



# TOBACCO CONTROL IN TURKEY



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## ABSTRACT

This report was prepared by WHO within the framework of the Bloomberg Global Tobacco Control Initiative in collaboration with the Ministry of Health and the Tobacco and Alcohol Market Regulatory Authority in Turkey. It outlines the current state of tobacco-smoking in Turkey, including the health and social aspects, epidemiological data and economic, legal and political issues. Turkey, until recently one of the major tobacco-producing countries of the world, has made substantial progress in tobacco control in a short time. The initial efforts of the Ministry of Health in the late 1980s received an impetus when Turkey ratified the WHO Framework Convention for Tobacco Control in 2004. Law No. 4207 of 1996 was substantially amended in 2008 and thus became one of the most advanced tobacco control laws in the world. Even so, smoking is still a serious health problem in the country, with one tenth of all the disability-adjusted life-years lost due to smoking. About one third of the population smokes, despite a slight decrease over the last 15 years.

### Keywords

SMOKING – prevention and control  
TOBACCO INDUSTRY – methods – legislation  
TOBACCO  
HEALTH STATUS  
HEALTH POLICY  
HEALTH SERVICES  
TURKEY

ISBN 978 92 890 4182 9

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DK-2100 Copenhagen Ø, Denmark

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## **Preface**

*Smoking is a major risk factor for malignancies, cardiovascular and respiratory diseases and many other health problems. Globally, smoking causes 5.4 million deaths annually. In Turkey, more than 100 000 people die every year as a consequence of smoking (a quarter of all deaths), a number that is estimated to rise to 240 000 by 2030. As well as the health hazards, the economic burden of tobacco use is enormous. About 20 million smokers in Turkey spend nearly US\$ 20 billion on tobacco products – four times the annual budget of the Ministry of Health. During the 1980s and 1990s, there was an almost 80% rise in smoking, mainly because of the marketing of foreign brand cigarettes. The immediate consequence of this increase has been observed as a significant rise in the occurrence of lung cancer. The number of patients hospitalized with a diagnosis of lung cancer over a 30-year period starting from the 1960s showed a 15-fold increase, whereas the population increase was only 2-fold during the same period. Nearly half of the men and one in every six women smoke. Smoking has recently become more popular among women and adolescents, and young people start to smoke at around 13 years of age.*

*Turkey is a tobacco-producing country. Until recently, it provided 4–5% of world tobacco production but since the late 1980s annual tobacco production has fallen from around 300 000 tonnes to an estimated 80 000 tonnes in 2007. Even so, Turkey is still the seventh largest producer in the world with 1.7% of total production. In parallel with the decrease in tobacco production, however, Turkey has started to import tobacco from other countries. In 1988, 0.6 thousand tonnes were imported; by 2007 this figure had risen to 60 000 tonnes.*

*The first anti-tobacco law came into force in 1996, prohibiting smoking in the majority of public places such as health and educational establishments and public transport. It also banned all kinds of advertising and promotion, made the television companies responsible for broadcasting educational programmes on the hazards of smoking, banned the sale of tobacco products to minors and introduced health warnings on cigarette packages. A slight decrease in tobacco use has been observed since the fifth year following the enactment of this law.*

*In 2004, Turkey became a party to the WHO Framework Convention for Tobacco Control (FCTC) when this was signed by the Minister of Health and ratified in the Grand National Assembly. In accordance with the Convention, a tobacco control programme and action plan were prepared with the participation of relevant people and institutions from both governmental and nongovernmental organizations. This programme was announced by the Prime Minister and the Health Minister in December 2007.*

*The second anti-tobacco law was accepted on 3 January 2008 – the first law of the new year. This law has considerably expanded the number of smoke-free areas, with bans on smoking in hospitality workplaces (restaurants, bars, cafés, etc.), taxis and open areas of schools. It also bans sponsorship by tobacco companies.*

*As indicated in the “WHO report on the global tobacco epidemic, 2008. The MPOWER package”, monitoring is one of the essential elements of an effective tobacco control programme. For the purposes of this report, a group of scientists who have been active in tobacco control in Turkey have collated all past and current information on the production, use*

*and economic aspects of tobacco and development of legislative activities on tobacco control. The authors hope that the report will serve as a baseline on the status of tobacco, tobacco use and related control activities in Turkey and that it will be used to monitor future developments in tobacco control in the country.*

Nazmi Bilir  
Ankara, December 2009

## **Acknowledgements**

The WHO Regional Office for Europe thanks the authors of this report, Professor Nazmi Bilir, Associate Professor Banu akır, Professor Elif Dađlı, Dr Toker Ergüder and Associate Professor Zeynep Önder.

The WHO Regional Office for Europe and the authors also thank Professor Murat Tuncer for his contributions and useful comments on this report.

We are grateful to the Ministry of Health and the Tobacco and Alcohol Market Regulatory Authority for providing their tobacco-related data.

The authors also thank Dr Turan Buzgan, Dr Seracettin om, Dr Hasan Irmak, Dr Hüseyin İlter, Dr Ebru Aydın, Dr Derya Özkaya, Fatih Özyeşil, Hasan Galip Görün, Mustafa Seydiođulları, Ümran Aydın and Murat Guner for their valuable inputs to various sections of this report.



## Executive summary

Tobacco use is one of the most important and preventable public health issues globally owing to the negative impact of various substances in tobacco and of tobacco smoke on human health. In Turkey, nearly 110 000 people die of smoking-related diseases annually, a figure that is expected to rise to 240 000 per year by 2030. In contrast to the situation in developed countries, the smoking prevalence rate in Turkey is increasing, particularly among females.

Although there are several studies relating to tobacco use and the related health hazards in the Turkish population, nationwide estimates are scarce and insufficient to monitor national trends in tobacco use. The available literature indicates that smoking is the most important public health problem and preventable cause of mortality in Turkey, responsible for 25% of deaths annually. Epidemiological research conducted in recent years suggests that the tobacco epidemic is continuing on its natural course.

During the 1980s, annual cigarette consumption remained steady at 60 000–65 000 tonnes per year. This period coincided with the publication of the first comprehensive studies on the health risks of smoking in Turkey. At that time, the state monopoly on tobacco (Tekel) was the only firm producing and supplying tobacco, and there was little advertising and promotion of cigarettes. Between 1986 and 1993, however, foreign-made cigarettes began to be imported and smoking prevalence increased by approximately 3.3% annually. The consumption of foreign tobacco brought other developments, and advertising and promotion efforts aimed at children and young people were quickly seen. Between 1994 and 1997, annual tobacco consumption rose to 7.7%, largely due to increasing advertising and promotion activities by international tobacco companies and the growing network of cigarette suppliers that reached everywhere.

On 7 November 1996, Law No. 4207 for Preventing the Hazards of Tobacco Products was accepted, after persistent efforts by a group of deputies, and came into force after publication in *Official Gazette* No. 22829 of 26 November 1996 (1). As the one-year term foreseen for some of the articles in the law ended on 26 November 1997, it was not until a year later that the law entered fully into force. This law led to an acceleration in the struggle against tobacco, and several studies were started in some provinces to follow up and control the prohibitions it contained, including bans on all kinds of tobacco advertising. Law No. 4207 has been a turning point in endeavours to control tobacco, resulting in the rate of cigarette consumption falling from 7.7% in 1997 to 2.8% in 1998.

The World Health Organization Framework Convention for Tobacco Control (WHO FCTC) was adopted on 21 May 2003 by the Fifty-sixth World Health Assembly. The Convention was signed by the Minister of Health of Turkey on 28 April 2004 and ratified by Parliament, and has been in effect since its promulgation in the *Official Gazette* of 30 November 2004 (2). Following the signing of the Convention by Turkey, a national tobacco control programme and action plan for 2008–2012 was prepared in line with the FCTC (Article 8 and Guidelines) and MPOWER policies and interventions (3) to plan future activities, control tobacco use and thus protect public health, in particular the health of young people. The main objective of the national tobacco control programme and action plan is to ensure that by 2012, 80% of people aged 15 years and over are non-smokers and smoking in the group aged under 15 years is reduced to nil.

The National Strategy for Tobacco Control (2008–2012) was launched on 12 December 2007 by the Prime Minister. A comprehensive tobacco control law (Annex 1), including a complete ban on smoking in all public places and on advertising, promotion and sponsorship, was adopted by Parliament on 3 January 2008 and approved by the President on 19 January 2008. The objective of this law is to take the necessary measures to protect individuals and future generations from harm consequent upon the use of tobacco products and from all kinds of advertising, promotion or sponsorship that promote such use. Its overall objective is to ensure that everybody enjoys clean air.

According to the recently amended comprehensive tobacco control law, the first phase of 100% smoke-free work- and public places entered into force on 19 May 2008. In this phase, smoking was banned in all enclosed public areas and workplaces, while separate smoking rooms are only allowed in psychiatric institutions, prisons and homes for the elderly. The entry into force of the ban was covered widely in the national and international media. The next and final phase of the complete smoking ban, including traditional Turkish cafés, cafeterias, restaurants and bars entered into force in July 2009.

According to the results of a public opinion survey in April 2008, there is strong support for the legislation prohibiting smoking inside all public places and workplaces (85% in favour, of whom 75% “strongly favour” the law). A majority (9 out of 10) of the population indicate that they understand the health effects of secondhand smoke, believe “all workers in Turkey should be protected from secondhand smoke”, and are “looking forward to going out and enjoying restaurants and bars without breathing tobacco smoke” (81%). It should be noted that this survey was conducted among 1331 people aged 15 years and older in 16 provinces, and the results may not be generalizable to the whole population. The Ministry of Health took the lead, with technical and financial support from the WHO Country Office, Turkey, and has just started a nationwide study of knowledge, attitudes and behaviour among adults (based on a representative sample of about 33 000 individuals) in relation to the new smoke-free legislation and related practices. The results of this study are expected to be ready by December 2009 and will help with the planning of effective interventions tailored to the needs of each province and/or sub-region.

Among the six main policies recommended to countries to reverse the tobacco epidemic, the first is “monitoring tobacco use and prevention policies”. Monitoring data are necessary to ensure the success of the five other policy interventions included in the MPOWER package (3). Accurate, reliable and comparable measures are required to understand the problems caused by tobacco use and to manage the interventions effectively and improve them. Comprehensive monitoring helps policy-makers to understand how the tobacco epidemic is harming the country and to allocate tobacco resources in the areas where they are most needed and will be the most effective. In this context, Turkey is fully aware of the need for continuity of tobacco-related surveillance activities and is currently working on developing national capacity for this purpose. It is also an integral part of several international initiatives, such as the Bloomberg Philanthropies, that help nations to develop well-established national surveillance systems for tobacco control capable of collecting relevant, valid, reliable and internationally comparable data. Such strong surveillance activities will enable policy-makers to learn about the current status of tobacco use, plan suitable interventions and monitor the implementation of such interventions.

The Turkish law on tobacco control is one of the most comprehensive in the world. In order to ensure the successful implementation and enforcement of this law, government should take a

multidisciplinary and multisectoral approach and work with all the relevant stakeholders, including nongovernmental organizations, academia, the media and international organizations.

This report summarizes the achievements of and the gaps in tobacco control activities in Turkey so far, so as to outline a plan for the future.

## **General information**

The Republic of Turkey stretches across the Anatolian peninsula in south-west Asia and the Balkan region of south-eastern Europe. The total area is 783 562 km<sup>2</sup>, of which 755 688 km<sup>2</sup> are in south-west Asia and 23 764 km<sup>2</sup> in Europe.

The capital city is Ankara. The most heavily populated city, Istanbul, with a population of about 15 million, is the financial, economic and cultural heart of the country. There are 81 provinces located in 7 geographical regions. Each province is divided into districts, sub-districts and villages. There are a total of 923 districts.

Turkey is a democratic, secular, unitary, constitutional republic. The political system was established in 1923 under Mustafa Kemal Atatürk following the fall of the Ottoman Empire in the aftermath of the First World War. Since then, Turkey has become increasingly integrated with the west while continuing to foster relations with the eastern world.

Turkey became a secular state in 1928, when the clause retaining Islam as the state religion was removed. Turkey joined the United Nations in 1945, the North Atlantic Treaty Organization in 1952, and the Council of Europe in August 1949, shortly after its foundation. In 1963, Turkey signed an association agreement with the European Economic Community and in 1987 applied for full membership of the European Union (EU), becoming a candidate country on 3 October 2005.

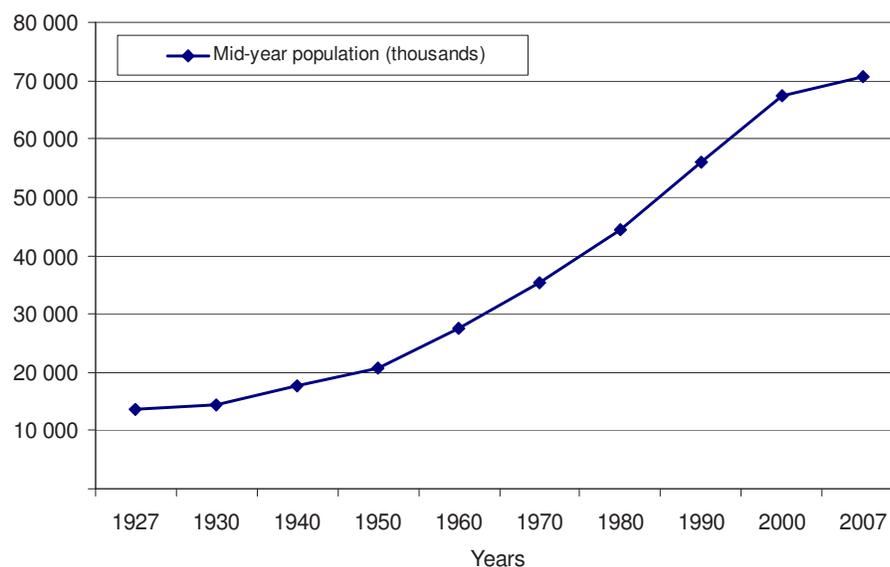
## **Demographics**

The 2007 census showed a total population of 70 586 256. Fig. 1 indicates how the population has increased over the last century. The average annual population growth rate was 2.2% from the time of the first census in 1927 until 2000, but over the seven years from 2000 until the final census in 2007 the overall growth rate was 4.7%.

The population is relatively young: one quarter is aged under 15 years. Table 1 shows the distribution of the population by age and gender. Half of the population is male. Although there are more males aged under 50 years than females, there are more females than males in the group aged over 55 years. Life expectancy has been increasing: females have a higher life expectancy (74.2 years) than males (69.3 years) (Table 2).

More people live in urban settlements: the ratio of urban to rural population is 68% : 32%. Although the urbanization rate has been increasing, it is still below the average for the WHO European Region. Education is free and compulsory for eight years from ages 6 to 15 years. The literacy rate is 95.3% for men and 79.6% for women, with an overall average of 87.4%.

Fig. 1. Population growth, Turkey, 1927–2007



Note. The first census was conducted in 1927 and the second in 1930. After that they were conducted every 10 years until the final census, which was conducted in 2007.

Source: Turkish Statistical Institute (4).

Table 1. Distribution of population by age and gender, Turkey, 2007

Age groups (years)	Population	Males	Females	Proportion of the total population (%)	Males (% of the total)	Females (% of the total)
0–4	5 793 906	2 978 972	2 814 934	8.21	8.42	7.99
5–9	6 436 827	3 303 329	3 133 498	9.12	9.34	8.90
10–14	6 411 658	3 288 472	3 123 186	9.08	9.30	8.87
15–19	6 157 033	3 159 723	2 997 310	8.72	8.93	8.51
20–24	6 240 573	3 181 804	3 058 769	8.84	8.99	8.69
25–29	6 512 838	3 295 102	3 217 736	9.23	9.31	9.14
30–34	5 727 699	2 885 151	2 842 548	8.11	8.16	8.07
35–39	5 072 441	2 565 112	2 507 329	7.19	7.25	7.12
40–44	4 725 800	2 379 314	2 346 486	6.70	6.73	6.66
45–49	4 085 065	2 057 626	2 027 439	5.79	5.82	5.76
50–54	3 565 669	1 781 029	1 784 640	5.05	5.03	5.07
55–59	2 788 858	1 369 618	1 419 240	3.95	3.87	4.03
60–64	2 067 714	981 178	1 086 536	2.93	2.77	3.09
65–69	1 698 583	781 165	917 418	2.41	2.21	2.61
70–74	1 373 077	629 241	743 836	1.95	1.78	2.11
75–79	1 069 961	441 289	628 672	1.52	1.25	1.79
80–84	578 879	212 383	366 496	0.82	0.60	1.04
85–89	182 188	58 552	123 636	0.26	0.17	0.35
90+	97 487	27 473	70 014	0.14	0.08	0.20
Total	70 586 256	35 376 533	35 209 723	100.00	100.00	100.00

Source: Turkish Statistical Institute (5).

Table 2. Some demographic parameters, Turkey, 1990–2010

	1990	1995	2000	2005	2007	2010 (estimated)
Life expectancy at birth (years):						
male	63.8	65.6	68.1	68.9	69.3	69.6
female	68.3	70.2	72.8	73.8	74.2	74.5
Crude birth rate (per 1000)	25.2	23.6	20.2	18.9	18.4	17.5
Crude death rate (per 1000)	7.1	6.8	6.2	6.2	6.3	6.5
Total fertility rate (average number of children)	3.07	2.75	2.27	2.19	2.17	2.12
Infant mortality rate (per 1000)	55.4	43.0	28.9	23.6	21.7	20.0

Source: Turkish Statistical Institute (6).

## Political system and administrative structure

Turkey is a republic with a parliamentary system. The Grand National Assembly is the national legislative body, with 550 members elected by universal suffrage. The constitution adopted basic individual, social and political rights and the principle of separation of legislative, executive and judiciary powers. The President of the Republic is elected by parliament. The Council of Ministers is the executive body, composed of the Prime Minister and the ministers.

The administrative organization of the country is divided into the central (state) and local administrations. The central administration, headed by the government, is represented in the provinces by governors. The governor is the head of the province, appointed by the Council of Ministers and approved by the President and responsible to the central government. As the highest-level administrative officer in the province, the governor carries out the policies of the central government, supervises the overall administration of the province, coordinates the work of the various ministry representatives appointed by the central government in the provincial capital, and maintains law and order within his/her jurisdiction.

Local (municipal) administrations are elected in local elections and are run by the mayor and members of the municipal council. According to the legislation, a municipality may be established in places with a population of more than 2000 people. Municipalities also provide health care services for those living in low economic and social conditions, although education and health services are provided by the central government. The responsibilities of the municipalities include: provision of infrastructure services such as electricity, water and gas; construction and maintenance of roads; and sewerage and waste collection.

## Economic conditions

Turkey is an upper-middle-income country, according to World Bank classifications. Gross domestic product (GDP) per capita in 2006 was US\$ 5521. It has been growing steadily since 1980 with the liberalization of the economy from a quasi-statist model to a more market-based model. Although the economy has been one of the fastest growing in the world, the rapid increase in growth was interrupted with the recessions and economic crises of 1994, 1999, 2000 and 2001. The real growth rate of GDP per capita in 2006 was 4.8%. Table 3 shows how total GDP and gross national product (GNP) per capita have changed over the years. With a per capita GDP (nominal) of around US\$ 7000, Turkey ranked 69th in the world in 2007.

Table 3. GDP and GNP per capita Turkey, 1980–2006

Year	GDP per capita				GNP per capita			
	In US\$	Growth rate (%)	In constant prices (1987)	Growth rate (%)	In US\$	Growth rate (%)	In constant prices (1987)	Growth rate (%)
1980	1 518	-18.4	1 131 824	-4.4	1 539	-18.0	1 144 739	-4.8
1985	1 320	10.5	1 267 764	1.7	1 330	10.4	1 271 997	1.7
1990	2 655	37.3	1 487 082	6.7	2 682	36.9	1 505 110	6.8
1995	2 727	25.5	1 587 953	5.3	2 759	26.3	1 606 454	6.1
2000	2 941	3.3	1 760 856	2.4	2 965	3.0	1 766 124	1.4
2005	5 016	19.8	2 036 782	7.0	5 008	20.0	2 021 100	7.2
2006	5 482	9.3	2 134 082	4.8	5 477	9.4	2 115 037	4.6

Source: Turkish Statistical Institute (7).

Even though Turkey experienced high inflation in the 1990s, it was brought down from three-digit to single-digit numbers. In September 2008, the inflation rate was 11.2%.

The unemployment rate was 10.2% in 2008: 11.5% in urban areas and about 9% in rural areas.

## History and structure of the health system and health expenditure

### *Development of political commitment to health*

Health services are mainly provided by the Ministry of Health. Law No. 3 of 3 May 1920 established the Ministry of Health, with a focus mostly on recovering from the damage of the war and developing legislation. From the foundation of the Republic until 1937, the health services showed a significant development. According to the records, in 1923 health services were provided by the government, municipality and quarantine centres, small sanitary offices and 86 inpatient treatment institutions with 6437 hospital beds, 554 physicians, 69 pharmacists, 4 nurses, 560 health officers and 196 midwives. By 2005, these numbers had increased greatly to about 150 000 physicians, 81 106 dentists, 90 000 nurses, 53 313 health officers and 43 065 midwives. Bed capacity was 165 000 in 2007 and there were 1250 hospitals.

Law No. 224 on the Socialization of the Health Services, which is still the basis of the working system of the Ministry of Health, was adopted in 1961. This process began in 1963 and was widespread by 1983. A widespread, continuous, integrated and graduated approach ensured the establishment of a structure of health posts, health centres and provincial and district hospitals. The Ministry of Health was one of the first ministries of health in the world to give priority to primary prevention (protection of health) rather than the treatment of diseases.

The 1982 Constitution included provisions on the social security rights of all citizens and the responsibility of the State for realization of these rights. According to Article 60, “everyone has the right to social security and the State shall take the necessary measures and establish the necessary organization to provide this security”. Additionally, according to Article 56, “to ensure that everyone leads their lives in good condition of physical and mental health and to secure cooperation in terms of human and material resources through economy and increased productivity, the State shall regulate central planning and functioning of the health services”. The State shall fulfil this task by using and supervising the health care and social institutions, in both

public and private sectors. The Article also includes the provision “in order to establish widespread health services, general health insurance may be introduced by law.”

The Basic Law on Health Services was adopted in 1987. However, because the necessary regulation for the execution of this Law was not made and some of its articles were repealed by the Constitutional Court, the Law has not been put into effect and remains a statement of good intentions.

In 1990, the State Planning Organization and the Ministry of Health prepared a basic plan on the health sector. This Master Plan Study on the Health Sector could be said to mark the beginning of the reform of the sector.

The main components of the health reform conducted in the 1990s were:

- the establishment of a general health insurance system by gathering all social security institutions under one umbrella;
- the development of the primary health care services in the framework of the family medicine system;
- the transformation of the hospitals into autonomous health facilities;
- the provision of a structure for the Ministry of Health, which plans and supervises the health services and gives priority to preventive health services.

Immediately after the elections on 3 November 2002, the basic objectives to be conducted under the title Health for Everyone were laid down in the Rapid Action Plan. This was promulgated on 16 November 2002 with the following key objectives:

- to restructure the administration and functioning of the Ministry of Health;
- to cover the whole population by the general health insurance;
- to gather all health institutions under one umbrella;
- to provide hospitals with an administratively and financially autonomous structure;
- to start the implementation of family medicine;
- to give special importance to mother and child health care;
- to generalize preventive medicine;
- to encourage the private sector to invest in the field of health;
- to transform the authorities in the lower echelons in all public institutions;
- to ensure adequate health staffing in the areas given priority for development.

The Ministry of Health is the only body responsible for collecting and publishing information on health services and health systems. Data collection is carried out by provincial health directorates: all health care providers at all levels (both governmental and private) are required to provide routine and continuous medical information to the Ministry for a selected group of communicable and noncommunicable diseases, to be used for preventive services in various settings. These are published by the Ministry as periodic annual reports.

Health promotion activities are predominantly carried out by Ministry of Health personnel. One such activity is the Ministry's declaration every year on 31 May about the harm in using tobacco and the importance of stopping smoking. The Quit and Win Campaigns have been organized by the Ministry on a bi-annual basis. Almost 200 000 people participated in the last two campaigns. As well as these specific tobacco control activities, the Ministry carries out health promotion programmes every year in the first week of September, which is designated "public health week". Every year a different theme is chosen. The 2008 theme was on healthy lifestyles, specifically exercise, but some health messages relevant to tobacco use were also publicized.

### ***Structure of the health system***

The Ministry of Health has seven deputy under-secretaries, responsible for the management, monitoring and improvement of different health topics.

The General Directorate of Primary Health Care Services is responsible for almost 6000 primary health care centres throughout the country, which serve as the first points of contact for individuals with the medical service. These health centres dispense both preventive and curative health services, with the emphasis on primary prevention. Health centres usually have two to four health stations staffed by a nurse or midwife under them. The health centres are staffed by at least one (usually more) physician and several nurses, midwives and health technicians. Some of the health centres, particularly in remote areas, have a car or an ambulance. Tobacco control activities are led by a special unit in the General Directorate of Primary Health Care Services (Fig. 2).

The General Directorate of Curative Services provides secondary health services at 1250 hospitals in provincial and district centres. Some of the hospitals in the cities are large institutions and serve as tertiary care units, as do the university and specialty hospitals. Additional health care services are provided by training hospitals attached to medical schools in more than 70 universities and as part of the military forces.

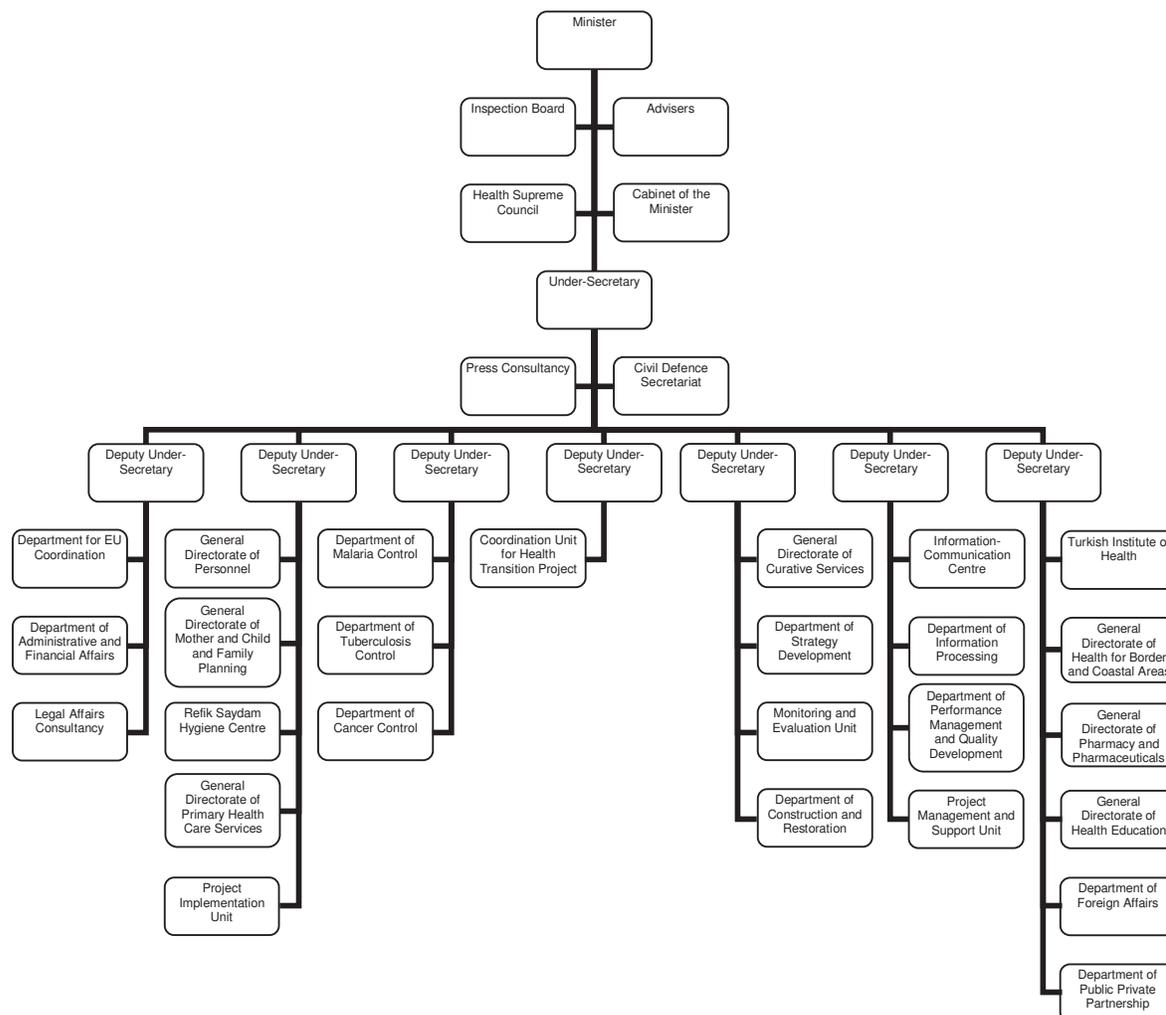
The Ministry of Health operates an extensive network of health facilities providing primary, secondary and specialized in- and outpatient care. University hospitals also provide in- and outpatient care. Public sector health facilities are complemented by a much smaller network of private facilities, providing both in- and outpatient care.

### ***Financing of health expenditure***

Public health expenditure is covered by the Ministry of Health, the Ministry's General Directorate of Health for Border and Coastal Areas, other ministries, civil organizations, social security organizations such as Emekli Sandığı, SSK and Bağ Kur which have recently united under the umbrella of the Social Security Agency, municipalities and public economic enterprises.

Private expenditure is mainly that paid by individuals (out of pocket) and payments made to private health insurance companies by individuals and/or companies. It is important to note that out-of-pocket expenditure constitutes about 20% of all health expenditure. According to a World Bank report in 2001 (8), 40% of individuals with Bağ Kur, 17% of those with SSK and 10% of those with Emekli Sandığı-type health insurance, as well as 30% of those with no health insurance, also received medical services from the private health sector.

Fig. 2. Organizational structure of the Ministry of Health, Turkey, 2008



Source: Ministry of Health (9).

Table 4 presents the distribution of public health expenditure for 1996–2000, based on the World Bank report (8). Public expenditure constitutes 82.6% of total health expenditure while private expenditure on health makes up the remaining 17.4%. Annually, Turkey spends about 135 million TL (US\$ 112) per person on health (8). General government expenditure on health as a percentage of general government expenditure was 14.2% in 2004, and total expenditure on health as a percentage of GDP was 7.6% in 2005 (10).

Table 4. Distribution of health expenditure, Turkey, 1996–2000

	1996	1997	1998	1999	2000
Total public health expenditure (billion TL)	321.9	731.1	1479.7	2567.4	4359.1
Estimated total private health expenditure (billion TL)	80.5	182.8	369.9	641.8	1089.8
Total health expenditure (billion TL)	402.4	913.9	1849.6	3209.2	5448.9
Population (thousands)	61 528	62 455	63 391	64 337	67 800
Health expenditure in GDP (%)	2.69	3.11	3.45	4.10	4.38

## Conclusions

1. In 2007 the population was 70 586 256, of whom about 26% were aged under 15 years. About 70% of the population lived in urban areas and the literacy rate was 87.4%. The crude birth rate was 18.4/1000, the crude death rate was 6.3/1000 and the infant mortality rate was 21.7/1000. Life expectancy is increasing (69.3 years for males and 74.2 years for females).
2. Turkey is among the upper-middle-income countries, according to World Bank classifications, with a GDP per capita of US\$ 7000 in 2007. Income distribution is unequal: in 2005, the share of the lowest quintile was 6.1% versus 44.4% for the highest quintile. In 2008, the unemployment rate was 10.2%, higher in rural (11.5%) than urban settings (about 9%).
3. The Ministry of Health was established in 1920 and provides health services based on Law No. 224 of 1961. It operates an extensive network of health facilities providing primary, secondary and specialized in- and outpatient care, prioritizing preventive services over treatment, particularly at primary care level. In 2005, total expenditure on health as a percentage of GDP was 7.6%, 82.6% of which was public expenditure. Annually, Turkey spends about 135 million TL (US\$ 112) per person on health (2001). The health system has recently been modified towards family physicians serving in primary care and an increase in the involvement of the private sector in all medical care services.

## Health status of the population

### General health statistics

The most recently published results of the Demographic and Health Survey are based on information from 2003. Data from the 2000 census showed that out of a population of 67 803 827 that year, 46.27% were aged under 15 years and 8.83% were aged 65 years or above, and 64.9% of the population lived in urban areas. In 2004, health expectancy was 66.6 years for males and 71.2 years for females. In 2003, the total fertility rate was 2.2 (ranging between 1.9 and 3.7 per region), the crude birth rate was 19.7 per 1000, the general fertility rate was 79.0 per 1000, and the total abortion rate was 21.3 per 100 pregnancies. In 2003, health personnel were present at 90.3% of all deliveries in urban areas and 68.9% in rural areas. In 2004, routine full-dose vaccine coverage for babies was reported as 79% for Bacillus Calmette-Guérin, 85% for diphtheria-tetanus-pertussis/oral polio, 77% for hepatitis B and 81% for measles, despite variations in vaccination rates according to region and educational attainment of the parents. In 2003, mortality rates per 1000 children were 15 neonates, 8 post-neonates, 23 infants and 30 children aged under 5 years in urban areas; the corresponding figures for rural areas were 21, 18, 39 and 50, respectively. The standardized maternal mortality rate was reported as 70 per 100 000 live births for 2000.

In 2003, the top 10 causes of mortality at all ages were: cardiovascular diseases (48.3%), cancer (12.9%), undefined conditions (9.7%), perinatal mortality (3.5%), infections (3.0%), injuries (2.2%), congenital anomalies (1.5%), endocrinological diseases (1.3%), gastrointestinal diseases (1.2%) and suicides (1.0%).

Ministry of Health records for 2000–2004 show that of all the infectious diseases required to be reported by the primary care units, morbidity rates per 100 000 for typhoid fever (34.48), brucellosis (21.90), measles (19.91), hepatitis A (13.65) and hepatitis B (7.88) were remarkably high. The incidence of tuberculosis was 25.22 per 100 000 in 2003.

The Ministry of Health *Health manpower statistics* for 2003 (11) give the following average numbers of individuals per health professional: 1331 per general practitioner, 1571 per specialized physician, 4010 per dentist, 3074 per pharmacist, 1391 per health technician, 868 per nurse and 1653 per midwife, but these figures vary across geographic regions and between urban and rural areas.

In 2002, there were 5936 health centres, 11 740 health houses, 668 public hospitals, 40 district outpatient clinics, 299 maternal and child clinics and 272 tuberculosis dispensaries.

## **Government health services and health promotion**

As detailed in the first section, primary health care centres serve throughout the country as initial contact points for both preventive and curative services. The Ministry of Health also provides secondary and tertiary care, with additional services of this type provided by university and specialty hospitals and also by the private sector. After 2003, the Ministry of Health reorganized all public primary care units and hospitals under a single umbrella.

In 2005, a start was made on introducing the family physician system into the health care system. By the end of 2008, health centres had been transformed into family physician clinics in about one third of all the provinces.

## **Mortality and morbidity data**

### ***Mortality data***

The causes of death are compiled and published annually by the Institute of Statistics, but only for deaths occurring in provincial and district centres (urban settlements), which corresponds to about two thirds (68%) of the total population. As well as the limitations on the generalizability of death certificates, the completion rates and quality of death certificates also vary significantly. Physicians completing the form often identify the cause of death on the basis of reports from relatives or neighbours, who are often unaware of the medical situation of the deceased. Almost one third of death certificates report the cause of death as “unidentifiable”, and “cardiovascular reasons” are almost invariably given as the cause of death for individuals aged over 65 years. Thus, it is important to use caution in interpretation of surveillance-based mortality statistics. In 2005, the total number of deaths reported from provincial and district centres was 197 520 (110 253 males and 87 267 females). Deaths mostly occurred among infants (11.1%) and those aged 55 years and over (72.7%) (Table 5).

The two leading causes of death at all ages are known to be cardiovascular diseases and malignancies. In 2005, cardiovascular diseases caused 45.9% of all deaths (Table 6). Almost one in seven deaths (14.5%, 17.2% in males, and 11.2% in females) was caused by malignant diseases, including leukaemias and lymphomas (Table 7).

Table 5. Number of deaths by age and sex, Turkey, 2005

Age groups (years)	Male	Female	Total
0	12 596	9 412	22 008
1–4	1 213	1 036	2 249
5–14	1 185	907	2 092
15–34	5 171	2 776	7 947
35–54	16 781	8 176	24 957
55–74	46 492	29 256	75 748
75+	29 840	38 036	67 876
Unknown	3 273	2 374	5 647
Total	110 253	87 267	197 520

Table 6. Number of heart-related diseases as cause of death, Turkey, 2005

Disease	Male	Female	Total
Acute rheumatic fever	8	3	11
Chronic rheumatic heart disease	65	52	127
Ischaemic heart disease	6 815	3 404	10 219
Other heart diseases	33 317	30 768	64 085
Cerebrovascular diseases	7 879	8 397	16 276
All cardiovascular diseases	48 084	42 624	90 718

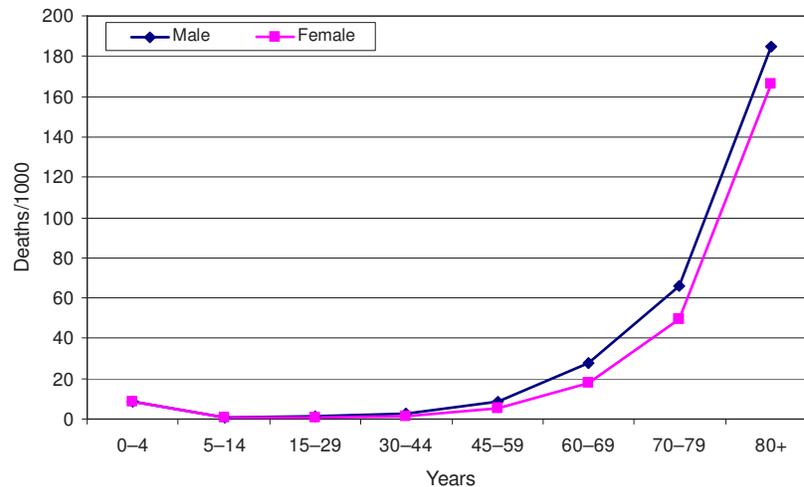
Table 7. Number of cancers as cause of death, Turkey, 2005

Type of cancer	Male	Female	Total
Mouth and pharynx	132	66	198
Esophagus	90	67	157
Stomach	1 805	1 014	2 819
Colon	1 007	815	1 822
Rectum	268	240	508
Larynx	293	35	328
Lung	8 289	1 572	9 861
Bone	109	71	180
Skin	97	39	156
Breast	48	1 615	1 663
Cervix	–	105	105
Endometrial	–	238	238
Prostate	1 306	–	1 306
All other cancers	4 407	3 127	7 534
Leukaemia	845	589	1 434
Lymphoma	229	49	378
All malignant diseases	18 925	9 762	28 687

Given the limitations of routine mortality surveillance in Turkey, there have been some efforts to gather some national mortality estimates through cross-sectional surveys. In 2002–2004, a National Burden of Disease Study was conducted, covering 12 000 households. During this study, a verbal autopsy survey was also carried out at 60 000 households to obtain more reliable data on causes of death. According to the results of this survey (based on self-reports), the crude death rate was 6.3 per 1000 (6.8 for males and 5.9 for females). The death rate per 1000 for the group aged 0–4 years was 8.9 for males and 8.5 females, rising to 184.7 for males and 166.4 for females in the group aged 80 years and over (Fig. 3). Communicable diseases caused the majority of deaths in the group aged 0–4 years, whereas the proportion of noncommunicable

diseases showed a marked increase according to age, rising to more than 90% of deaths in the group aged 80 years and over. The leading causes of deaths for males were: cardiovascular diseases (43%), cancers (15%), respiratory diseases (9%), accidents (8%) and perinatal causes (6%). The most common causes of death for females were very similar: cardiovascular diseases (52%), cancers (11%), respiratory diseases (6%), perinatal causes (6%) and accidents (4%).

Fig. 3. Death rates by age and sex, Turkey, 2004



### ***Morbidity data***

National morbidity data tend to be scarce and are mainly based on routine notifications by the primary health centres of some reportable diseases to the Ministry of Health on a periodic basis (usually monthly), and those gathered by the cancer registry, hospital admissions and so on. The rate, coverage and quality of such reporting can significantly affect the generalizability of results and analyses of trends.

Some morbidity data, based on self reports, are also provided by national and large-scale surveys such as the National Burden of Disease Study conducted by the Ministry of Health and some implementing universities and agencies, the demographic and health survey conducted every five years by Hacettepe University (the last was in 2008), and the national health survey, most recently conducted by the Turkish Institute of Statistics in 2008.

### **Conclusions**

1. In 2004, health expectancy was 66.6 for males and 71.2 years for females. In 2003, total fertility rate was 2.2 (ranging between 1.9 and 3.7 according to region), the crude birth rate was 19.7 per 1000, the general fertility rate was 79.0 per 1000, and the total abortion rate was 21.3 per 100 pregnancies.
2. Health services are mainly provided by the Ministry of Health. In 2002, there were 5936 health centres, 11 740 health houses, 668 public hospitals, 40 district outpatient clinics, 299 maternal and child clinics and 272 tuberculosis dispensaries.

3. Based on vital statistics, in 2003, the top 10 causes of mortality at all ages were diseases of the cardiovascular system (48.3%), cancer (12.9%), undefined conditions (9.7%), perinatal mortality (3.5%), infections (3.0%), injuries (2.2%), congenital anomalies (1.5%), endocrinological diseases (1.3%), gastrointestinal diseases (1.2%) and suicides (1.0%).
4. The National Burden of Disease Survey conducted in 2002–2004 showed the crude death rate as 6.3 per 1000 (6.8 for males and 5.9 for females). The leading causes of death for males were: cardiovascular diseases (43%), cancers (15%), respiratory diseases (9%), accidents (8%) and perinatal causes (6%). The most common causes of death for females were very similar: cardiovascular diseases (52%), cancers (11%), respiratory diseases (6%), perinatal causes (6%) and accidents (4%).
5. Routine morbidity and mortality surveillance is not comprehensive and is mostly supported by surveys or academic research studies, with limited generalizability of the results to the whole country. There is a need to improve the coverage and quality of such routine surveillance activities.

## **Tobacco sector: smoking and related health status of the population**

### **Tobacco sales and consumption**

#### ***Tobacco production***

The first regulation supporting the state purchase of tobacco was introduced with the Turkish National Security Law, which came into force in 1940. The body responsible for purchasing the entire output of the producers on behalf of the government was Tekel. In 2002, however, this practice was abandoned, and in its place a system of production on contract was introduced and the market was wholly liberalized.

As long as the state purchased the entire tobacco output, production was organized on the basis of social policies or political concerns regardless of the supply–demand equilibrium. Production was unlimited and the prices were satisfactory (especially in specific periods for political reasons), so the producers saw no need to move towards alternative agricultural products. Thus, they lost, or failed to develop, the ability to engage in different agricultural activities that might provide a sustainable income. Neither did the state provide any special support for producers to change to other products or economic activities.

In Turkey, oriental-type tobacco production is a labour-intensive family-based activity. Fields are sloping or slightly sloping and average approximately 0.7 ha. In 2001, the total area used for agriculture was 26 million ha; by 2007, 145 000 ha were under tobacco. In other words, 0.6% of the overall agricultural land was used for tobacco production.

There is a wide diversity in production, encompassing tobacco from 22 different sources. This diversification stimulates demand and the creation of new cigarette blends. In this process, however, differences between regional income levels have resulted in production imbalances between the different types of tobacco: tobacco production in developed regions has been almost eliminated, whereas it has significantly increased in less developed regions.

Although a quota system was introduced into tobacco production in 1994 with the aim of sustaining the supply–demand equilibrium, it did not work as for political reasons the state continued to buy up output exceeding the quota. At the same time, as a result of the stricter practices applied in 2001, production fell by 27%.

When the contract production system took effect in 2002, both the amount of output bought by Tekel and the total quantity produced fell. Table 8 indicates that during the 10-year period between 1998 and 2007, both total output and the number of producers fell by approximately 70% and the land used for tobacco production diminished by 50%. Another factor resulting in the reduction in tobacco production in 2003, 2006 and 2007 was the exceptionally hot weather and drought. On the other hand, the 80 million kg of output anticipated for 2007 was far below the annual need for oriental tobacco in Turkey, which stands at 145 million kg.

Table 8. Tobacco production, Turkey, 1998–2007

Year	No. of producers (1000)	Production area (1000 ha)	Output (1000 tonnes)
1998	622	278	202
1999	568	270	244
2000	583	237	204
2001	478	199	150
2002	405	199	160
2003	318	184	112
2004	282	193	134
2005	252	185	135
2006	215	146	98
2007 (estimated)	207	145	80

Source: Tobacco and Alcohol Market Regulatory Authority (12).

### ***Tobacco exports***

Turkey is the world's leading producer and exporter of oriental-type tobacco. Until recently, when the proportion of income earned by tobacco exports in total export income fell rapidly due to the rise in the export of industrial products, tobacco was one of the most important export goods. It is still, however, an important agricultural export: between 1998 and 2007, tobacco exports totalled almost 112 million kg, worth US\$ 410 million (Table 9).

Table 9. Tobacco exports, Turkey, 1998–2007

Year	Quantity (1000 tonnes)	Value (million US\$)
1998	129	507
1999	115	470
2000	100	373
2001	96	340
2002	89	280
2003	112	330
2004	107	388
2005	135	476
2006	128	497
2007	114	450

Source: Tobacco and Alcohol Market Regulatory Authority (12).

### ***Tobacco imports***

In 1988, Virginia and Burley-type tobaccos were introduced into cigarette blends in Turkey. Since then, consumption of both blended cigarettes and of those produced wholly with oriental tobacco has shown a negative trend. Meanwhile, tobacco imports rose from 610 tonnes in 1988 to approximately 67 000 tonnes in 2007 (Table 10).

Table 10. Tobacco imports, Turkey, 1998–2007

<b>Year</b>	<b>Quantity (1000 tonnes)</b>	<b>Value (million US\$)</b>
1998	42	256
1999	49	248
2000	62	308
2001	50	243
2002	56	215
2003	55	200
2004	57	221
2005	67	272
2006	67	253
2007	67	281

Source: Tobacco and Alcohol Market Regulatory Authority (12).

The production of Virginia and Burley-type tobaccos accounts for approximately 4% of overall tobacco production in Turkey. The cigarette blends are composed of approximately 13–15% oriental-type and 85–87% American blend-type tobaccos. Thus, output is a long way from meeting the demand for the Virginia and Burley-type tobaccos used in blends.

Based on 2007 figures, Turkey ranks seventh in world production of tobacco, supplying 1.7% of world demand. Possible future changes in taste for cigarettes (for example, in favour of American blends) in big and new markets such as China will lead to a rise in world demand for oriental-type tobacco, of which Turkey is the top producer and exporter (Table 11).

Table 11. World oriental tobacco production, 2003–2007 (1000 tonnes)

<b>Country</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007 (estimated)</b>
Turkey	112	133	135	98	80
Commonwealth of Independent States	66	62	57	51	50
Greece	58	57	54	22	20
Bulgaria	29	34	36	17	18
The former Yugoslav Republic of Macedonia	20	20	24	23	17
Italy	5	2	1	0	0
Thailand	6	5	6	6	6
Others	49	47	47	51	50
<b>Total</b>	<b>340</b>	<b>351</b>	<b>353</b>	<b>269</b>	<b>246</b>

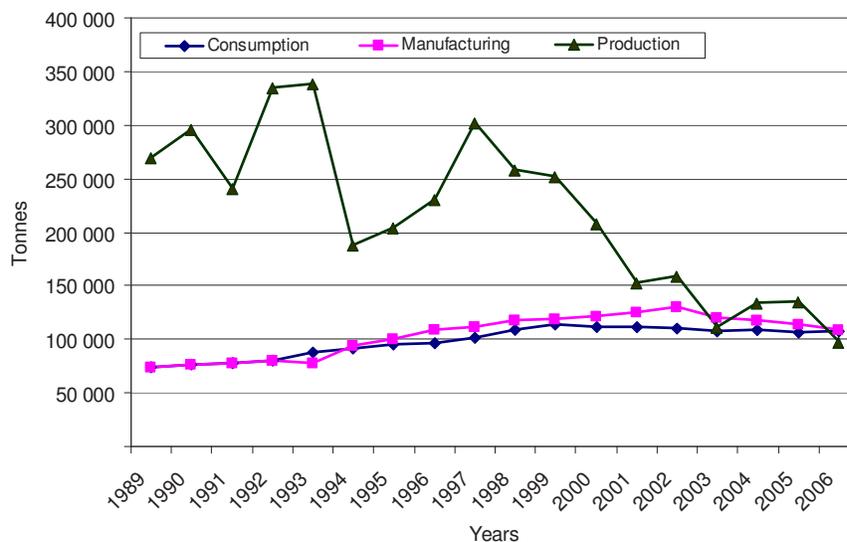
Source: Tobacco and Alcohol Market Regulatory Authority (12); Universal Corporation (13).

World oriental-type tobacco production fell by approximately 23% between 2003 and 2007. It is arguable that this reduction is the result of a common reform of tobacco market regulation introduced in 2004 and a liberalizing tendency in tobacco policies in EU countries and Turkey.

## ***Tobacco consumption***

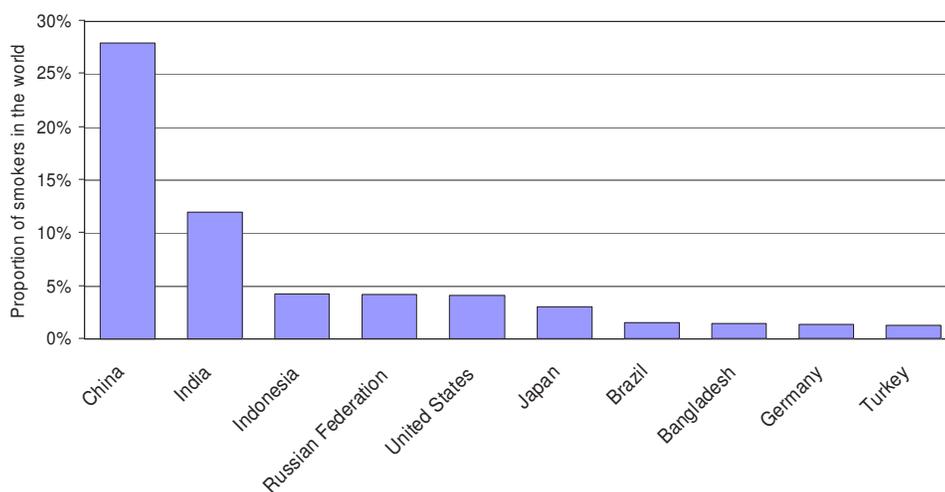
Although the total amount of tobacco produced has shown a decreasing trend over the last 15 to 20 years, Turkey still provides some 2% of total world production. During the 1980s, around 300 000 tonnes of tobacco were produced annually, but in the early 1990s this gradually decreased until it reached about 98 000 tons in 2006 (Fig. 4).

Fig. 4. Tobacco production, consumption and manufacturing, Turkey, 1989–2006



The high rates of tobacco production have gone hand-in-hand with even higher consumption rates. Turkey is among the top 10 tobacco-consuming countries in the world (Fig. 5): in 2001, the country consumed 2% of tobacco worldwide and 14% in the WHO European Region.

Fig. 5. Top 10 tobacco-consuming countries in the world, 2008



Source: WHO report on the global tobacco epidemic, 2008. The MPOWER package (3).

Cigarettes are the most common form of tobacco product in Turkey. In 2006, 108.7 billion cigarettes were produced and 107.9 billion consumed. In 2005, more than half the tobacco products consumed were cigarettes (Table 12). Excluding water pipes and loose tobacco, consumption of cigars and pipe tobacco constituted only 2.5% of total tobacco product use.

Table 12. Consumption of tobacco products, Turkey, 2002–2007 (million sticks/tonne)

Product	2002	2003	2004	2005	2006	2007
Cigarette	110 100	108 200	108 900	106 700	107 900	107 500
Cigar	2.0	1.2	1.0	0.8	1.5	2.9
Pipe	4.0	4.1	3.0	2.0	1.2	1.2
Water pipe tobacco (natural)	64.0	33.2	42.0	33.2	21	18.4
Water pipe tobacco (aromatized)	–	–	–	42.7	0	0.5

## Prevalence of smoking

### *Adult smoking*

Tobacco use is quite common in Turkey. One of the first nationwide figures, based on a representative sample of adults aged 15 years and over in 1988, revealed that adult smoking prevalence was 44% (63% in males and 24% in females). Following this survey, several studies were made of various interest groups. In 1995, a survey carried out in Ankara targeting some specific role-model groups found that 50.8% of teachers, 43.9% of physicians and 34.9% of sportsmen smoked. In 1996 and 1999, two countrywide surveys were carried out covering a total of 12 500 people from different occupational groups. These studies showed that smoking prevalence ranged between 24.8% and 74.3% in the various groups. The lowest figures related to religious leaders (imams) and the highest to drivers. Where it was possible to distinguish between the genders, prevalence was higher among males (Table 13).

Table 13. Smoking prevalence among selected groups of adults, Turkey, 1996 and 1999

Occupation	Gender	Age (years)	Year	No. of participants	Prevalence (%)
Teacher	Male + female	35.1±7.9	1999	1039	48.6
Policeman	Male	31.2±7.3	1999	716	64.7
Driver	Male	36.9±9.1	1999	338	74.3
Religious leader	Male	38.6±10.0	1999	279	24.8
Physician	Male + female	39.0±7.8	1999	1127	43.1
Journalist	Male	30.9±7.6	1996	108	63.9
Artist	Male + female	37.7±10.5	1996	130	46.2
Parliamentarian	Male	47.2±8.5	1996	59	27.1
Sportsman	Male	23.7±5.4	1996	146	34.9

The National Household Survey of 2003 revealed that 33.8% of adults (aged 18 years and over) smoked daily, significantly more men (52.9%) than women (19.5%) (Table 14). Smoking was slightly more common among those living in urban areas (35.61%) than in rural areas (31.2%). Men smoked more cigarettes daily (19.4) than women (12.2). The average age of starting to smoke was 19 years. The study indicated that 52.4% of the respondents were exposed to

secondhand smoke, generally from their spouses (25.4%). According to a study by the General Directorate of Family Research Organization and the Turkish Statistical Institution in 2006, 33.4% of adults aged 18 years and over smoked daily, significantly more men (50.6%) than women (16.6%) (Table 14).

Table 14. Tobacco use among adults (aged 18+ years)

Year	Males	Females	Total
1993 <sup>a</sup>	57.8	13.5	33.6
2003 <sup>b</sup>	52.9	19.5	33.8
2006 <sup>c</sup>	50.6	16.6	33.4

Sources:

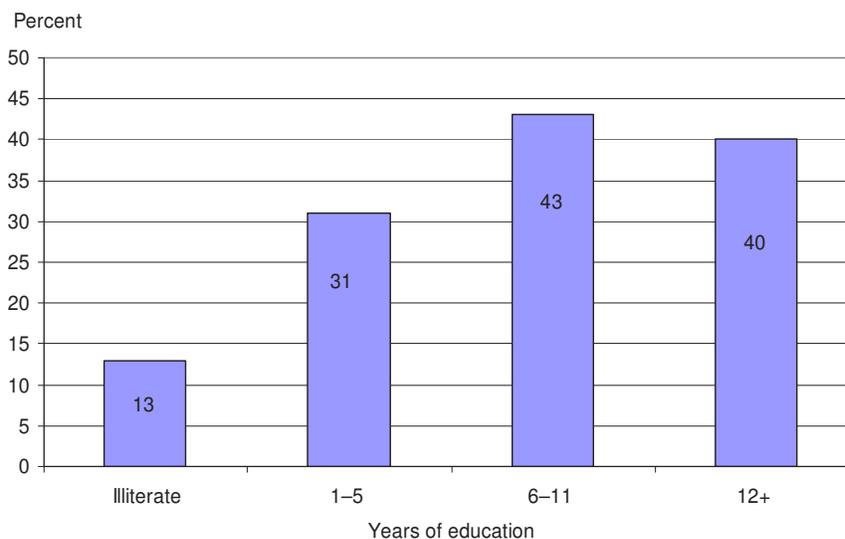
<sup>a</sup> 1993 Health Services Utilization Survey in Turkey (14).

<sup>b</sup> 2003 National Burden of Disease and Cost-Effectiveness Study (15).

<sup>c</sup> Turkish Statistical Institute (16).

An interesting finding regarding smoking behaviour in Turkey is its relation to educational attainment. In contrast to most developed countries, smoking is more prevalent among educated groups. Nearly half (43%) of secondary school graduates smoke, whereas only 13% of illiterate people smoke (Fig. 6).

Fig. 6. Smoking prevalence in adults by level of education, Turkey, 2003



In addition to high tobacco consumption among adults, a significant number of smokers show addictive behaviour. A considerable number smoke their first cigarette before breakfast, and one in ten are chain-smokers (Figs. 7, 8).

Fig. 7. Percentage of smokers lighting their first cigarette before breakfast

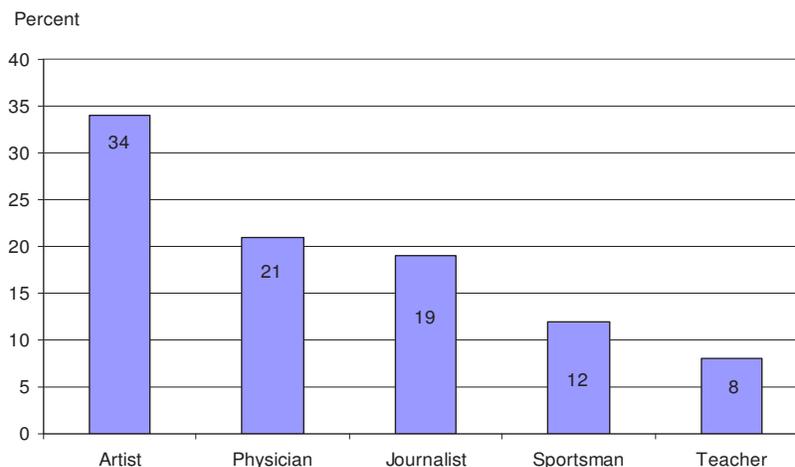
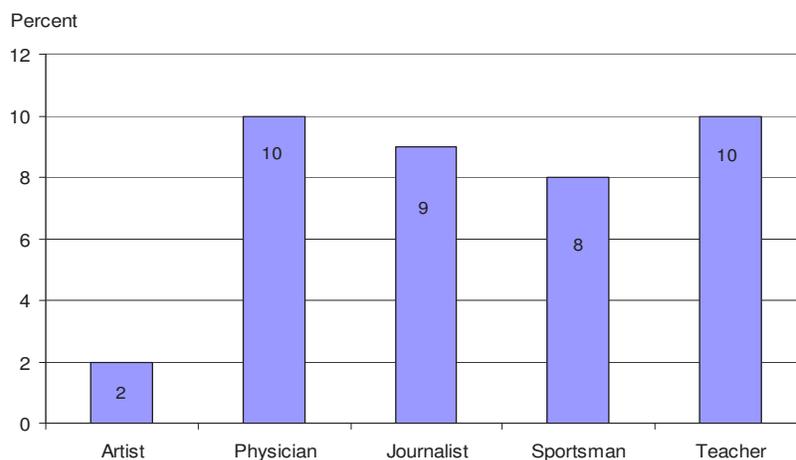


Fig. 8. Percentage of smokers who chain-smoke



### Health professionals

Taking into consideration the utmost importance of non-smoking behaviour among health professionals, some tobacco prevalence studies have been carried out in this group. These studies showed that smoking prevalence among medical professionals is quite similar to that in the general population. A relatively early study in this field (1998) showed that almost half the physicians (41–50%) and nurses/midwives (50.8%), and more than half the health technicians (54.2%) and dentists (68.2%) smoked. Among all health professionals, females smoke slightly less (34.4%) than their male counterparts (47.8%) (Table 15).

In a recent study, Marakoğlu et al. (17) studied the frequency of smoking among physicians working in the Faculty of Medicine of Meram University in Selçuk (n=500). Some 28.7% had smoked at some time in their lives (females 13.4% and males 35.6%), 9.9% were former smokers, and 61.4% had never smoked. The mean age at starting smoking was 21.7±4.9 years. The rate of smoking in the family (p=0.003) and among close friends (p<0.001) among smokers was higher than among non-smokers.

Table 15. Smoking prevalence among health personnel, Turkey, 1993–2000

Year	Place	Occupation, gender and age	No. of participants	Prevalence (%)
1993	Elazığ	Nurse and midwife, female	656	50.8 (8.1% smoke 20+ cigarettes a day)
1995	Ankara	Physician, male + female, 36.3±9.1	237	43.9
1997	Elazığ	Health professional	392	Physicians: 50.0 Nurses: 47.0 Technicians: 54.2
1988	Elazığ	Physician + dentist, male + female	Physicians: 209 Dentists: 44	Physicians: 49.3 Dentists: 68.2
1998	17 provinces	Physician, male + female, 36.1±7.8	985	41.1
1999	17 provinces	Physician, male + female, 36.0±7.8	1127	43.1
2000	Sivas	Physician	845	Males: 47.4 Females: 33.3

In 2008, a collaborative study made by WHO, the US Centers for Disease Control and Prevention (CDC), the Ministry of Health and the Turkish Society of Public Health Specialists examined the frequency of smoking among health professionals working at health care institutions of the Ministry of Health (18). Based on a representative sample of 4761 health professionals, current smoking prevalence was found to be 39.4% among general practitioners, 30.9% among specialists, 40.7% among nurses and midwives and 43.4% among health technicians.

### Teachers

Teachers have been a major focus of tobacco control activities, given their role in teaching schoolchildren about the hazards of smoking as well as their position as role models for their students. Several studies have, therefore, been conducted on the use of tobacco products by teachers. Contrary to expectations, smoking rates are remarkably high among teachers (Table 16).

Table 16. Smoking prevalence among teachers, Turkey, 1986–1999 (%)

Category of teacher	Province	Year	Males	Females
Primary and secondary school teachers	Tokat	1986	53.6	29.2
Secondary and high school teachers	Edirne	1989	62.4	33.8
Primary school teachers	İzmir	1991	46.3	53.5
Primary school teachers	Eskişehir	1993	67.9	48.7
Primary and secondary school teachers	İzmir	1994	67.1	45.9
Teachers	Turkey	1999	52.1	44.3

Source: Soydal T, Ergüder T (19).

### ***Tobacco-smoking among children and adolescents***

Adolescence is a vulnerable period for starting to smoke, thus adolescents are a major target group for the tobacco industry. A number of studies have been made of smoking behaviour among adolescents. Most have been carried out at schools, among students in the 7th (13–15 years) and 10th classes (15–19 years). Smoking prevalence was found to be 0.9–9.1% for students in the 7th class and 15.9–41.2% for students in the 10th class (20,21) The wide variation in smoking rates, particularly among high school students, could be at least partially explained

by differences in data collection practices and/or the definitions/indices used. Nevertheless, smoking is quite common among adolescents and the peer effect in starting to smoke is of crucial importance in this age group.

In 2006, Akpınar and colleagues (22) investigated smoking prevalence and its determinants among fourth- and fifth-year students at Cukurova University in Southern Turkey. Among the 2200 participants in the study, smoking prevalence was quite high and increased with age (ranging from 26.6% to 43.7%). The smoking behaviour of best friends was the most powerful determinant for smoking consistently across age groups. Best friends' attitudes towards smoking and family members' smoking behaviour were also important determinants for smoking.

Two nationwide studies were conducted among adolescents in 2003 and 2004. The first covered 6012 schoolchildren aged 13–17 years in 15 cities throughout the country and found smoking prevalence to be 13.3%. The second, the Global Youth Tobacco Survey (GYTS), reached about 16 000 students aged 13–16 years and found that 22.3% of girls and 33.1% of boys had smoked at some time in their lives, with 5.0% and 9.1%, respectively, being current smokers at the time of the interview (23,24). Various small-scale cross-sectional studies conducted among youngsters of different ages and regions have indicated that the smoking prevalence rates among those who had ever smoked ranged from 0.7% to 21.1% among girls and from 1.1% to 52.4% among boys (Table 17).

Table 17. Smoking prevalence among high school and university students

Year	Place	Participants (age in years)	No. of participants	Prevalence (%)		
1997	Schools in 17 provinces	13–15 (7th class) <sup>a</sup>	1 455	2.1		
1999	Schools in 17 provinces	13–15 (7th class)	1 672	0.9		
1997	Schools in 17 provinces	15–17 (10th class)	1 318	16.3		
1999	Schools in 17 provinces	15–17 (10th class)	1 466	14.8		
2000	Hacettepe University, Faculty of Literature	Classes 1–4 <sup>b</sup>	1st year	143	1st year	29.4
			2nd year	147	2nd year	35.4
			3rd year	131	3rd year	46.8
			4th year	200	4th year	58.0
2003	Schools (GYTS)	13–15	15 957	Males: 9.1 Females: 5.0		
2004	Schools in 15 cities	13–17 <sup>c</sup>	6 012	13.3		
2005	Hacettepe University, Medical school	University students (1st and 3rd year)	2 588	25.7		
2006	Hacettepe University, Faculty of Medicine	Classes 1–5 <sup>d</sup>	1st year	98	1st year	10.2
			2nd year	129	2nd year	7.8
			3rd year	112	3rd year	8.9
			4th year	106	4th year	10.4
			5th year	135	5th year	10.4

Sources:

<sup>a</sup> Bilir N, Güçüz B, Yıldız AN (21).

<sup>b</sup> Aslan D, Şengelen M, Bilir N (25).

<sup>c</sup> Erbaydar T et al. (26).

<sup>d</sup> Tahir E, Bilir N, Aslan A (27).

Some studies have also been conducted among university students, including medical school students. Smoking prevalence among university students varied between 7.8% (in 2006) and 58.0% (in 2000) (Table 17); it was much lower among students in the first grades and rose as

they got older. A 2006 survey in Hacettepe University Faculty of Medicine in Ankara showed that smoking prevalence among the students did not show a significant difference by grade. About four years ago, five hours of tobacco-control courses were inserted into the medical curricula of grades I and III. The first year's programme aims to increase medical students' awareness of the topic of tobacco; during the third year, the additional five hours are used to develop an anti-tobacco attitude. More informally, a group of students formed a "Smoke-free Hacettepe Group" to attempt to control tobacco use, particularly in the medical school. Thus, relatively similar prevalence rates across grades in the medical school could be attributable to a curriculum integrating tobacco control activities and the presence of an effective antismoking group.

As in the adult population, cigarettes are the most commonly used tobacco product among young people. Recently, the water-pipe (*narghile*), an age-old tradition among elderly men in Turkey, has been surprisingly regenerated and marketed to young people and women. The prevalence of water-pipe use is not known exactly, but observations imply its increasing use among adolescents and young adults in particular. More importantly, most water-pipe users are not aware of the health hazards associated with them. A study carried out in Ankara in 2004 on 273 individuals aged 14–44 years (55% aged 18–24 years) showed that among water-pipe users, 27.1% had no clear idea of the health hazards; 18.3% thought the pipes did no harm to their health; while 27.9% reported that they did not smoke cigarettes, but only a water-pipe. This suggests that the water-pipe is a new tobacco product threatening public health, and its health hazards should be given greater emphasis in national tobacco control activities (28).

### ***Smoking during pregnancy***

Smoking during pregnancy can harm the health of both the pregnant woman and her unborn baby. It is not known for certain which of the chemicals in tobacco smoke are harmful to the developing baby, but both nicotine and carbon monoxide play a role in causing adverse pregnancy outcomes. Smoking during pregnancy increases the likelihood of complications and is known to have a negative effect on pregnancy outcome, increasing the risk of low-birth-weight babies, stillbirths and congenital abnormalities.

A number of studies have been conducted in Turkey on smoking behaviour among pregnant women. These studies revealed that 2.5–17% of the women smoked at some time during their pregnancies, and one study found that 2.5% of the pregnant women smoked throughout their pregnancies. It was a pleasant finding that most of the women who smoked changed their smoking habits as their pregnancies developed: over half (47–66%) stopped smoking, and the rest reduced the number of cigarettes they smoked (29,30).

### ***Prevalence studies with international collaboration***

Several prevalence studies have been carried out in Turkey over the years as summarized above. Most of these were, however, small-scale or limited to certain population groups such as health professionals, drivers and parliamentarians. Many nationwide surveys conducted for various purposes have also included some modules for estimating the prevalence of smoking in the general population. Different methodologies used to investigate tobacco use (self-reports, bio-assays, etc.) and variations in case definitions, interviewing techniques and/or question types often hinder the comparability of such studies, both at national and international levels. For this reason, Turkey has also taken part in recent years in two international studies estimating tobacco prevalence, the Global Adult Tobacco Survey and the Global Youth Tobacco Survey, and is willing to repeat such surveys periodically in the future.

### **Global Adult Tobacco Survey**

The Global Adult Tobacco Survey (GATS) was initiated as a joint project of the CDC, CDC-Foundation, the Johns Hopkins School of Public Health and WHO and financially sponsored by the Bloomberg Philanthropies under the Global Tobacco Surveillance System (GTSS). The GTSS aims to establish a global surveillance system to investigate prevalence estimates for tobacco use and associated risk factors so as to establish proper interventions and to evaluate the effectiveness of such interventions when they are in action.

Turkey agreed to take part in GATS in 2008, together with 15 other countries, in order to: (i) establish the prevalence rates of tobacco, smokeless tobacco, second-hand tobacco use for the general population and specific categories such as gender and rural/urban dwellers, and (ii) study cessation activities, the economics of tobacco use and exposure to related media messages. The Institute of Statistics took responsibility for GATS in Turkey. About 9000 adults, representative of the population, were interviewed and the data were collected in November 2008. The preliminary results were announced on 30 April 2009. The survey showed that 31.3% of individuals aged 15 years and over smoke daily or less than daily (males: 47.9% and females: 15.2%) and 52.8% said that they had never smoked (30% of males and 74.8% of females). In urban areas, 33% of individuals smoke daily or less than daily; in rural areas this figure is 27.2%. The ratio of those who have never smoked is 51% for urban areas and 57.1% for rural areas (31).

### **Global Youth Tobacco Survey**

The Global Youth Tobacco Survey (GYTS) aims to provide nationally representative data on smoking prevalence among young people. It also reveals adolescents' knowledge about and attitudes towards tobacco use, their exposure to media messages on smoking and to environmental tobacco smoke, the availability and accessibility of tobacco products for minors, and health education about tobacco-smoking in the school curriculum.

The GYTS was developed by the WHO Tobacco-Free Initiative and the Office on Smoking and Health of the CDC (OSH/CDC), in consultation with a range of countries representing the six WHO regions. Turkey joined the survey in 2003, when a school-based nationally and regionally representative survey was administered within the framework of the GYTS. The study used a two-stage cluster sampling method. Data on 15 957 schoolchildren aged mainly 13–15 years were used. Data collection was carried out by use of an internationally standardized questionnaire.

Almost 3 in 10 (26.3%) schoolchildren had smoked cigarettes at some time in their lives, significantly more boys (31.7%) than girls (19.7%). Of these, 30.7% had started smoking before the age of 10 years, with a significantly higher rate among boys (34.9%) than girls (23.7%). Overall, 6.9% of schoolchildren stated that they currently smoked cigarettes, again significantly more boys (9.4%) than girls (3.5%); and 3.4% of schoolchildren currently used tobacco products other than cigarettes, with the rate for boys (4.4%) about three times the rate for girls (1.5%). Over 1 in 10 (13.1%) of current smokers said that they felt like having a cigarette first thing in the morning, suggesting tobacco dependency.

Among those who had never smoked, 7.0% indicated that they could start smoking during the next year (8.2% of boys and 5.3% of girls).

Of the current cigarette-smokers, over 6 in 10 (65.3%) reported that they wanted to stop smoking now; 61.4% said that they had tried to stop smoking during the previous year but had failed; and 71.5% reported that they had received help to stop smoking. Boys were significantly more likely than girls to have tried to stop smoking or to have received help to stop smoking.

Over 3 in 10 schoolchildren had seen advertisements for cigarettes on billboards and about 28% had seen advertisements for cigarettes in newspapers or magazines in the month prior to the survey. Boys (29.9%) were significantly more likely than girls (25.1%) to be exposed to pro-tobacco advertising in newspapers and magazines. Approximately 1 in 10 reported that they had an object (hat, T-shirt, pen, backpack, etc.) with a cigarette brand logo on it. Boys (12.4%) were significantly more likely than girls (6.7%) to own such an object.

Almost half (46.5%) of the current smokers reported that they usually bought their tobacco from a shop; of these, almost 9 in 10 reported that they had never been refused because of their age. It is important to note that all the participants were aged 15 years or younger, i.e. they were minors, so by law they should not have been allowed to buy tobacco.

The schoolchildren were asked if they had ever been offered free cigarettes by a representative of a tobacco company. Overall, 7.6% had been offered free cigarettes, significantly more boys (9.1%) than girls (5.6%).

They were also asked if during the previous school year they had been taught about the dangers of tobacco, discussed the reasons why young people smoke or been taught about the effects of tobacco on their health. Half of the schoolchildren reported that they had been taught about the dangers of tobacco, only 21.1% had discussed the reasons why young people use tobacco, and 40.1% had been taught about the effects of tobacco on their health.

The Ministry of Education, with support from the WHO Country Office, Turkey, repeated the GYTS in May 2009 in 30 provinces on a representative sample of schoolchildren in the 7th, 8th, 9th and 10th grades.

## **Passive smoking**

Some studies have been carried out in different cities on the prevalence of passive smoking but the data are inadequate and further studies are clearly warranted. Based on these studies, it appears that in 59.9% to 81.5% of homes at least one family member smoked, usually the father. One study showed about 90% of the smokers in different occupational groups indicating that they smoked at home, 60–95% smoked at work and 50–85% smoked in front of their children.

The GYTS reported that over 8 in 10 schoolchildren were exposed to smoke from others in their homes (81.6%) and in public places (85.9%). Even though passive smoking is quite common, it is not easy to measure the level of exposure accurately owing to methodological difficulties such as inaccurate self-reports or the unavailability of cotinine measurements in all settings.

Boyaci et al. (32) studied passive smoking among 188 schoolchildren based on parental self-reports, and compared and contrasted environmental tobacco smoke (ETS) exposure rates based on urinary cotinine levels. Parental self-reports indicated that 72.3% of the children came from households with smokers and 34.6% were exposed daily to ETS. When urine cotinine levels of >10 ng/ml were used as the indicator of exposure, 76% of the children were identified as so

exposed. The study results implied that the level of ETS exposure of children cannot be reliably estimated based on parental reports and should be verified by biological markers. Ekerbicer et al. (33) studied the ETS exposure status of schoolchildren attending 347 primary schools in grades 3–5 (aged 9–11 years) using self-reports, and further verified with data from urinary cotinine tests. According to questionnaire data, 59.9% of the study group (208 of 347) were exposed to ETS. The urinary cotinine measurements of the children were highly consistent with self-reported exposure levels ( $p > 0.001$ ). In a similar cross-sectional study of 131 children aged 9–12 years, Cobanoglu et al. (34) examined urinary cotinine levels compared to parental self-reported smoking behaviour, and investigated the effects of passive smoking on pulmonary function and respiratory health in these children. This study, however, suggested that the reliability of the declarations of the parents in the estimation of ETS exposure of children was quite low.

### ***Health consequences of passive smoking***

The health consequences of passive smoking have been investigated in a number of studies in Turkey. Given that in more than two thirds of households at least one adult smokes inside the house, passive smoking is known to be common.

A few studies primarily aimed to investigate the health consequences for children of exposure to ETS in the home. One study carried out among children aged 9–13 years revealed that paternal smoking is associated with reduced pulmonary function. Cobanoglu et al. (34) also examined the effects of passive smoking on pulmonary function and respiratory health in children in a cross-sectional study of 131 children aged 9–12 years in the winter of 2007. In this study, no statistically significant difference was determined in the mean episodes of respiratory infections treated during the previous 12 months among the groups formed according to daily number of cigarettes smoked by the parents at home (1: not exposed; 2: <5 cigarettes; 3: 5–10 cigarettes; 4: >10 cigarettes) or among the groups formed according to urinary cotinine levels (1: <10 ng/ml; 2: 10 ng/ml or more). No statistically significant difference was demonstrated in any of the respiratory function parameters investigated between the groups considered. On the contrary, passive exposure to tobacco smoke has been shown to trigger acute attacks among asthmatic children.

Oguzkaya-Artan and colleagues (35) studied oropharyngeal cultures from 683 children in a study carried out between May and June 2006 and found that 15.6% of the children were *Haemophilus influenzae* carriers. Multivariate analyses indicated that *H. influenzae* carrier status was associated with passive smoking, when other factors such as age, having older siblings, a history of respiratory infection during the previous 30 days, the number of people in the household, attendance at a kindergarten or a day-care centre and household income were all controlled for.

A few studies have investigated the health hazards of passive exposure to smoke in traditional coffee houses (*kahvehane*). The traditional tea/coffee houses are settings where people (men in particular) gather to spend their leisure time: men usually go to these places to talk to each other and play table games. Even today, when the first phase of the 100% smoke-free law is in force, people are still heavily exposed to tobacco smoke in traditional coffee houses. Fidan et al. (36) conducted a cross-sectional study in three metropolitan districts of the city of Izmir to examine the effect of ETS exposure on respiratory symptoms and pulmonary function. The authors compared and contrasted the health symptoms and findings of workers in 86 coffee houses, and as a control group they chose “those working in 80 other small-scale shops located in the same area, yet which had no known respiratory risk factor”. Subjects answered a standard

questionnaire about demographic and working characteristics, respiratory symptoms and smoking behaviour, and physical examinations and spirometric measurements were carried out at all participating workplaces. The study found a significant increase in respiratory symptoms in coffee-house workers. They showed a significant risk for chronic bronchitis (OR= 4.3), and the following decreases in their exhalation performance: forced expiratory volume in one second (FEV<sub>1</sub>) of 5.1%, forced vital capacity (FVC) of 3.4%, FEV<sub>1</sub>/FVC of 1.6%, peak expiratory flow of 6.45%, forced expiratory flow (FEF<sub>25</sub>) of 7.2%, FEF<sub>50</sub> of 10%, and FEF<sub>25-75</sub> of 9.8%. Among workers who were described as having an airway disease, a significant majority were coffee-house workers. When age, body mass index and smoking behaviour were all controlled for, working in a coffee-house was strongly associated with airway disease (OR= 5.35, 95% CI=2.41–11.87).

In another study carried out in traditional coffee-houses in Ankara, carbon monoxide (CO) levels in the exhaled air of those present were found to be significantly high, and increasing in parallel with the duration of stay in the coffee-house. A total of 182 people (149 smokers and 33 non-smokers) were included in the study. Average CO levels in the exhaled air were found to be 23.5 ppm among the smokers and 8.9 ppm among the non-smokers spending time in the coffee house, and 3.5 ppm among non-smokers outside (37).

## **Tobacco-related mortality and morbidity**

### ***Mortality trends***

Tobacco-smoking is one of the major causes of cardiovascular diseases, particularly coronary heart diseases. Although the currently available data sources do not permit an accurate estimate of the toll of tobacco-related mortality, it can be roughly assessed on the basis of mortality due to cardiovascular and cancer deaths. About one third of cardiovascular deaths and 37.1% (male: 46.5%, female: 18.9%) of cancers (such as cancers of the lung, larynx, mouth and pharynx, esophagus and cervix) can be regarded as “tobacco-related”.

Another well-known tobacco-related disease is chronic obstructive pulmonary diseases. In many cases, bronchitis, emphysema and asthma can be coded as general respiratory disease rather than specific diagnoses and appear in the “other pulmonary” diseases group in data sources. By combining these two codes, smoking-related mortality can also be roughly estimated as 8.9% of all deaths.

In summary, although the death toll related to tobacco cannot be estimated directly, mortality due to cardiovascular diseases, cancer and chronic obstructive pulmonary diseases may help researchers get a rough estimate of the extent of tobacco-related mortality in Turkey.

### ***Morbidity trends***

There is no national figure on morbidity attributable to tobacco-smoking, but there are some figures that can be linked to tobacco-related morbidity. In the National Burden of Disease study (15), the disease burden attributed to major risk factors such as high blood pressure, smoking, obesity and physical inactivity were examined. It was found that 8.6% of total disability-adjusted life years (DALYs) were attributed to tobacco-smoking. Attributable tobacco use as a proportion of total DALYs for males and females was 15.4% and 1.2%, respectively (Fig. 9). Among tobacco-related diseases, the majority were in relation to cardiovascular diseases (3.0%) and chronic obstructive pulmonary diseases (1.4%) (Table 18). The figures in Table 18 indicate that

more than 50 000 deaths annually are attributed to tobacco-smoking, so a considerable number of deaths would be prevented by effective tobacco control measures. The majority of these preventable deaths are expected to be among males (97%) and in the group aged 30–59 years.

Fig. 9. Attributable DALYs as a proportion of total DALYs, Turkey, 2003

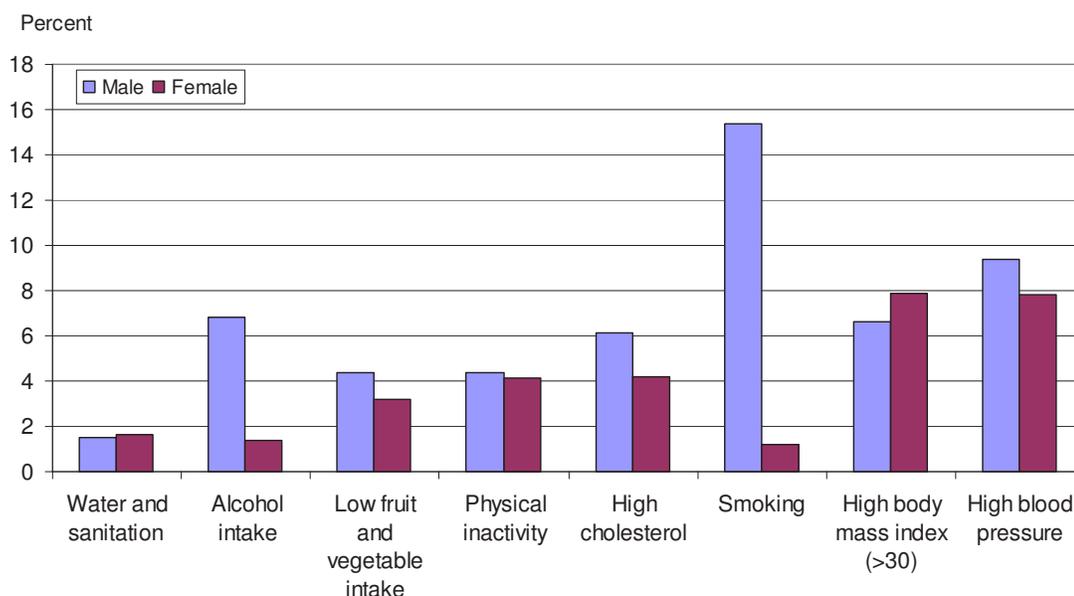


Table 18. Burden of diseases attributed to tobacco smoking, Turkey, 2003

Disease	Attributed deaths	Attributable years of life lost	Attributable DALYs	Attributable DALYs as a proportion of total DALYs
Cardiovascular diseases	21 317	274 770	321 237	3.0
Chronic obstructive pulmonary diseases	12 902	72 689	150 406	1.4
Lung cancer	10 510	107 075	112 634	1.0
Other cancers	4 681	58 756	62 302	0.6
Other respiratory diseases	2 105	33 387	58 377	0.5
Other selected diseases	3 185	50 006	226 953	2.1
All selected diseases	54 699	596 684	931 909	8.6

## Economic burden of tobacco-related diseases

There is little research on the economic burden of tobacco-related diseases in Turkey. In 2003, a study was carried out on the economic burden of lung cancer patients, which followed 84 lung cancer patients from their first admission to a university hospital until their deaths. The average amount spent by the hospital per patient was found to be 11 500 TL (US\$ 10 000). Of this, 1500 TL was spent between the time of first admission and confirmation of the diagnosis of lung cancer. After diagnosis, some 10 000 TL was spent on the treatment of the disease and its complications (38). The estimated annual number of new lung cancer cases is around 40 000, so the total economic burden of lung cancer could be roughly estimated at about US\$ 400 million

annually. This figure will be much higher when other expenses (such as the amount spent by the patient, loss of productivity, losses due to premature death) are added.

## Conclusions

1. There is a wide diversity in production, encompassing tobacco from 22 different sources. This diversification stimulates demand and the creation of new cigarette blends.
2. Based on 2007 figures, Turkey ranks seventh in world tobacco production, supplying 1.7% of world tobacco demand. Turkey is the biggest producer and exporter of oriental tobacco.
3. Oriental-type tobacco production is a labour-intensive family-based agricultural activity. Fields are sloping or slightly sloping and average approximately 0.7 ha.
4. Tobacco, an important agricultural product, was for years one of Turkey's most important exports. Between 1998 and 2007, 112 million kg of tobacco were exported for a value of US\$ 410 million.
5. In 1988, Virginia and Burley-type tobaccos began to be used in cigarette blends in Turkey. Since then, consumption of both blended cigarettes and of those wholly produced with oriental tobacco have shown negative trends. Concurrently, tobacco exports rose from 610 tonnes in 1988 to approximately 67 000 tonnes in 2007.
6. Between 1998 and 2007, both output and the number of producers fell by approximately 70% and production areas diminished by 50%. High temperatures and drought also resulted in a fall in tobacco production in 2003, 2006 and 2007. The approximately 80 million kg of output expected for 2007 is far below the annual need for oriental tobacco, which stands at 145 million kg.
7. The production of Virginia and Burley-type tobaccos corresponds to approximately 4% of overall tobacco production. Cigarette blends in Turkey are composed of approximately 13–15% oriental-type and 85–87% American blend-type tobaccos.
8. Besides high rates of tobacco production, Turkey is among the top 10 tobacco-consuming countries in the world. In 2001, Turkey consumed 2% of tobacco worldwide and 14% in the WHO European Region. In 2006, 108.7 billion cigarettes were produced and 107.9 billion were consumed.
9. The National Household Survey in 2003 revealed that 33.8% of adults (aged 18 years and over) smoked daily, significantly more men (52.9%) than women (19.5%). In contrast to most developed countries, smoking is more prevalent among educated groups in Turkey. Nearly half (53%) of secondary school graduates smoke whereas only 13% of illiterate people smoke. In addition to high tobacco consumption among adults, a significant number of smokers show addictive behaviour. A considerable number of smokers smoke a cigarette before having breakfast, and 1 in 10 chain-smoke.
10. Tobacco-smoking is quite common among health professionals. Based on a representative sample of 4761 health professionals, current smoking prevalence was found to be 39.4% among general practitioners, 30.9% among specialists, 40.7% among nurses and midwives and 43.4% among health technicians.
11. According to the 2003 GYTS, 22.3% of girls and 33.1% of boys aged 13–15 years had smoked at some time in their lives, and 5.0% and 9.1%, respectively, were current smokers. Over 3 in 10 schoolchildren had seen advertisements for cigarettes on billboards and about 28% had seen advertisements for cigarettes in newspapers or magazines in the

month prior to the survey. Almost half of the current smokers reported that they usually bought their tobacco from a shop. Of these, almost 9 in 10 (86.4%) had never been refused despite their youth. Over 8 in 10 schoolchildren reported that they were exposed to smoke from others in their homes (81.6%) and in public places (85.9%). Despite the fact that passive smoking is quite common, it is not easy to measure the level of exposure accurately due to some methodological difficulties such as the inaccuracy of self-reports and the unavailability of cotinine measurements in all settings.

12. Some studies conducted among university students, including medical school students, showed smoking prevalence among university students varying between 7.8% and 58.0%.
13. As in the adult population, cigarettes are the most commonly used tobacco product by young people. Recently, the water pipe (*narghile*), an age-old tradition among elderly men in Turkey, has been surprisingly regenerated and marketed to young people and women. About one in five water-pipe users are not aware of their dangers. Further studies are warranted to estimate the exact prevalence of water-pipe use.
14. Different studies suggested that 2.5–17% of women smoke at some time during their pregnancies. Most of the women who smoke, however, change their smoking habits as their pregnancies develop: more than half (47–66%) stop smoking and the rest reduce the number of cigarettes they smoke.
15. The National Burden of Disease study found that 8.6% of total DALYs were attributed to tobacco-smoking (males: 15.4%, females: 1.2%). Attributable tobacco use as a proportion of total DALYs for males and females was 15.4% and 1.2%, respectively. Among tobacco-related diseases, cardiovascular diseases (3.0%) and chronic obstructive pulmonary diseases (1.4%) are the major group. More than 50 000 deaths annually are caused by tobacco-smoking, and a considerable number of deaths could be prevented by effective tobacco control measures.
16. Some international surveys have investigated the prevalence of tobacco use in Turkey, including GATS, which aims to evaluate tobacco use among adults. The field survey of GATS was completed in December 2008 and the preliminary results were officially announced on 30 April 2009.

## **Production and marketing of tobacco products**

### **History and current status of tobacco cultivation**

#### ***History***

“Smoking like a Turk” was a common expression in many European languages in the last century. Tobacco has, however, been more than a consumption product for Turks. It has been a significant revenue item for more than a century, which has also created a tempting market for foreign investors. It is not possible to isolate the current status of tobacco from the situation regarding agriculture and the overall economy, given that tobacco has been produced in Anatolia for 400 years and tobacco producers have made significant contributions to the economy in, for example, employment and export and tax income. Control of the cultivation of and market in tobacco has always meant control of the country. Thus tobacco has been a symbol reflecting recent political history.

The tobacco plant was brought to the Ottoman Empire in the 17th century by British and Venetian sailors. Its use within the boundaries of the empire dates from 1612, but shortly after 1621 it was banned by Sultan Osman the Young. Cultivation was originally in the Balkan Peninsula (part of the Ottoman Empire) and the Aegean region. Mufti Bahai, the chief religious official in the Ottoman Empire, lifted the ban in 1646. By 1678, Ottoman officials had realized that tobacco could yield an agricultural revenue and began to tax it. In 1862, the government set up a monopoly and in 1874 introduced the banderol system.

After this period, the cultivation of and trade in tobacco started to reflect the political and economic conditions of the Ottoman Empire and the subsequent Turkish Republic. In 1884, monopoly rights were given to the REJI administration (the tobacco authority under the Ottoman Empire) for 30 years, extended for a further 15 years in 1914. The first manufacturing plants were established in İstanbul-Cibali (1884), İzmir (1884), Adana (1895) and Samsun (1897) provinces.

The new Turkish republic capitalized REJI and, in 1925, recognized it as the state tobacco monopoly. The cultivation, transport and processing of and trade in the tobacco crop were regulated by Law No. 1701 of 1930. Cultivation of Virginia leaf tobacco was permitted from 1942. In 1940, legislation was enacted subsidizing the cultivation of tobacco. In 1946, the state tobacco monopoly was renamed as Tekel. The first filter cigarette was manufactured in the Samsun factory. In 1961, Law No.196 was passed, supporting the trade in tobacco. In 1965–1968, experiments with the cultivation of leaf tobacco were carried out at Antalya and Sakarya Burley, and in 1969 the İstanbul cigarette factory was the first cigarette plant to be opened under the new republic. In 1976, further experiments were carried out on the cultivation of 15 Virginia leaf-type tobaccos in Bucak. In 1983, in Bitlis, Tekel established the new BEST company with a small share held by Rothmans. In 1984, Tekel started importing foreign brands. In line with the liberalization of the economy, a new law (No. 3291 of 1986) re-regulated the production, distribution and marketing of tobacco products, making multinational operations possible. In 1986, local manufacturing in partnership with Tekel was allowed, and in 1988 Tekel bought 25% of the Rothmans' share.

After the legislation permitting the import of foreign brand cigarettes and multinational trading, a number of changes occurred in the tobacco market. Tekel imported more tobacco every year, increasing the volume more than 10-fold in 10 years (Table 19). At the same time, Tekel started using fewer oriental leaves in its own cigarettes (Fig. 10). The number of workers at Tekel plants fell during the 1990s (Table 20).

Table 19. Tobacco imports by Tekel, 1988–1999

Year	Quantity (tonnes)	Cost (\$1000)
1989	4 082	23 562
1990	3 279	21 429
1991	10 984	68 635
1992	21 934	133 133
1993	22 497	129 185
1994	18 325	91 563
1995	19 411	91 779
1996	24 954	106 098
1997	24 351	147 127
1998	42 174	255 408
1999	48 846	247 591

Source: Ozkul I, Sari Y (39).

Fig. 10. Oriental tobacco leaf use in Tekel cigarette factories, Turkey, 1990–1999

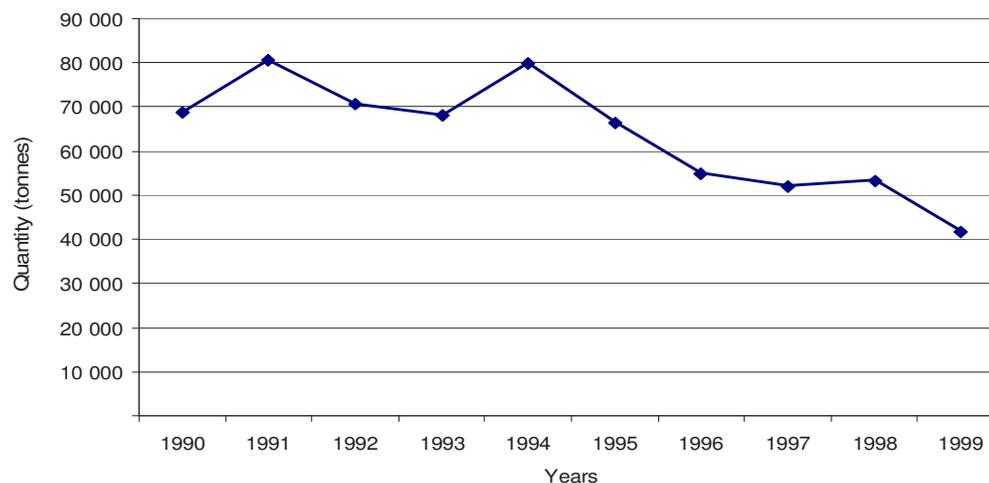


Table 20. Number of workers at Tekel tobacco and cigarette plants, Turkey, 1990–1999

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Tobacco	24 777	22 121	21 988	22 896	21 892	18 627	17 072	16 654	18 615	16 742
<i>Index</i>	100	89	89	92	88	75	69	67	75	68
Cigarette	10 209	10 648	9 948	9 509	8 342	6 874	6 450	6 227	6 171	5 888
<i>Index</i>	100	104	97	93	82	67	63	61	60	58
Total	34 986	32 769	31 936	32 405	30 234	25 501	23 522	22 881	24 786	22 630
<i>Index</i>	100	94	91	93	86	73	67	65	71	65

In 1989, the first American-blend Turkish cigarette was manufactured with the brand name of Tekel 2000. With Law No. 91/1755 of 3 May 1991, local and foreign private enterprises were given the right to manufacture cigarettes. In 1992, Burley production at Düzce, Adapazarı, Gönen and Kırklareli increased.

In 1992, Philip Morris-Sabancı Holding partnership (PhilSA) and RJ Reynolds opened plants at Torbalı, but in 1994, the Tekel İstanbul-Cibali cigarette factory was closed due to lack of new technology. In the same year, a quota was introduced in tobacco cultivation.

The first tobacco control law to ban all advertising of tobacco products and sales to minors and to introduce smoking restrictions in public transport and cultural and sports institutions was enacted in 1996.

In 1997, Tekel closed the Samsun cigarette factory but re-activated the Ballica factory and bought the shares of BEST, which foreign investors had found inefficient. The machinery in the BEST factory was moved to the Bitlis cigarette factory.

In 2000, Tekel together with a Cuban venture, established the TEKA cigar factory. In the following year, the Higher Directorate of Privatization included Tekel in the privatization programme. Turkey was going through an economic crisis, and the International Monetary Fund (IMF) and World Bank instructed the government to reform 15 sectors, including the tobacco market. Despite all the warnings of the “tobacco control community”, the government prepared a

bill restricting the rights of Turkish tobacco-growers and increasing the freedom of the multinationals. The same law stopped state subsidies to tobacco cultivation and ordered the tobacco crop to be traded by written contract or auction. In accordance with IMF recommendations, the Tobacco and Alcohol Market Regulatory Authority (TAPDK) was established in 2002 as a financially and administratively autonomous body with the power to regulate the tobacco market and related health issues.

In 2002, Tekel closed the İzmir factory. As permitted under TAPDK's regulations, BAT (2002), European (2004), Imperial (2005) and Gallaher (2006) started production.

During the same years, many cafés were opened throughout the country where water-pipes could be used. Şerbetli was set up in 2004 and Selar, Smyrna and IMEKS in 2005 to provide the different tobacco products needed for this new water-pipe market. TAPDK gave permission to KT&G to produce cigarettes, Borovali and Kaya for water-pipe tobacco and Orient and Bogazici for cut tobacco leaf, none of which ever started production.

Tekel's tobacco department was put up for privatization in 2003. An offer of US\$ 1150 million was received from JTI (formerly RJ Reynolds), but this was considered too low and the process was frozen. The idea of privatizing Tekel was heavily criticized by local nongovernmental organizations active both in tobacco control and the preservation of public property. The tobacco control community was against the privatization of Tekel for reasons of increased efficiency, claiming that "in a sector where disease and death was inevitable, an increase in efficiency would mean an increase in suffering". World Bank data showed that the sales by multinationals had increased significantly after privatization in similar countries. Despite appeals by the various nongovernmental organizations and the labour unions of Tekel workers, Tekel was sold to BAT in 2008 for US\$ 1720 million.

Given that tobacco and its production have been of strategic importance in Turkey, legislation concerning the tobacco sector has all along been specially organized and regulated via institutions under different statutes. Under Law No. 4733 of 2002, the state tobacco monopoly Tekel (which had regulated the tobacco and alcoholic beverages sector since 1923) was transformed into an incorporated company and its market regulation responsibilities were transferred to TAPDK.

In 2007, about 80 million tonnes of tobacco were produced by 207 000 cultivators. Since tobacco production is a family business, the production process contributes to the subsistence of approximately a million people. In addition, the sector provides employment for 25 000 people in tobacco processing, production, and marketing and delivery.

Tobacco is grown in fields averaging 0.7 ha and producing 80–100 kg per decare (one tenth of a hectare). These fields are sloping (65%) or slightly sloping (35%) and there are few opportunities for irrigation. Since oriental-type tobacco can be grown on dry land that does not require irrigation, these fields would not provide a higher income from other agricultural products.

It is important to note that tobacco production policy has been considerably modified since 2002, with the liberalization of the tobacco market, elimination of the subsidy system and adoption of a contract production model. Many producers could not adapt to the changing conditions, and the 478 000 producers in 2001 had fallen to 207 000 by 2007. In some areas, some of the producers that left the sector went into the cultivation of other agricultural products or into non-agricultural

sectors according to their means, while those lacking means had to migrate from rural regions. Between 2002 and 2007, the government supported the efforts of tobacco producers to move towards alternative agricultural products, especially in the two regions with extremely low income levels, but the desired transformation was not achieved.

Following Turkey's signature of the FCTC, a national tobacco control programme was drawn up setting a target of 2012 for former producers and workers in the tobacco sector to move to new agricultural products or economic activities and alternative sustainable means of livelihood. As yet, there are no concrete projects to support this target.

## **Production and market share of tobacco products**

The development of alternative crops to tobacco has been high on the national agenda since 2000. Projects have been carried out by the Ministry of Agriculture and Rural Affairs as well as other bodies.

Within the context of the Ministry's Agricultural Reform Implementation Project, an Alternative Crops Programme for Tobacco project was carried out in eastern and south-eastern Anatolia, where tobacco production was maintained for social reasons rather than the need for production between 2002 and 2007. The information regarding producers under the project given here has been evaluated based on Tekel's records.

The aim of the project was defined as broadening the cultivation of products that are not produced in the country in sufficient quantity, including oil-seed plants and plants for breeding for which the national demand is met by imports. It is aimed to introduce alternative crops to tobacco over 9000 ha out of the total 36 000 ha of agricultural land allocated for tobacco production.

As tobacco production and price support policies are to a large extent price-sensitive, the cultivation of tobacco has gradually extended beyond the crop's natural growth areas, resulting in over-production and falling quality. Meanwhile, the costs of storage and destruction have climbed beyond the total cost of the product. It was therefore decided that, as required by the new agricultural policies, support purchases of agricultural products would gradually be stopped and the institution charged with purchasing would be privatized.

The new system was introduced in 2002 and the state monopoly Tekel started to make tobacco purchases under the contract production method, with a quota of 200 kg per producer.

This project has been carried out in 11 provinces (Adıyaman, Batman, Bingöl, Bitlis, Diyarbakır, Hakkari, Malatya, Mardin, Muş, Siirt and Van) with a budget of US\$ 7.2 million. Tobacco continued to be cultivated on land originally used for that purpose, and wheat, sunflowers, canola, dry beans, chick peas, red lentils, corn, soy beans, cotton, trefoil, figs, vines, fruit, and glasshouse, aromatic and medical plants were planted in areas retrieved from the cultivation of tobacco. Farmers who lost income in making the change were compensated by an annual grant of US\$ 80 per decare for cultivation and harvest costs (Table 21).

In total, the project has cost slightly more than US\$ 2.4 million and 6841 tobacco producers have benefited from it.

Table 21. Producer, area and payment status regarding alternative crops for tobacco project, Turkey, 2002–2007

Year	No. of producers	Area (decares)	Payment (US\$)
2002–2003	4 769	22 690	1 815 236
2004	1 547	2 505	200 458
2005	433	4 764	381 157
2006	48	207	16 554
2007	41	193	15 485
Total	6 841	30 361	2 428 613

Source: based on data from the Ministry of Agriculture and Rural Affairs.

As a result of the implementation of the project in 2002, of the 22 690 decares of agricultural land retrieved from tobacco cultivation, 87% was allocated to wheat, 6% to barley, 5% to lentils and the remainder to vegetables and animal feed crops.

So far the project has achieved a 30% success rate, with a total of 3000 ha of tobacco production turned over to other uses. In 2002, 1600 tons of non-quality leaf tobacco purchases by the state did not take place, saving 3.5 billion TL.

The following factors have militated against the complete success of the project:

- the non-ownership by most of the producers of the land they farm;
- the major contribution of tobacco production to employment in these regions;
- unwillingness to change to unfamiliar products as tobacco has been produced in the region for so long;
- fear of loss of production quotas if producers stop growing tobacco and the government later decides to support tobacco production again;
- inadequate facilities for storing, processing and drying the alternative products;
- anxiety about marketing the new products;
- incomplete demonstrations of the cultivation of alternative products to be given by leading farmers to encourage and be a role model for producers;
- Tekel's advance payments in cash during the implementation of the project.

Apart from the above, the most important factors preventing the project from reaching its target are, first, that the agricultural lands in the many production centres involved in the project to grow alternative crops are composed of small and arid parcels of land, and second, that no other crop yields as much income as tobacco.

Thus it is clear that switching production from tobacco to alternative crops is a complicated business, affected by a number of different variables. Although it may be possible for producers to acquire in time the knowledge needed to produce different crops, together with the necessary technical support, the provision of financial support during this period is beyond their control. It is also important that the producers should cultivate their own land or be able to rent land cheaply so that they can derive a sufficient and sustainable income.

Another activity conducted within the context of the Agricultural Reform Implementation Project is Direct Income Support, i.e. the transference of income to producers without directly affecting output and input prices. Thanks to the World Bank, all producers with agricultural land have received payments per decare since 2002. In 2007 the amount was approximately US\$ 80.

In the three regions (Aegean, Black Sea, Marmara) which were left outside the scope of the Ministerial Decision and in which tobacco has been produced since 2002 as a result of the removal of support purchases by the state, tobacco growers have started to search for their own alternatives.

As well as the development of alternative crops carried out by the state in two regions, in other regions some positive results have been achieved by the cultivation of alternative crops and shifting to other economic activities by the growers themselves, using their own initiative and resources. Such successful developments include the cultivation of olives, vines, thyme, cherries, almonds and nuts, and cattle stock and dairy farming. Meanwhile, some tobacco-growers located near the coast have moved over to tourism, while others, who lack the resources to switch to alternative sectors, have migrated to areas where industry has developed.

In sum: in the Aegean Region there has been a shift towards other crops, tourism, greenhouse production, cattle stock and dairy farming, combined with migration by growers lacking the resources to change to alternative crops and economic activities to provinces where industry has developed. In this region, olive and thyme cultivation and cattle stock and dairy farming are encouraged by the provincial agriculture directorates and aid has been given for these purposes.

In the Marmara Region there has been considerable migration to industrial areas, although some growers have switched to the cultivation of vegetables and greenhouse crops and cattle stock and dairy farming. In the Black Sea Region, meanwhile, the limited amount of arable land and the development of these already limited areas for residential purposes have led to migration to the major cities.

In all three regions, tobacco is cultivated on arid land and no other crop is as profitable, leaving little scope for alternative agricultural possibilities. Even so, quite a lot of growers have moved out of tobacco production. As these shifts towards different products have been on an individual basis, there are no analytical data in this field.

In 2006 and 2007, provincial and district agriculture directorates in some provinces and districts with suitable weather and soil conditions have distributed olive and fruit plants, vines, beehives, and nut and almond seeds against payment. It is too early to comment about the success of these initiatives.

Table 22 shows a comparison between the data for 2000 and 2007 relating to growers who have switched from tobacco to other activities. Such growers report that, even though they cannot achieve the income that they formerly earned from tobacco, the long-term nature and demands of tobacco cultivation mean that they are relatively at ease with their new activities. As a result, the situation where tobacco production exceeded demand has come to an end. Even taking into account the last two years, the reduction in quantity is below the demand.

Table 22. Characteristics of tobacco production, Turkey, 2000 and 2007

Tobacco production	2000	2007	Reduction	
			Amount	%
Amount of production (tonnes)	251 070	98 137	152 933	61
Amount of land in production (ha)	270 751	144 817	125 934	47
No. of producers (units)	568 121	215 307	352 814	62

## Evaluation of the current position and suggestions

The need to develop alternative crops to tobacco started to be felt deeply after the new market system was applied in 2002. After that year, although some producers in specific regions switched to different agricultural and economic activities in accordance with their means, the economic development level of these regions and their good soil and climate and, especially, infrastructure that enable tobacco to be produced with irrigation, have facilitated the shift to different agricultural products and economic activities.

Methods are urgently required to provide immediate solutions for producers living in regions with weak economies or in arid and mountainous parts of other regions lacking infrastructure who seek to move out of tobacco cultivation.

Following the privatization of Tekel, it is not at present known whether production will be continued next year in regions where there is no social reason for it or possibility of exporting the harvest, although estimates by the authorities indicate that production will be stopped. As the number of producers in these areas is approximately 120 000 (a figure that will rise when their families are taken into account), emergency measures will be essential.

On the other hand, the rural population is ageing. The average age of tobacco growers is around 50 years, so even if producers around this age switch to alternative agricultural products or economic activities, it will be quite hard to ensure their sustainability. Moreover, since the majority of the tobacco producers are not organized, lack financial resources and are poorly educated, they do not have the knowledge or technical and financial means to move out of tobacco cultivation.

Another issue is the fact that tobacco is produced in six of the seven geographical regions, each of which has distinct characteristics in terms of economic development level, educational background and cultural structure, land and climate, ownership of land, types of tobacco produced, demand–supply equations for tobacco (both domestic and export), and the domination of the buying companies (public and private). Such differences results in a variety of problems and solutions and require different solutions for each region and even for each district and village. On the other hand, a positive aspect of these differences is that different alternative agricultural products or economic activities can be found for the different regions.

Some fundamental problems are the same in almost every region, with small variations:

(i) tobacco production is on an extremely small scale, (ii) income levels of the producers are low, and (iii) the number of growers that do not own land is significantly high.

The goal is to enable tobacco producers to switch to alternative products, as well as to improve general welfare. The provision of a standard income to eliminate poverty should, therefore, be the first target, and operations to improve income and employment levels should follow. Producers should be able to see an improvement in their incomes, better health and education facilities and better opportunities for improving the conditions of their lives as quickly as possible, otherwise the projects and planned operations will be eroded and their effectiveness questioned. Domestic migration could then appear on the agenda with related social and economic problems.

As these issues are evaluated within the framework of the experience derived from the Agricultural Reform Implementation Project, the development of alternative activities to tobacco production should consider the following factors.

1. With the support of nongovernmental organizations, the relevant institutions and organizations should conduct agricultural studies in each region to determine the best agricultural alternatives for production and marketing, taking into account domestic demand. For example, the best region for producing thyme is the Aegean Region. In this process, it will be necessary to adopt a strategy that will not disrupt the market equilibrium of the product in question due to overproduction.
2. Special attention should be paid to tobacco producers in mountainous areas on weak and arid soils that do not permit irrigation. It is almost impossible to cultivate alternative products in these regions. The best solution might well be long-term subsidies, especially for animal husbandry, that could also contribute significantly to stopping migration to the cities, where the migrants' poor educational background and lack of specific occupations can only aggravate social problems.
3. During the planning for the switch-over to new agricultural crops, the producers should be provided with detailed theoretical and practical training, and the technical teams that will provide instant assistance should be located in the regions.
4. The producers should be provided with financial support for a certain time during the change-over period. Since the time for products to reach full productivity varies (it could be two years for one product and five years for another, for example), the optimal switch-over periods should be determined and payment plans arranged accordingly.
5. It is important to convince the producers that they will receive a sustainable financial flow that will maintain their livelihoods from the new product. Training and consciousness-raising programmes should be carried out sensitively, and all appropriate means applied to reach an outcome.
6. It will be important to decide which public land that is idle is convenient for agricultural production and allocate it to as many producers as possible under a long-term maturity repayment plan with small payments.
7. An extremely important issue is the provision of special incentives for young people in the rural areas so as to re-employ them in the rural economy.
8. Micro-loans can be encouraged for the switch to different economic activities in appropriate regions. These could create significant added value in, for example, tourism, greenhouse production, bee-keeping and forestry and sub-sectors. It will be of significant benefit to examine the alternatives for each region.

9. There is a wide diversity in agricultural products. It is imperative that the advantages to be provided for tobacco producers do not disrupt the overall balance of agricultural production, since such disruption will have a negative effect on incomes. Thus, it is extremely important to coordinate operations to be held with other agricultural products and production. For example, during the years that high amounts of money were paid for tobacco, olive trees were cut down to make room for the cultivation of tobacco. Nowadays, olive trees are being planted on the same fields as an alternative to tobacco.
10. Finally, and most important, is the difficulty in getting people to change to a different economic or agricultural activity about which they have little or no knowledge. The most important determinant is the amount of financial resources allocated for the project, since this will affect the achievement of the suggestions listed above. The priority is to maximize the efforts needed and make the highest possible contribution, since otherwise the thousands of people left unemployed and hungry can only create bigger problems for the country in the future.

## Marketing strategies of the tobacco majors

### *Market shares*

In 1984, the government allowed foreign tobacco companies to export their products to Turkey, while Tekel maintained the exclusive right to import, price and distribute foreign and domestic tobacco products. In 1986, multinational companies were also allowed to import their own brands. In 1991, the tobacco companies were given the right to open plants in Turkey, and companies producing more than 2000 tonnes annually were given the right to price and distribute their own products. At the time this was only one company (PhilSA) which, finding Tekel inefficient in distribution, established its own distribution network. By 1992, PhilSA's share of the market was 0.7%, and the market share of all the imported cigarettes was 12.5%. Soon afterwards, other multinational companies such as RJ Reynolds (later JTI) and BAT started operating in Turkey.

Table 23 shows the market shares of the major cigarette producers in Turkey since 2001. With the arrival of foreign companies, Tekel's market share fell from 69% in 2001 to 30.5% in 2007. PhilSA increased its market share from 21% to 40% over the same period to become the dominant foreign cigarette company. Over the last 15 years foreign companies have increased their market share from around 13% to almost 70%.

Table 23. Market shares of major cigarette producers, Turkey, 2001–2007 (%)

Firms	2001	2002	2003	2004	2005	2006	2007
Tekel	68.80	60.99	54.26	46.50	37.99	37.67	30.49
PhilSA	21.32	27.45	33.51	38.85	42.11	40.02	39.70
JTI	9.88	11.56	10.69	10.41	8.52	10.21	13.24
BAT			1.54	4.24	8.16	7.00	7.07
European					2.46	3.44	6.83
Imperial					0.76	1.66	2.31
Gallaher							0.37
Total			100.00	100.00	100.00	100.00	100.00

### ***Tobacco production or cultivation, tobacco industry, market share and marketing tactics***

Until recently, tobacco leaf agriculture yielded substantial revenues. The production of leaf tobacco was, however, negatively affected by the arrival of the multinational tobacco industry in 1986 and consequent loss of market share in both the country and the region, combined with regulation of the tobacco sector by the IMF and World Bank in 2000 (Table 24).

Table 24. Tobacco trade statistics, Turkey (raw tobacco, Oriental)

Year	Production (million kg)
2001	198
2002	141
2003	156
2004	109
2005	133

Source: Universal Leaf Tobacco Company (40).

Turkey is still, however, the fifth largest cigarette producer in the world with approximately 123 000 million cigarettes produced in 2003. In 1999, there was a nearly 6% growth in cigarette production over 1998, but the growth rate slowed in 2000 to about 2% and remained almost constant in 2001. In 2003, production began to decline until by 2005, 117 000 million cigarettes were produced (Table 25). Although Turkey is one of the largest cigarette producers in the world, it does not feature in the industry's ranking lists for exports.

Table 25. Trade statistics, cigarettes (million sticks), Turkey, 2001–2005

Nature of trade	2001	2002	2003	2004	2005
Production	123 347	125 447	120 757	117 804	117 716
Import	0.04	10.19	0.40	0.02	1.32
Export	11 582	15 331	12 600	8 934	11 000
Apparent consumption	111 765	110 126	108 157	108 870	106 717

Source: State Planning Organization (41).

The arrival of the multinational companies has been the most aggressive industrial invasion in Turkish history. The industry's own documents, later revealed during litigation procedures, have clearly shown that this multinational industry has lobbied to obstruct tobacco control/public health laws, misinform the public and manipulate the media.

Notwithstanding these marketing strategies, officials in the sector expect a slight downward trend in consumption to continue due to the extended bans on smoking and the adoption of healthier lifestyles (Table 26).

TAPDK data show that the production and consumption of tobacco products fell during the last five to six years (Table 27). Per capita consumption also showed a similar decrease (by more than 10%) after 2000 to 1657, 1635, 1590, 1540, 1530 and 1481 cigarettes a year between 2000 and 2005 (Fig. 11).

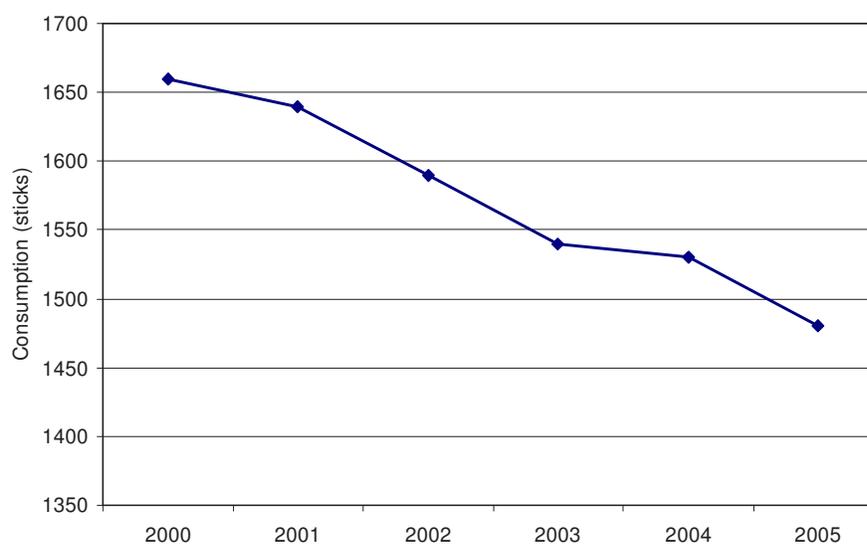
Table 26. Production of various tobacco products (including exports), million items/tonne, 1999–2007

Product	1999	2000	2001	2002	2003	2004	2005	2006	2007
Cigarette	119 000	122 000	125 000	130 000	121 000	117 907	114 594	125 800	125 900
Cigar	4.0	2.4	1.1	1.9	1.5	1.0	0.7	2	13.9
Pipe	10.6	3.0	5.7	4.1	6.4	1.3	1.8	1.5	1.7
Tobacco for hand-rolled cigarettes	42.4	53.2	51.2	81.1	71.2	35.9	18.5	–	–
Water pipe tobacco (natural)	81.0	60.7	62.4	64.1	36.3	48.3	27.9	17.2	18.0
Water pipe tobacco (aromatized)	–	–	–	–	–	–	49.8	62.5	24.0

Table 27. Cigarette consumption (billion sticks), Turkey, 1980–2006

Year	Consumption	Year	Consumption
1980	65.9	1994	91.0
1981	64.8	1995	95.0
1982	65.0	1996	96.0
1983	64.0	1997	101.0
1984	64.3	1998	109.0
1985	64.8	1999	114.4
1986	67.8	2000	111.7
1987	69.6	2001	111.8
1988	72.5	2002	110.1
1989	74.0	2003	108.2
1990	76.6	2004	108.9
1991	78.0	2005	106.7
1992	80.6	2006	107.9
1993	84.0		

Fig. 11. Annual per capita cigarette consumption, Turkey, 2000–2005



## Conclusions

1. The tobacco plant was brought to the Ottoman Empire in the 17th century by British and Venetian sailors. From 1612 it was used within the Empire but banned by Sultan Osman the Young shortly after 1621. It was originally cultivated in the Balkan Peninsula (part of the Ottoman Empire) and the Aegean region. Mufti Bahai lifted the ban in 1646. In 1678, Ottoman officials realized that this crop could yield agricultural revenue and began to tax it. Taxation and tobacco production were further monopolized by the government in 1862, and the banderol system was introduced in 1874.
2. Tobacco cultivation and trading then started to reflect the political and economic conditions of the Ottoman Empire and the subsequent Turkish Republic. In 1884, monopoly rights were given to the REJI administration for 30 years, prolonged for 15 years in 1914. The first manufacturing plants were established in İstanbul-Cibali (1884), İzmir (1884), Adana (1895) and Samsun (1897) provinces.
3. In 1925, the republican government capitalized REJI and designated it a state monopoly. Law No. 1701 of 1930 regulated the cultivation, transport, processing and trading of the tobacco crop.
4. In 1983, Tekel, together with a small share from Rothmans, established the BEST Company in Bitlis. In 1984, Tekel started importing foreign brands. In line with the liberalization of the economy, Law No. 3291 of 1986 re-regulated the production, distribution and marketing of tobacco products and made multinational operations possible. In 1986, local manufacturing with Tekel participation was allowed and, in 1988, Tekel bought 25% of the shares of Rothmans.
5. In 1992, at Torbalı, both PhilSA and RJ Reynolds opened plants, while in 1994, the Tekel İstanbul-Cibali cigarette factory was closed due to a lack of new technology. In the same year, quotas were introduced into tobacco cultivation.
6. Following IMF recommendations, the TAPDK was established in 2002 with the power to regulate the tobacco market and related health issues.
7. Tekel's tobacco department was put up for privatization in 2003. An offer from JTI of US\$ 1150 million was thought too low and the process was frozen. In 2005, there was no offer for Tekel. Local nongovernmental organizations working in both tobacco control and the preservation of public property heavily criticized this privatization, the tobacco control community claiming that "in a sector where disease and death was inevitable, an increase in efficiency would mean an increase in suffering". World Bank data showed that sales by multinationals increased significantly after privatization in other countries. Despite appeals by various nongovernmental organizations and the labour unions of Tekel workers, Tekel was sold to BAT in 2008 for US\$ 1720 million.
8. With the arrival of foreign companies, Tekel's market share declined from 69% in 2001 to 30.5% in 2007, while PhilSA increased its market share from 21% to 40% in the same period to become the dominant foreign cigarette company operating in Turkey. Over the last 15 years, foreign companies have increased their market share from around 13% to almost 70%.
9. In 1999, cigarette production grew by nearly 6% over 1998, but the growth rate slowed down in 2000 to about 2% and remained almost constant in 2001. In 2003, Turkey was the fifth largest cigarette producer in the world with 134 500 million cigarettes, although in that year production volume began to decline, reaching 116 000 million cigarettes by 2005.

## **The role played by multinational tobacco companies in the Turkish market**

Tobacco cultivation was subsidized, supported and protected from competition until the 1980s under Law No. 196 of 1961. With 500 000 families working in cultivation and processing, tobacco has been an important agricultural product and the major source of income for about three million people (including family members), giving it political significance. Tobacco leaf had also been an important export product, sustaining 59 export companies. Until the 1980s, smoking was a cultural activity, especially among men, and only the Tekel monopoly brands were smoked. As the only cigarette manufacturer in a closed economy, Tekel did not need to advertise or promote its products. Tobacco advertising was unknown until 1987.

This section summarizes the role played by multinational tobacco companies in the Turkish market and the relevant consequences.

### **The government and the tobacco industry**

At the time of the State Planning Organization's report in 1984 abolishing the state monopoly and cultivation of new tobacco leaf (42), a representative of the tobacco industry reportedly visited Turkey and drew up an action plan with two Turkish ambassadors to meet the ministers of health and agriculture (43). The same representative also met ambassadors of six countries with permanent missions in Geneva, including Turkey (44).

The industry found powerful partners in the country and stated that they had engaged wealthy and important personalities for their excellent relationship with the President (45).

### **Preventing effective tobacco control policies and legislation**

The first tobacco control bill was vetoed by the President in 1991. Tobacco industry documents clearly state that this bill was referred back to the Commission of Justice following intense government relations action by the industry in general (46).

Pricing was a key issue for tobacco control. It was crucial for the multinational tobacco companies for their products to be priced at not more than 30% above the Tekel brands. When the price gap widened to 63% in 1991, the Minister of Finance was directed to reduce the gap to 31% (47).

A ban on advertising was a serious fear for the tobacco industry and there were many attempts to defeat it. The first action plan reported their intention to visit the Commission of Justice and, in return for no ban, to offer a youth project to the Ministry of Education (48).

### **The impact on laws and regulations**

Immediately after the publication of Law No. 4207 in the state newspaper in November 1996, a group of foreign lobbyists visited the National Assembly to persuade members of parliament that advertising bans were ineffective. This effort proved fruitless.

A few months later came the second attempt, with an open air event organized to promote a tobacco industry in Ankara. The Governor of Ankara stopped this event as it was clearly against the advertising ban. The industry applied to the Ankara 7th Administrative Court with the claim that the ban was unconstitutional. The Administrative Court found this claim serious and the issue was taken to the Constitutional Court. This court decided on 13 April 1999 in decision No. 1999/9 that the advertising ban was compatible with the Turkish constitution, taking into account the importance of public health (49).

The third attempt lasted the longest and concerned the Formula 1 race, which is used in many countries by the industry to counteract the effects of advertising bans. Many industry documents refer to the importance of Formula 1 racing in creating a strong adult male image of cigarettes with dynamic exciting sports, emphasizing an individualistic ideal (50,51).

The Formula 1 administration sent a proposal to the Ministries of Tourism and Youth and Sports to bring the races to Turkey on condition the advertising ban was changed. A member of parliament from the city of Bursa forwarded a bill to the General Assembly Justice Commission to have Formula 1 races made exempt from the ban on tobacco advertising, but after intense lobbying from tobacco control nongovernmental organizations the bill was withdrawn. The Formula 1 race eventually came to Turkey, but without any tobacco advertising.

An industry document refers to a plan in 1986, at a time when only Tekel was allowed to import tobacco products, to bring sales to the borders of the Islamic Republic of Iran and Iraq, which might have implied bypassing the regulation (52).

## **International domino effects**

It was reported that the President's veto on the advertising ban was brought to the attention of the President and public of Argentina on 13 October 1992, where the President also vetoed a similar bill (53).

## **Corporate responsibility projects**

The multinational tobacco industry has tried to be visible in various cultural activities and charitable events in the past, including such activities as the renovation of the First Turkish General Assembly building, concert sponsorships, sponsorship of archaeological diggings and youth antismoking projects. In all these activities, measures were also taken by nongovernmental organizations.

## **Advertising**

A survey carried out with a grant from the International Research and Development Centre of 6012 adolescents aged 13–17 years in 15 cities showed that a significant proportion of them claimed to have been given a free gift by the tobacco industry, even after the bans on advertising were brought in (26). These adolescents tended to smoke more.

Furthermore, during concerts of singers popular with young people, free cigarettes had been distributed. Some of these concerts were organized with the sponsorship of beer companies.

## Conclusions

1. Tobacco cultivation was subsidized, supported and protected from competition until the 1980s, under the Cultivator's Tobacco Trade Market Law. With 500 000 families working in cultivation and processing, tobacco has been an important agricultural product and the major source of income for about three million people (including family members), giving it political significance. Tobacco leaf had also been an important export product, sustaining 59 export companies.
2. Until the 1980s, smoking was a cultural activity, especially among men, and only Tekel brands were smoked. As it was the only cigarette manufacturer, Tekel did not need to advertise or promote its products and advertising was unknown until 1987.
3. The State Planning Organization report of 1984 abolished the monopoly and cultivation of new tobacco leaf.
4. In 1986, Law No. 3291 and subsequent decrees made multinational operations possible.
5. The first tobacco control bill was vetoed by the President in 1991. Tobacco industry documents clearly state that this bill was referred back to the Commission of Justice, following intense government relations action by the industry.
6. The organizers of the Formula 1 car race proposed to the Ministries of Tourism and Youth and Sports to bring the races to Turkey on condition that the advertising ban was changed. A member of parliament from the city of Bursa sent a bill to the General Assembly Justice Commission to have Formula 1 races made exempt from the tobacco advertising ban, but after intense lobbying from nongovernmental organizations working in tobacco control the bill was withdrawn. The Formula 1 race did come to Turkey, but with no tobacco advertising.

## Health care system and its role in tobacco control policy

### Government health services and tobacco control activities

The Ministry of Health carries out studies for the control of tobacco and alcohol use and addictive behaviour through the Department for Controlling Tobacco, Tobacco Products and Substance Abuse within the General Directorate of Primary Health Care, Department of Mental Health. This department was set up on 5 July 2007 by Ministry Decision No. 7741. The Department for Controlling Tobacco, Tobacco Products and Substance Abuse has three sections controlling tobacco and tobacco products, alcohol use and substance abuse.

Tobacco control is one of the priorities of the Ministry of Health and the following measures have so far been taken.

- Law No. 4207 Concerning the Prevention of Hazards of Tobacco Products was enacted on 26 November 1996 and was the first legal regulation concerning the control of tobacco and tobacco products (1).
- The FCTC was approved by the Fifty-sixth World Health Assembly on 21 May 2003, signed by the Minister of Health in the name of Turkey on 28 April 2004, and approved by the Grand National Assembly on 30 November 2004 (2).

- Subsequently, a National Tobacco Control Programme was organized with the participation of related ministries, universities and nongovernmental organizations. This Programme was published in the *Official Gazette* (54) with the Prime Minister's Circular No. 2006/29 (55). The main objective of the Programme is to increase to 80% the proportion of people aged over 15 years who do not smoke, and reduce smoking among youngsters aged under 15 years to nil.
- The National Tobacco Control Committee was set up in connection with studies carried out by the National Tobacco Control Programme, and several workshops have been organized.
- The National Tobacco Control Programme has been prepared for 2008–2012 and was introduced to the public by the Minister of Health at a meeting organized by the Ministry of Health, WHO and TAPDK on 12 December 2007.

The National Tobacco Control Plan consists of 10 Articles, as follows.

1. *Information, education and awareness-raising on tobacco-related health hazards.* The first phase of Law No. 5727 (amending Law No. 4207) on preventing the hazards of tobacco products came into force on 19 May 2008. A national media campaign with the slogan “protect your air” has been initiated by the Ministry of Health and the TAPDK to inform the public about the hazards of tobacco and secondhand smoke. The second phase of this campaign will start soon. In this context, several posters, flyers, leaflets and booklets have been prepared by the TAPDK, WHO, the International Union against Tuberculosis and Lung Diseases and the Campaign for Tobacco-Free Kids, and a web site has been created (56). Materials such as advertising films, radio spots, leaflets, flyers, magazine advertisements, slogans, logos, billboards, posters, stickers, etc. are still being prepared and/or worked on. The web site carries documents concerning Law No. 4207, and questions e-mailed by both institutions and the public are answered. Instructive and cautionary materials relating to the health hazards of tobacco and secondhand smoke are being prepared for the public.
2. *Smoking cessation.* In order to designate a cessation day every two years, the General Directorate of Primary Health Care Services in the Ministry of Health organizes the National Quit and Win Campaign. The 2008 Quit and Win Campaign took place from 1 to 28 May 2008. Some 69 678 people participated and a resident of Niğde province won the 8000 TL award. The Ministry of Health also organizes cigarette cessation training and supports campaigns in a number of private and public institutions.
3. *Pricing and taxation.* Meetings on pricing and taxation have been organized by/at the Ministry of Finance, the TAPDK, the Under-secretariat of Customs, the Ministry of the Interior and the State Airports administration.
4. *Prevention of secondhand exposure to tobacco.* Several activities have been started within the context of the Law on the Prevention and Control of the Hazards of Tobacco Products.
5. *Advertisement, promotion and sponsorship.* Measures have been increased with Law No. 5727 (amending Law No. 4207) on the Prevention and Control of the Hazards of Tobacco Products (2008). As mentioned in the action plan, the main institutions responsible under this heading are the Ministry of Health, Ministry of Industry and Trade, Ministry of Finance, the Radio and Television Supreme Council, the TAPDK and the Under-Secretariat of Foreign Trade.
6. *Product control and information for consumers.* The TAPDK is responsible for continuous monitoring of the contents of tobacco products and informing the public about them. A special laboratory is being set up for this purpose.

7. *Illegal trade.* The Ministry of the Interior, Ministry of Finance, Treasury of Customs and the TAPDK are responsible for controlling the illegal tobacco trade.
8. *Accessibility to young people.* The Ministries of Health, the Interior, and Industry and Trade, TAPDK, General Directorate of Youth and Sports, and the National Tobacco and Health Committee are responsible for keeping young people away from tobacco and tobacco products and all related activities.
9. *Tobacco production and alternative policies.* The Ministry of Agriculture and Rural Affairs and TAPDK are responsible for controlling the production of tobacco or alternative crops and related monitoring activities.
10. *Monitoring and evaluation of tobacco use.* The Ministry of Health has the major responsibility for monitoring tobacco use, in cooperation with all other institutions named in the Action Plan. With the assistance of the CDC, the International Development Research Centre and WHO, the Ministry recently conducted a survey on the frequency of tobacco use among Ministry of Health employees. The results of this survey are in press.

In 2008, the Ministry of Health also conducted a nationwide cross-sectional survey using lot quality techniques, with technical and financial support from the WHO Country Office, Turkey. Data were collected from about 33 000 adults aged 15 years and over on the prevalence of their knowledge, attitudes and behaviour regarding the new 100% smoke-free legislation, and the health hazards of passive smoking. This study aims to estimate prevalence rates at country and provincial level, and to determine sub-regions where the level of knowledge and approval of the 100% smoke-free legislation is unacceptably low so that suitable interventions can be initiated in these places prior to implementation of the second phase of the Law in July 2009.

In addition to the activities summarized above, the Ministry of Health has become a partner in the Expansion of Smoke Free Public Places and Work Places in Turkey: Effective Enforcement of Smoke Free Legislation at National and Regional Level project, which is supported financially and technically by the International Union against Tuberculosis and Lung Diseases and is planned to be completed by 2010.

## **Nongovernmental organizations active in tobacco control**

Although the Ministry of Health has been the main body responsible for providing health services, health information and health promotion for the public, several other institutions and organizations and some voluntary groups and universities also carry out activities to provide information on the hazards of tobacco use and tobacco control. Most of these organizations work as members of the National Coalition on Tobacco and Health, which was established in 1995 as a major forum of governmental and nongovernmental organizations working for tobacco control-related activities.

### ***The National Coalition on Tobacco and Health***

Before 1995, several organizations were working on tobacco control separately and on a voluntary basis in various places. On the initiative of some of these organizations, the National Coalition on Tobacco and Health (NCTH) was formed in 1995, consisting of about 30 governmental and nongovernmental organizations that have been instrumental in all tobacco control legislation. The NCTH has been active in the FCTC process as a member of the Framework Convention Alliance, as well as in developing and enforcing the 1996 anti-tobacco legislation and the 2008 law and organizing three Tobacco and Health Congresses in 1997, 1999 and 2006.

The NCTH is structured as an opinion platform to facilitate collaboration and information-sharing in tobacco control. Members of the Coalition include the following bodies.

*Governmental organizations:*

Ministry of National Education  
Ministry of Health  
Ministry of Labour and Social Security  
Ministry of Culture and Tourism  
Family and Social Investigations Directorate  
Directorate of Religious Affairs  
Directorate of Youth and Sports  
Tobacco and Alcohol Market Regulatory Authority

*Nongovernmental organizations:*

Turkish Medical Association  
Turkish Thoracic Society  
Society of Public Health Specialists  
Turkish Public Health Association  
Society of Health Development and Tobacco Control  
Foundation of National Education and Health Education  
Turkish Democracy Foundation  
Turkish Cancer Research Foundation  
Turkish Medical Association  
Turkish Dentists Association  
Turkish Nurses Association  
Turkish Agriculture Society  
Geriatrics Society Turkey

The *Turkish Thoracic Society* chairs the organization of the present project and was involved in the EU project “Health Professionals and Smoking Cessation in a Larger Europe” in 2005, as well as many other national tobacco control projects.

The *Turkish Medical Association* was a founding member of the NCTH. It represents 87 000 physicians, has carried out several surveys among them and other health professionals on the use of tobacco and tobacco products and is capable of activating its members for further research. It has been active in publishing and publicizing anti-tobacco activities and activities, and collaborates with the World Medical Association in anti-tobacco discussions.

The *Society of Public Health Specialists* was also a founding member of NCTH. It has more than 300 members, all public health specialists with medical backgrounds. The Society collaborates with national and international organizations to improve knowledge about secondhand smoking. It advocates preventing exposure to second-hand smoke, provides consulting services to other organizations to improve public training activities in this area, and carries out research activities to investigate ETS-related health problems in order to make interventions more effective. The Society has recently been involved in a Bloomberg-funded project, conducted by the Ministry of Health and entitled the “Expansion of Smoke Free Public Places and Work Places in Turkey: Effective Enforcement of Smoke Free Policies”, as a partner nongovernmental organization.

As well as taking action under the legislation, the NCTH has organized activities on World No-Tobacco Days and other occasions. The Coalition has experience in joint projects and organizing public training activities, and throughout its 18 years of existence it has also developed relations with the media, local administrators and parliamentarians.

## **Harmonization with EU legislation on tobacco control**

The 2001/37/EC Tobacco Products Directive (57) has been harmonized through the By-law on Methods and Essentials Concerning the Manufacture Type, Labelling and Surveillance for the Protection from Damages of Tobacco Products, published in the *Official Gazette* on 6 January 2005 (58).

The aim of this by-law is to determine: (i) the methods and essential requirements for the prevention of all harmful public, social or medical impacts of tobacco products arising from their consumption; (ii) the maximum tar, nicotine and carbon monoxide yields of tobacco products; and (iii) the warnings regarding health and other information to appear on unit packets of tobacco products, together with the ingredients and the descriptions of these products.

It also aims to protect consumers from damage from tobacco products intended for smoking, sniffing, sucking or chewing by stipulating the methods and essential requirements concerning the manufacture, type and marketing of such products in as much as they are, even partly, made of tobacco leaf, whether genetically modified or not.

According to this by-law, the general warning “Legal Warning: Harmful for Health” shall be printed in such a way as to be clearly visible and easily readable on each packet of tobacco products, except for tobacco for oral use and other smokeless tobacco products. Since 1 January 2006, one of two general warnings such as “Smoking kills/Smoking can kill” or “Smoking seriously harms you and others around you” and an additional warning taken from the list below have been printed on the same packet.

- Smokers die younger.
- Smoking clogs the arteries and causes heart attacks and strokes.
- Smoking causes fatal lung cancer.
- Smoking when pregnant harms your baby.
- Protect children: don't make them breathe your smoke.
- Health institutions can help you stop smoking.
- Smoking is highly addictive; don't start.
- Stopping smoking reduces the risk of fatal heart and lung diseases.
- Smoking can cause a slow and painful death.
- To stop smoking, get help from your doctor and..... (telephone, postal address, internet address of a health institution to be determined by the Ministry of Health and TAPDK).
- Smoking may slow down the blood flow and cause sexual impotence.
- Smoking causes early ageing of the skin.
- Smoking can damage the sperm and decrease fertility.

- Smoke contains carcinogens such as benzene, nitrosamines, formaldehyde and hydrogen cyanide.

Since 1 January 2009 there has been a derogation concerning the decrease in tar yield to a maximum of 10 mg per cigarette for each cigarette manufactured, supplied to the market and released for free circulation. Work is still in progress on the by-law to implement this derogation. The draft amendment of the relevant provision is as follows:

“Article 5. From 01/01/2009, the yield of cigarettes manufactured, released for free circulation and marketed shall be a maximum of 10 mg per cigarette for tar, 1 mg per cigarette for nicotine and 10 mg per cigarette for carbon monoxide.”

When the by-law is finalized, the sale of tobacco for oral use will have been prohibited.

The above by-law will also introduce combined health warnings, including colour photographs and other illustrations on tobacco product packages, as defined in the *Commission Decision 2003/641/EC on the use of colour photographs or other illustrations as health warnings on tobacco packages (59)*.

The *2003/33/EC Tobacco Advertising Directive (on Advertising, sponsorship, promotion) (60)* and *89/552/EC Audiovisual Media Services Directive (on Cross border advertisements and television sales) (61)* are harmonized by Law No. 5727 amending Law No. 4207 concerning the prevention of the harmful effects of tobacco products. The objective of this Law is to take measures and make the necessary arrangements to protect individuals and future generations from the hazards of tobacco products and from any advertising, promotion or sponsorship promoting the use of tobacco products, and to ensure that everybody enjoys clean air. The TAPDK is preparing a draft by-law on the implementation of the Directives concerned.

The following provisions regarding advertising, sponsorship and promotion are taken from Law No. 4207, amended by Law No. 5727.

- Under no circumstances can advertisements and promotions be displayed using the name, brand or other signs of tobacco products or manufacturing companies of those products. No campaigns that encourage and promote the consumption of these products can be organized. Under no circumstances can the manufacturing or marketing companies of tobacco products sponsor any activity by using their name, emblem or brand or signs of their products.
- The names and emblems of companies that operate in the field of tobacco products, or brands, marks or signs resembling these products cannot be worn as apparel, jewellery or accessories.
- No cars owned by companies operating in the field of tobacco products can advertise the brands of tobacco products.
- The companies cannot for any purpose distribute the tobacco products they produce and market as an incentive, present, sample and promotion free of charge or as an aid to the dealers or customers.
- No notice containing the name, logo or emblems of the tobacco products can be given out for any purpose and no announcement can be put in the press.
- Tobacco products cannot be used in television programmes or series or advertisements, films, trailers or music videos, and their images cannot be displayed.

- The sale of tobacco products is prohibited in places serving as health, education, cultural and sports facilities.
- Tobacco products cannot be sold in places other than authorized retailers or via automatic devices or electronic forms such as telephone, television or the internet.
- Tobacco products cannot be sold to persons under the age of 18 years or made available for them to consume.
- Tobacco products cannot be offered for sale in any manner that can be visible from the outside the shop and can be directly reached by adolescents under the age of 18 years.
- Tobacco products cannot be offered for sale in places not specified in the sales certificate and without sale authorization.
- No kind of gum, snack, toy, clothes, jewellery, accessory or products of similar use can be manufactured, distributed and sold in such a way as to resemble the tobacco products or evoke the brand of tobacco products.

The provisions regarding penalties in Law No. 4207 have been broadened on the basis of the relevant article in Law No. 4207 amended by Law No. 5727. In addition, Law No. 5727 contains an article related to advertising, sponsorship and promotion, infringement of which is punishable by a fine appropriate to the nature of the infringement.

## Conclusions

1. The Ministry of Health carries out studies for the control of tobacco and alcohol use and addictive behaviour through the Addictive Materials Section of the Department of Mental Health in the General Directorate of Primary Health Care.
2. Law No. 4207 Concerning the Prevention of Hazards of Tobacco Products of 26 November 1996 (1) was the first leading legal regulation in the country concerning control of tobacco and tobacco products.
3. The FCTC was approved by the Fifty-sixth World Health Assembly on 21 May 2003, signed by the Minister of Health on 28 April 2004 and approved by the Grand National Assembly on 30 November 2004 (2). Turkey was the 43rd country out of 168 to sign the FCTC.
4. The National Tobacco Control Programme was prepared by the relevant ministries, universities and nongovernmental organizations and published in the *Official Gazette* on 7 October 2006 (54) with Prime Minister Circular No. 2006/29 (55). The main objective of the Programme is to increase to 80% the proportion of people aged over 15 years who do not smoke, and reduce smoking among youngsters aged under 15 years to nil.
5. The National Tobacco Control Committee has been set up in connection with studies by the National Tobacco Control Programme, and several workshops have been organized.
6. The National Tobacco Control Programme has been prepared for 2008–2012 and was introduced to the public by the Minister of Health at a meeting organized in cooperation with the Ministry of Health, WHO and the TAPDK on 12 December 2007.
7. The Ministry of Health is the main body responsible for providing health services, health information and health promotion for the public. Several other institutions and organizations as well as some voluntary groups and universities also provide information on tobacco control and the hazards of tobacco use. Most of these organizations work as members of the NCTH, which was established in 1995 as a major forum for governmental

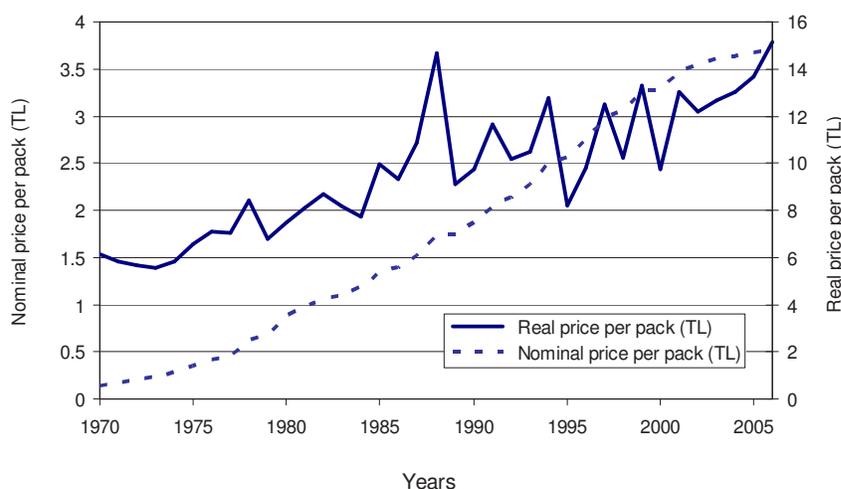
and nongovernmental organizations working in activities related to tobacco control. The NCTH is a coalition of about 30 governmental and nongovernmental organizations that have been instrumental in the drawing up of all tobacco control legislation as well as in the FCTC process as a member of the Framework Convention Alliance.

## Economic information related to tobacco

### Real price trends in tobacco products and their affordability

On average, the real price of cigarettes increased by 4.17% annually between 1970 and 2006. Fig. 12 shows the movement of the average real and nominal prices of cigarettes per pack during this period. Because of high inflation, the nominal price of a pack of cigarettes increased from 1.69 TL in 1970 to 2.83 TL in 2006.<sup>1</sup> As nominal prices were adjusted from time to time the real prices fluctuated, but the increase was especially marked after the change in the tax structure on tobacco products in 2002.

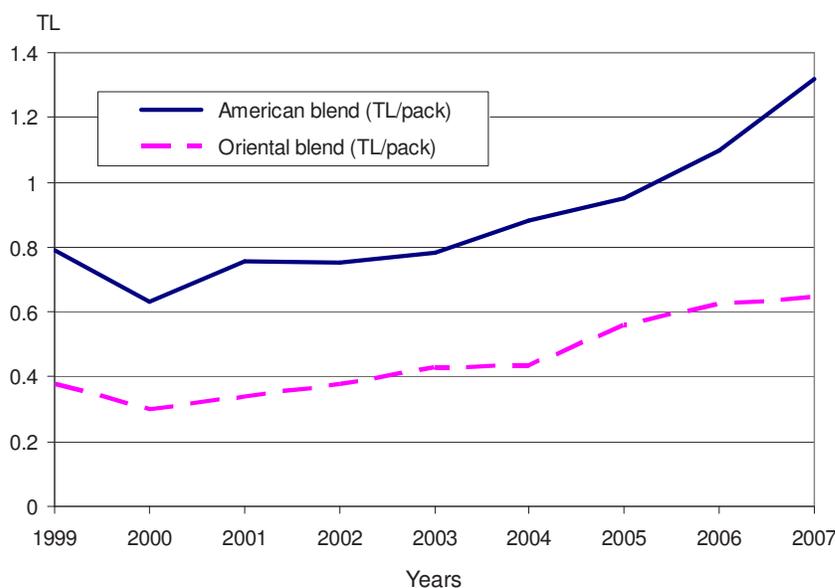
Fig. 12. Nominal and real prices of cigarettes per pack, Turkey, 1970–2006



Currently, all cigarettes on sale are filter cigarettes and are either oriental-blend using domestically produced tobacco or American-blend mainly produced from imported tobacco. The latter are more expensive than the former. When foreign brands appeared in Turkey, Tekel introduced new cigarettes with American-type tobacco in order to compete. Both types of cigarette were produced by both Tekel and international companies operating in Turkey. In 2006, the average prices of American-blend and oriental-blend cigarettes were 3.7 TL (€1.85) and 2.1 TL (€1.05), respectively. By 2007, these had increased to 4.5 TL (€2.52) and 2.2 TL (€1.23), respectively. The gap between the average prices for the two types of cigarette has widened in recent years (Fig. 13). It can be argued that this price differential will reduce the impact of any increase in price on consumption because if cigarette prices increase, consumers may switch to lower-priced brands.

<sup>1</sup> In 2005, six zeros were deleted from Turkish lira. Before this, the price of a pack of cigarettes increased from 1.69 TL in 1970 to 2 831 213 TL in 2006.

Fig. 13. Real prices of cigarettes by type expressed in terms of 2000 prices, Turkey, 1999–2007



Source: Tobacco and Alcohol Market Regulatory Authority (13).

The huge difference between cigarette prices in Turkey is also evident when individual brands are compared. For example, in January 2004 the retail price of the lowest priced cigarette, Birinci, was 0.90 TL (US\$ 0.69) and that of the most expensive cigarette (Parliament Super Slim) was 3.6 TL (US\$ 2.69). The gap between the lowest and the highest priced cigarettes has widened over time. In September 2008, the retail price of the lowest and the highest priced cigarettes were 2.15 TL (€1.21) and 6.00 TL (€3.37), respectively. On the other hand, of the two most popular brands, Marlboro cost 4.8 TL (€2.70) and the most frequently sold domestic brand, Tekel 2001, cost 3 TL (€1.69) in September 2008.

The affordability of cigarette prices is measured with the number of packs of cigarettes that can be purchased using GDP per capita. Fig. 14 shows the number of packs of cigarettes with different blends that could be purchased from 1999 to 2007. In 2000, it was possible to buy 2957 packs of American-blend cigarettes or 6210 packs of oriental-blend cigarettes, but by 2006 those figures had fallen to 2134 and 3759, respectively. These figures suggest that cigarettes became less affordable, given that their real prices increased over the last five years.

As another measure of affordability, an “affordability index” is created by dividing the average real prices of cigarettes by real GDP per capita. This measure takes a value of 1 in 1960. If the index is greater than 1, cigarettes have become less affordable relative to their affordability in 1960, while index values below 1 indicate more affordability relative to 1960. Fig. 15 shows the affordability index since 1960: in only four years (1965, 1967, 1988 and 2001) were cigarettes less affordable than in 1960. Although cigarettes were still affordable between 2002 and 2006, they were less affordable compared to the levels in the 1970s, 1980s and 1990s, showing that the tax policies implemented since 2000 by the Ministry of Finance in cooperation with advocates of public health have rendered cigarettes relatively less affordable.

Fig. 14. No. of packs of cigarettes that can be purchased with GDP per capita, Turkey, 1999–2006

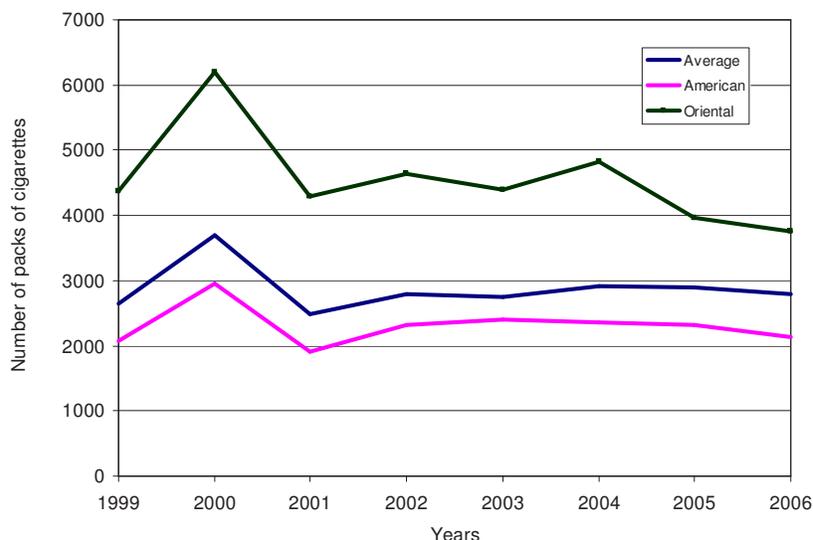
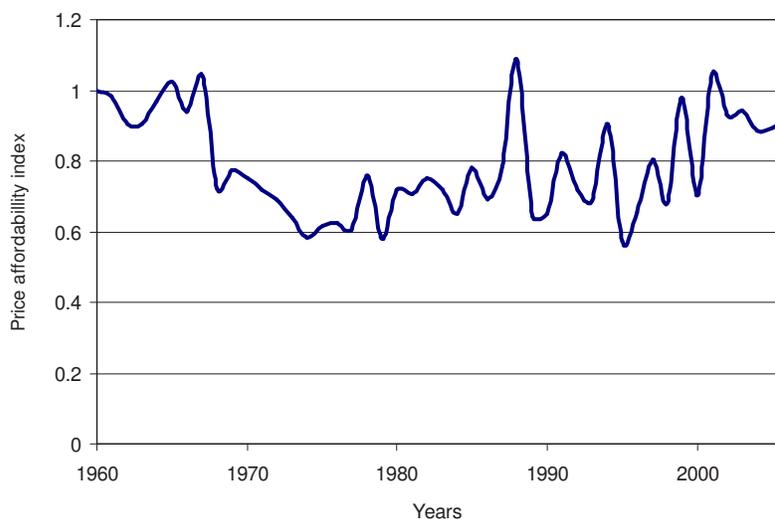


Fig. 15. Affordability index (price/GDP per capita), Turkey, 1960–2006



## Price elasticity of demand for cigarettes

The price elasticity of demand for cigarettes is important in order to determine the impact of the increase in cigarette prices. Four studies have been carried out estimating this price elasticity. The first two estimate elasticity at the aggregate level, and the others at the household level.

At the aggregate level, Tansel et al. (62) reported the average estimated short-term price elasticity of demand as -0.21, whereas the estimated long-term price elasticity was above the short-term estimates (-0.37) using the annual time-series data from 1960 to 1988. Using more recent data (1960–2000), Önder (63) reported that the price elasticity of cigarette demand is

within the range -0.190 to -0.284. Hence, it is expected that if real cigarette prices increase by 10%, total cigarette consumption will decline on average by 2.5%.

Using the 1994 household expenditure survey data, Önder estimated total price elasticity as -0.41. Consequently, a 10% increase in real price would reduce a household's cigarette consumption by 4.1%. Of this reduction, 3.9% would be due to a reduction in the frequency of smoking and only 0.27% to stopping. As expected, poor households were found to be more price-sensitive (-0.47) than rich ones (-0.16). In a follow-up study using data from the 2003 Turkish household expenditure survey, Önder and Yürekli found that total price elasticity or sensitivity towards cigarette prices increased to -0.67 in 2003, and that a 10% increase in price would reduce consumption by 9.9% among poor and 5.1% among rich households.<sup>2</sup>

## **Recent trends in tax levels and tax structure for tobacco products**

There are two types of tax on tobacco products: value-added tax (VAT) and excise taxes. All tobacco products are subject to VAT, whereas excise tax is only applied on the following tobacco products:

- cigars, cheroots and cigarillos containing tobacco (CN<sup>3</sup> code = 2402.10.00.00.00);
- cigarettes containing tobacco (CN code: 2402.20);
- other cigars, cheroots, cigarillos and cigarettes made of ingredients deemed as tobacco (CN code 24.02.90.00.00.00);
- smoking tobacco whether or not containing tobacco substitutes in any proportion (CN code: 2403.10);
- others, in net content of less than 500 g packages (CN code: 2403.10.10.00.19);
- others, in net content of more than 500 g packages (CN code: 2403.10.90.00.19);
- chewing tobacco and snuff (CN code: 2403.99.10.00.00).

### ***Tax structure on cigarettes***

Until June 2002, all cigarettes were taxed similarly and the revenues earmarked for various funds such as the Tobacco Fund and the Defence Industry Fund Veterans' Fund. Table 28 shows the types and amount of tax collected on cigarettes. Among these funds, only the Tobacco Fund tax is still collected on imported tobacco leaves used in cigarette production, at a rate of US\$ 3.00 per kg. In addition, US\$ 0.40 tax per pack is collected from all imported cigarettes and earmarked for the Tobacco Fund.

In 2002, the government introduced the special consumption excise tax on cigarettes as an important potential source of revenue and a 49.5% ad valorem excise tax on the retail price of cigarettes. This was increased to 55.3% in January 2003. A further specific excise tax was introduced in February 2004 in addition to the ad valorem tax. The retail price of cigarettes was used as a base for specific taxes: if the retail price was ≤1.6 TL, the specific tax was 0.025 TL per pack; if the retail price was 1.6–3.05 TL, the specific tax was 0.05 TL per pack; if the retail price was >3.05 TL, the specific tax was 0.08 TL.

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<sup>2</sup> Önder Z, Yürekli A. *Regressivity of cigarette excise taxes and tobacco control: a case study in Turkey* (working paper, 2007).

<sup>3</sup> The EU Combined Nomenclature code.

Table 28. Taxes on cigarettes, Turkey, June 2002

Type of tax	Amount of tax
Tobacco Fund – imported tobacco leaves	US\$ 3 per kg
Tobacco Fund – imported cigarettes	US\$ 0.4 per pack
Defence Industry Fund	10% on factory price
Additional Fund	120% on factory price
Education Fund	15% on retail price
Grazing Ground Fund	3% on retail price
Veterans Fund	2% on retail price
TAPDK's share	0.4% on retail price
VAT	18% on retail price

In order to protect the domestic producers of oriental tobacco, the government started to use the proportion of oriental tobacco as a specific tax base in August 2004 and reduced the ad valorem tax rate to 28% of the retail price. The specific tax on 0–24% of oriental tobacco was 1.00 TL, on 25–49% it was 0.60 TL, on 50–74% it was 0.45 TL and on 75–100% it was 0.35 TL.

As a reaction to the change in the tax structure, the cigarette producers increased the proportion of oriental tobacco in their cigarettes. Because of the decline in total tax revenues obtained from tobacco, the government switched to using the retail price of cigarettes as a specific tax base.

Table 29 shows the distribution of taxes on cigarettes since the introduction of the special consumption tax in 2002. Since July 2005, the maximum amount of either ad valorem or specific excise taxes, but not both, is levied on cigarettes. The current tax structure results in higher taxes on low-priced compared to high-priced cigarettes, thus reducing the price gap between cheap and expensive domestic brands.

Table 29. Tax rates on cigarettes, Turkey, 2002–2008

Year	Excise taxes		VAT rate (%)	Total tax rate (%)
	Ad valorem (%)	Specific (TL)		
2002	49.5		15.25	64.75
2003	55.3		15.25	70.55
2004	28.0	0.35–1.00	15.25	70–72.5
2005	58.0	or 1.2	15.25	73.25
2006	58.0	or 1.2	15.25	73.25
2007	58.0	or 1.55	15.25	73.25
2008	58.0	or 1.55	15.25	73.25

Note: The rates are expressed as a percentage of retail prices.

Source: Tobacco and Alcohol Market Regulatory Authority (13).

The amount and type of excise tax depends on the retail price. If 58% of the retail price is less than 1.55 TL, the specific excise tax is 1.55 TL per pack or 0.0775 TL per piece; otherwise 58% of the retail price is taken as an ad valorem excise tax. The same VAT rate of 15.25% of the retail price is applied to all types of cigarette (Table 30). For example, if a cigarette costs 2.15 TL (the lowest price in September 2008), the excise tax is 1.55 TL and the total tax rate is 87.34% of the retail price, whereas the total tax rate is 73.25% of the retail price if the cigarette price is over 2.67 TL.

Table 30. Excise and total tax rates on some brands, Turkey, 2008

Brand	Price (TL)	Excise taxes, ad valorem or specific	VAT rate (%)	Total tax rate (%)
Bahar	2.15	1.55 TL	15.25	87.34
Ballica	2.50	1.55 TL	15.25	77.25
Tekel 2001	3.00	58%	15.25	73.25
Marlboro	4.80	58%	15.25	73.25

### ***Tax structure on other tobacco products***

A similar excise tax system is applied to other tobacco products. The maximum of either the specific tax or the ad valorem tax is taken as an excise tax. Although the same rates were used until July 2008, the ad valorem rate on cigars and cigarillos has since been reduced to 30% and the specific tax per gram of water pipe tobacco has been reduced to 0.02 TL (Table 31).

Table 31. Excise taxes on other tobacco products, Turkey, 1998

CN Code	Tobacco products	Excise tax before July 2008		Excise tax after July 2008	
		Ad valorem (%)	Specific (TL per g)	Ad valorem (%)	Specific (TL per g)
2402.10.00.00 000	Cigar, cigarillo	58	0.0775	30	0.0775
2402.90.00.00 000					
2403.10.10.00.19	Water pipe tobacco	58	0.0775	58	0.0200
2403.10.90.00.19					

### ***Customs duty***

No customs duty is collected on tobacco products if they are imported from the EU or European Free Trade Association (EFTA) countries. For imports from other countries, the customs duty varies between 10% and 74.9% depending on the type of the product imported.

Tobacco leaves are considered as agricultural products and their import from EU and other countries is subject to customs duty at 25% with the exception of those from Bosnia-Herzegovina, on which no duty is taken. Since they are industrial products, no customs duty is collected on tobacco products if they are imported from the EU or EFTA countries. If the imports are from other countries, the customs duty varies between 10% and 74.9%, depending on the type of product imported.

### ***Government revenue from taxes on tobacco products***

Tobacco is an important source of revenue for the government. In 2007, the government collected 9.65 billion TL excise tax from tobacco products. When the VAT on tobacco products is included, the government is expected to collect 12.2 billion TL tax from tobacco products. This was equivalent to 7.97% of total tax revenue and 6.56% of total government revenue in 2007 (Table 32).

Table 32. Proportion of taxes collected from cigarette sales in total government revenue and total tax revenue (%), Turkey, 2003–2008

Tax on cigarette sales	2003	2004	2005	2006	2007	2008 <sup>a</sup>
Proportion in tax revenue	5.99	9.15	8.92	8.19	7.97	7.74
Proportion in government revenue	5.13	7.57	7.02	6.65	6.56	6.20

<sup>a</sup> The 2008 figures are calculated using the revenues obtained in the first eight months.

Source: Based on data from the Ministry of Finance.

## Estimates of smuggling

Reports from the State Planning Organization in 2007 showed that over the previous six years tobacco consumption fell by 15% (from 85.7 packs per capita in 2000 to 72.5 packs per capita in 2006). This decline may partly be explained by an increase in smuggling, estimated to amount to approximately 10 billion cigarettes, although obviously no official numbers are available. In the 9th Development Plan it is estimated that smuggled cigarettes represent approximately 10–15% of total consumption, on average. The results of a survey in 2007 financed by the producers of tobacco products have indicated that smuggled cigarettes represent only 4% of total consumption, but this rate has not been officially published due to methodological issues in the estimates.

Before the introduction of excise duty in 2002, 111.6 billion cigarettes were consumed annually. After the introduction of excise duty, this figure fell to approximately 108 billion pieces, leading to an estimate that smuggling accounted for 3.6 billion cigarettes, or 180 million packs (Table 33).

Table 33. Information on smuggled cigarettes, Turkey

Statistics of smuggled cigarettes	Amount
No. of packs of smuggled cigarettes	180 000 000
Total value of smuggled cigarettes	TL 509 418 000
Total tax on smuggled cigarettes	TL 373 148 685
Total tax collected on cigarettes in 2007	TL 12 182 898 323
Proportion of taxes lost on smuggled cigarettes	3.06%

Alternatively, taking into account that 5.3 billion packs of cigarettes were consumed in 2007 and TAPDK's estimates relating to the consumption of smuggled cigarettes, the number of packs of smuggled cigarettes could be thought to amount to 530 million (Table 34). If confiscated cigarettes are assumed to be 1% of all smuggled cigarettes, the government is expected to lose 31.65%; if they are assumed to be 5%, the government is expected to lose 6.33% of cigarette tax revenue because of smuggling. If smuggling is completely eliminated, these losses can be considered as an increase in government revenues.

In order to combat smuggling, the government has applied a banderol system since 1997 by which producers or importers of tobacco products are required to put a banderol on each pack. In July 2007, a new banderol system was introduced that enabled the government to follow tobacco products from production to retail sale with the aim of assuring tax revenue and protecting public health as well as eliminating smuggling. This is a far more advanced system than similar systems used in other countries in the fight against smuggling; with its application, it is estimated that US\$ 1 billion additional tax revenue could be gained.

Table 34. Estimated loss in government revenue due to smuggling, Turkey, 2007

Statistics of smuggled cigarettes	Amount
No. of packs of smuggled cigarettes	530 000 000
Total value of smuggled cigarettes	TL 1 499 953 000
Total tax on smuggled cigarettes	TL 1 098 715 573
Total tax collected on cigarettes in 2007	TL 12 182 898 323
Proportion of taxes lost on smuggled cigarettes	9.02%

The unit price of a banderol is TL 0.00570 for both imported and domestically produced tobacco products. Thus the banderol indicates that tobacco taxes have been paid. If the authorities find a tobacco product on sale without a banderol, the retailer is liable for both the taxes and a penalty equal to the amount of taxes for the illegal sale. In such a case, excise duty is levied in the name of the retailer based on the retail selling price, and the amount of tax levied cannot be less than the tax amount calculated according to the minimum specific tax amounts.

A banderol is a paper of value. The falsifying, copying, carrying, trading or altering of a banderol, or the producing, importing or deliberate using of falsified or altered copies of the banderol are, therefore, also criminal offences.

## Conclusions

1. On average, the real price of cigarettes went up by 4.17% annually between 1970 and 2006. Because of high inflation, the nominal price of a pack of cigarettes increased from 1.69 TL in 1970 to 2.83 TL in 2006.
2. In 2006, the average prices of American-blend and oriental-blend cigarettes were 3.7 TL (€1.85) and 2.1 TL (€1.05), respectively. In 2007, these prices increased to 4.5 TL (€2.52) and 2.2 TL (€1.23), respectively.
3. The huge difference between cigarette prices is also observed when individual brands are compared. In January 2004, the difference between the retail price of the highest and the lowest priced cigarettes was 3.6 TL (US\$ 2.69).
4. Of the two most popular brands, Marlboro costs 4.8 TL (€2.70) and the most frequently sold domestic brand, Tekel 2001, cost 3 TL (€1.69) in September 2008.
5. In only four years (1965, 1967, 1988 and 2001) were cigarettes less affordable than in 1960. Although cigarettes were still affordable between 2002 and 2006, they were less affordable compared to the 1970s, 1980s and 1990s. Since 2000, the tax policies implemented by the Ministry of Finance in cooperation with public health advocates have rendered cigarettes relatively less affordable.
6. The price elasticity of demand for cigarettes is important in determining the impact of increases in cigarette prices. A study in 2002 using the 1994 household expenditure survey data estimated total price elasticity as -0.41. Consequently, a 10% increase in the real price would reduce a household's cigarette consumption by 4.1%. Of this reduction, 3.9% would be due to a reduction in the frequency of smoking and only 0.27% would be due to stopping. As expected, poor households were more price-sensitive (-0.47) than rich ones (-0.16). In a follow-up study based on data from the 2003 household expenditure survey, total price elasticity or sensitivity towards cigarette prices increased to -0.67 in 2003, with

- a 10% increase in price corresponding to a reduction of 9.9% among poor households and 5.1% among rich ones.
7. There are two types of tax on tobacco products: VAT and excise taxes. All tobacco products are subject to VAT, but excise tax is only applied on certain tobacco products.
  8. The amount and type of excise tax depends on the retail price. If 58% of the retail price is less than 1.55 TL, the specific excise tax is 1.55 TL per pack or 0.0775 TL per piece; otherwise, 58% of the retail price is taken as an ad valorem excise tax. The same VAT rate of 15.25% of the retail price is applied to all types of cigarette. For example, if a cigarette costs 2.15 TL (the lowest price in September 2008), the excise tax is 1.55 TL and the total tax rate is 87.34% of the retail price, whereas the total tax rate is 73.25% of the retail price if the cigarette price is over 2.67 TL.
  9. A similar excise tax system is applied to other tobacco products. The maximum of either the specific tax or the ad valorem tax is taken as an excise tax. Although the same rates were used until July 2008, the ad valorem rate on cigars and cigarillos has since been reduced to 30% and the specific tax on water pipe tobacco has been reduced to 0.02 TL per gram.
  10. No customs duty is collected on tobacco products if they are imported from the EU or EFTA countries. For imports from other countries, the customs duty varies between 10% and 74.9%, depending on the type of product imported.
  11. Tobacco is an important source of revenue for the government. In 2007, the government collected 9.65 billion TL excise tax from tobacco products. When the VAT on tobacco products is included, the government is expected to collect 12.2 billion TL tax from tobacco products, equivalent to 7.97% of total tax revenue and 6.56% of total government revenue.
  12. Between 2000 and 2006, tobacco consumption fell by 15% (from 85.7 packs per capita in 2000 to 72.5 packs per capita in 2006). This decline may partly be explained by the increase in smuggling, estimated at approximately 10 billion cigarettes.
  13. According to the customs, 18.6 million packs of cigarettes were confiscated by the authorities in 2007. As annual consumption that year was 5.3 billion packs, the confiscated smuggled cigarettes make up less than 0.5% of total consumption.
  14. If confiscated cigarettes are assumed to be 1% of all smuggled cigarettes, the government is expected to lose 31.65% of cigarette tax revenue through smuggling. If smuggling is completely eliminated, these losses can be considered as an increase in government revenues.

## **Tobacco control: what works?**

### **Political commitment to tobacco control**

Political commitment is essential if national tobacco control activities are to be comprehensive and efficient. In this respect, the government has been very determined and quite successful over the years. During the FCTC process, nongovernmental organizations lobbied the government unremittingly and the result was a consensus on the FCTC in a country where tobacco-growing is part of the culture and a significant source of revenue. Turkey signed the FCTC on 28 April 2004 and ratified the treaty on 30 November 2004. Law No. 261 on tobacco control is in line

with the requirements of the treaty, and the relevant commissions are working on the incorporation of its requirements into national tobacco control programmes through this law.

The government showed the first signs of dedication to tobacco control when Law No. 4207 of 1996 on the Prevention and Control of Harm from Tobacco Products was enacted. This completely banned tobacco advertisements and restricted the use of tobacco and tobacco products in enclosed areas of institutions providing educational services as well as on public transport.

Law No. 5727 of 3 January 2008 banned smoking in all enclosed spaces, workplaces, public transport (including taxis), educational institutions and their premises, etc. The first phase was enacted on 19 May 2008, and the provisions banning smoking in hospitality workplaces were enacted on 19 July 2009. Law No. 5727 also updated the provisions of Law No. 4207 (listed above under Harmonization with EU legislation on tobacco control) by banning:

- the giving away of gifts, promotions and samples to distributors and/or customers under any circumstances;
- the publication of advertisements or any other material using their names, brands or logos in the press;
- the production of any chewing-gum, confectionery, toys, clothing, accessories or anything that looks like cigarettes;
- the sale of cigarettes individually or in small packs;
- the throwing away of packs, filters, paper or other by-products where others can see them;
- any form of display of company names, brands or logos;
- the sponsoring of events with company names or brand logos;
- the organization of campaigns that could promote smoking;
- the use of company names, brands or logos on any type of clothing or accessories;
- the display of company names, brands or logos on their commercial vehicles.

On 12 December 2007, the Ministry of Health launched the National Tobacco Control Programme, which had been prepared by 130 members of nongovernmental organizations. This programme incorporates all the elements required for a successful reduction in tobacco consumption.

These initiatives are aimed at providing the legislative framework for: (i) protecting people from exposure to tobacco as active users, by banning tobacco advertising and raising taxes; (ii) providing a smoke-free environment for everybody in order to prevent secondhand smoking; and (iii) warning the public about the health hazards of smoking so that they can choose a smoke-free lifestyle for themselves.

It is important that such legislation should be properly enforced, supported by helping those who wish to stop smoking, and regularly monitored to check how the interventions fit with national goals and to ascertain what other work is needed.

### ***Enforcement of tobacco control legislation, regulations and tax policies***

Law No. 4207 regulates smoking in public places and the sale and advertising of tobacco products in order to discourage smoking, reduce cigarette consumption among young people and

mitigate the damage that results from smoking. Even though this regulation was comprehensive, there were problems in its implementation. For example, the law did not state explicitly who would be responsible for administering punishment or collecting penalties. As a result, drivers were seen smoking in public transport vehicles and workers were seen smoking in banks or other public places. Although the law prohibited the sale of cigarettes to young people aged under 18 years, the results of the GYTS showed that 83.8% of respondents who had never smoked and 91.1% of those who currently smoked said that they were exposed to smoke from others in public places. Moreover, 50.4% of those who currently smoked bought their cigarettes from shops, and of these, 86.7% said that they had not been refused because of their age. Furthermore, although television channels broadcast some programmes about the harmful effects of tobacco use, they are transmitted in the small hours after midnight. A study by Bilir et al. (21) found that enforcement of Law No. 4027 was uneven. Because of the advertising ban, the tobacco companies announced their price changes in regular news articles, a practice which was stopped by the TAPDK in 2004. They also lobbied parliamentarians to allow them to sponsor sporting and cultural events.

Since January 2006, health warnings have been mandatory on cigarette packs. The warnings are located on both sides, on not less than 30% of the area of the pack. Some examples are “smoking kills”, “smokers die young”, “smoking causes young skin to age” and “smoking causes lung cancer.”

The government uses taxes on cigarettes as an important source of revenue. In 2007, it is estimated that the total tax take (excise and VAT) on tobacco was 12.2 billion TL, representing 7.97% of total tax revenues and 6.56% of total government revenues. However, it is estimated that smuggled cigarettes account for 10–15% of total consumption and, as a result, the government loses approximately US\$ 1 billion in tax revenue.

### ***Management of the national tobacco control programme/activities***

Although some publications on the harm related to tobacco-smoking appeared in the early 1900s, sound anti-tobacco activities started relatively late.

The multinational tobacco industry was involved in significant political and marketing activities since 1986, but it was not until 1991 that an organized anti-tobacco civil movement started. The first “Tobacco and Health Symposium” was held in 1992 in Ankara with the involvement of parliamentarians and the media, simultaneously with an entertainment organized by the tobacco industry involving the students of a well-known university in Ankara, probably with the aim of undermining and intimidating these first initiatives by the tobacco control groups. In May 1995, the NCTH was formed by a group of tobacco control advocates and organizations under the leadership of the Turkish Medical Association, the Turkish Public Health Association, the Turkish Thoracic Society, the Society of Public Health Specialists, the Society of Health Promotion and the Fight against Tobacco. The NCTH later became effective in the drafting of legislation and in the FCTC negotiation process and implementation of its requirements. Member organizations, representatives of medical professions, labour unions, agricultural societies and several ministries, lead the coalition by rotation.

The first anti-tobacco bill was prepared in 1991 but was vetoed by the President on the grounds that an advertising ban was against free trade. This was considered an acceptable rationale at the time and expected to have a domino effect in the region by the tobacco industry.

The second tobacco control bill was prepared in July 1992 and submitted to Parliament. The members of the Commission of Justice did not find the health evidence with regard to smoking adequate to accept the bill. With the prospect of the bill falling, global nongovernmental organizations were asked to help. Letters faxed to the chairperson of the Commission of Justice from all over the world were just able to keep the bill from disappearing, but instead it was sent to a sub-commission where it remained for three years. Tobacco industry documents seen later showed how the multinational tobacco industry lobbied against the bill at that time. In 1996, the bill was finally approved by the General Assembly and the President. The activities of the NCTH were invaluable throughout this process. Law No. 4207 on the Prevention of Harms of Tobacco Use was an important achievement and a major milestone in tobacco control activities in Turkey.

Law No. 4207 bans all kinds of advertisement without exception, the sale of tobacco products to children aged under 18 years and smoking in all health and educational institutions and on public transport (including buses and aircraft); restricts smoking in public buildings; makes the broadcast media responsible for transmitting programmes on the harm of smoking for 90 minutes monthly; and requires warning labels to be printed on cigarette packages. After the law was enacted, public transport and air travel became smoke-free and the advertising ban was implemented successfully. Several surveys documented an immediate positive effect in a fall in tobacco consumption.

As a positive “scream test” from the tobacco industry, the law was challenged several times. One month after the legislation was enacted a group of foreign lobbyists visited the General Assembly to say that the advertising ban did not work. Then they challenged the law by claiming that the advertising ban was unconstitutional, which was rejected by the constitutional court. Finally, Formula 1 races were used as an excuse to rescind the advertising ban through proposals to the Ministry of Tourism and Sports and by the proposing of a bill to keep Formula 1 races exempt from the advertising ban. The Turkish nongovernmental organizations fought vigorously against all these attempts and successfully preserved the law.

The Ministry of Health has been the main official authority working with anti-tobacco activities. From mid-1980, a small unit in the Mental Health Department, part of the Ministry’s General Directorate of Primary Health Care, has undertaken some anti-tobacco activities. Recently there has been important progress in the Ministry’s activities in this field, notably the establishment of a unit specifically charged with tobacco control work in 2006.

Law No. 4207 banned smoking in some public places but not restaurants, bars or cafés. Smoking in these places is not only an important public health issue but also a workplace hazard for workers in the hospitality industry. A new proposal was prepared in implementation of the FCTC and submitted to Parliament in 2006. The Turkish nongovernmental organizations had worked both with the Government and also closely with global nongovernmental organizations both during the FCTC negotiations as well as the preparation of this bill, facilitated mainly by Bloomberg partners and WHO. Following long discussions in the relevant parliamentary commissions, Law No. 5727 was accepted in January 2008. This extends the places where smoking is not allowed to include school premises and all hospitality workplaces, bans the sale of tobacco products within schools and on their premises, bans all kinds of sponsorship in addition to the ban on advertising and promotion in the previous law, clearly defines the rules in cases of violation and makes the directors of the establishments responsible. The new law was enacted in four months as regards official premises and came into force in July 2009 in all hospitality workplaces.

Nongovernmental tobacco control activities are based completely on voluntary work. No specific funds are allocated for them. The Ministry of Health assigns a relatively limited budget for anti-tobacco activities, which is occasionally topped up by ad-hoc parties.

The TAPDK was established in 2002. It regulates, supervises and controls the market in tobacco, tobacco products, alcohol, alcoholic beverages and methanol. In 2005, it published a by-law on the printing of warning labels on the cigarette packages. The previous warning was replaced by a selection from 14 different warnings, which are more effective and meaningful than the previous simple warning on two sides of the pack, covering 30–40% of the area of the pack on each of the large sides. The next step is for the TAPDK to introduce combined (pictorial) warnings on cigarette packs. The taxation of cigarettes and determination of their prices are the responsibility of the Ministry of Finance. Even though nominal cigarette prices have been more than doubled in the last decade, they are still much lower than in most European countries.

### ***Policy interventions: comprehensive ban on advertising***

Of all the provisions in Law No. 4207, the tobacco industry only protested against the advertising ban at the time. Industry documents from subsequent years reveal that they had tried hard to have the bill abolished.

Surveys carried out in the following years showed a slowing down in smoking rates as well as a plateau in Tekel consumption figures (Tables 35, 36).

Table 35. Smoking among schoolchildren, Turkey, 1996–1999

Groups	Number	Year	Current smoker (%)
7th class (12–13 years)	512	1996	3.5
	1453	1998	2.0
	1720	1999	0.8
10th class (15–16 years)	552	1996	28.3
	1317	1998	16.3
	1497	1999	14.8

Source: Bilir N et al. (21).

Table 36. Tekel tobacco consumption figures, 1982–2001 (billion pieces)

Year	Tobacco consumption	Year	Tobacco consumption
1982	54 001	1992	78 938
1983	63 402	1993	85 006
1984	62 956	1994	96 438
1985	63 310	1995	95 117
1986	65 458	1996	98 671
1987	71 900	1997	101 242
1988	68 780	1998	108 683
1989	74 000	1999	117 984
1990	76 540	2000	117 761
1991	76 660	2001	111 132

Source: Soydal T, Ergüder T (19).

### ***Public support for the smoke-free legislation***

An opinion survey conducted in 16 cities between 15 February and 1 March 2008 on a random sample of 1331 people aged 15 years and over yielded the following findings.

- Nine out of ten believed exposure to secondhand smoke was a very serious (67%) or quite serious (24%) risk to health.
- Nine out of ten (93%) agreed that all workers had the right to be protected from exposure to tobacco smoke regardless of where they worked. Respondents also felt that the government was taking appropriate action with the smoke-free legislation, with 89% agreeing that the government should do all in its power to protect every worker from exposure to secondhand smoke and 63% indicating that the legislation does not go too far in restricting the rights of the individual.
- More than 8 out of 10 respondents were aware of the smoke-free legislation; 38% had heard or read a great deal and 48% had heard or read something about the new law.
- Overall, the public favoured the legislation prohibiting smoking in all workplaces and public places (85% favoured and 75% strongly favoured the law). Support for the law was strong in all regions of the country and among all demographic groups. Even a majority of everyday smokers (63%) supported the overall legislation: just 14% indicated that they opposed it.
- Of the respondents favouring the provisions of the law prohibiting smoking in a wide variety of specific workplaces and public places, 90% favoured a ban in offices and other indoor workplaces and in indoor public spaces such as the metro, airports and shops, 75% favoured a ban in restaurants and 63% favoured a ban in bars.
- Finally, 81% of the respondents, including 65% of smokers, said it would be nice to go out and enjoy restaurants and bars without breathing tobacco smoke (64).<sup>4</sup>

In November 2008, the Tobacco Control Unit of the Ministry of Health, with support from the WHO Country Office, Turkey, conducted a nationwide lot quality survey on knowledge, attitudes and behaviour among adults aged 15 years and older relative to the new smoke-free legislation and on the health hazards of secondhand smoking in general. The study design enabled the determination of national and provincial prevalence rates and also in which areas in each province (if any) there is an “unacceptably” low level of knowledge and/or approval of the law. The results of this survey should be published before July 2009 and will be valuable in planning interventional efforts at national and provincial level, as the second phase of the 100% smoke-free law will by then be in effect.

### **Warnings for the public on the health hazards of smoking**

Ways of warning the public about the hazards to their health of smoking can include: topics relative to the hazards to health of tobacco use in the curricula for undergraduate and graduate students and in in-service training activities; messages in the media (oral and written) emphasizing the importance of smoke-free environments and the health hazards of tobacco use and tobacco smoke; anti-tobacco campaigns on selected days; or requests to individuals to describe their smoking status upon admission to any health facility for any purpose. Such activities have been carried out in various places but are mostly sporadic, not systematic in content, not sustainable and not comprehensive.

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<sup>4</sup> Unpublished report prepared by Synovate’s Global Omnibus, Turkey.

It is required by law that all television channels broadcast anti-tobacco and antismoking educational material for at least 90 minutes every month, including 30 minutes during prime time. The content of such material is checked and approved by the Higher Council of Radio and Television.

The results of the 2003 GYTS showed that smoking is noticeable among young people and is increasing among girls in particular. The Ministry of Education, through its School Health unit, has been working on enriching the school curriculum regarding healthy behaviour, including not smoking, and organizing drawing and essay competitions on the health hazards of smoking. There have been several small-scale studies on training young people about the health hazards of smoking through peer education; these activities have been found successful.

Formal tobacco control education at medical schools is not coordinated. Most medical schools teach the hazards to health of smoking together with smoking-related diseases, most importantly cancers and heart and lung diseases: very few teach tobacco control in a structured manner. Students are trained in small groups, using problem-based learning techniques. During these classes, certain scenarios are used which aim to increase the students' awareness of the harms of tobacco, their responsibilities and the influence they can have regarding tobacco control as future physicians.

Postgraduate training in tobacco control is carried out through courses or symposia mainly organized by professional societies for their members. The Turkish Thoracic Society organized an intensive five-day course in 2000, which trained significant leaders in tobacco control. There is still space for improvement in structured teaching for medical students and health professionals.

The Ministry of Health also works to increase awareness among health professionals and the public in general on the hazards to health of active-passive smoking, current legislation, ways of helping smokers to stop, etc. through in-service training activities. The most recent such training activity was a four-day course for all representatives of tobacco control units in all 81 provincial health directorates and included lectures, problem-based discussion hours and small group studies, directed by tobacco control experts from the academic world and Ministry of Health officials. This event emphasized the importance of carrying out the MPOWER six international policies together for the success of tobacco control activities.

## **Smoking cessation services**

The number of smoking cessation clinics has increased rapidly in recent years, but there are no structured, organized public services for cessation. As the system works on a voluntary basis, there is no systematic monitoring of health outcomes at the population level from stopping smoking, the quality of care provided and the cost, and there is a lack of coordination between the clinics. The cessation activities are usually carried out in university or teaching hospital clinics predominantly by enthusiastic physicians working with chest diseases and oncology. The success rates of the small number of chest clinics with tobacco cessation activities are comparable to internationally reported rates. In one of the clinics, 34.6% of the smokers trying to stop were still not smoking at the end of a five-year follow-up. The cessation programmes in various chest clinics are coordinated by the Turkish Thoracic Society's working group on tobacco control, according to the Society's treatment guidelines.

There seems to be space for much improvement in cessation services. The main weaknesses hindering effectiveness of the activities are that:

- most of the drugs used for smoking cessation are licensed but not reimbursed through health insurance systems;
- strong strategies and support are lacking for smoking cessation in specialized treatment facilities, government funding for such services, research on smoking cessation and the inclusion of courses on smoking cessation in the medical curricula;
- smoking cessation activities provided by health professionals are not remunerated either through their salaries or as reimbursements;
- smoking cessation activities are not included in routine services nor are they provided in general/family practice, workplaces, community-based clinics, schools or prisons, unless the health officer in charge has a special interest in them;
- there are no telephone quit-lines, although the Ministry of Health has established a hotline to get feedback from people about the anti-tobacco legislation (most people are in favour);
- there is no control of non-evidence-based cessation strategies and activities.

There has been an increasing trend towards using alternative methods to stop smoking. Various non-evidence-based methods have been marketed to the public, resulting in irrational allocation of resources. The Ministry of Health is planning a form of control for these strategies.

## **Need for continuous monitoring of tobacco control activities**

An estimate of prevalence rates is essential to evaluate the background status of tobacco use so as to help policy-makers tailor interventions to needs. Cross-sectional assessments *per se* are not sufficient and should be repeated periodically to assist with monitoring the effectiveness and success of such interventions.

Among the six main policies recommended to countries to reverse the tobacco epidemic, the first one is to monitor tobacco use and prevention policies. Monitoring data are necessary to ensure the success of the five other policy interventions included in the MPOWER package.

Accurate, reliable and comparable measurements are required to understand the problems caused by tobacco use and to manage interventions effectively and improve them. Comprehensive monitoring helps policy-makers to understand how the tobacco epidemic harms the country, and assists them to allocate tobacco resources in the areas where they are most needed and will be most effective.

In this context, Turkey is fully aware of the need for continuity in tobacco-related surveillance activities and is working on developing national capacity for this purpose. The country is an integral part of several international initiatives, such as Bloomberg Philanthropies, that help nations to develop well-established national surveillance systems for tobacco control capable of collecting relevant, valid, reliable and internationally comparable data.

## **Recommendations**

Turkey has been a tobacco-producing country for a long time and also consumes a significant amount of tobacco. Despite the common perception of smoking as a tradition, the population has recently become more aware of the health hazards of tobacco and its smoke. Tobacco contains

an “infectious” agent, which not only harms those who use it but also many others who share the same environment. As more and more individuals perceive tobacco as a “general killer”, even smokers are starting to support anti-tobacco activities and efforts for a 100% smoke-free environment. It is important to remember, on the other hand, that no matter how well-informed the population, the tobacco industry will always find a market for its products using new marketing strategies. Thus, tobacco control activities should always be contemporary, interactive and tailored to needs as they appear.

The tobacco epidemic is preventable, but this requires action by the leaders of government and civil society and each member of the public in his/her own capacity. In recent decades, several tobacco control programmes have been carried out covering different aspects of the health hazards of tobacco through formal and informal training programmes, conferences, posters, media messages, etc., by academics, the media, nongovernmental organizations, private enterprises and so on. Nevertheless, information and awareness-raising activities within the scope of the national fight against tobacco and tobacco products are still inadequate and there is a need for a continuous, systematic and reliable monitoring system for tobacco use and the effectiveness of continuing intervention activities. The current anti-tobacco legislation and regulations are comprehensive and considered as models for many other countries, yet there are problems in enforcing and managing them. Relevant policies should be standardized, sustainable, trusted and owned by the general public, smokers and non-smokers, alike. It is important that all anti-tobacco activities and regulations have adequate public support.

The National Tobacco Control Action Plan for 2008–2012 has been prepared by various national tobacco experts and institutions. This plan is made up of a series of objectives, strategies, planned activities (with the names of those principally responsible and the coordinating institutions with reference to preset deadlines) and indicators for progress on:

- measures to reduce the demand for tobacco products:
  - public information, awareness and education
  - smoking cessation
  - pricing and taxation
  - passive smoking
  - advertising, promotion and sponsorship
  - product control and information for consumers;
- measures to reduce the supply of tobacco products:
  - illicit trade
  - accessibility for minors
  - tobacco production and alternative policies;
- monitoring, evaluation and reporting of tobacco use and the National Tobacco Control Programme.

Members of the National Tobacco Control Committee meet regularly, review their action list and timetable and renew, revise or add to the activities. Each sub-group of the committee also has a list of the potential obstacles in the way of each planned activity and tries to minimize them as far as possible.

It is important that the action items of the National Tobacco Control Plan fit well with the six policies recommended by WHO to reverse the international tobacco epidemic (Table 37).

Table 37. Coordination of MPOWER and National Tobacco Control Action Plan items, Turkey

MPOWER policies	National Tobacco Control Action Plan items <sup>a</sup> related to:
Monitor tobacco use and prevention policies	3. Monitoring, evaluation and reporting of tobacco use and the National Tobacco Control Programme
Protect people from tobacco smoke	1.iv. Passive smoking 2.iii. Tobacco production and alternative policies
Offer help to stop using tobacco	1.ii. Smoking cessation
Warn about the dangers of tobacco	1.i. Public information, sensitization and education 1.vi. Product control and information for consumers
Enforce bans on tobacco advertising, promotion and sponsorship	1.v. Advertising, promotion and sponsorship 2.i. Illicit trade 2.ii. Accessibility to minors
Raise taxes on tobacco	1.3. Pricing and taxation

<sup>a</sup> Items numbered as in the National Action Plan for 2008–2012 (summarized above).

This report summarizing the current status of tobacco control activities in Turkey has shown the following.

- The legislation and regulations relating to tobacco control are comprehensive and well-articulated.
- Relevant activities should be more action-oriented, focused and comprehensive, and efforts by various individuals and institutions should be gathered under a shared umbrella to increase their effectiveness and efficiency. The National Tobacco Control Committee and the National Coalition for Tobacco Control will be valuable in reaching this aim in the future.
- The 100% smoke-free law is the underlying strength for protecting people against smoke/smoking. Efforts to improve its enforcement (by increasing public awareness in general, levying of penalties, etc.) should be guaranteed.
- It is crucial to ensure 100% enactment of the legislation banning tobacco advertising, promotion and sponsorship.
- Smoking cessation activities should be improved nationwide. Toll-free support hotlines and an adequate number of smoking cessation clinics should be established and medical and psychological support should be available for smokers wanting to stop. Undergraduate and graduate education and in-service training for health personnel should be revised according to this need.
- Activities to warn the general public about the health hazards of tobacco should be continued, but more comprehensively, systematically and regularly and, while based on scientific data and evidence, easily understandable.
- Many countries find that raising taxes seems to be the most effective policy to bring down smoking prevalence. Issues related to pricing and taxation should be worked on in more detail in the next few years.

## Conclusions

1. The Government showed the first signs of dedication to tobacco control in Law No. 4207 of 1996 on the Prevention and Control of Harm from Tobacco Products. This completely

- banned tobacco advertising and restricted the use of tobacco and tobacco products in enclosed areas of institutions providing educational services and on public transport.
2. Turkey signed the FCTC on 28 April 2004 and ratified it on 30 November 2004. Law No. 261 on tobacco control is in line with the requirements of WHO's global tobacco control treaty. Relevant commissions are working on the design of further requirements by the FCTC regarding national tobacco control programmes through this law.
  3. The Ministry of Health launched the National Tobacco Control Programme, prepared by 130 members of nongovernmental organizations, on 12 December 2007. This Programme contains all the elements required for a successful reduction in tobacco consumption.
  4. According to Law No. 5727 of 3 January 2008, smoking is banned in all enclosed spaces, workplaces, on public transport (including in taxis), in educational institutions and their premises, etc. The first phase was enacted on 19 May 2008. The provision in the law banning smoking in hospitality workplaces was enacted on 19 July 2009.
  5. Since January 2006, health warnings must be printed on cigarette packages. The warnings are located on the large sides and cover not less than 30% and 40% of the area of the pack on each side. Some examples are "smoking kills", "smokers die young", "smoking ages young people's skin" and "smoking causes lung cancer."
  6. Although the multinational tobacco industry had carried out significant political and marketing activities since 1986, an organized anti-tobacco civil movement only started in 1991. The first "Tobacco and Health Symposium" involving parliamentarians and the media was organized in 1992 in Ankara.
  7. In May 1995, the NCTH was formed by a group of advocates and organizations working in tobacco control and later played an effective role in the drafting of legislation as well as in the negotiations for the FCTC and subsequent implementation of its provisions.
  8. Nongovernmental tobacco control activities are completely based on voluntary work. No specific funds are allocated for them. The Ministry of Health assigns a relatively limited budget for anti-tobacco activities which is occasionally added to by ad hoc parties.
  9. The Ministry of Finance is responsible for the taxation of cigarettes and determination of cigarette prices. Even though nominal cigarette prices have more than doubled in the last decade, they are still much lower than in most European countries.
  10. The only provision in Law No. 4207 against which the tobacco companies protested was the advertising ban. Tobacco industry documents from the following years revealed that they had tried hard to get the bill abolished.
  11. National tobacco control efforts need to be continuing, comprehensive, emphasize priority needs, periodically monitored and revised (if need be). Despite the strong anti-tobacco legislation and commitment, there is still a need to continue anti-tobacco activities rigorously to provide a smoke-free environment for all. Among the MPOWER strategies, those directed towards raising taxes and offering help for cessation seem to need more effort in the short term, while other strategies should also be continued without interruption.

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*Annex 1*

**BILL AMENDING THE LAW ON PREVENTION OF HAZARDS OF TOBACCO PRODUCTS<sup>1</sup>**

Law No. 5727. Date of Enactment: 3/1/2008.

ARTICLE 1. The name of the “Law on Prevention of Hazards of Tobacco Products”, No. 4207, published on 7.11.1996 has been changed to “The Law on Prevention and Control of Hazards of Tobacco Products”.

ARTICLE 2. Article 1 of Law No. 4207 has been amended as follows:

Article 1.

(1) “The objective of this Law is to take measures and make the necessary arrangements to protect individuals and future generations from the hazards of tobacco products and from any advertising, promotion or sponsorship promoting the use of tobacco products and to ensure that everybody enjoys clean air.”

ARTICLE 3. The title and content of Article 2 of Law No. 4207 have been amended as follows:

“Places where tobacco use is prohibited

Article 2.

(1) Places where use of tobacco products is prohibited:

- a) Indoor areas of public workplaces;
- b) Indoor areas of buildings that are privately owned by legal entities and used for educational, health, commercial, social, cultural, sports or entertainment purposes, including hallways with room for more than one person (except private houses);
- c) In intercity, railway, sea and air mass transportation vehicles, including private taxis;
- ç) The indoor and outdoor areas accepted as part of the premises of: preschool educational institutions, primary and secondary schools, including private establishments preparing students for various examinations, and cultural and social service buildings;
- d) Restaurants owned by legal persons and entertainment establishments such as cafes, cafeterias and bars.

(2) However, areas could be designated for consuming tobacco products in:

- a) Care facilities for the elderly, psychiatric hospitals and prisons;
- b) Decks of ships or railway carriages carrying passengers between cities or on international routes.

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<sup>1</sup> Tütün Ürünlerinin Zararlarının Önlenmesi ve Kontrolü Hakkında Kanun [Law No. 4207 on Prevention of Hazards of Tobacco Products]. *T.C. Resmî Gazete [Official Gazette]*, 26 November 1996:22829 (<http://www.mevzuat.adalet.gov.tr/html/875.html>, accessed 4 June 2009).

Minors aged under 18 years shall not be permitted to enter these areas designated for consuming tobacco products.

(3) Special rooms can be designated for hotel guests that consume tobacco products.

(4) The use of tobacco products is prohibited in outdoor places and spectator areas where cultural, artistic, sports and entertainment activities are held. However, designated areas for consuming tobacco products can be provided in such places.

(5) The indoor designated areas for consuming tobacco products shall be so insulated that no smoke or odour escapes and shall be equipped with a ventilation system.

(6) For the purposes of this law, “tobacco products” means products that are entirely or partly made of the tobacco leaf as raw material, manufactured to be used for smoking, sucking, chewing or inhaling through the nose.”

ARTICLE 4. The title and content of Article 3 of Law No. 4207 have been amended as follows:

“Other protective measures

Article 3.

(1) Any form of advertising or promotion of tobacco products by using the product’s or producer company’s name, logo or trademark is strictly prohibited.

Campaigns promoting or encouraging the use of tobacco products are banned.

Companies that produce or market tobacco products may not contribute, in any manner, to any event or activity by using their names, logos or trademarks.

(2) The names and logos of companies operating in the tobacco industry or the trademarks or logos of tobacco products, or any symbols that would remind people of the company or the tobacco products may not be used on clothes, accessories and jewellery.

(3) Vehicles belonging to a tobacco company shall not bear any kind of sign that would remind people of the brand.

(4) Tobacco companies are strictly prohibited from distributing their tobacco products to distributors or consumers free of charge or as incentives, gifts, samples or supportive aid.

(5) No matter what the purpose may be, all forms of announcement or advertisement of tobacco products in the media using the product name, logo or trademark are strictly prohibited.

(6) Tobacco products may not be displayed on television programmes, films, television series, music videos, advertisements and commercial films, and their images may not be used.

(7) Tobacco products may not be sold in health, education and training, cultural and sports facilities.

(8) Tobacco products shall not be sold or offered for use to minors aged under 18 years.

- (9) Minors aged under 18 years shall not be employed in tobacco companies or tobacco marketing or sales activities.
- (10) Tobacco products shall not be sold individually, in open packs or in smaller packs.
- (11) Tobacco products shall not be sold via dispensers or electronic shopping media such as telephone or internet except by authorized dealers and shall not be shipped by cargo with the aim of selling the products.
- (12) Cigarette ends, cigarette packs, cigarette holders, cigarette wrappers and other waste material shall not be littered around.
- (13) Tobacco products shall not be displayed so as to enable persons aged under 18 years to have direct access or so as to be seen outside the place of sale. Tobacco products shall not be sold in places without a special permit for sale of tobacco products and outside places indicated in the permit.
- (14) Chewing gum, sweets, treats, toys, clothes, jewellery, accessories and like products shall not be produced, distributed or sold in any way suggestive of a tobacco product or tobacco brand.”

ARTICLE 5. The title and content of Article 4 of Law No. 4207 have been amended as follows:

“Ensuring control

Article 4.

- (1) In places where the smoking of tobacco products is prohibited, signs indicating the legal arrangement and the penalties for violation shall be posted at easily visible points in at least 10 cm font size in indoor places and in 3 cm font size in mass transportation vehicles. Moreover, health warnings describing the health hazards of tobacco use shall be posted in easily visible points in areas designated for consuming tobacco products.
- (2) A white plate with the warning “Legal Warning: the sale of cigarettes or any other tobacco products to minors under 18 is prohibited by law and violation will be subject to criminal prosecution” shall be posted on easily visible places in large black type.
- (3) A written warning label in Turkish indicating the health hazards of smoking shall be printed on packs of both local and imported tobacco products, and the warning labels, which shall be placed on the two wider surfaces of the package, shall not be smaller than 40 percent of one surface and no smaller than 30 percent of the other surface. Similar warnings shall also be placed on packages that include more than one pack. The warnings may also include photographs, diagrams or graphs. Tobacco products without warning labels shall not be imported or put on sale.
- (4) It is forbidden to provide false or incomplete information pertaining to the characteristics, impact on health, hazards and emissions on the packs and labels of tobacco products; misleading descriptions, brands, colours, symbols or signs may not be used.
- (5) Issues pertaining to the legal warnings (messages, photographs, diagrams and graphs) mentioned in this Law shall be arranged by a regulation. The regulation shall be issued by the

Tobacco, Tobacco Products and Alcoholic Drinks Market Regulatory Authority (TAPDK) after receiving the approval of the Ministry of Health.

(6) Firms operating in the tobacco sector shall submit any information about their products (production, marketing and other activities) within 15 days when requested by the Ministry of Health and the Tobacco, Tobacco Products and Alcoholic Drinks Market Regulatory Authority (TAPDK).

(7) The Turkish Radio and Television Corporation and national, regional and local private television and radio stations shall broadcast educational programmes of minimum 90 minutes every month explaining the hazards of tobacco products and other harmful habits. These programmes shall be broadcast between 08:00 and 22:00 on condition that a minimum of 30 minutes of such programmes be broadcast between 17:00 and 22:00 and that copies of these programmes shall be delivered regularly to the Radio and Television Supreme Council every month. Programmes broadcast at times other than those mentioned above shall not be included in the monthly quota of 90 minutes. The broadcasting times of these programmes shall be inspected by the Radio and Television Supreme Council. The Ministry of Health, the Ministry of National Education, the Radio and Television Supreme Council and the Tobacco, Tobacco Products and Alcoholic Drinks Market Regulatory Authority, scientific institutions and civil society organizations shall prepare such educational programmes or have them prepared by the institutions. After receiving the approval of the Ministry of Health, the Radio and Television Supreme Council shall ensure that the programmes thus prepared are broadcast.

(8) To warn children and young people about the health hazards of tobacco products and exposure to tobacco smoke, an educational curriculum shall be prepared by the Ministry of National Education, incorporating the views of the related institutions and civil society organizations.

(9) The Ministry of Health shall conduct the necessary activities intended to develop programmes that encourage people to quit the habit of using tobacco products and to ensure the accessibility of medicines for and treatment of tobacco addiction.

(10) To fund the programmes mentioned in Clauses 7, 8 and 9 of this article, adequate appropriation shall be allocated in the annual budgets of the Ministry of Health and Ministry of Education.

(11) The advertising and commercial expenses set forth in paragraph (7), Clause 1 of Article 41 of the Income Tax Law No. 193 dated 31.12.1960 may not be written off in calculating annual income and corporate tax bases.”

ARTICLE 6. The title and content of Article 5 of Law No. 4207 have been amended as follows:

“Penalty Clauses

Article 5.

(1) Those who consume tobacco products in places defined in Clauses 1 and 4 of Article 2 and those who violate Clause 2 of Article 3 of this Law shall be penalized in accordance with Article 39 of the Misdemeanors Act No. 5326 dated 30.03.2005, and those who violate Clause 12 of Article 3 shall be penalized according to Article 41 of the same Act.

- (2) Those who are responsible for operating enterprises and fail to implement the prohibitions and take the necessary measures stated in Clauses 1, 3, 4 and 5 with the exception of paragraph(a) of Article 2 shall be warned in writing by the authorities of the institution that has issued the permit. This warning letter shall be delivered to the person operating the enterprise. Those who fail to fulfil their obligations despite the written notice within the specified period shall be fined from TL 500 up to TL 5000 by the municipal council provided that the enterprise is within the municipal boundaries and by the local district official if it is outside the municipal boundaries.
- (3) Those who violate any of the prohibitions stated in Clauses 1, 3, 4, 5 and 11 of Article 3 shall be fined from TL 50 000 up to TL 250 000. The authority to decide on the penalty is the Tobacco, Tobacco Products and Alcoholic Drinks Market Regulatory Authority.
- (4) In case of violation of the prohibition set out in Clause 6 of Article 3 by the visual media, local broadcasting institutions shall be fined from TL 1000 up to TL 5000, regional broadcasting institutions from TL 5000 up to TL 10 000 and national broadcasting institutions from TL 10 000 up to TL 50 000. The Radio and Television Supreme Council is authorized to decide on such penalty.
- (5) Those who violate Clause 7 of Article 3 shall be penalized with an administrative fine of TL 1000 by the municipality council within the municipal boundaries and by the security forces outside the municipal boundaries.
- (6) Those who act against the prohibitions set forth in Clause 8 of Article 3 of this Law shall be punished according to Article 194 (Provision of substances dangerous for health) of the Turkish Penal Code No. 5237 dated 26.09.2004.
- (7) Those who act against the prohibition set out in Clause 9 of Article 3 of this Law shall be penalized with an administrative fine of TL 1000 for every individual by the local district official.
- (8) Those who violate Clause 10 of Article 3 of this Law shall be penalized with an administrative fine of TL 250 000 by the municipal police. If violation takes place outside municipal boundaries the penalty shall be imposed by the security forces.
- (9) Those who violate Clause 13 of Article 3 of this Law shall be penalized with an administrative fine of from TL 1000 up to TL 10 000 by the local district official. All tobacco products sold or kept available for sale without sale permits shall be confiscated, and in case of failure to submit a document showing the origin of the products, the local district official shall decide that the products are public property.
- (10) Those who produce products set out in Clause 14 of Article 3 of this Law shall be penalized with an administrative fine of from TL 20 000 up to TL 100 000 by the municipal council within the municipal boundaries and by the local district official when the violation takes place outside the municipal borders.
- (11) Those who violate any of the obligations set forth in Clauses 1 and 2 of Article 4 of this Law shall be penalized with an administrative fine of TL 1000 by the local administrative official.

(12) Manufacturing companies that fail to fulfil each of their responsibilities stated in Clauses 3 and 4 of Article 4 of this Law shall be penalized by the Tobacco, Tobacco Products and Alcoholic Drinks Market Regulatory Authority with an administrative fine of an amount that is equal to the market value of the products put on the market by the company in violation of these clauses. However, the administrative fine shall not be less than TL 250 000.

(13) Companies that act against the obligation in Clause 6 of Article 4 of this Law shall be penalized by the Tobacco, Tobacco Products and Alcoholic Drinks Market Regulatory Authority with an administrative fine of from TL 50 000 up to TL 100 000.

(14) Acting against obligations set forth in Clause 7 of Article 4 of this Law shall be penalized with an administrative fine of from TL 1000 up to TL 5000 for local broadcasting companies, from TL 5000 up to TL 10 000 for regional broadcasting companies and from TL 50 000 up to TL 250 000 for national broadcasting companies. For radio stations, these fines shall be calculated as one tenth of the said figures. The Radio and Television Supreme Council is authorized to decide on such penalties.

(15) For civil servants and other public officers who fail to execute their duties mandated in this Law, the disciplinary clauses included in the legislation that they are subject to shall be applied, reserving liability under the penal code.”

ARTICLE 7. The title and content of Article 7 of Law No. 4207 have been amended as follows:

“Transfer of Ownership to the Public

Article 7.

(1) Decision on transfer to public ownership of all kinds of objects mentioned in Clauses 2, 4 and 14 of Article 3 as well as the tobacco products mentioned in Clauses 3 and 4 of Article 4 of this Law shall be taken by the local administrative official.”

ARTICLE 8. Article 8 of Law No. 4207 has been abrogated.

ARTICLE 9. The following provisional article has been added to Law No. 4207:

“PROVISIONAL ARTICLE 3. (1) The regulations foreseen in this Law shall be issued within one month upon enforcement of this Law.”

ARTICLE 10. The provision of Paragraph (d), Clause 1 of Article 2 of Law No. 4206 as amended by Article 3 of this Law shall enter into force 18 months after promulgation; the other provisions shall enter into force 4 months after promulgation.

ARTICLE 11. The provisions of this Law shall be executed by the Council of Ministers.

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