers of a range of preventive and curative services at the primary and secondary care levels. Family health centres serve population panels according to population and distance criteria set by the MoH. Family practitioners are assigned a population according to their location. Residents are expected to visit the relevant health centre, though patients can change their family practitioner once every 3 months. Community health centres promote public health, provide logistical support and diagnostic and medical tests, and services that are not offered by family physicians, among other things. In 2020, there were 8,015 family health centres and 779 community health centres across Türkiye (Bora Başara et al., 2021).

In addition, 216 healthy life centres (multi-purpose structures established to promote health and encourage healthy lifestyles as well as to strengthen and improve access to primary care services) operate as an additional service unit affiliated to the community health.

The MoH oversees most secondary and tertiary care services. Of a total of 1,534 hospitals in Türkiye, the MoH owns 900 hospitals (general, secondary and tertiary care teaching hospitals), the private sector owns 566 secondary care hospitals, and universities own 68 highly specialized and complex tertiary care hospitals. Specialized ambulatory care is delivered in hospital outpatient departments, private doctors’ offices, and private outpatient centres. In the statutory system, physicians and other hospital staff are responsible for both inpatient and outpatient care.

Efforts have been made to strengthen primary care and reduce unnecessary hospital services.

With no gatekeeping function in primary care, patients in Türkiye tend to go directly to more specialized facilities and to overuse hospital services, especially hospitalization, and in-hospital laboratory and diagnostic tests (Ökem & Çakar, 2015). To encourage the use of primary care as the first contact point and to generate additional income, co-payment exemptions exist for primary care/family physician visits, but they are required for all outpatient care services covered by SSI, including in hospital, office and health centre settings (Tatar et al., 2011). As a result of these efforts, there has been a shift in usage from inpatient to outpatient services (Bora Başara et al., 2021).

### 2 FINANCING AND ENSURING FINANCIAL PROTECTION

Türkiye’s spending on health per person has increased since 2019, but is still much lower than the WHO European Region average.

According to WHO’s Global Health Expenditure database, Türkiye’s current health spending in 2019 was 4.7% of gross domestic product (GDP), a decline since 2009, when it reached 6% of GDP. This share was lower than the 2019 averages for the WHO European Region (7.6%) and the European Union (EU) (8.2%).

In 2019, Türkiye spent about US$ 1,200 purchasing power parity (PPP) per person on health, which was much lower than the European average of US$ 3,800. In the WHO European Region, the average was US$ 3,300, with the highest expenditure in Switzerland at US$ 5,700 and the lowest in Hungary at US$ 2,000 (WHO, 2022a).

**Notes:** 2019 data. UMIC: upper middle-income countries in the WHO European Region; USD PPP: American dollars, adjusted for purchasing power parity.

**Source:** Global Health Expenditure database (WHO, 2022a).
Public spending as a share of GDP has increased less than in other European countries since 2009

Since 2010, public sources have accounted for around 78% of current health expenditure. In 2019, Türkiye’s public funding levels were higher than in other upper middle-income countries, but much lower than in the WHO European Region and the EU (Fig. 1). Public spending on health in 2019 represented 3.4% of GDP, similar to other upper middle-income countries, but lower than the EU (6.0%) and the WHO European Region (5.0%) (Fig. 2).

In parallel with per capita spending, public expenditure on health as a share of GDP increased in Türkiye more quickly than in other countries between 2000 and 2009, from 2.8% of GDP to 4.4%. However, public spending on health as a share of GDP decreased more precipitously in the decade after the crisis (2009–2019), while remaining largely stable elsewhere (Fig. 2). Considering that GDP per capita has increased during the last two decades in Türkiye, the decline in public spending on health as a share of GDP also means a relative decline in public allocation of funds to the health system.

Private expenditure on health per capita has increased, though more slowly than public spending. Driven by out-of-pocket (OOP) payments and private health insurance, private health spending rose from US$ 165 PPP per person in 2000 to about US$ 280 in 2019. As a share of current health expenditure, private health spending decreased from 38% to 22%, due to the greater increase in the public share in the same period. OOP payments were lower than in many other countries in Europe, including many with higher levels of income, and they have decreased over time. In 2000, OOP payments accounted for 28.9% of current health expenditure, a share that fell to 16.9% in 2019. The averages of the EU and the WHO European Region in 2019 were 20.9% and 28.7%, respectively (Fig. 3).

Few Turkish households face catastrophic expenditure but, among those that do, half become further impoverished

The HTP contributed to the reduction of OOP payments and catastrophic spending on health (Atun et al., 2013; Yardim, Cilingiroglu & Yardim, 2014). Although always lower than the WHO European Region average and that of upper middle-income countries, OOP payments as...
a share of total health spending declined more sharply between 2000 and 2009, from 28.6% to 14.5%, sinking below the EU average in 2008 for the first time (Fig. 3). Since 2009, OOP payments have hovered between 15% and 18% of current health expenditure. As mentioned above, OOP payments comprised 16.9% of total spending in 2019, lower than the averages of the EU-28 (the 28 EU Member States from 1 July 2013), the WHO European Region, and the upper middle-income countries of the WHO European Region that year. OOP payments are driven by relatively high co-payments for pharmaceuticals and outpatient services without referral. In 2018, when OOP spending stood at 17.5% of total spending, 4.3% of the population experienced catastrophic spending (Fig. 4), according to WHO calculations (Thomson, Cylus & Evetovits, 2019). This is lower than other non-EU countries and the average of countries with data (8.0%). Nevertheless, half of households with catastrophic expenditure on health were already poor and were at risk of becoming further impoverished.

**Generating Resources, Providing Services and Ensuring Access**

Türkiye has fewer hospital beds per population than most European countries, though gaps have narrowed over time

Türkiye has fewer hospital beds than most European countries. In 2019, the hospital bed ratio was 288 per 100 000 population, way below the EU average of 532 per 100 000 population (Fig. 5). However, the differences have shrunk over the last decade. While most European countries have been reducing the rates of beds per population, Türkiye has increased its beds, from 250 per 100 000 population in 2002.
Türkiye has one of the shortest average lengths of hospital stay when compared with EU countries (4.2 days versus an EU average of 7.5 days in 2018) and its hospital discharge rates (166 per 100,000 population) are similar to the EU average (175 per 100,000) (OECD, 2020).

Despite efforts to expand its health workforce, Türkiye has some of the lowest levels of nurses and physicians in the WHO European Region. The rates of physicians and nurses per population in Türkiye have increased between 2000 and 2019, from 173 to 237 nurses per 100,000 population and from 133 to 193 physicians per 100,000 population (Fig. 6). The growth in the cadre of professionals was facilitated by key initiatives between 2003 and 2010 under the HTP to attract and retain health workers, especially in underserved areas. These included increasing the number of training places at universities for physicians, nurses and other health professionals; increasing salaries and adding a performance remuneration component; and creating more flexible and better-paid contracts to attract workers to underserved areas (Atun et al., 2013). Despite these efforts, Türkiye’s numbers of physicians and nurses per population are still some of the lowest in Europe (Fig. 6).

Despite policies to attract physicians to underserved areas, regional disparities are still a problem and rural areas are particularly affected. Along with continuing health workforce shortages, persistent uneven distribution of personnel across regions poses a challenge to Türkiye’s health system. Many policies have been introduced to address this issue and attract physicians to underserved areas, as mentioned above. Furthermore, after their 6-year medical education and completion of specialist training, physicians are required to serve some time in relatively deprived areas of the country. Physicians also receive bonus payments and higher salaries if they choose to work in underserved areas (Tatar et al., 2011). Despite these efforts, geographical disparities in the distribution of health personnel remain a problem, resulting in differential access to care across regions, particularly in eastern regions and rural areas (Agartan, 2015; Erus & Bilir, 2015; Ökem & Çakar, 2015). Mobile health units provide some primary care in selected remote areas (Simsek, Koruk & Doni, 2012).

The coronavirus disease 2019 (COVID-19) pandemic was an opportunity to recruit a large pool of 44,000 personnel in 2020, but it is too early to assess the sustainability of this growth in workforce (Campbell & Koca, 2021).
Rates of unmet medical needs in Türkiye have decreased significantly between 2010 and 2020 and are now similar to the EU average

A shortage of health workers, their uneven geographic distribution and a relatively low level of public spending on health contributed to relatively high rates of unmet needs in 2010 (16.4% of the population compared with an EU average of 3.5%). However, since 2010, the rate of unmet medical needs in Türkiye has decreased sharply (Fig. 7), and in 2020, 1.9% of the population in Türkiye reported that they had to forego medical examination due to reasons of cost, distance or waiting time, a share similar to the EU average (Eurostat, 2022). Unmet needs differed across income groups. In 2019, the poorest-income quintile experienced rates of unmet needs that reached 9%, compared with 0.4% in the richest quintile (Thomson, Cylus & Evetovits, 2019), highlighting substantial financial barriers to accessing health services (see section on catastrophic spending).

Investments in child health have resulted in nearly universal childhood vaccination rates

Türkiye has invested efforts to reach universal health coverage (UHC). The UHC service coverage index – a global indicator that monitors progress towards Sustainable Development Goal 3 target 3.8.1 on coverage

Fig. 7
The share of the Turkish population that forgoes medical examination has decreased sharply and is now similar to the EU average

Note: EU-27: the 27 EU Member States from 1 February 2020.
of essential health services – increased in Türkiye from 61 in 2000 to 79, on a par with both the levels and progress of the WHO European Region average (Fig. 8). One area where Türkiye has shown particularly high outcomes is routine childhood vaccinations. It has reached nearly universal vaccination for diphtheria, tetanus toxoid and pertussis (DTP3) (99% in 2019) and measles (97% for the first dose and 88% for the second). These rates are higher than the EU and WHO European Region averages.

### Access to essential services and free infectious disease care ensure low rates of tuberculosis and HIV

The incidence and prevalence of tuberculosis (TB) has historically been below the WHO regional average per 100,000 population and rates have more than halved since 2000. TB incidence dropped from 28.1 per 100,000 population (WHO European Region average: 38.9) to 13.6 per 100,000 population in 2019 (WHO European Region average 20.5) and prevalence went from 45 (regional average: 102.3) to 22 in 2014 (regional average: 48). These decreases are a result of concerted policy efforts as well as increased access to publicly paid covered services under the HTP. The downward trend in TB rates began in 2007 after implementation of HTP-related policies in 2006. Similarly, effective treatment coverage for TB has improved, though not linearly. Currently, it is 74.8%, up from 63.5% in 2000, though coverage was at its highest in 2006 with 79.2% and has steadily decreased to current levels since (Fig. 9).

Türkiye has a lower HIV/AIDS incidence rate than the regional average. However, although HIV infection rates have generally decreased globally, the number of new cases in Türkiye has grown from 0.7 per 100,000 population in 2009 to 3.9 per 100,000 population in 2019 (Erşan, 2016; Positive Living Association, n.d.).

### Improving the Health of the Population

Life expectancy in Türkiye has increased in the last decade and is similar to the WHO European Region average

According to internationally reported data, life expectancy at birth in Türkiye has increased in the last decade, from 76.4 years in 2009 to 79.2 years in 2019, with a slight decline between 2012 and 2016 (WHO, 2022d). Turkish life expectancy was higher than the average of the WHO European Region (Fig. 10), but below the EU average. When disaggregated by gender, life expectancy for males in 2019 (76.5 years) was lower than for females.
Health Systems in Action: Türkiye

(81.9 years). This gender gap of 5.4 years was smaller of the WHO European Region average of 6.3 years in 2017.

Maternal and infant mortality in Türkiye have decreased significantly during the last two decades, but remain high

Maternal mortality in Türkiye has decreased significantly in the last two decades, declining from an estimated 42 deaths per 100,000 live births in 2000 to 17 in 2017. However, maternal mortality is still high compared with many other European countries, with a 2017 average rate of 12.7 per 100,000 in the WHO European Region and 6.3 per 100,000 live births in the EU.

Similarly, infant mortality has sharply decreased in Türkiye, from 31.4 per 1,000 live births in 2009 to 8.6 per 1,000 live births in 2019. However, infant mortality is still high compared with the EU average of 3.4 deaths per 1,000 live births and an average of 7 deaths per 1,000 live births in the WHO European Region.

A possible explanation for the steep improvement of these two indicators is the introduction of the HTP between 2003 and 2013, which has promoted UHC for mothers, including improved access to obstetric care, and free coverage for children (Atun et al., 2013).

Noncommunicable diseases are responsible for most deaths

The prevalence of communicable diseases has been declining, and noncommunicable diseases (NCDs) are now the major drivers of mortality in Türkiye (Özdemir et al., 2017; Gacal, 2021). NCDs were estimated to account for 89% of all deaths in 2020 (Box 1).

The most important cause of death is cancer, which accounted for 112 deaths per 100,000 population in 2019, followed by ischaemic heart disease, respiratory diseases, stroke and diabetes (Fig. 11). The probability of premature death (before the age of 70 years) from one of the four major NCDs for a person living in Türkiye was around one in six (16%), with the risk to men being higher (22%) than for women (11%) (WHO, 2018).

Despite public health efforts to address unhealthy behaviours, rates of cardiovascular conditions remain high

The underlying reasons for a high burden of NCDs include risky behaviours such as unhealthy diets or tobacco consumption, which result in high blood pressure and overweight (Fig. 12). To control tobacco consumption, Türkiye ratified the WHO Framework Convention on Tobacco Control in 2004, implementing it nationally through National Tobacco Control Programmes and...
Despite such efforts, rates of smoking in the adult population have only decreased moderately, from 32.9% in 2000 to 30.7% in 2020. More men smoke than women: 42.1% versus 19.2% were estimated to smoke in 2020. This was much higher than the male smoking prevalence in the WHO European Region (32%) and the EU (27.5%) (WHO, 2022d). Furthermore, smoking rates in adolescents have not changed in recent years (Çakır et al., 2021).

According to WHO mortality data, rates of lung cancer deaths increased by 38.3% between 2009 and 2019. Rising levels of obesity and overweight are also major risk factors (Kontas et al., 2014). Unlike smoking rates, these conditions disproportionately affect women. In 2016, 67% of the adult population in Türkiye was estimated to be overweight and a third were obese, with about 22% of men and 36% of women having a body mass index greater than 30 kg/m². These are some of the highest obesity prevalence rates in the WHO European Region (WHO, 2022g). Rates among children aged 9–15 years are also concerning and stand just above the WHO European Region average.

Meanwhile, according to WHO, around one quarter of the adult Turkish population have raised cholesterol levels, and a third have clinical hypertension. In 2017, the STEPhwise approach to surveillance (STEPS) survey found that 33.1% of men and 53.9% of women were not meeting WHO recommendations on physical activity. Finally, available research also shows that almost half of all people with type 2 diabetes are unaware of their condition.

In contrast, alcohol consumption is low and does not represent a major public health problem in Türkiye.
Excess mortality due to the COVID-19 pandemic peaked in December 2020

During the first two years of the COVID-19 pandemic (between 1 January 2020 and 31 December 2021), Türkiye reported a cumulative COVID-19 mortality of 52.9 per 100,000 population. However, as in most countries, COVID-19-related deaths might be higher than the officially reported COVID-19 mortality (Musellim et al., 2021). It has been estimated that excess mortality due directly and indirectly to COVID-19 peaked in December 2020 (Fig. 13).

Early evaluations of the Turkish health system response to the COVID-19 pandemic were positive and identified features that contributed to health system resilience. The first is experience with health reforms and the recent efforts to promote primary care, public health (through pandemic influenza preparedness and “healthy cities” programmes), and an information technology system with comprehensive electronic medical records. The second is a strong history with health emergencies and disaster management, which helped facilitate a well-coordinated, prompt and relatively stringent policy of non-medical public health responses, including movement restrictions, selective curfews, and comprehensive testing, tracking and isolation policies (WHO, 2020; Keskinkılıç et al., 2021).

Excess all cause mortality per 100,000 population

Notes: Excess mortality from all causes of death, defined as the difference between the total number of deaths and the number that would have been expected in the absence of a crisis (e.g., the COVID-19 pandemic). This difference is assumed to include deaths attributable directly to COVID-19 as well as deaths indirectly associated with COVID-19 through impacts on health systems and society.

Source: WHO, 2022e.
Severe air pollution represents an important health risk factor in Türkiye

Türkiye has been experiencing environmental pressures due to population growth, industrialization, the growth of the energy (coal) production sector and rapid urbanization. These pressures translate into a range of environmental challenges such as climate change, desertification, deforestation, water scarcity, nature degradation and marine and air pollution (European Environmental Agency, 2020). As a result, Türkiye was among the countries with the highest rates of premature deaths due to air pollution in Europe in 2015 (HEAL, 2015). Air pollution is also associated with respiratory and heart diseases, particularly among vulnerable groups such as pregnant women, children and older people. Chronic obstructive pulmonary disease has increased due to air pollution, as have cardiovascular dysfunctions, increased blood pressure, hypertension and cerebrovascular ischaemia (HEAL, 2015).

Box 2
Policies to promote mental health

According to MoH data, 17% of the population in Türkiye faced mental health issues in 2019 (MoH, 2019) and the prevalence is increasing. This is due in part to the mental health challenges experienced by Syrian refugees and migrants to Türkiye since 2011 (WHO, 2021a) as well as to increased mental health needs emerging from the COVID-19 pandemic (WHO, 2022f). Regarding specific conditions, depression was the seventh commonest disorder experienced by individuals aged 15 years and older in 2019. The usage of antidepressants increased from 32.7 to 44.2 daily dosage per 1 000 population between 2011 and 2019 (OECD, 2022c). Meanwhile, Türkiye has far fewer dedicated mental health staff than the European average: 16.2 versus 44.8 per 100 000 population (MoH, 2020; WHO 2021b).

In the past 15 years, Türkiye has started to shift from an institutional approach to a community-oriented model to treat mental illness, for which WHO provides technical assistance (see Section 6). The National Mental Health Action Plan 2011–2016 established 175 community mental health centres to support integrated mental health services near people’s homes, especially for individuals with chronic mental disorders like schizophrenia and bipolar disorders. Additionally, the Refugee Health Programme specifically addresses the mental health issues of refugees and migrants, in areas with high density of refugees (see Section 1). Despite these efforts, psychiatric institutions still supply about 50% of psychiatric inpatient beds in Türkiye.

5 SPOTLIGHT ON ANTIMICROBIAL RESISTANCE

Türkiye has one of the highest rates of antimicrobial consumption in Europe

Türkiye’s monitoring systems for antimicrobial consumption (AMC) and antimicrobial resistance (AMR) are well developed. Türkiye participates in relevant networks set up by the WHO Regional Office for Europe (the Antimicrobial Medicines Consumption Network and the Central Asian and European Surveillance of AMR (CAESAR) Network), and monitors AMC using sales records of wholesalers provided by the track and trace system of the Turkish Medicines and Medical Devices Agency as National Regulatory Authority.

According to these data, Türkiye did not meet the WHO national monitoring target of at least 60% of total AMC being from the “Access” category in 2018 (Fig. 14), indicating that stronger antimicrobial stewardship efforts are needed.

Rates of antimicrobial resistance are higher in Türkiye than in western and northern Europe

The rate of bloodstream infections due to methicillin-resistant Staphylococcus aureus in Türkiye is higher than the EU/EEA average and very high compared with the AMR prevalence found in northern Europe (Fig. 15). However, AMR rates in Türkiye were lower than in some western European countries, including Portugal, Italy and Greece.

Türkiye has undertaken steps to combat AMR, but the response is not yet fully integrated in a One Health approach

As evidenced by its well-developed AMR monitoring system, Türkiye has invested much effort and programming to tackle AMR. Human and animal health authorities are both involved in activities to counteract AMR. The Ministry of Agriculture is also actively involved in the AMR response. Laws on the prescription and sale of antimicrobials for animal use have forbidden the use of antimicrobials for growth promotion since 2006 and laws on the marketing of pesticides, including bactericides and fungicides used in plant production, have also been introduced. In addition, there is an electronic prescription system and electronic track and trace system for the veterinary products that is similar to systems used for medicines for human use. However, Türkiye has not yet formed an official multi-sectoral approach.
governance or coordinating mechanisms in line with a One Health approach. Moreover, the environment sector is missing from any AMR response to date.

WHO, together with its Regional Office for Europe, supports AMR awareness activities with training on rational use of antibiotics and the establishment of systemic multisectoral collaboration for tackling AMR and strengthening the antimicrobial stewardship programmes and surveillance.

Implementation of a National AMR Action Plan has started

Türkiye reports that while the National AMR Action Plan is still in its publishing phase, most of the activities included in the plan had started but have slowed down because the COVID-19 pandemic has affected the relevant entities. There are still gaps in implementing national policies for the National AMR Action Plan. For rates of antibiotic consumption and resistance to decline, there is a need for effective high-impact policies and measures, including infection prevention and control programmes, rapid testing for patients to determine whether they have bacterial or viral infections, delayed antibiotic prescriptions, and mass media campaigns.

Fig. 14
Overall consumption of antibacterials in Türkiye in 2018 was the second highest in the WHO European Region

Notes: DDD: daily defined dose; EEA: European Economic Area; EU: European Union; Access, Watch and Reserve (AWaRe) traffic light system of antimicrobials (WHO, 2019) as follows: Access: First- and second-choice antibiotics that should be widely available in all countries; Watch: Antibiotics that should only be used for a specific, limited number of indications; Reserve: Last-resort antibiotics for cases where other antibiotics have failed or for infections of multi-resistant bacteria; Unclassified: Antibiotics which are not yet classified. Averages for ESAC-Net and WHO/AMC are population-weighted. a Countries for which hospital sector data were not included.

Source: European Centre for Disease Prevention and Control, WHO Regional Office for Europe.

6 EUROPEAN PROGRAMME OF WORK (EPW)

Moving towards universal health coverage

Türkiye has advanced considerably on UHC (see Sections 1 and 2) and WHO supports these efforts by providing technical assistance to improve regulation of medical products, increase access to health care for refugees, and strengthen the health system. For example, WHO provides technical support to the Turkish National Regulatory Authorities on benchmarking regulatory processes for medicines and vaccines.

Regarding mental health, WHO aids implementation of the Refugee Health Programme. Moreover, despite COVID-19-related disruptions, WHO contributed to a revision of Türkiye’s mental health programme in 2020 (Box 2). In line with the Mental Health Flagship Initiative of the European Programme of Work (WHO, 2021c), the new Plan promotes mental well-being, prevention and early diagnosis in communities,
Protecting against health emergencies

Since early 2020, WHO’s primary focus has been to support Türkiye’s response to the COVID-19 pandemic. Multisectoral engagement and coordination are essential for countries’ responses to public health threats, in line with the International Health Regulations. WHO has provided assistance in coordination and capacity building, mainly through the Health Security Project, and in coordination with Türkiye’s Health Emergency Preparedness and International Health Regulations Programme.

Promoting health and well-being

WHO collaborates with Türkiye to address tobacco consumption and control. In the context of high rates of smoking overall and increasing rates of smoking in children and adolescents (see Section 4), Türkiye has banned the manufacturing, importation, sale and distribution of any kinds of tobacco products to children, under guidance from WHO. Further, WHO has provided technical assistance to the MoH, the Ministry of Agriculture and Forestry, and other governmental institutions on drafting regulations for plain packaging of tobacco products in Türkiye, which were adopted in January 2020.

WHO is also assisting Türkiye in its efforts to reduce the burden of NCDs. Based on the lessons learned from “Improved Blood Pressure Control in Türkiye”, the MoH regularly monitors individuals with chronic diseases, with the support of a Digital Disease Management Platform for NCDs. Since 2021, a new payment mechanism (pay for performance) compensates family physicians specifically for providing care to chronically ill patients such as screening and follow up of chronic diseases. Health digitalization has also become a priority area of collaboration between WHO and the Turkish authorities. Digital services, including telemedicine, have been promoted and expanded, particularly after the COVID-19 pandemic. In parallel, the MoH, supported by WHO, is developing legislation on e-health ethics, data privacy and confidentiality to regulate e-health.

Notes: EEA: European Economic Area. Percentage of bloodstream infections due to methicillin-resistant Staphylococcus aureus (MRSA) among patients with symptoms of bloodstream infections who have growth of S. aureus in tested blood samples. Data refer to 2020.

Source: European Centre for Disease Prevention and Control, WHO Regional Office for Europe.
**COUNTRY DATA SUMMARY**

<table>
<thead>
<tr>
<th></th>
<th>Türkiye</th>
<th>WHO European Region</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life expectancy at birth (years), both sexes combined&lt;sup&gt;a&lt;/sup&gt;</td>
<td>79.2 (2019)</td>
<td>78.3 (2017)</td>
<td>80.9 (2018)</td>
</tr>
<tr>
<td>Estimated maternal mortality per 100,000 live births&lt;sup&gt;a&lt;/sup&gt;</td>
<td>17.0</td>
<td>12.7</td>
<td>6.3</td>
</tr>
<tr>
<td>Estimated infant mortality per 1,000 live births&lt;sup&gt;a&lt;/sup&gt;</td>
<td>8.6</td>
<td>7.0</td>
<td>3.4</td>
</tr>
<tr>
<td>Population size, in millions&lt;sup&gt;a&lt;/sup&gt;</td>
<td>83</td>
<td>928</td>
<td>512</td>
</tr>
<tr>
<td>GDP per capita, PPP$&lt;sup&gt;a&lt;/sup&gt;</td>
<td>28,120</td>
<td>35,340</td>
<td>44,421</td>
</tr>
<tr>
<td>Poverty rate at national poverty lines&lt;sup&gt;a&lt;/sup&gt;</td>
<td>14.4</td>
<td>14.9</td>
<td>17.0</td>
</tr>
</tbody>
</table>

<sup>a</sup> Latest year for which data are available shown in brackets.

Notes: EU: the 28 EU Member States until 2020; GDP: gross domestic product; PPP, purchasing power parity.

Source: WHO, 2022d.

**References**


Notes:

- EU: the 28 EU Member States until 2020;
- GDP: gross domestic product;
- PPP, purchasing power parity.
Health Systems in Action: Türkiye Programme. 


WHO Regional Office for Europe

WHO is the authority responsible for public health within the United Nations system. The WHO Regional Office for Europe (WHO/Europe) covers 53 countries, from the Atlantic to the Pacific oceans.

To support countries, WHO/Europe seeks to deliver a new vision for health, building a pan-European culture of health, where health and well-being goals guide public and private decision-making, and everyone can make healthy choices. WHO/Europe aims to inspire and support all its Member States to improve the health of their populations at all ages. WHO/Europe does this by providing a roadmap for the Region’s future to better health; ensuring health security in the face of emergencies and other threats to health; empowering people and increasing health behaviour insights; supporting health transformation at all levels of health systems; and by leveraging strategic partnerships for better health.

European Programme of Work ‘United Action for Better Health in Europe’

The European Programme of Work (EPW) sets out a vision of how the WHO Regional Office for Europe can better support countries in our region in meeting citizens’ expectations about health.

The European Observatory on Health Systems and Policies

The European Observatory on Health Systems and Policies supports and promotes evidence-based health policy-making so that countries can take more informed decisions to improve the health of their populations. It brings together a wide range of policy-makers, academics and practitioners, drawing on their knowledge and experience to offer comprehensive and rigorous analysis of health systems in Europe. The Observatory is a partnership hosted by WHO/Europe. Partners include the governments of Austria, Belgium, Finland, Ireland, Norway, Slovenia, Spain, Sweden, Switzerland, the United Kingdom, and the Veneto Region of Italy (with Agenas); the European Commission; the French National Union of Health Insurance Funds (UNCAM), the Health Foundation; the London School of Economics and Political Science (LSE) and the London School of Hygiene & Tropical Medicine (LSHTM). The Observatory is based in Brussels with hubs in London (at LSE and LSHTM) and at the Berlin University of Technology.