



# GLOBAL ADULT TOBACCO SURVEY TURKEY 2012



Ankara 2014



**Public Health Institution of Turkey**

# **GLOBAL ADULT TOBACCO SURVEY TURKEY 2012**



ANKARA-2014

**ISBN : 978-975-590-502-0**

**Ministry of Health Publication No : 948**

**Printery : Anıl Matbaa Ltd. Şti.**

**Özveren Sok. 13/A Kızılay / ANKARA**

**Phone: (0 312) 229 37 41 Fax: (0 312) 229 37 42**

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## Foreword

*Tobacco use is the leading risk factor among the causes of preventable diseases that cause various health problems and death. Reducing the overall life expectancy and leading to premature death of people who are exposed to it, tobacco is still the reason of one in ten deaths worldwide.*

*Almost 6 million people around the world die of health problems caused by tobacco use every year, while the number of people dying of tobacco related diseases is at least 100 000.*



*Scientific studies suggest that exposure to smoke in enclosed public places causes serious illnesses like heart attacks or cancer in non-smokers and that there is no safe zone for the issue.*

*However, tobacco use continues to widely exist all around the world. Effective and comprehensive interventions are absolutely necessary for such a harmful and dangerous product. World Health Organization (WHO) could not remain indifferent to the situation and developed the first international health convention on tobacco control, Framework Convention on Tobacco Control (FCTC). With a current number of 178 parties, the treaty has played an important role in curbing or even causing this worldwide epidemic to regress.*

*Immediately after signing the FCTC in 2004, we developed our national action plan building our fight on three solid bases and have started this challenging marathon.*

*These are;*

- 1) Prevention of starting smoking by individuals, especially children and adolescents,*
- 2) Encouraging smokers to quit tobacco use,*
- 3) Prevention of passive exposure to tobacco smoke.*

*Needless to say, we were aware that this marathon would be quite challenging though we would accomplish it with a long term fight.*

*The aggressive sales policies of especially the tobacco industry, non-existent political will against tobacco around the world and the attempts to exaggerate the obstacles we would encounter could not frighten or discourage us. If you set out to protect your society's health with their support, you cannot fail.*

*On the basis of the accomplishments we have gained in tobacco control up to this point stand the political determination led by RecepTayyip ERDOĞAN, our Prime Minister, a well prepared technical infrastructure, receiving the full support of the society, collaboration of national and international non-governmental organizations and universities, and of course never ending support of World Health Organization staff.*

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*The results of the Global Adult Tobacco Survey, the first of which was conducted in 2008, has been an invaluable study ensuring that we realize the points to consider and problematic areas of our tobacco control attempts. This survey, the second one of which was conducted in 2012, did not only guarantee that we fulfill the requirements of the measures of MPOWER, monitoring for the second time, but it also spread a glimmer of hope around the world starting from Turkey. This has materialized the belief that success in this field is possible and dedicated this to the use of humanity.*

*One of the most significant results that show the accomplishment of tobacco control attempts in a country is the change in the rate of smoking in that country. In this report, we can observe that the rate has fallen from 31,2 % to 27,1 % in our country. What lies behind this achievement is taking the necessary measures for the problematic areas by analyzing the findings of the first study.*

*I would like to take this opportunity to thank WHO, Centers for Disease Control and Prevention (CDC), Hacettepe University, Turkish Statistical Institute and the personnel of the Ministry for their precious contributions to the preparation of this useful document that we will be benefiting from while designing the following projects and that other countries fighting against tobacco in determination can utilize while planning their own tobacco control projects.*

**Mehmet MÜEZZİNOĞLU, M.D.**  
**Minister of Health**

## Foreword

*On behalf of the WHO Regional Office for Europe, I congratulate Turkey on being the second country globally to repeat and publish the results of the second Global Adult Tobacco Survey (GATS). This report marks yet another milestone in Turkey's strong commitment to tobacco control and the fulfilment of its obligations as a Party to the WHO Framework Convention on Tobacco Control (WHO FCTC) since 2004.*



*I also congratulate Turkey for effectively using the evidence from the 2008 GATS to inform decision-making and to take strong action leading to a significant decrease in tobacco use, as revealed by the 2012 GATS. These findings highlight the positive impact of the comprehensive set of tobacco control policies implemented by the Government. The decrease in adult smoking prevalence in Turkey, from 31.2% in 2008 to 27.1% in 2012, is truly inspiring.*

*The findings presented in this report provide a good opportunity to reflect on Turkey's success and praise its Government and people for serving as a shining example in implementing the key pillars of the WHO European policy framework for health and well-being, Health 2020. The comprehensive measures implemented between 2008 and 2012 represent whole-of-society policies to improve everyone's health and influence its social determinants.*

*The challenges involved in putting these policies into practice should not be minimized, and success must be attributed to the firm commitment and leadership of the Turkish Government, as well as the effective mobilization of support for its strong policies from key stakeholders and the public. Leadership for and equity in health are also at the core of Health 2020, and Turkey's commitment to defending its people from the dangers of tobacco use should be applauded.*

*A key factor is the unified and holistic approach of the Government, led by the Prime Minister, Mr Recep Tayyip Erdoğan. Driven largely by Government leadership and policy initiatives, a complex system of intersectoral cooperation was established to fight the tobacco epidemic. Turkey's achievements and excellent cooperation with WHO have resulted in awards not only from WHO to Turkish leaders (the Prime Minister; the then Minister of Health, Professor Recep Akdağ; and the then head of the health commission of the Turkish Parliament, Professor Dr Cevdet Erdöl) but also from the Minister of Health to the WHO Country Office, Turkey, in recognition of its exemplary support to the Ministry's tobacco-control activities.*

*Turkey has become one of the leaders in tobacco control not only in the WHO European Region but also globally. On 12 July 2012, Turkey became the first country in the world to attain the highest implementation score for all of WHO's MPOWER measures, the demand-reduction interventions contained in the WHO FCTC:*

- *monitor tobacco use and prevention policies*
- *protect people from tobacco smoke*
- *offer help to quit tobacco use*
- *warn about the dangers of tobacco*
- *enforce bans on tobacco advertising, promotion and sponsorship*
- *raise taxes on tobacco.*

*As a result of Turkey's strong and comprehensive approach to the WHO FCTC, tobacco use is declining at unprecedented rates. Turkey's commitment to sustaining effective action for tobacco control, and ensuring a strong tobacco surveillance system to evaluate it, will serve as a model for other countries.*

*WHO is grateful for its excellent collaboration with the Ministry of Health and valuable support from Bloomberg Philanthropies and other partners, and looks forward to continuing to work with them to curb the global tobacco epidemic.*

***Zsuzsanna Jakab***  
***WHO Regional Director for Europe***



## Preface

*On behalf of the Centers for Disease Control and Prevention (CDC), it is an honor to congratulate Turkey on completion of its second Global Adult Tobacco Survey (GATS). As one of only two countries in the world to repeat GATS, Turkey is to be commended for this significant achievement.*



*Tobacco control is a key noncommunicable disease (NCD) target, and the World Health Organization's (WHO) NCD monitoring framework is proposing a 30 percent relative reduction in the prevalence of tobacco use by 2025. Achievement of this target, will require high-level leadership and accelerated implementation of the WHO MPOWER measures, which Uruguay has used for some time and Turkey is now implementing. Both countries are demonstrating an unprecedented decline in tobacco use and serve as examples for other countries. Continuous engagement and vigilance through monitoring and managing the epidemic will determine the end game for tobacco control over the coming years.*

*Turkey has made extraordinary progress on its tobacco control policies. With its comprehensive bans on indoor smoking and tobacco advertising, promotion, and sponsorship, Turkey serves as a model to other nations. Major policy changes in 2008 – coupled with implementation and enforcement – have been essential in achieving tobacco use reductions at unprecedented rates. As the first and only country in the world to attain the highest implementation score for all six of WHO's MPOWER measures, Turkey serves as proof that these recommendations work. Results from 2012 have demonstrated an 13,4 percent reduction in the prevalence rate of tobacco use since 2008.*

*Congratulations again on your remarkable successes. We thank you for your continued leadership. It has been a privilege to partner with Turkey, and CDC looks forward to expanding our collaboration.*

**Thomas R. Frieden, M.D., M.P.H.**  
**Director, CDC**





## Preface

Today, there are about 1.5 billion smokers around the world, and half of them are expected to die due to tobacco. Tobacco use that causes the death of nearly 6 million people worldwide each year is in the first place among the most important cause of deaths. Researchers estimates that the present patterns of smoking continue to the case, in 2020 about 10 million people worldwide each year die due to consumption of cigarettes, and 7 million of them in developing countries. For this reason, first priority of World Health Organization (WHO) is to reduce tobacco use and tobacco-related deaths.



One of the most important aspects of tobacco control is to measure the effectiveness of tobacco control policies. Global Adult Tobacco Survey (GATS) have been developed in order to monitor progress over time in the countries with the highest smoking rates to bring together data on tobacco use and smoking prevention programs in countries in practice. In the first run 14 countries was participated Global Adult Tobacco Survey. These countries were Bangladesh, China, Egypt, India, Mexico, Philippines, Poland, Russian Federation, Thailand, Turkey, Ukraine, Uruguay and Vietnam. Field applications of the survey were conducted in 2008 and 2009.

In Turkey, the Global Adult Tobacco Survey was implemented successfully with 11 200 households in 2008 and with 11 536 households in 2012 in order to obtain information about the use of tobacco and tobacco products, exposure to tobacco smoke, tendency to give up tobacco use and people's attitudes and perceptions on the media and health warnings. Comparative results of both studies were made public. Furthermore in line with applications of Turkey Global Adult Tobacco Survey in 2008 and 2012, it has been started to compile tobacco-related information biannually on a regular basis by adding 17 questions to Health Survey questionnaire.

According to the results of the research, smoking prevalence decreased considerably from 31.2% in 2008 to 27.1% in 2012. Reduction is seen both among males (47.9% to 41.5%) and females (15.2% to 13.1%). The percentage of smokers, who began smoking before 15 years of age, was decreased from 19.6% in 2008 to 16.1% in 2012. The most significant decline was seen in passive smoking, it was especially remarkable that in restaurants smoking rate decrease from 55.9% to 12.9% in 2008 – 2012 period.

I believe that this publication will become a major source on reflecting the data on the use of tobacco in Turkey in an effective, timely and integrated structure will be useful for decision-makers, researchers and the public. With this belief, I would like to thank respondent households, WHO staff, Centre for Disease Control and Prevention (CDC), all the related institutions for their precious co-operation and support and TurkStat employees for their dedicated work.

**Birol AYDEMİR**  
**President**  
**Turkish Statistical Institute**



## Preface

*The number of deaths due to non-communicable diseases has been increasing and it is emerging as an important public health problem threatening communities in Turkey as well as in the World. Tobacco use is one of the most preventable risk factors and cause of death of the mentioned public health problem. Every year 6 million people die due to problems caused by tobacco use. Every year at least 100.000 people die in our country due to smoking related diseases. In light of these facts World Health Organisation (WHO) putting decrease of tobacco use and related deaths into priority targets has started to implement in 2003 Tobacco Control Framework Convention (FCTC) which is the first international health convention.*

*Tobacco control activities have been accelerated in Turkey as soon as we signed the FCTC in 2004. While implementing National Tobacco Control Program and FCTC provisions, Turkey has become the first and currently unique country accomplishing strategies in MPOWER policy package.*

*To be able to monitor and evaluate tobacco use prevalence and activities on tobacco control, WHO has been recommending to implement Global Adult Tobacco Survey (GATS) to countries in the scope of FCTC. Through these researches it is possible to see the results of policies implemented and to take new measures to them.*

*While comparing the results of GATS carried out in 2008 as the first one with the results of 2012, it has been observed that comprehensive tobacco control activities carried out in Turkey have provided significant achievements in four years. In this framework tobacco use prevalence has decreased from 31,2% to 27,1% in the population above 15 years of age, from 47,9% to 41,5% among male and from 15,2% to 13,1% among female population. I firmly believe that initially my institution and all other related institutions and organisations showing maximum efforts will completely save my country from smoking.*

*I thank to WHO, CDC, Turkish Statistical Institute, Hacettepe University and my Institution staff contributing to make visible to us results of tobacco control activities and working to carry out this study giving directions to our policies.*



**Prof. Dr. Seil ZKAN**  
**President**  
**Public Health Institution of Turkey**



## Preface

*Turkey achieved considerable improvements regarding tobacco control during the last two decades. Tobacco use showed sharp increase during 1980's and 1990's, after the introduction of multinational tobacco companies into Turkey. With great efforts of the Government and non-governmental organizations, the first tobacco control law came into force in 1996; banning smoking for the first time at most of the indoor public places, namely in education and health institutions, sports and cultural venues, most of the government offices and workplaces, and public transport. The Law also banned all kinds of advertisement and promotion of tobacco products and selling tobacco products to children. Following more than 10 years of implementation, the Law was amended to expand the smoking ban to the hospitality industry workplaces. By this amendment, Turkey became a complete smoke-free country, as third country in the world.*

*Global Adult Tobacco Survey (GATS) enables countries to monitor the effects of tobacco control policies, including tobacco use. GATS was performed in 2008, and repeated in 2012. Compared to 2008, both smoking prevalence and second hand smoke (SHS) exposure reduced considerably. The most remarkable reduction observed in the restaurants. Although the smoke-free legislation does not include homes, SHS exposure reduced at homes as well, indicating that smoke-free policy adopted by the community. More smokers think about quitting because of noticing health warnings on cigarette packages in 2012 than 2008, and more smokers used pharmacotherapy.*

*The major key to success in Turkey regarding tobacco control are political stability and whole government approach, as well as strong civil society support. Also, for more than 10 years of implementation of tobacco control law, understanding of "smoke-free" was accepted as a social norm by the community. Turkey is first and the only country implementing all six MPOWER strategies. Nevertheless, smoking prevalence is still too high in Turkey, and should be reduced. Therefore, there is need to continue to implement the strong tobacco control policies.*

*We would like to thank the leadership of Ministry of Health not only conducting the GATS in 2008 and 2012, but also for successful implementation of tobacco control policies in the country. We also thank and appreciate TurkStat for conducting GATS 2012, collecting the data precisely. Since the first planning of GATS 2012 more than a year ago, for their continuous support and evaluation during the whole project we would like to thank to CDC and WHO.*

*We hope this report will provide information to evaluate the development in Turkey and planning the future policies.*



**Prof. Dr. Nazmi BİLİR**  
**Prof. Dr. Hilal ÖZCEBE**  
**Hacettepe University**





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## Executive Summary

### Introduction

Tobacco use is one of the leading causes of preventable death worldwide. Every year, approximately 6 million deaths occur globally due to tobacco consumption. To combat the tobacco epidemic, countries must monitor tobacco use and key tobacco control measures. Using a standardized protocol, the Global Adult Tobacco Survey (GATS) enables countries to collect nationally representative data on tobacco use and key tobacco control measures in the adult population. The survey supports countries' formulation, tracking, and implementation of effective tobacco control interventions, while providing internationally comparable estimates.

Since the 1990s, the Ministry of Health (MoH) in Turkey has implemented a series of strict policy measures to protect the Turkish community from preventable disease and death attributable to tobacco use. The first anti-tobacco law came into force in 1996, and it was further strengthened in 2008. In addition to stringent tobacco control measures, Turkey became a party to the World Health Organization's Framework Convention for Tobacco Control (WHO FCTC) in 2004.

To better understand the scope of the tobacco epidemic and impact of the country's tobacco control measures, Turkey conducted GATS in 2008 as a nationally representative survey of adults aged 15 years and older using a standardized protocol including a questionnaire, sample design, and data management procedures. The survey found that nearly 16 million adults in Turkey smoked. Using the same methodology, Turkey repeated GATS in 2012. The results from 2012 will be directly comparable to those of GATS 2008. This comparability provides important insights into the progress of tobacco control in Turkey between 2008 and 2012. Moreover, results from the GATS 2012 will be an essential tool for furthering the Turkish Government and tobacco control partners' efforts to protect the health and lives of millions in the Turkish community.

### Methods

Under the coordination of the MoH, Turkey's repeat GATS survey was implemented in May 2012. The survey was a nationally representative household survey of non-institutionalized persons aged 15 years and older. The survey was conducted by the Turkish Statistical Institute (TurkStat).

A multi-stage, geographically clustered sample design was used to produce key indicators for the country as a whole, by urbanicity and gender. A total of 11 536 households were sampled, and one individual was randomly selected from each participating household to complete the survey. A total of 9851 individual interviews were completed with an overall response rate of 90.1%. Data was collected electronically with netbooks. Data were weighted to be nationally representative of all non-institutionalized men and women aged 15 years and older.



## Key Findings

**Tobacco Use:** In 2012, a total of 27.1% (14.8 million) of adults were currently smoking in Turkey. Prevalence was higher among men (41.5%) than women (13.1%). Overall, 23.8% of the current smokers smoked daily (men, 37.3%; women, 10.7%). Most (94.8%) smokers smoked manufactured cigarettes, and only 0.8% smoked waterpipe.

Seven in ten (70.4%) of daily smokers smoked more than half a pack (11 or more) of cigarettes daily. The average amount of cigarettes smoked per day was 19.2. Almost half (42.1%) of daily smokers smoked their first cigarette within 30 minutes of waking.

Daily smokers started smoking at an average of 17.1 years of age, and more than half (58.7%) of them started smoking before age 18 years of age, which is the legal age to purchase cigarettes in Turkey. Women started smoking a year later than men (17.9 vs. 16.8 years of age).

**Cessation:** Almost half (46.0%) of smokers made a quit attempt during the 12 months prior to the survey. According to opinions of former smokers who quit within the last 12 months, the most common reason for quitting was health problems (63.4%). Price was a less common reason (5.3%).

Four in every ten smokers (40.8%) visited a health care professional (HCP) during the last 12 months. Among them, 51.4% were asked if they were a smoker. Four out of five of the smokers (83.5%) who visited an HCP and were asked if they were a smoker were advised to quit.

Among smokers who made a quit attempt, 13.6% used pharmacotherapy, and 8.0% used counseling. A majority of smokers (73.4%) said they tried to quit without any assistance.

Almost six out of ten current smokers (55.1%) had interest in quitting smoking, while only 12.9% had a plan to quit within a month of the interview. Nearly 23% of current smokers thought about quitting within the next 12 months, while 19.7% thought about quitting but did not give a specific quit timeframe.

**Secondhand Smoke Exposure:** Overall, 15.6% of adults said they were exposed to tobacco smoke at work, and 12.3% of them were non-smokers. Exposure to secondhand smoke (SHS) was higher among men (men, 17.8%; women, 9.6%) and those living in rural areas (rural, 21.1%; urban, 14.6%). SHS exposure was much higher at home. Overall, 38.3% of all adults were exposed to tobacco smoke at home during the 30 days prior to the interview. Of non-smokers, 29.1% were exposed to tobacco smoke in the home.

In public places, cafes and coffee houses were found to have greater rates of SHS exposure. Among participants who visited public places during the 30 days prior to the interview, 26.6% said they were exposed to tobacco smoke in cafes or coffee houses; 12.9% in restaurants; 10.4% while using public transportation; 6.5% in government buildings; and 3.8% in health care facilities. SHS exposure was higher among men, particularly at the cafes and coffee houses. Among participants, 29.1% said smoking is allowed in their private cars, and 26.4% said they were exposed to tobacco smoke in a private car at least monthly.

**Economics:** Most of the smokers bought cigarettes from stores (91.3%), while very few bought from kiosks (4.3%), street vendors (2.6%) or vending machines (0.2%). Smokers spent a monthly average of 146.1 Turkish Lira (TL) on manufactured cigarettes. Male smokers spent 47.6 more TL (157.6 TRY) than female smokers (110.0 TL). The average price of a 20-cigarette pack of the most consumed brand was 5.7 TL.

**Advertising, Promotion, and Sponsorship:** Almost all adults (93.4%) noticed anti-cigarette messages at any place during the 30 days prior to the interview. The most common places where anti-cigarette messages were noticed were on television or radio (92.0%). More adults living in urban areas (44.9%) noticed anti-cigarette messages than those living in rural areas (31.5%). Overall, 6.3% of participants noticed cigarette marketing on television; 3.6% in stores; 2.1% on the internet; 1.8% in magazines; 1.5% on posters; and 1.1% on billboards. Equal proportions of adults and current smokers (77.1%) noticed video clips that showed patients talking about the harms of smoking. Of current smokers, half (49.8%) thought about quitting after viewing the video clip.

In Turkey, pictorial health warnings have been printed on cigarette packages since May 2010. During the 30 days prior to the interview, a majority of smokers (94.3%) noticed health warnings on cigarette packaging, while 92.5% noticed the pictorial warnings. Among current smokers, one in four (27.0%) indicated the picture for “smoking causes fatal lung cancer” was the most effective at encouraging them to quit. This was followed by “smokers die younger” (14.9%); and “smoking when pregnant harms your baby” (11.3%). Overall, half of current smokers (53.0%) thought about quitting because of the warnings; specifically, 48.5% thought about quitting due to pictorial warnings.

**Knowledge, Attitudes, and Perceptions:** Almost all (96.2%) adults believed that smoking causes serious illnesses: lung cancer (97.7%), heart attack (95.5%), chronic lung disease (93.9%) or stroke (84.4%). Similarly, both smoking (94.7%) and non-smoking (96.8%) respondents believe that breathing other people’s smoke also causes serious illness in non-smokers.

Nine in ten (90.6%) adults favored prohibiting all kinds of advertisements of tobacco products, and 95.5% are in favor of prohibiting smoking in indoor public places. Over seven in ten (72.5%) favored increasing taxes. Among non-smokers, 84.4% were in favor of tax increases, whereas 40.3% of smokers favored them.

## Change Over Time

Turkey is one of only two countries in the world to have repeated GATS. Conducted in 2008 and 2012 using the same methodology, findings from each survey are comparable to the other. Comparisons of result from the two surveys demonstrated significant evidence of change over the intervening four years:

- Smoking prevalence decreased from 31.2% in 2008 to 27.1% in 2012; reductions were seen among men (47.9% to 41.5%) and women (15.2% to 13.1%). This represents a 13.4% relative decline of the smoking prevalence (13.5% decline for males; 13.7% decline for females). Waterpipe smoking also decreased from 2.3% in 2008 to 0.8% in 2012.
- Although there was no significant change in the average age of initiation of daily smoking, the percentage of daily smokers who initiated before 15 years of age decreased from 19.6% in 2008 to 16.1% in 2012.
- There was a sizable reduction in SHS exposure in all public places, particularly in restaurants (from 55.9% in 2008 to 12.9% in 2012).
- There was a large relative reduction in SHS exposure among men and women in government buildings, healthcare facilities and public transportation. Relative change among men was 75.8% in restaurants, 45.9% in government buildings, 42.7% in health care facilities, and 42.7% in public transportation. Reduction among women was 78.4%, 26.6%, 29.8% and 27.8% in the same locations, respectively.

- Although not covered by the law, there was a substantial decrease (relative change of 32.0%) of SHS exposure in homes.
- The amount spent monthly to purchase cigarettes increased, rising from 12.7% of the minimum monthly salary in 2008 and to 20.8% in 2012.
- The overall prevalence of smokers who were asked by an HCP if they used any smoked tobacco product and were also advised to quit did not change from 2008 to 2012. However, an increase was seen among women for both indicators. The prevalence of female smokers asked by HCPs about their smoking status increased from 48.8% (2008) to 56.3% (2012), and the prevalence of female smokers advised to quit by HCPs increased from 38.0% (2008) to 46.4% (2012).
- There was an overall increase in adults who noticed any anti-cigarette information between 2008 and 2012 with a relative change of 5.3%. The largest increase was observed on television (85.5% in 2008 to 91.4% in 2012).
- Between 2008 and 2012, there was a relative increase of 14.4% in those that thought about quitting because of the health warning label on cigarette packages.
- The level of belief that smoking and SHS causes serious health problems remained nearly unchanged, but still very high, from 2008 to 2012 (96.0% vs. 97.8%).

## **Conclusion**

During the four year period between the two GATS surveys, Turkey achieved remarkable tobacco control successes. There was a relative reduction in current tobacco use of 13.4% since the 2008 survey was conducted. SHS exposure significantly decreased, particularly in restaurants and on public transportation. A great majority of respondents supported both smoking restrictions in all indoor public places and tax increases. Almost all adults in Turkey were aware that smoking and SHS causes serious illnesses.

Although Turkey achieved great advances towards curbing the tobacco epidemic, challenges remain and opportunities abound. Tobacco use is still high when compared to many other countries. Despite implementation of comprehensive smoke-free policies and bans on advertisement, promotion, and sponsorship, violations of these policies and bans still occur. The Tobacco Control Law does not cover private premises, and millions of people are still exposed to tobacco smoke at home or in private cars. Effective enforcement of current laws will further protect millions who are still exposed to the dangers of tobacco use in Turkey.

# 1

## INTRODUCTION



# 1. Introduction

## 1.1 Global Tobacco Control Policies

Approximately 1.5 billion people smoke globally. Up to half of them will eventually be killed by tobacco use. Unless current trends change, it is estimated that 1 billion people will be killed by tobacco during this century. Therefore, reducing tobacco use and reversing the tobacco epidemic must be a high priority, not only for public health workers, but also for the political leaders in every country (1). Millions of lives can be saved by implementing effective tobacco control measures. The WHO FCTC, an international treaty adopted by the World Health Assembly in 2003, sets the principles of tobacco control and gives countries a roadmap for fighting tobacco. In 2008, the first WHO Report on the Global Tobacco Epidemic was published. In it, WHO introduced a practical, cost-effective way to scale up implementation of specific provisions of the WHO FCTC on the ground. That is, the impact-oriented demand reduction measures for reducing tobacco use set out in MPOWER. Each MPOWER measure corresponds to at least one provision of the WHO FCTC (2).

“Monitoring tobacco use and prevention policies” one of the MPOWER measures and an essential component of effective tobacco control, provides the opportunity to track changes in tobacco control over time, through data collection, i.e., repeat surveys. For this purpose, WHO and the United States Centers for Disease Control and Prevention (CDC) convened a meeting of experts to discuss possible methods for surveillance of tobacco use in August 2006. At the end of the meeting, the expert group agreed on a standard protocol for an adult tobacco survey called the Global Adult Tobacco Survey (GATS) in 2006 and identified a need for a global adult tobacco use surveillance system. The expert consultation also recognized the challenges of limited funding and methodological complexities when conducting systematic adult tobacco surveys and identified a lack of comparability in ongoing national surveys.

The Bloomberg Initiative to Reduce Tobacco Use offers resources to fill the data gap for measuring adult tobacco use globally and to optimize the reach and results of the ongoing Global Tobacco Surveillance System (GTSS), which is comprised of the Global Youth Tobacco Survey (GYTS), the Tobacco Questions for Surveys (TQS), and the Global Adult Tobacco Survey (GATS). GTSS is comprised of four surveys. Three are school-based surveys for youth and selected adult populations: the Global Youth Tobacco Survey (GYTS), the Global School Personnel Survey (GSPS), and the Global Health Professions Students Survey (GHPSS). The remaining survey is a household based survey of adults, GATS.

GATS was launched in February 2007 as a new component of the GTSS. GATS enables countries to collect data on key tobacco control indicators in the adult population. Results from GATS will assist countries in the formulation, tracking and implementation of effective tobacco control interventions. Countries will be able to compare results of their survey with results from other countries implementing GATS.

Countries throughout the world, WHO, CDC, CDC Foundation, Johns Hopkins Bloomberg School of Public Health (JHSPH), RTI International and countries throughout the world are working together to implement GATS (3).

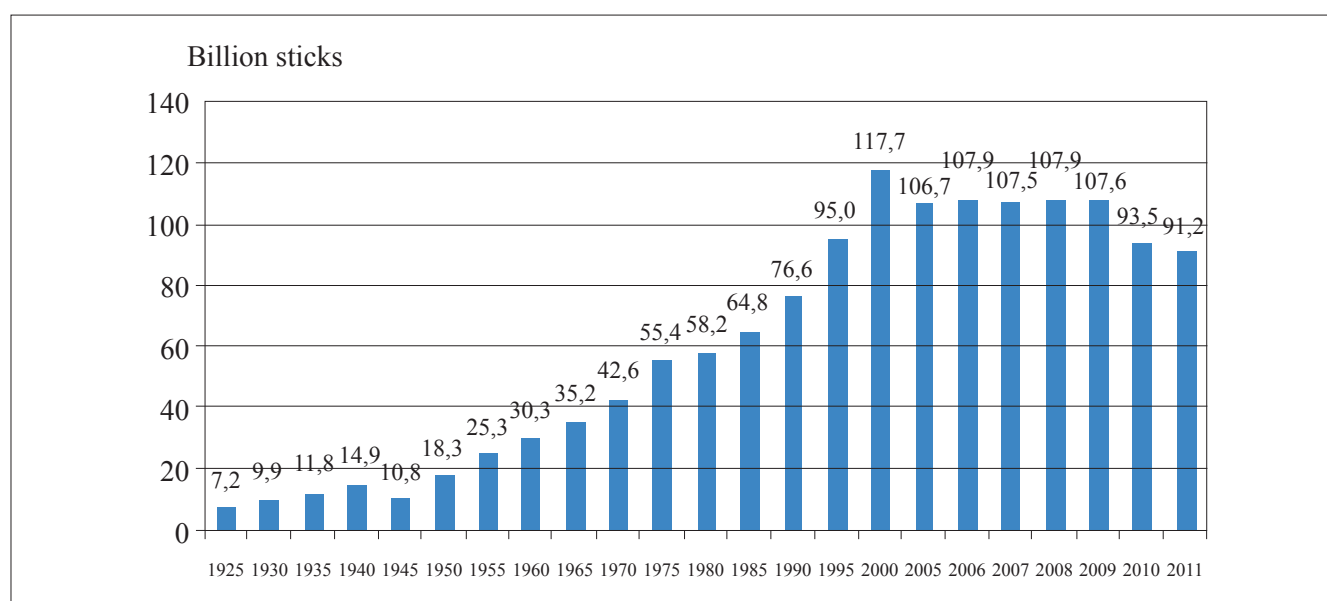


## 1.2 Tobacco Consumption in Turkey

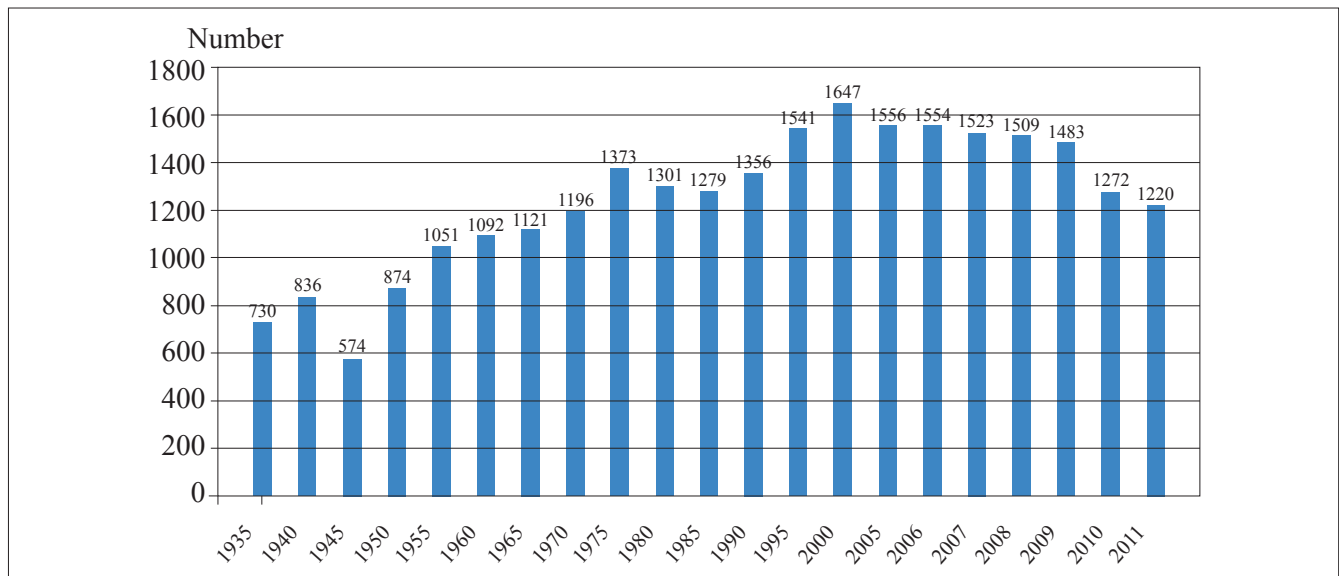
Turkey is a tobacco-producing country, providing 1.7% of the world's total tobacco production, a decrease from 4% of the world's production before the 1990s. Over the last 20 years, tobacco production declined in Turkey from more than 200 thousand tons to less than 80 thousand tons annually (4). The state-owned tobacco monopoly (TEKEL) has a long history dating to the Ottoman era. Until the 1980s, TEKEL controlled tobacco farming and production of tobacco as well as pricing and the sale of tobacco products. With the privatization of the market during the 1980s, many multi-national tobacco companies entered Turkey's economic sector.

The entrance of multi-national tobacco companies opened the door to rigorous tobacco advertising. Promotion increased tobacco consumption, and cigarette sales peaked in the 2000s. Cigarette sales quadrupled between 1960 and 2000 from 30 billion sticks to 118 billion sticks annually. This increase was considerably more than the population increase of 2.5 times, from 27.8 million to 67.8 million, during the same time period. Following the implementation of tobacco control measures, consumption began to plateau during the 2000s. Over the ensuing decade, the plateau quickly gave way to a gradual decrease in the number of cigarettes sold and per capita consumption. Decreases accelerated in both categories starting in 2009 (Figure 1 and Figure 2).

**Figure 1.1: Sales of cigarettes, Turkey, 1925 – 2011**



Source: Bilir N et al, Tobacco and Alcohol Market Regulatory Authority (TAPDK) official data

**Figure 1.2: Per Capita cigarette consumption, Turkey, 1925 – 2011**

Source: Bilir N et al, Tobacco and Alcohol Market Regulatory Authority (TAPDK) official data

### 1.2.1 Tobacco Use among Adults

Historically, tobacco use in Turkey has been common among adults. The first nationwide study in 1988 showed overall smoking prevalence of 44% (men, 62%; women, 24%) in those 15 years of age or older (5). Several studies followed this survey.

In 1995, a survey on Smoking Behaviors and Attitudes in Ankara found that 50.8% of teachers, 43.9% of physicians, and 34.9% of sports figures smoked. In 1998 and 1999, two country-wide surveys of 12 500 people from various occupational groups showed that smoking prevalence ranged from 24.8% to 74.3% across occupations such as drivers, artists, policemen, teachers, physicians, journalists, parliamentarians, and religious leaders. The lowest rates belonged to religious leaders (imams), and the highest were among truckers and bus drivers (6). The Health Services Utilization Survey in 2003 revealed that 58% of men and 14% of women smoked (7).

According to GATS 2008, smoking prevalence was 31.2%. Prevalence was higher among men (47.9%) than women (15.2%) (Table 1.1). Based on these prevalence figures, it was calculated that almost 16 million adults (12 million men, and 4 million women) currently smoked (8).

The survey also found that prevalence of smoking increased in line with the level of education. The lowest level was found among women living in rural settlements who had not graduated from school, while the highest levels were observed among high-school graduates of both sexes. Smoking prevalence was highest in the group aged 25–44 years and lowest among those aged 65 years or older, irrespective of gender. More than half of smokers start smoking before 18 years of age, which is the minimum age of purchasing tobacco products. The average age for smoking initiation was 16.6 years of age for men and 17.8 years of age for women. The average number of cigarettes smoked daily was 17.7 cigarettes (8).

Tobacco (nicotine) dependency appeared to be high. Overall, more than half (56.0%) of the smokers (men, 63.1%; women, 30.4%) smoked 16 or more cigarettes per day, and 41.1% (men, 42.6%; women, 35.6%) of the smokers smoked their first cigarette of the day within 30 minutes of waking up (8).

**Table 1.1: Percentage of adults 15 years and older, by smoking status and gender – Turkey Global Adult Tobacco Survey (GATS Turkey), 2008.**

Smoking Status	Overall	Male	Female
	<i>Percentage (95% CI)</i>		
<b>Current smoker</b>	<b>31.2 (29.9 – 32.5)</b>	<b>47.9 (45.8 – 50.0)</b>	<b>15.2 (13.9 – 16.4)</b>
Daily smoker	27.4 (26.2 – 28.7)	43.8 (41.8 – 45.9)	11.6 (10.4 – 12.7)
Occasional smoker	3.8 (3.3 – 4.3)	4.1 (3.4 – 4.8)	3.6 (2.9 – 4.3)
Occasional smoker, formerly daily	1.8 (1.4 – 2.1)	2.1 (1.6 – 2.6)	1.5 (1.0 – 1.9)
Occasional smoker, never daily	2.0 (1.7 – 2.4)	2.0 (1.4 – 2.5)	2.1 (1.6 – 2.7)
<b>Former Smoker</b>	<b>15.9 (15.0 – 16.9)</b>	<b>22.1 (20.6 – 23.6)</b>	<b>10.0 (8.8 – 11.2)</b>
Former daily smoker	10.5 (9.8 – 11.2)	17.2 (15.9 – 18.5)	4.1 (3.4 – 4.7)
Former occasional smoker	5.4 (4.7 – 6.1)	4.9 (4.1 – 5.8)	5.9 (4.9 – 6.9)
<b>Never smoker</b>	<b>52.8 (51.5 – 54.2)</b>	<b>30.0 (28.1 – 31.9)</b>	<b>74.8 (73.1 – 76.6)</b>

Note: Current use includes both daily and occasional (less than daily) use

Source: Global Adult Tobacco Survey, Turkey Report, Ministry of Health, Publ. No 803, 2010.

Almost all (96.5%) of the smokers smoked manufactured cigarettes. Very few smokers smoked hand-rolled cigarettes, 2.6%; waterpipe, 2.3%; or other forms of smoked tobacco (cigars, pipes, etc.), 0.9%. As was noted in the GATS 2008 report, waterpipe was traditionally smoked by older men, nevertheless waterpipe users smoked at waterpipe cafes, but smoking waterpipe at home is particularly common among women. On the other hand, GATS 2008 results showed an evolving profile of waterpipe consumption with higher usage among young adults (4.3% in the group aged 15–24 years) and in urban areas (urban, 2.9%; rural, 1.0%). It was also high among educated people (high school graduates, 5.1%; university graduates, 3.9%)(8). In a study done in Ankara, indicated more than half of waterpipe users were at 18–24 age group, 13% of users believed that waterpipe use was not harmful (9).

Smoking during pregnancy poses another health concern in Turkey. A survey of 1020 pregnant women conducted at a maternity clinic found that smoking rates among those surveyed before and after pregnancy was 34.7% and 14.0%, respectively. Findings also indicated the number of cigarettes smoked before pregnancy had a significant impact on continuation of smoking during pregnancy. Most of the pregnant women (97.5%) knew that smoking was harmful. Although the dangers of smoking were well known to pregnant women, there is still a need to support cessation among this population (10).

A recent study on the impact of tobacco control policies in Turkey indicated that cigarette sales decreased by 5.2% immediately after the implementation of the expanded smoke-free law. Additionally, another 13.6% decrease was observed after the tax increase on January 2010. Since the implementation of the expanded smoke-free law and tax increase, a total decrease of 10.7% was observed on cigarette sales (11).

### 1.2.2 Tobacco Use among Adolescents

Adolescents are an important group of interest because they represent a growth market for tobacco consumption. A number of studies have been carried out on their smoking behavior, mainly among school children and students. The sale of tobacco products to minors has been banned since 1996, and Law No. 5727 makes selling to minors punishable by imprisonment in addition to monetary fines. People below 18 years of age cannot buy cigarettes in supermarkets or large street markets, but they can still easily buy them from small markets on the street and street vendors.

In 2003, Turkey conducted the Global Youth Tobacco Survey (GYTS), which surveyed nearly 16 000 adolescents that were 13–15 years of age (12). This survey found that 31.7% of boys and 19.7% of girls had ever tried cigarettes, and 6.9% of them (boys, 9.4%; girls, 3.5%) were currently smoking. The repeated GYTS in 2009 revealed an increase in smoking prevalence among students of 8.4% (boys, 10.2%; girls, 5.3%). More importantly, one in every ten (10.2%) of the students said they would start smoking within a year (13).

Studies were also conducted among university students, including medical school students at different universities and medical schools. Smoking prevalence among university students varied between 7.8% and 58.0%. Prevalence was higher among art and social sciences students compared to students of biological sciences such as medicine or dentistry (14).

### 1.2.3 Tobacco Use among Health Professionals

Health care professionals (HCPs) serve a critical role as a resource for patients. These professionals can provide a better understanding of the dangers of tobacco use and options for quitting. Because consumption habits among HCPs potentially impact the advice provided to patients, knowledge about tobacco use within this special population of professionals can help shape tobacco use interventions.

In 2007, a study of HCPs showed that smoking prevalence among medical personnel was similar to the general population. This study sampled more than 4000 HCPs working at health care institutions under the Turkish Ministry of Health (MoH). It revealed the following estimates of current smoking: general practitioners, 30.5%; specialist physicians, 22.1%; dentists and pharmacists, 26.1%; midwives, 29.5%; and health technicians, 33.8% (15).

In addition to smoking, data suggested nicotine dependence was high among HCPs. Almost half of the general practitioners and specialist physicians (38.5% and 38.3%, respectively) said they smoked their first cigarette of the day within 30 minutes of waking up. Moreover, 53.0% of the general practitioners and 41.6% of the specialists smoked 16 or more cigarettes a day. While dependence was relatively high, a majority (70–80%) of HCPs surveyed had thought about quitting or had tried to do so (15).

In a follow up survey conducted in 2011, notable prevalence decreases were found among the more than 6000 HCPs surveyed. The data showed relative reductions across all HCP categories, ranging from a low of approximately 20% for dentists and pharmacists to a high of over 55% for health care managers (Table 1.2). About two-thirds of specialist physicians (60.5%) and general practitioners (66.0%) asked patients if they were smokers.

**Table 1.2: Change in smoking behavior of health professionals, 2007 and 2011.**

Profession	Regular smokers (%)		
	2007 (*)	2011 (**)	Reduction (%)
Specialist physician	22.1	12.7	42.5
General practitioner	30.5	23.9	22.6
Dentist, pharmacist	26.1	20.7 – 15.9	20.7 – 39.1
Nurse, midwife	29.5	19.2 – 21.9	32.2
Health technician	33.8	23.5	30.5
Manager	39.5	17.5	55.7

(\*) Source: Aslan D, Bilir N, Ozcebe H and Erguder T., Smoking Status of the Health Professionals and Influencing Factors, Ministry of Health, Ankara, 2008.

(\*\*) Health Professionals Tobacco Use Survey, Unpublished data

### 1.3 Secondhand Smoke Exposure

Before the first tobacco control law passed in 1996, there were no restrictions on tobacco use. People could smoke anywhere in all public places, and exposure to SHS was very high (16). Earlier studies indicated that in 59.9% to 81.5% of homes at least one family member smoked. In most cases, the smoker was the father (8).

Tobacco Control Law in 1996 banned smoking for the first time in certain indoor public places and public transportation. After more than 10 years of implementation, the law was amended, rendering all indoor public places smoke-free, including hospitality venues. Before the amendment, the GYTS 2003 revealed that 81.6% of students were exposed to SHS produced by others in their homes and 85.9% were exposed in public places (10).

GATS 2008 indicated that 55.9% of adults were exposed to SHS in restaurants; 16.5% on public transportation (mostly in taxis); 11.3% in government buildings; 6.0% in health care facilities; and 38.5% at the workplace. Men were exposed more than women.

Pregnant women are a special group that needs to be considered when discussing SHS exposure. In a study in Ankara, 74% of pregnant women said they were exposed to SHS during their pregnancy. The average urinary cotinine level of pregnant women exposed to SHS was 64 ng/ml compared to 25.9 ng/ml for pregnant women who said they had not been exposed. Unfortunately, SHS exposure during pregnancy was more common than expected (17).

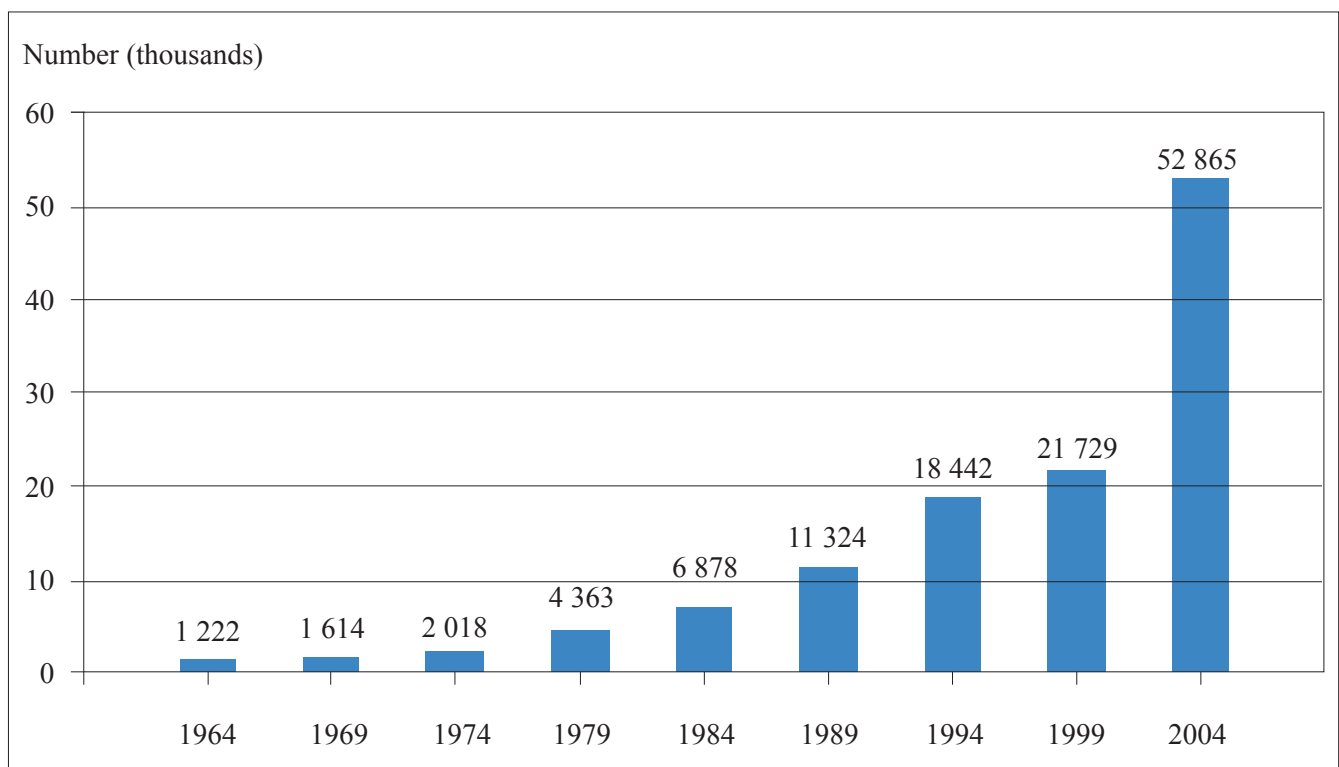
A country-wide study conducted in eight cities from different parts of the country (including 160 restaurants, cafes, and bars) indicated that considerable reductions were achieved four months after the hospitality venue smoke-free implementation ban. Nevertheless, most of the reduced values were still above the permissible levels (17). Similarly, another study done in Ankara revealed that urinary cotinine levels and carbon monoxide levels in the breath of the workers at restaurants and bars were reduced after the implementation of comprehensive smoke-free policies (18).

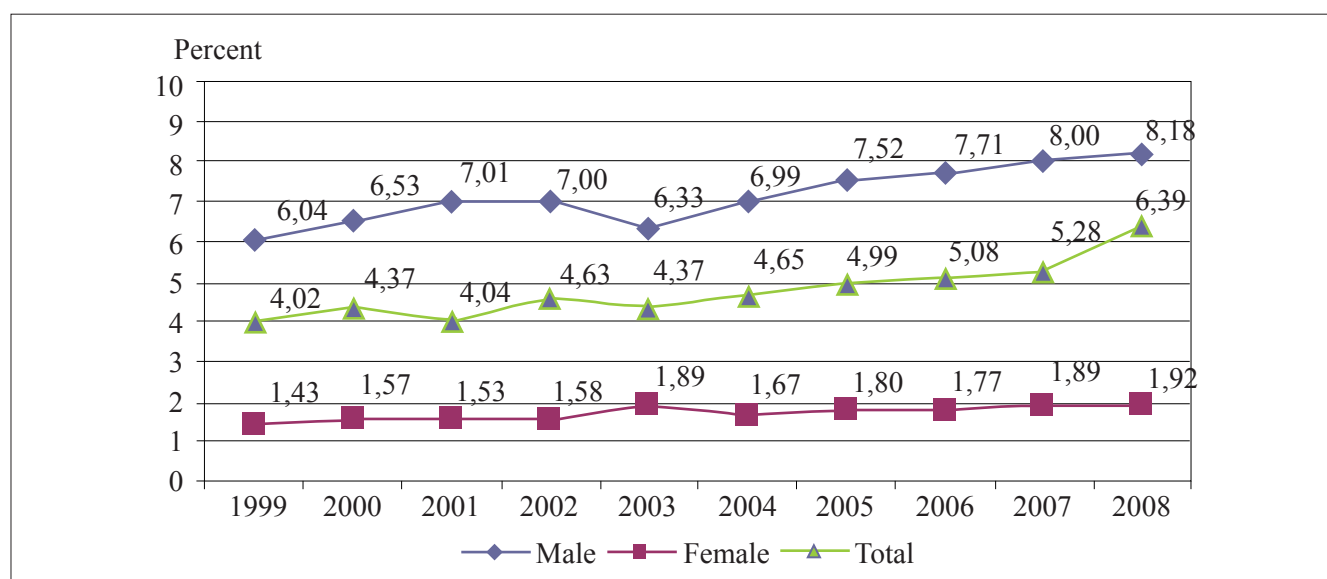
### 1.4 Health Impacts of Tobacco Use

Tobacco use is an important risk factor for a number of major diseases, such as lung cancer, heart disease, and respiratory diseases. Hospital admission data indicated increases in the number of cases of lung cancer, heart disease, and chronic obstructive pulmonary disease over a 40-year period starting in the 1960s. Between 1964 and 2004, the number of lung cancer cases increased more than 40 times (Fig. 3). Although portions of the increase could be attributed to improvements in diagnostic techniques, high rates of tobacco consumption had the greatest impact on these rates (19). Deaths due to lung cancer increased particularly among men (Fig. 4). Between 1999 and 2008, the percentage of lung cancer deaths increased from 6.04% to 8.18% among men and from 1.43% to 1.92% among women. Overall, 6.39% of all deaths were caused by lung cancer in 2008. Similar increases were seen for cardiovascular diseases and respiratory diseases.

In 2000, researchers calculated disability-adjusted life-years (DALYs) for some diseases and risk factors for Turkey. The major health problems relating to tobacco use – such as ischemic heart disease, cerebrovascular diseases, cancers, and chronic obstructive pulmonary disease – were among the top 10 conditions leading to loss of healthy years of life. Almost one million DALYs (8.6% of total DALYs) were attributed to tobacco smoking annually. Moreover, nearly 55 000 tobacco-related deaths could be prevented annually (7).

**Figure 1.3: Hospital admissions due to lung cancers, Turkey, 1964 – 2004.**



**Figure 1.4: Lung cancer deaths as percentage of all deaths, Turkey, 1999 – 2008**

Source: Ministry of Health and Turkish Statistical Institute

## 1.5 Economic Impacts of Tobacco Use

The economic burden of tobacco use is reflected in the amount spent on tobacco instead of other goods as well as costs of diagnosis and treatment of tobacco-related diseases (4). The GATS 2008 indicated that there were 16 million adult smokers in Turkey spending an average of 90 TL (US\$ 58) a month on cigarettes, or 13% of the minimum monthly salary. The total amount spent on buying tobacco products is estimated to be approximately 17 billion TL (US\$ 11 billion) annually.

According to the Social Security Institution (SSI), Government of Turkey spent 32 556 billion TL on healthcare between April 2010 and March 2011. Of this total, 7322 billion TL (22%) was spent on cancers, cardiovascular diseases, respiratory diseases, and reproductive disorders. It was estimated that 9% (2805 billion TRY) of total healthcare expenditures were attributable to tobacco, of which, 20.1% was spent on cancers, 34.1% on cardiovascular diseases, and 42.9% on respiratory diseases. In addition, the number of tobacco-related illnesses increased by 9.64% between 2009 and 2010, indicating that SSI expenditures on smoking-related diseases are likely to rise further if preventive measures are not taken (20).

## 1.6 Tobacco Control Policies and Implementation

### 1.6.1 Tobacco Control Legislation

Robust anti-tobacco efforts started relatively late in Turkey when compared to other countries. Tobacco control activities largely began in the mid-1980s when multi-national tobacco companies entered the country after demonopolization of the tobacco industry. In 1987, the Minister of Health invited relevant specialists to discuss the possibilities for, and methods of, tobacco control. A year later, the MoH conducted the first country-wide prevalence survey on tobacco use (4).

Although the country-wide survey produced valuable findings on tobacco use, the passage of tobacco control policies remained challenging for several years despite data showing high rates of consumption.



The 1996 Tobacco Control Law was a major milestone in the Turkish tobacco control movement (21). The law required a partial ban on smoking in certain indoor, public places. It outlawed the sale of tobacco products to minors less than 18 years of age and prohibited many types of tobacco advertisement and promotions. The law also required the inclusion of health warnings on packaging. In 2008 – after more than 10 years of implementation – the law was amended and a comprehensive smoke-free policy, which included all indoor public spaces and commercial taxis, was passed.

Concurrently, advances in global tobacco control efforts surged as growing high-level commitment emerged. In 2003, the World Health Assembly unanimously adopted the WHO FCTC. Turkey signed and ratified the treaty in 2004. In line with the WHO FCTC, the Ministry of Health (MoH) formed a National Tobacco Control Committee in 2004 with the mandate to prepare the National Tobacco Control Program (NTCP) and an Action Plan (22). More than 100 representatives from government institutions, universities, and civil society participated in the preparation of NTCP. The NTCP and the Action Plan were promulgated in a Prime Minister's Circular in 2006. The main objective of the program and plan was to reduce prevalence of tobacco use among adults and adolescents. The Action Plan for 2008–2012 has 10 articles covering:

- Information, education and awareness-raising about tobacco-related health hazards;
- Smoking cessation;
- Pricing and taxation;
- Prevention of exposure to SHS;
- Advertising, promotion and sponsorship;
- Product control and information for consumers;
- Illegal trade;
- Accessibility by young people;
- Tobacco production and alternative policies; and
- Monitoring and evaluation of tobacco use.

The National Tobacco Control Committee was formed with the participation of the heads of 10 working groups. The working groups of eight to ten experts meet at regular intervals to discuss the relevant issues and report to the Directory of Tobacco Control of the MoH, which was formed in 2006.

The Tobacco and Alcohol Market Regulatory Authority (TAPDK) was established in 2002 to regulate the tobacco (and alcohol) market after TEKEL's abolishment. Aside from its regulatory function, TAPDK is responsible for inspecting the tobacco market and industry to ensure compliance with the Tobacco Control Law. TAPDK also sets the maximum levels of carbon monoxide, nicotine, and tar emissions of tobacco products. In cases where the legislation is violated, TAPDK has the right to penalize the tobacco industry (23). The Authority oversaw the transition from simpler text health warnings to graphic pictorial warnings.



### 1.6.2 Implementation and Challenges

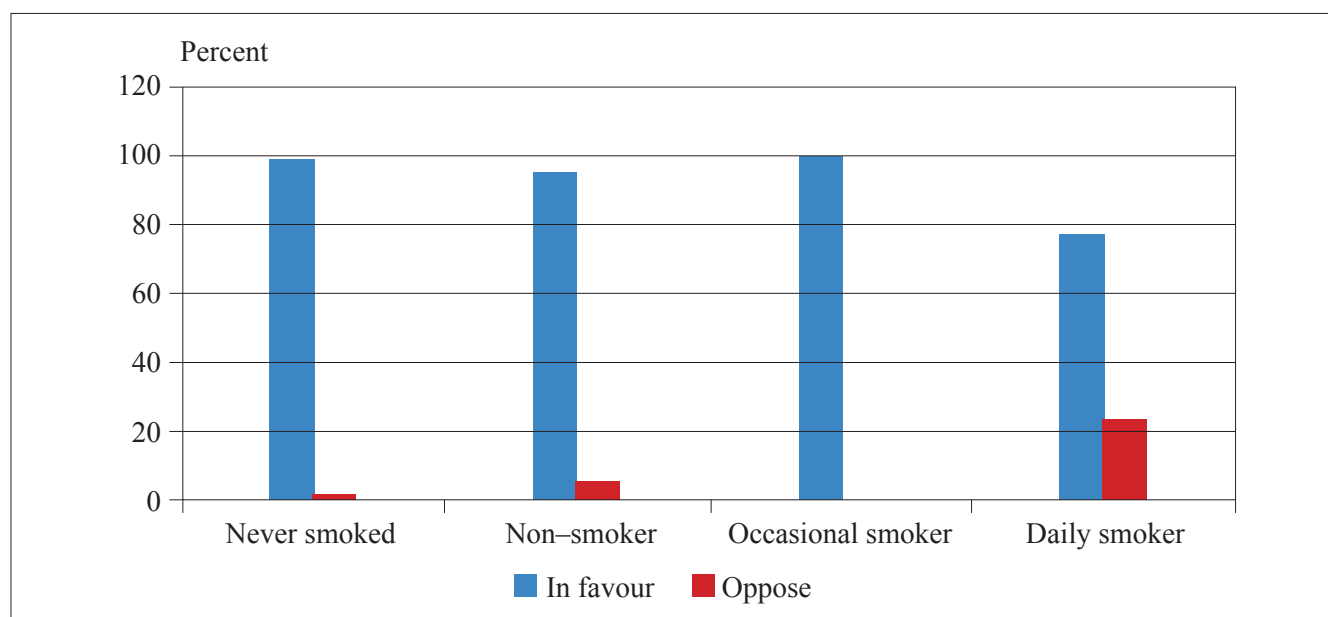
Implementation of the law was done in two phases. All indoor public places implementation, excluding hospitality venues, began four months after the law was amended. Eighteen months later, implementation began in hospitality venues. Phased implementation allowed impacted industries time to adapt to the new policies (24).

The law establishes Provincial Tobacco Control Boards (PTCB) at each of the provinces with the participation of representatives of government institutions and civil society. The boards are chaired by Governors of the provinces. The Boards meet at regular intervals to discuss and organize the implementation of the law in the provinces. The inspection teams, composed of at least one member from the police department and one from the provincial health directorate, conduct inspections on a regular basis and when authorities have been notified of policy violations.

Smoke-free implementation was well received by the community, even by smokers. Public support to the law was as high 96% among the non-smokers and 74% among the daily smokers (Figure 1.5) (25). Other surveys conducted in different provinces noted high levels of support for smoke-free implementation.

The smoke-free policy of Turkey is well recognized by international organizations as well. Turkey took the fourth rank in an evaluation of the 32 European Countries (26).

**Figure 1.5: Public support to comprehensive smoke-free Law, May 2010.**



Source: Results of Opinion Survey in Turkey, Quirk Global Strategies, Istanbul, 2010.

### 1.6.3 Reaching the Highest Levels of Implementation of the MPOWER Measures

**Monitoring of tobacco use and prevention policies:** Turkey conducted GATS in 2008 and 2012. GYTS was conducted in 2003, 2009, and 2012. Since the smoking behavior of HCPs and their attitudes towards smoking are important for tobacco control efforts, studies on smoking and HCPs were conducted in 2007 and 2011. In addition to these systematic surveys, a large number of individual studies on tobacco use and attitudes towards smoking are being conducted by various groups throughout the country. These studies will provide further insights into tobacco use as well as knowledge, attitudes, and perceptions surrounding the behavior.

**Protect people from tobacco smoke:** The first anti-tobacco law (No. 4207) was enacted in 1996 and amended in 2008 (Law No. 5727) to cover all indoor public places, including hospitality venues. In addition, TAPDK has promulgated several regulations in line with the provisions of the WHO FCTC. Turkey was one of the first countries to have a comprehensive smoke-free policy.

**Offer help to quit tobacco use:** Smoking cessation services were not well organized until recently. The MoH developed programmes to encourage people to stop using tobacco products. More than 400 smoking cessation clinics, belonging to the MoH, serve citizens throughout the country. Also, smoking cessation centers serve at university hospitals and private clinics. The smoking cessation centers are standardized from the aspects of configuration, quantity, and quality of personnel, and provision of services. The MoH also organized a quit line (ALO 171) working on a 7/24 basis to help people who want to stop smoking, routing them to cessation clinics.

**Warn about the dangers of tobacco:** Warnings aimed at smokers and the general public are key requirements of the WHO FCTC. According to regulations, the tobacco companies must put written and pictorial warnings on packs of tobacco products covering at least 65% of the both sides (front and back) of tobacco products packages. Tobacco companies are also forbidden from putting false or misleading information on the packs such as “mild”, “light”, or “ultra-light”. Media campaigns have been used for a long time for public information.

Following the passage of Law No. 5727, there was a great need to inform the public about the scientific basis for smoke-free legislation and its benefits, particularly the prevention of SHS exposure. A unique example of warnings about the dangers of tobacco use is television programs. The Turkish Radio and Television Corporation and all national, regional or local and private television stations must broadcast educational programs on the hazards and prevention of tobacco use for at least 90 minutes every month. These programs (some short displays and expert opinions) were to be broadcast between 08:00 and 22:00 hours, and at least 30 minutes were to be broadcast during prime time between 17:00 and 22:00 hours.

**Enforce bans on tobacco advertising, promotion, and sponsorship:** The Tobacco Control Law No. 4207 of 1996 banned all kinds of advertisement and promotion of tobacco products; however, it did not ban sponsorship. The amended law in 2008 included the prohibition of any kind of promotion and sponsorship by the tobacco industry. The law includes a provision that tobacco products cannot be displayed in such a way that they can be seen from outside the premises. Tobacco products must not be placed on shelves in shops, supermarkets, or large street markets. They should be under the control of the owner or the cashiers. Tobacco products must not be reachable by customers and can only be provided by cashiers on request. The recent amendment of the law prohibited brand sharing and brand stretching in July 2012.

**Raise taxes on tobacco:** Tobacco taxes have increased several times in recent years. Most recently, total taxes on tobacco products were set at 81.2% of the retail price, which is one of the highest taxes in the world.

As outlined above, Turkey is the first country to meet all six MPOWER criteria.

#### 1.6.4 Keys to Success

**Political stability and whole government approach:** Political support is very important for success in any area. This is particularly true of tobacco control, where the tobacco industry has a strong influence over policy implementation. The first Tobacco Control Law (Law No. 4207) was enacted by a coalition government and supported by all the political parties. The amended law (No. 5727) was passed by a single majority party government, again, with the support of all political parties. Sustained political support is crucial, and it has been of tremendous benefit that the government, including the Minister of Health, has remained unchanged for the last nine years. Many civil servants in the MoH have retained their positions within the agency for many years. Continuity within the MoH helped ensure sustained support for tobacco control from a knowledgeable team. In addition, the Prime Minister and many other ministers were aware of the tobacco-related problems and the need for a comprehensive law to protect the Turkish population. All these high-level officials gave their support. In recognition of that support, the Prime Minister, Mr Recep Tayyip Erdoğan; the Minister of Health, Professor Recep Akdağ; and the head of the health commission of the Turkish Parliament, Professor Dr Cevdet Erdöl have received awards from WHO for their ongoing commitment to and sustained support for tobacco control. Also an award from the Minister of Health to the WHO Country Office, Turkey, was presented in recognition of its exemplary support to the Ministry's tobacco-control activities.

**Strong nongovernmental organizations and good collaboration:** Several non-governmental organizations (NGO) dealing with tobacco control activities coming together, strongly lobbied both during enacting the Law in 1996 and also during its amendment in 2008. They organized meetings with representatives of the hospitality industry, hoping to convince them of the benefits of smoke-free policies. non-governmental organizations (NGO) members also met well-known journalists and explained the positive aspects of smoke-free environments, asking reporters to mention these beneficial effects of the law in their columns.

**Strong mass media campaigns:** Media campaigns have been used for a long time to provide the public with information. Following the passage of Law No. 5727, there was a great need to inform the public about the scientific basis for smoke-free legislation and its benefits, particularly the prevention of exposure to SHS. In the initial phases, media campaigns focused on "smoke-free air". During the subsequent phases, real cases of patients having smoking-related health problems, such as cancer or chronic respiratory diseases, were shown. Options for cessation were also explained through real patients who quit.

### **1.6.5 Future Challenges**

Turkey has achieved great successes in tobacco control. However, continued progress towards curbing the tobacco epidemic requires vigilance against tobacco industry interference as well as ongoing enforcement of existing tobacco control measures. As a large nation with 16 million smokers, one of Turkey's greatest challenges will be enforcement of the comprehensive smoke-free policy through such action as increasing inspections and implementing fines.

Though these challenges require long-term commitment from the government and tobacco control partners, Turkey's capacity for confronting these challenges is undeniable. As a global leader in tobacco control, the country's achievements over the last two decades underscore an unwavering dedication to eradicating tobacco use and protecting the lives of millions in the Turkish community.



# 2

## METHODOLOGY



## 2 Methodology

### 2.1 Survey Objectives

GATS is a global standard that enables countries to systematically monitor both tobacco use in the adult population and key tobacco control measures. In Turkey, it was also designed to enable countries to track implementation of WHO FCTC policies and provide internationally comparable estimates of tobacco use and key tobacco control measures by gender and urbanicity.

### 2.2 Study Population

All settlements in Turkey were covered in the sample selection except for villages with populations of less than 200. These small villages were not included in the survey because they had too few households to attain a sufficient block size. All persons 15 years of age or older, living in private households in Turkey, were covered. Institutionalized populations (e.g., residents of schools, dormitories, hotels, kindergartens, rest homes for the elderly, hospitals, prisons, military barracks, and quarters for officers) were not included.

### 2.3 Sample Size

The sample size was calculated according to the requirements of the GATS Sample Design Manual (at least 8000 completed respondent questionnaires, including 2000 for each of the following strata: urban men, urban women, rural men, and rural women). Based on the design of the Turkey's GATS 2008, a sample of 11 536 households was used for GATS 2012. Non-response was taken into account when calculating the sample size as GATS did not allow substitution for households or individuals (see Appendix B: Sample Design for sample size calculation details).

### 2.4 Sampling Design

#### 2.4.1 Sampling Method

The sampling method of the survey was a three-stage, stratified systematic cluster sampling method (see Appendix B: Sample Design for details).

In the first stage, 206 clusters from urban areas and 206 clusters from rural areas were selected for a total of 412 primary sampling units (PSU). For urban areas and rural areas with organized municipalities, the selection was done to yield a PSU size of approximately 300 addresses. In rural areas, without organized municipalities, villages having greater than 200 addresses were identified as PSUs. Selection of the first stage was done by using probability proportional to size (PPS).

In the second stage, 28 households were selected systematically within each selected PSU.

In the last stage, one eligible individual aged 15 years or older was selected randomly from each selected household, using a roster of all eligible members of the household.



## 2.4.2 Weighting

Weighting is a method used to obtain parameters from the data set resulting from sampling so as to represent the universe. A three-step weighting procedure was used in accordance with the GATS Sample Weights Manual Version 2.0 November 2010. See Appendix B: Sample Design–weighting for details.

## 2.5 Questionnaire

The GATS Turkey questionnaire consisted of nine sections. A general description of each section is described below (the full questionnaire is provided in Appendix A):

- Background characteristics: Gender, age, education, work status, possession of household items.
- Tobacco smoking: Patterns of use (daily consumption, less than daily consumption, not at all), former/past tobacco consumption, age of initiation of daily smoking, consumption of different tobacco products, (cigarettes, pipes, cigars and other smoked tobacco), nicotine dependence, frequency of quit attempts.
- Waterpipe (Shisha): Questions on pattern of use (daily consumption, less than daily consumption, not at all), age at initiation of smoking as well as smoking behavior relative to waterpipe/shisha.
- Cessation: Advice to quit smoking by health care provider (HCP), method used to TL to stop smoking. Similar questions were included about cessation of smokeless tobacco use as well.
- Secondhand smoke (SHS): Smoking allowed in the home; exposure to SHS at home; indoor smoking policy at the workplace; exposure in last 30 days in: workplace, government buildings/offices, health care facilities, restaurants, public transportation. There were some additional optional items on exposure that included schools, universities, private workplaces, bars, night clubs, etc., as well as knowledge about serious illness in non-smokers due to SHS.
- Economics: Type of tobacco product and quantity bought, cost of tobacco product(s), brand and type of product purchased, and source of tobacco products.
- Media: Exposure to tobacco advertising on television, radio, billboards, posters, newspapers/magazines, cinema, Internet, public transportation, public walls, and others; exposure to sporting events connected with tobacco; exposure to music, theatre, art or fashion events connected with tobacco; exposure to tobacco promotion activities; reaction to health warning labels on cigarette packages; and exposure to anti-tobacco advertising and information. Similar questions were included for smokeless tobacco as well. The reference period for the questions in this section was 30 days.
- Knowledge, attitudes, and perceptions: Knowledge about the health effects of both smoking and smokeless tobacco.
- Pictorial Health Warnings: Observing which pictures makes quitting smoking

## 2.6 Pretest

Consistent with the GATS comprehensive standard protocol, a pilot study was performed in the 26 Regional Offices of TurkStat for testing questionnaire wording, skip patterns, question sequencing, interview time, data entry, and a variety of other survey components. A convenience sample was used for this pilot study.

Before the pilot study was conducted, all required documents such as questionnaire, sample design, and information on installation of program and data transfer, were sent to the Regional Offices. Each Region was recommended to conduct at least four pretest interviews/surveys. After the pilot study, Regional Offices prepared a report including data entry program and questionnaire.

## 2.7 Training of Staff

The main survey began in May 2012 in all 26 regional offices of TurkStat, and included rural and urban areas.

Before the main survey, the training of trainers (TOT) took place between 24–25 April 2012 at the Ankara TurkStat Training Center. The training course introduced the supervisors, technical, and IT staff from all 26 regions to the following topics:

- Tobacco–related activities, legislation, and working groups in Turkey;
- The major health hazards of tobacco use and passive exposure to tobacco smoke;
- International organizations and studies evaluating tobacco use;
- Overview of GTSS and GATS;
- GATS partners at the national and international level;
- TurkStat’s responsibilities on the project and future steps;
- The GATS questionnaire (in detail);
- The GATS programme and how to use it on netbooks; and
- The information about event codes for household and individual parts of questionnaire.

After the training in Ankara, the supervisors and IT administrators trained all interviewers in Regions by using the same training format and documents used in Ankara.

## **2.8 Fieldwork**

Data has been collected by interviewers using netbooks. As part of quality control, supervisors monitored the fieldwork. If the selected household member was not available during the first visit, second or third visits were made. The fieldwork was carried out between 15 May to 30 June 2012.

## **2.9 Data Management**

Data entry was completed using the netbooks in regional offices. Also, data consistency analysis was carried out using SAS programs, which were developed with SAS 9.1.3 and Enterprise Guide 3.1, by the Training Assistance Team, Databases Group of the ICT Department. With the SAS program used in Regional Offices:

- CSV text files, which are formed according to the netbook serial numbers used during the data entry period, were integrated and transformed into SAS data sets; and
- The data consistency analysis program was run and error lists were acquired.

With regard to data collection, the missing variables and outliers were detected in the course of fieldwork by means of SAS edit codes. These SAS edit codes were run twice a week on the data which were transmitted from TurkStat Regional Offices. The detected missing variables and outliers were sent back to relevant TurkStat regional office to for correcting. Thus, when fieldwork was completed, the data processing was nearly completed as well.

## **2.10 Statistical Analysis**

Complex survey data analysis was performed to obtain population estimates and their appropriate confidence intervals. The data entered by Regional Offices during fieldwork were sent to central offices almost twice weekly in CSV text files. Data was aggregated each time and then transferred to SAS data sets by the IT staff. The validation process was done by means of SAS codes at the time of fieldwork. In cases of error or inconsistency, the responsible Regional Office was notified and any error or inconsistency was addressed during the next transmission. The aggregated data was processed, weighted, and analyzed immediately to produce the preliminary results. The preliminary results were released on 31 August 2012, and micro-data was finalized by 30 October 2012 for further analysis to produce factsheets and country report.

# 3

## **SAMPLE AND POPULATION CHARACTERISTICS**



## 3. Sample and Population Characteristics

### 3.1 Data Collection

The GATS was conducted among 11 536 households throughout the country and Table 3.1 shows the number of households and individuals interviewed and response rates by place of residence. Of the 11 536 households selected for the survey, 9977 (86.5%) households and 9851 (98.7%) selected eligible individuals successfully completed the interview. The total response rate of the survey was 90.1%. Out of 9851 persons who completed the questionnaire, 4917 were in urban and 4934 in rural areas. The individual-level response rate was 98.8%, with 98.8% in urban and 98.7% in rural areas. Results are shown in Table 3.1. The overall household response rate was 90.1%; (89.4% urban; and 90.7% rural). The household roster was completed in a total of 9977 households. From those 9977 households, 9851 individual interviews were completed: 4917 urban and 4934 rural. The individual response rates were 98.8% overall, 98.8% urban, and 98.7% rural. Fieldwork took place in May–June 2012.

**Table 3.1: Number and percent of households and persons interviewed and response rates by residence (unweighted) – GATS Turkey, 2012.**

	Residence				Total	
	Urban		Rural			
	n	%	n	%	n	%
Selected household						
Completed, person selected for interview	4978	86,3	4999	86,7	9977	86,5
Completed, noone eligible for interview	12	0,2	32	0,6	44	0,4
Incomplate	0	0,0	2	0,0	2	0,0
No screening respondent	6	0,1	13	0,2	19	0,2
Nobody home	385	6,7	309	5,4	694	6,0
Refused	43	0,7	12	0,2	55	0,5
Unoccupied	220	3,8	265	4,6	485	4,2
Address not a dwelling	37	0,6	27	0,5	64	0,6
Other	87	1,5	109	1,9	196	1,7
Total Households Selected	5768	100	5768	100	11536	100
Household Response Rate	90,5%		91,9%		91,2%	
Selected person						
Completed	4917	98,8	4934	98,8	9851	98,7
Incomplete	0	0,0	1	0,0	1	0,0
Not eligible	0	0,0	2	0,0	2	0,0
Not at home	41	0,8	41	0,8	82	0,8
Refused	0	0,0	1	0,0	1	0,0
Incapacitated	20	0,4	19	0,4	39	0,4
Other	0	0,0	1	0,0	1	0,0
Total Number of Sampled Persons	4978	100	4999	100	9977	100
Person-level Response Rate	98,8%		98,7%		98,8%	
Total Response Rate	89,4%		90,7%		90,1%	

See Sample Weights Manual Version 2.0 November 2010 (page: 3–7, 3–8) for household-level and person-level response rate calculations.

The 9851 completed interviews were representative of an estimated 54 548 million adults aged 15 and older in Turkey (Table 3.2). The total population of Turkey was about 75.6 million in 2012. Because GATS calibrates the sample data by age, gender, and residence, these distributions match those of 2012. Table 3.2 shows un-weighted sample counts and weighted population estimates by selected demographic characteristics (gender, age, residency, and education). By gender, 4470 men and 5381 women completed the survey, but the weighted proportions by gender were 49.2% male and 50.8% female. The weighted sample yielded estimates of 26 862 men and 27 686 women. By residence, the number of unweighted respondents was 4917 for urban areas and 4934 for rural areas, but the weighted population was higher in

urban areas than in rural areas with 39 254 and 15 294, respectively. By age group, the number of unweighted respondents was 1,280 for ages 15–24 years, 3952 for 25–44 years, 2990 for 45–64 years, and 1629 for  $\geq 65$  years, but the weighted percentages for these age groups were 22.4%, 42.0%, 26.2%, and 9.5%, respectively. The weighted percentage of not graduated primary school was 13.7%; completing primary school, 33.4%; completing secondary school, 20.9%; completing high school, 19.4; and completing university and higher, 12.4%. Table 3.2 shows un-weighted sample counts and weighted population estimates. By this estimate, a total of 54 548 000 adults aged 15 and older were represented.

**Table 3.2: Distribution of adults  $\geq 15$  years old by selected demographic characteristics – GATS Turkey, 2012.**

Demographic characteristics	Weighted			Unweighted Number of Adults
	%	(95% CI)	Number of Adults	
Overall	100.0		54 548	9851
Gender				
Male	49.2	(48.0, 50.5)	26 862	4470
Female	50.8	(49.5, 52.0)	27 686	5381
Age				
15–24	22.4	(21.2, 23.6)	12 205	1280
25–44	42.0	(40.6, 43.3)	22 902	3952
45–64	26.2	(25.1, 27.3)	14 284	2990
65+	9.5	(8.7, 10.3)	5157	1629
Residence				
Urban	72.0	(70.9, 73.0)	39 254	4917
Rural	28.0	(27.0, 29.1)	15 294	4934
Education*				
Not Graduated	13.7	(12.5, 15.0)	7484	1852
Primary	33.4	(31.8, 34.9)	18 197	3891
Secondary	20.9	(19.8, 22.1)	11 405	1504
High School	19.6	(18.4, 20.8)	10 670	1524
University or Higher	12.4	(11.0, 14.0)	6788	1078

\* Two cases had missing values for education.





# 4

## TOBACCO USE



## 4. Tobacco Use

### 4.1 Tobacco Use Prevalence

Smoked tobacco includes cigarettes (manufactured and hand-rolled), cigars, pipes, waterpipes, etc. The most commonly used tobacco product in Turkey is the manufactured cigarette; therefore, the findings mainly reflect the characteristics of manufactured cigarette use.

The prevalence of smoking is presented by “current tobacco smoker” and “non-smoker.” Current tobacco smokers are categorized into “daily smokers” and “occasional smokers.” Occasional smokers are divided into two groups— “former daily” and “never daily.” Non-smokers are categorized as “former daily smokers” and “never daily smokers”. Never daily smokers are divided into two groups— “former occasional” and “never”.

This chapter includes the smoking prevalence in Turkey. It also describes smoking behaviors in the adult population: 1) the status of tobacco use, 2) the use of various tobacco products, and 3) demographic and behavioral patterns of smoking, including number of cigarettes smoked daily, average age and distribution by age of initiation of daily smoking, the prevalence of quitting tobacco use, and indicators of tobacco dependence.

### Key Findings

- Prevalence of overall current smoking is 27.1% with rates of 41.5% and 13.1% for men and women, respectively.
- Most common form of tobacco product use is manufactured cigarettes (25.7%).
- Prevalence of waterpipe use is only 0.8%.
- Average number of cigarettes smoked per day was 19.2 overall; men consumed more cigarettes per day (20.3 cigarettes) than women (15.3 cigarettes).
- Almost four out of ten daily smokers (42.1%) aged 15 years and older smoked within 30 minutes after waking.
- Among the 18–34 age group, 16.1% started smoking daily before the age of 15, and 58.7% before 18. All of which were below the legal age of purchasing tobacco.
- The prevalence rate of those who are former daily smokers among adults aged 15 years and older was 9.4%, and the quit rate was 27.2%.

**Table 4.1: Percentage of adults  $\geq 15$  years old, by detailed smoking status and gender – GATS Turkey, 2012.**

Smoking Status	Overall			Male		Female	
Current tobacco smoker	27.1	(25.8, 28.3)	41.5	(39.4, 43.5)	13.1	(12.0, 14.3)	
Daily smoker	23.8	(22.6, 25.0)	37.3	(35.4, 39.3)	10.7	(9.6, 11.8)	
Occasional smoker	3.3	(2.9, 3.7)	4.1	(3.5, 4.9)	2.4	(2.0, 3.0)	
Occasional smoker, formerly daily	1.5	(1.2, 1.8)	2.0	(1.6, 2.5)	1.0	(0.7, 1.3)	
Occasional smoker, never daily	1.8	(1.5, 2.2)	2.2	(1.7, 2.8)	1.4	(1.1, 1.9)	
Non-smoker	72.9	(71.7, 74.2)	58.5	(56.5, 60.6)	86.9	(85.7, 88.0)	
Former daily smoker	9.4	(8.7, 10.2)	14.4	(13.2, 15.8)	4.6	(3.9, 5.4)	
Never daily smoker	63.5	(62.1, 64.8)	44.1	(42.1, 46.1)	82.3	(80.9, 83.7)	
Former occasional smoker	3.7	(3.3, 4.2)	4.2	(3.6, 5.0)	3.2	(2.7, 3.9)	
Never smoker	59.8	(58.3, 61.2)	39.9	(37.9, 41.9)	79.1	(77.5, 80.6)	

**Table 4.2: Number (in thousands) of adults  $\geq 15$  years old, by detailed smoking status and gender – GATS Turkey, 2012.**

Smoking Status	Overall	Male	Female
Current tobacco smoker	14 764.3	11 138.3	3626.0
Daily smoker	12 980.8	10 026.5	2954.4
Occasional smoker	1783.4	1111.8	671.7
Occasional smoker, formerly daily	805.1	530.7	274.4
Occasional smoker, never daily	978.4	581.1	397.3
Non-smoker	39 783.5	15 723.6	24 059.8
Former daily smoker	5152.6	3879.0	1273.6
Never daily smoker	34 630.8	11 844.6	22 786.3
Former occasional smoker	2028.0	1138.8	889.1
Never smoker	32 602.9	10 705.7	21 897.1

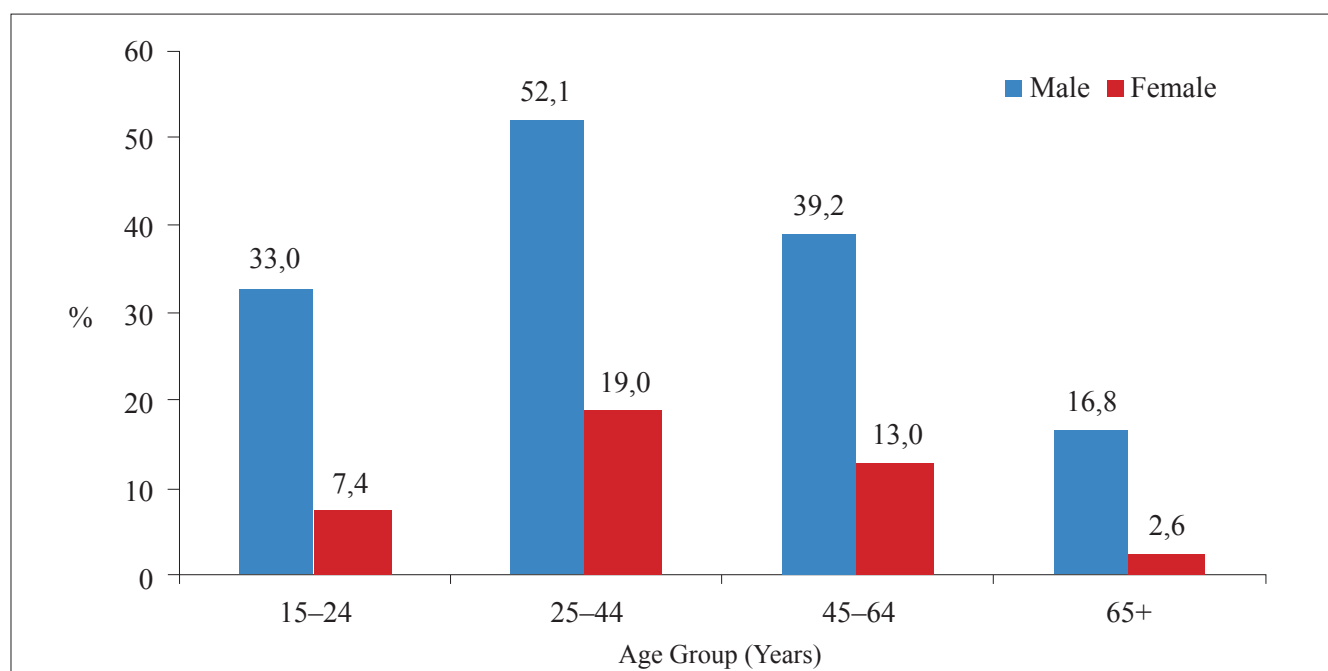
The overall current smoking prevalence among adults 15 years or older was 27.1%, representing 14.8 million adults. Men (41.5%) were more likely to smoke tobacco than women (13.1%). Approximately 11.1 million men and 3.6 million women were current smokers in the country (Table 4.1 and Table 4.2).

Among all adults, 23.8% were daily smokers and 3.3% were occasional smokers. The daily smoking prevalence rate among men was higher than women (37.3% vs. 10.7%). Over 10 million men and nearly 3 million women were daily smokers. The percentages of occasional smokers were lower than daily smokers among both men and women. The occasional smoker prevalence rate was 4.1% among men and 2.4% among women.

Non-smokers account for 72.9% of the population, representing over 39.8 million adults (more than 15.7 million men and 24.1 million women). The percentage of former daily smokers was 9.4%, and 63.5% were never daily smokers. The percentage of never daily smokers among women was higher than the percentage of men (82.3% vs. 44.1%). Inversely, the percentage of former daily smokers among men was higher than women (14.4% and 4.6%).

Of all Turkish adults, 59.8% (men, 39.9%; women, 79.1%) had never smoked tobacco in their lifetimes. Approximately 32.6 million adults (10.7 million men and 21.9 million women) were never smokers.

According to Table 4.1 and Figure 4.1, smoking is a more popular behavior among men than women.

**Figure 4.1: Current smoking prevalence by age group and gender, GATS Turkey 2012.**

## 4.2 Types of Tobacco Products Used

The prevalence of various smoked tobacco products by gender and selected demographic characteristics are presented in Table 4.3. These products consisted of cigarettes (manufactured or hand-rolled), waterpipe, and other smoked tobacco products (including pipes, cigars and any other reported smoked tobacco products).

Manufactured cigarettes are the most commonly used tobacco product in the country. The prevalence breakdown of tobacco products used among the current smokers was: 25.7% for manufactured cigarettes; 2.6% for hand-rolled cigarettes; 0.8% for waterpipes; and 0.4% for other smoked tobacco. Almost 14 million people smoked manufactured cigarettes out of the 14.8 million smokers in Turkey. The majority of tobacco smoking was in the form of manufactured cigarettes for both sexes and both urban and rural residents.

Almost 500 000 people smoked waterpipes, and 1.5 million people smoked hand-rolled cigarettes. Most of the waterpipe and hand-rolled cigarette users were men: 298 000 men smoked waterpipe and 1.2 million men smoked hand-rolled cigarettes in the country.

By age group, those aged 25–44 years had the highest percentage of smokers who smoked any tobacco products (35.7%), any type of cigarette (35.6%), and manufactured cigarettes (34.4%). The next highest percentage of smokers found was the age group 45–64 (25.9%). The third group was the 15–24, age group with one in five young adults reporting current smoking. Adults 65 years of age and older had the lowest smoking prevalence (8.8%).

Among men, the 25–44 years age group also had the highest prevalence of smoking any type of cigarettes (51.9%) and manufactured cigarettes (50.0%). The next highest percentage of male smokers was found in the 45–64 age group, where 39.2% smoked tobacco.

Among women, the prevalence of current smoking was highest in the 25–44 age group (19%), followed by 13% among the 45–64 age group. The current smoking prevalence was 7.4% among the 15–24 age group. The percentage of current smokers among women in all age groups was much lower compared to men.

Tobacco use also varied across type of residence. The percentage of adults who smoked any tobacco products was 22.0% in rural areas and 29.0% in urban areas, while the use of manufactured cigarettes was 20.3% in rural areas and 27.8% in urban areas. More men living in rural areas smoked hand-rolled cigarettes than those living in urban areas (5.7% and 4.1%). Conversely, women living in urban areas smoked hand-rolled cigarettes more than women living in rural areas (0.9% and 0.5%).

Variations in consumption patterns appeared with differing educational level. The prevalence of any kind of tobacco smokers among the people who had not graduated was lowest (11.0%) in among all groups. The prevalence of current smokers among high school graduates was the highest (33.9%) among all groups. Prevalence of current smokers who graduated from primary school, secondary school, and university were similar at 29.7%, 27.2% and 26.7%, respectively. The percentage of current smokers among men and women also varied between the different levels of education, but there was no significant difference between the groups. The percentage of women who were not graduated was significantly lower than the other groups (5.9% for not graduated vs. range from 12.1% to 19.1% of the other education groups).



**Table 4.3: Percentage of adults ≥ 15 years old who are current smokers of various smoked tobacco products, by gender and selected demographic characteristics – GATS Turkey, 2012.**

Demographic characteristics	Any smoked tobacco product	Any cigarette	Type of cigarette		Waterpipe	Other smoked tobacco <sup>1</sup>
			Manufactured	Hand-rolled		
Overall	27.1 (25.8, 28.3)	26.9 (25.7, 28.2)	25.7 (24.5, 27.0)	2.6 (2.1, 3.4)	0.8 (0.6, 1.1)	0.4 (0.2, 0.7)
Age						
15–24	20.0 (17.4, 22.9)	19.7 (17.1, 22.6)	19.1 (16.6, 22.0)	1.7 (1.0, 2.9)	1.5 (0.9, 2.5)	0.3 (0.1, 0.9)
25–44	35.7 (33.8, 37.5)	35.6 (33.8, 37.5)	34.4 (32.5, 36.2)	2.8 (2.1, 3.7)	1.0 (0.7, 1.6)	0.5 (0.2, 1.2)
45–64	25.9 (23.8, 28.1)	25.8 (23.7, 28.0)	23.8 (21.8, 25.9)	3.5 (2.6, 4.9)	0.1 (0.1, 0.4)	0.2 (0.1, 0.6)
65+	8.8 (7.2, 10.7)	8.8 (7.2, 10.7)	8.0 (6.4, 9.8)	1.6 (0.9, 2.8)	0.0	0.0
Residence						
Urban	29.0 (27.4, 30.7)	28.9 (27.3, 30.5)	27.8 (26.2, 29.4)	2.5 (1.8, 3.4)	1.0 (0.7, 1.4)	0.5 (0.2, 1.0)
Rural	22.0 (20.4, 23.8)	22.0 (20.3, 23.7)	20.3 (18.7, 22.1)	3.1 (2.4, 4.0)	0.3 (0.2, 0.6)	0.1 (0.0, 0.3)
Education						
Not Graduated	11.0 (8.9, 13.4)	11.0 (8.9, 13.4)	9.5 (7.7, 11.8)	2.5 (1.6, 3.9)	0.2 (0.0, 1.6)	0.1 (0.0, 0.8)
Primary	29.7 (27.7, 31.8)	29.7 (27.7, 31.8)	27.8 (25.8, 29.8)	3.4 (2.6, 4.5)	0.3 (0.1, 0.7)	0.3 (0.2, 0.7)
Secondary	27.2 (24.6, 29.9)	27.0 (24.5, 29.7)	26.0 (23.5, 28.6)	2.9 (1.8, 4.5)	0.3 (0.1, 0.9)	0.5 (0.1, 2.2)
High School	33.9 (31.1, 36.8)	33.5 (30.8, 36.4)	32.7 (29.9, 35.6)	2.3 (1.5, 3.5)	2.2 (1.4, 3.4)	0.6 (0.2, 1.3)
University or Higher	26.7 (23.5, 30.3)	26.7 (23.4, 30.2)	26.5 (23.2, 30.1)	0.9 (0.4, 1.8)	1.4 (0.8, 2.5)	0.1 (0.0, 0.6)
Male	41.5 (39.4, 43.5)	41.3 (39.3, 43.4)	39.2 (37.2, 41.3)	4.6 (3.6, 5.8)	1.1 (0.7, 1.7)	0.6 (0.3, 1.3)
Age						
15–24	33.0 (28.5, 37.7)	32.8 (28.4, 37.5)	31.6 (27.3, 36.3)	3.4 (2.0, 5.7)	1.6 (0.8, 3.0)	0.6 (0.2, 1.8)
25–44	52.1 (49.1, 55.0)	51.9 (49.0, 54.9)	50.0 (47.0, 53.0)	4.6 (3.4, 6.2)	1.6 (1.0, 2.6)	0.9 (0.4, 2.0)
45–64	39.2 (35.9, 42.7)	39.0 (35.7, 42.5)	35.7 (32.6, 38.9)	5.9 (4.1, 8.4)	0.2 (0.1, 0.7)	0.5 (0.2, 1.2)
65+	16.8 (13.6, 20.7)	16.8 (13.6, 20.7)	15.0 (11.9, 18.9)	3.5 (2.0, 6.1)	0.0	0.0
Residence						
Urban	43.0 (40.4, 45.7)	42.9 (40.2, 45.5)	41.1 (38.4, 43.7)	4.1 (2.9, 5.8)	1.3 (0.9, 2.1)	0.8 (0.4, 1.8)
Rural	37.5 (34.9, 40.2)	37.4 (34.8, 40.1)	34.5 (31.9, 37.2)	5.7 (4.4, 7.3)	0.5 (0.3, 1.0)	0.2 (0.1, 0.4)
Education						
Not Graduated	31.9 (26.0, 38.3)	31.9 (26.0, 38.3)	26.6 (21.2, 32.9)	9.8 (5.9, 15.7)	0.0	0.0

**Table 4.3: Percentage of adults ≥ 15 years old who are current smokers of various smoked tobacco products, by gender and selected demographic characteristics – GATS Turkey, 2012. (...continuation)**

Demographic characteristics	Any smoked tobacco product	Any cigarette	Type of cigarette		Waterpipe	Other smoked tobacco <sup>1</sup>
			Manufactured	Hand-rolled		
Primary	46.2 (43.0, 49.3)	46.1 (43.0, 49.3)	42.8 (39.7, 46.0)	5.8 (4.3, 7.9)	0.5 (0.2, 1.2)	0.5 (0.2, 1.2)
Secondary	38.7 (34.7, 42.8)	38.6 (34.6, 42.7)	37.0 (33.1, 41.2)	4.5 (2.8, 7.2)	0.4 (0.1, 0.9)	0.9 (0.2, 3.5)
High School	44.7 (40.7, 48.8)	44.3 (40.2, 48.4)	42.8 (38.7, 47.1)	3.7 (2.4, 5.6)	2.8 (1.7, 4.6)	0.9 (0.4, 2.1)
University or Higher	34.0 (29.5, 38.8)	33.9 (29.3, 38.7)	33.6 (29.1, 38.4)	1.2 (0.6, 2.7)	1.5 (0.7, 3.1)	0.2 (0.1, 1.1)
Female	13.1 (12.0, 14.3)	13.0 (11.9, 14.2)	12.6 (11.5, 13.8)	0.8 (0.5, 1.1)	0.5 (0.3, 0.9)	0.1 (0.0, 0.3)
Age						
15–24	7.4 (5.4, 10.2)	7.0 (5.1, 9.7)	7.0 (5.1, 9.7)	0.1 (0.0, 0.9)	1.4 (0.7, 3.0)	0.1 (0.0, 0.9)
25–44	19.0 (17.0, 21.0)	19.0 (17.0, 21.0)	18.4 (16.5, 20.5)	1.0 (0.6, 1.6)	0.4 (0.2, 0.9)	0.2 (0.1, 0.5)
45–64	13.0 (11.0, 15.3)	13.0 (11.0, 15.3)	12.2 (10.3, 14.5)	1.2 (0.7, 2.2)	0.0 (0.0, 0.4)	0.0
65+	2.6 (1.6, 4.1)	2.6 (1.6, 4.1)	2.4 (1.5, 4.0)	0.1 (0.0, 0.9)	0.0	0.0
Residence						
Urban	15.5 (14.1, 17.1)	15.4 (14.0, 17.0)	15.0 (13.5, 16.6)	0.9 (0.5, 1.3)	0.6 (0.3, 1.1)	0.1 (0.1, 0.4)
Rural	6.7 (5.6, 8.1)	6.7 (5.6, 8.1)	6.3 (5.1, 7.7)	0.5 (0.3, 1.0)	0.2 (0.1, 0.5)	0.0 (0.0, 0.3)
Education						
Not Graduated	5.9 (4.3, 8.1)	5.9 (4.3, 8.1)	5.4 (3.9, 7.4)	0.7 (0.3, 1.6)	0.3 (0.0, 2.0)	0.1 (0.0, 0.9)
Primary	14.3 (12.5, 16.3)	14.3 (12.5, 16.3)	13.6 (11.8, 15.6)	1.1 (0.7, 1.9)	0.1 (0.0, 0.4)	0.1 (0.0, 0.5)
Secondary	12.1 (9.7, 14.9)	11.8 (9.5, 14.5)	11.4 (9.2, 14.1)	0.7 (0.2, 1.8)	0.3 (0.0, 2.1)	0.1 (0.0, 0.4)
High School	19.1 (15.8, 22.9)	18.9 (15.6, 22.6)	18.8 (15.6, 22.6)	0.4 (0.1, 1.5)	1.4 (0.6, 3.1)	0.1 (0.0, 0.9)
University or Higher	16.8 (13.3, 21.0)	16.8 (13.3, 21.0)	16.8 (13.3, 21.0)	0.4 (0.1, 1.8)	1.2 (0.4, 3.6)	0.0

<sup>1</sup>Other responses included 9 cases who said

**Table 4.4: Number in thousands of adults  $\geq 15$  years old who are current smokers of various smoked tobacco products, by gender and selected demographic characteristics – GATS Turkey, 2012.**

Demographic characteristics	Any smoked tobacco product	Any cigarette	Type of cigarette		Waterpipe	Other smoked tobacco
			Manufactured	Hand-rolled		
Overall	14 764.3	14 698.8	14 015.0	1439.2	439.1	199.9
Age						
15–24	2444.1	2408.2	2336.4	210.3	185.5	42.3
25–44	8165.0	8148.9	7870.1	639.7	234.0	122.0
45–64	3700.6	3687.0	3397.9	506.0	19.6	35.6
65+	454.6	454.6	410.6	83.2	0.0	0.0
Residence						
Urban	11 395.0	11 337.9	10 907.5	963.2	385.9	184.0
Rural	3369.2	3360.9	3107.5	476.0	53.2	15.9
Education						
Not Graduated	821.7	821.7	713.6	187.1	16.8	8.0
Primary	5412.8	5409.8	5052.1	621.9	56.5	61.2
Secondary	3099.1	3079.5	2960.9	326.6	37.6	61.9
High School	3615.3	3577.7	3488.6	243.2	234.4	59.0
University or Higher	1815.4	1810.0	1799.8	60.5	93.7	9.8
Male	11 138.3	11 097.2	10 529.0	1226.3	297.9	169.8
Age						
15–24	1984.0	1972.6	1900.8	202.5	96.9	34.3
25–44	6014.6	5998.6	5778.8	528.7	185.0	99.9
45–64	2759.6	2746.0	2509.8	415.6	16.1	35.6
65+	380.0	380.0	339.6	79.6	0.0	0.0
Residence						
Urban	8287.7	8255.0	7907.9	792.1	259.4	157.0
Rural	2850.6	2842.2	2621.1	434.2	38.6	12.8
Education						
Not Graduated	466.4	466.4	390.0	142.9	0.0	0.0
Primary	4076.8	4073.8	3780.1	515.0	44.4	47.5
Secondary	2503.9	2499.1	2398.2	293.9	22.9	59.1
High School	2755.0	2727.1	2640.0	226.0	171.5	53.3
University or Higher	1336.2	1330.8	1320.6	48.5	59.2	9.8
Female	3626.0	3601.6	3486.0	212.9	141.2	30.1
Age						
15–24	460.1	435.6	435.6	7.9	88.6	8.0
25–44	2150.4	2150.4	2091.3	111.0	49.0	22.1
45–64	941.0	941.0	888.1	90.3	3.6	0.0
65+	74.6	74.6	71.0	3.6	0.0	0.0
Residence						
Urban	3107.4	3082.9	2999.6	171.0	126.6	27.0
Rural	518.7	518.7	486.4	41.8	14.6	3.1
Education						
Not Graduated	355.3	355.3	323.6	44.2	16.8	8.0
Primary	1336.0	1336.0	1272.0	106.9	12.1	13.7
Secondary	595.2	580.5	562.7	32.6	14.7	2.7
High School	860.3	850.6	848.6	17.2	62.9	5.7
University or Higher	479.2	479.2	479.2	11.9	34.6	0.0

Smoking frequency was classified into three categories: “daily smokers”, “occasional smokers”, and “non-smokers” (Table 4.5). The percentage of adults aged 15 years and older who were daily smokers, occasional smokers, and non-smokers were 23.8%, 3.3%, and 72.9%, respectively. The percentage of male daily smokers was three times more than that of women (37.3% and 10.7%, respectively). The percentage of male occasional smokers was 4.1% and of female occasional smokers was 2.4%.

The proportion of daily smokers among men increased with age from 29.2% in the 15–24 age group to 46.9% among those aged 25–44, but then dropping to 35.7% among those aged 45–64 and 15.2% in for those aged 65 years and older. The percentages of daily smoking among different age groups of women were lower than men: 15–24 years of age, 5.0%; 25–44 years of age, 15.6%; 45–64 years of age, 11.2%; and 65+ years of age, 2.2%.

The percentage of non-smokers was 78.0% in rural areas and 71.0% in urban areas. The percentage of daily smokers was 18.9% in rural areas and 25.7% in urban areas. The percentage of male daily smokers was 33.3% in rural areas and 38.9% in urban areas; percentages for women in rural and urban areas were 4.7% and 13.0%, respectively. The percentage of female occasional smokers was lower in rural areas than urban areas as well.

There were slight differences in daily smoking prevalence between different educational groups. The percentage of daily smoking among the not graduated group was the lowest among all educational groups (9.5%). The percentage of daily smoking was higher among all other education groups; 26.3% among primary school graduates, 26.3%; 23.9% among secondary school graduates, 23.9%; and 29.5% among high school graduates, 29.5%; and with a slight decrease among university graduates (23.6%).

The percentage difference was observed similar among men and women by educational level. Among both men and women, education (beginning at the primary level) was inversely related to daily smoking prevalence. Among men, 41.8% of those with a primary education, 35.4% of those with a secondary school education, 39.8% of those with a high school education, and 29.7% with a university or higher education were daily smokers; among women the estimates were 11.7%, 8.9%, 15.5%, and 15.1%, respectively. Daily smoking prevalence was lowest among the non-graduated group, both for men and women. The highest prevalence was observed in primary school graduates among men (41.8%), and in university graduates among women (15.5%).

**Table 4.5: Percentage distribution of adults  $\geq 15$  years old who are daily, occasional or non-smokers, by gender and selected demographic characteristics – GATS Turkey, 2012.**

Demographic characteristics	Smoking frequency						Total
	Daily		Occasional		Non-smoker		
Overall	23.8	(22.6, 25.0)	3.3	(2.9, 3.7)	72.9	(71.7, 74.2)	100
Age							
15–24	16.9	(14.5, 19.6)	3.1	(2.2, 4.3)	80.0	(77.1, 82.6)	100
25–44	31.4	(29.6, 33.2)	4.3	(3.6, 5.1)	64.3	(62.5, 66.2)	100
45–64	23.2	(21.3, 25.3)	2.7	(2.1, 3.4)	74.1	(71.9, 76.2)	100
65+	7.9	(6.4, 9.8)	0.9	(0.5, 1.6)	91.2	(89.3, 92.8)	100
Residence							
Urban	25.7	(24.2, 27.2)	3.3	(2.8, 3.9)	71.0	(69.3, 72.6)	100
Rural	18.9	(17.4, 20.5)	3.1	(2.6, 3.8)	78.0	(76.2, 79.6)	100
Education							
Not Graduated	9.5	(7.5, 12.0)	1.5	(0.9, 2.6)	89.0	(86.6, 91.1)	100
Primary	26.3	(24.4, 28.3)	3.4	(2.8, 4.2)	70.3	(68.2, 72.3)	100
Secondary	23.9	(21.5, 26.6)	3.2	(2.4, 4.4)	72.8	(70.1, 75.4)	100
High School	29.5	(26.8, 32.4)	4.4	(3.3, 5.7)	66.1	(63.2, 68.9)	100
University or Higher	23.6	(20.3, 27.2)	3.2	(2.2, 4.5)	73.3	(69.7, 76.5)	100
Male	37.3	(35.4, 39.3)	4.1	(3.5, 4.9)	58.5	(56.5, 60.6)	100
Age							
15–24	29.2	(24.9, 33.8)	3.8	(2.4, 5.8)	67.0	(62.3, 71.5)	100
25–44	46.9	(44.0, 49.8)	5.2	(4.1, 6.5)	47.9	(45.0, 50.9)	100
45–64	35.7	(32.4, 39.1)	3.6	(2.7, 4.8)	60.8	(57.3, 64.1)	100
65+	15.2	(12.1, 19.1)	1.6	(0.9, 2.9)	83.2	(79.3, 86.4)	100
Residence							
Urban	38.9	(36.5, 41.5)	4.1	(3.3, 5.2)	57.0	(54.3, 59.6)	100
Rural	33.3	(30.7, 35.9)	4.2	(3.4, 5.3)	62.5	(59.8, 65.1)	100
Education							
Not Graduated	29.0	(22.9, 35.9)	2.9	(1.1, 7.5)	68.1	(61.7, 74.0)	100
Primary	41.8	(38.8, 44.9)	4.3	(3.4, 5.5)	53.8	(50.7, 57.0)	100
Secondary	35.4	(31.5, 39.4)	3.3	(2.2, 5.1)	61.3	(57.2, 65.3)	100
High School	39.8	(35.9, 43.8)	4.9	(3.5, 6.9)	55.3	(51.2, 59.3)	100
University or Higher	29.7	(25.2, 34.6)	4.3	(2.9, 6.4)	66.0	(61.2, 70.5)	100
Female	10.7	(9.6, 11.8)	2.4	(2.0, 3.0)	86.9	(85.7, 88.0)	100
Age							
15–24	5.0	(3.3, 7.4)	2.4	(1.5, 4.1)	92.6	(89.8, 94.6)	100
25–44	15.6	(13.8, 17.6)	3.3	(2.6, 4.4)	81.0	(79.0, 83.0)	100
45–64	11.2	(9.4, 13.3)	1.8	(1.1, 2.8)	87.0	(84.7, 89.0)	100
65+	2.2	(1.3, 3.7)	0.3	(0.1, 1.6)	97.4	(95.9, 98.4)	100
Residence							
Urban	13.0	(11.6, 14.5)	2.6	(2.0, 3.3)	84.5	(82.9, 85.9)	100
Rural	4.7	(3.8, 5.9)	2.0	(1.4, 2.9)	93.3	(91.9, 94.4)	100
Education							
Not Graduated	4.8	(3.3, 6.9)	1.1	(0.6, 2.2)	94.1	(91.9, 95.7)	100
Primary	11.7	(10.1, 13.6)	2.5	(1.8, 3.6)	85.7	(83.7, 87.5)	100
Secondary	8.9	(6.9, 11.4)	3.2	(1.9, 5.1)	87.9	(85.1, 90.3)	100
High School	15.5	(12.6, 19.0)	3.6	(2.3, 5.4)	80.9	(77.1, 84.2)	100
University or Higher	15.1	(11.6, 19.5)	1.6	(0.8, 3.5)	83.2	(79.0, 86.7)	100

### 4.3 Number of Cigarettes Smoked Daily and Initiation of Smoking

The distribution of number of cigarettes smoked per day among daily cigarette smokers is described in Table 4.6. This variable is also used as an indicator of the level of nicotine dependence. The average number of cigarettes smoked per day was 19.2 among all groups; men consumed more cigarettes per day (20.3) than women (15.3).

Among all the current daily smokers, 6.8% reported that they smoked five cigarettes or less a day; 22.8% smoked 6–10; 10.4% smoked 11–15; 43.7% smoked 16–20; and 16.3% smoked more than 20 cigarettes per day. Almost seven out of ten daily cigarette smokers consumed more than half a pack of cigarettes in a day.

The percentage of heavy smokers who smoked more than 20 cigarettes per day was 16.3%. This percentage was 18.7% among men and 7.9% among women. According to the figures, among currently daily smokers, almost one out of five men and one out of twelve women were categorized as heavy smokers.

The distribution of average number of cigarettes smoked per day was found to be similar by age group, residence, and education. The average number of cigarettes smoked per day by age was as follows: 15–24 years, 18.1; 25–44 years, 18.9; 45–64 years, 20.6; and 65+ years, 17.1. There was not a significant difference among age groups.

By residence, the average cigarette smoked per day was 20.0 in rural area and 18.9 in urban areas.

Across education levels, the average number of cigarettes smoked per day increased as education level decreased from university or higher (17.1) to primary schooling (20.6). Interestingly, the average number decreased from primary to non-graduated (20.6 to 17.6).

**Table 4.6: Percentage distribution of cigarettes smoked per day among daily cigarette smokers  $\geq 15$  years old, by gender and selected demographic characteristics – GATS Turkey, 2012.**

Demographic characteristics	Average number of cigarettes smoked per day	Number of cigarettes smoked on average per day					Total
		<6	6–10	11–15	16–20	>20	
Overall	19.2 (18.2, 20.2)	6.8 (5.7, 8.1)	22.8 (20.7, 25.0)	10.4 (8.8, 12.3)	43.7 (41.1, 46.4)	16.3 (14.3, 18.5)	100
Age							
15–24	18.1 (16.4, 19.9)	3.6 (1.8, 7.0)	27.1 (20.8, 34.6)	13.6 (8.7, 20.5)	44.4 (36.1, 53.0)	11.3 (7.2, 17.5)	100
25–44	18.9 (17.6, 20.2)	7.4 (5.9, 9.2)	23.8 (21.2, 26.6)	10.3 (8.4, 12.6)	43.1 (39.7, 46.5)	15.5 (12.9, 18.4)	100
45–64	20.6 (19.3, 21.9)	6.3 (4.4, 9.1)	18.2 (14.9, 22.1)	8.8 (6.0, 12.7)	45.5 (40.4, 50.7)	21.1 (17.6, 25.2)	100
65+	17.1 (14.6, 19.5)	16.2 (9.1, 27.1)	20.9 (12.5, 32.7)	9.6 (4.7, 18.4)	37.2 (26.8, 49.0)	16.2 (9.4, 26.4)	100
Residence							
Urban	18.9 (17.7, 20.2)	7.1 (5.8, 8.7)	23.4 (20.9, 26.1)	11.1 (9.1, 13.5)	43.2 (40.0, 46.5)	15.2 (12.9, 17.9)	100
Rural	20.0 (19.1, 21.0)	5.7 (4.3, 7.6)	20.9 (17.8, 24.4)	8.1 (6.2, 10.4)	45.5 (41.8, 49.2)	19.9 (16.9, 23.2)	100
Education							
Not Graduated	17.6 (15.1, 20.2)	13.6 (7.5, 23.3)	26.4 (16.8, 39.0)	4.8 (2.2, 10.0)	35.0 (25.2, 46.4)	20.2 (12.1, 31.6)	100
Primary	20.6 (19.0, 22.3)	5.4 (3.8, 7.5)	18.3 (15.6, 21.4)	9.3 (7.0, 12.3)	47.1 (43.0, 51.3)	19.9 (16.9, 23.2)	100
Secondary	19.2 (17.4, 20.9)	7.0 (4.6, 10.3)	23.9 (19.2, 29.3)	11.1 (7.8, 15.5)	42.7 (36.7, 48.9)	15.4 (11.3, 20.6)	100
High School	18.3 (17.1, 19.5)	5.8 (4.0, 8.3)	25.4 (21.1, 30.2)	10.5 (7.3, 14.9)	44.1 (38.7, 49.6)	14.2 (10.7, 18.6)	100
University or Higher	17.1 (14.5, 19.6)	9.7 (6.6, 14.0)	27.9 (21.9, 34.9)	14.7 (10.3, 20.4)	38.3 (32.0, 45.1)	9.4 (6.0, 14.4)	100
Male	20.3 (19.3, 21.3)	4.0 (3.0, 5.2)	19.8 (17.4, 22.3)	10.8 (9.0, 12.9)	46.7 (43.6, 49.8)	18.7 (16.4, 21.3)	100
Age							
15–24	18.7 (16.7, 20.7)	3.2 (1.4, 7.4)	26.9 (20.3, 34.6)	11.9 (7.4, 18.7)	45.3 (36.5, 54.4)	12.7 (7.9, 19.8)	100
25–44	20.5 (18.9, 22.0)	4.0 (2.7, 5.8)	19.5 (16.6, 22.8)	10.9 (8.7, 13.6)	47.0 (42.8, 51.2)	18.7 (15.6, 22.2)	100
45–64	21.5 (20.2, 22.8)	3.1 (1.6, 5.9)	15.2 (11.5, 19.8)	10.0 (6.7, 14.9)	48.1 (42.5, 53.9)	23.5 (19.2, 28.4)	100
65+	17.3 (14.6, 19.9)	13.6 (6.8, 25.4)	21.9 (12.7, 35.0)	9.1 (4.0, 19.2)	39.5 (27.6, 52.9)	15.9 (8.5, 27.7)	100
Residence							
Urban	20.2 (18.9, 21.5)	3.8 (2.7, 5.4)	20.1 (17.2, 23.4)	11.7 (9.4, 14.4)	46.6 (42.7, 50.5)	17.8 (15.0, 21.0)	100
Rural	20.6 (19.7, 21.5)	4.4 (3.1, 6.2)	18.7 (15.5, 22.4)	8.1 (6.1, 10.7)	47.2 (43.2, 51.2)	21.6 (18.3, 25.3)	100
Education							
Not Graduated	20.5 (17.7, 23.3)	4.0 (1.6, 10.1)	24.1 (13.2, 40.0)	5.5 (2.2, 13.1)	39.4 (27.7, 52.4)	27.0 (16.1, 41.6)	100
Primary	21.7 (20.3, 23.2)	3.5 (2.2, 5.6)	13.9 (11.0, 17.4)	9.5 (6.9, 13.0)	49.5 (44.8, 54.2)	23.5 (19.8, 27.7)	100
Secondary	20.1 (18.1, 22.1)	4.7 (2.6, 8.4)	22.0 (17.0, 28.0)	11.3 (7.7, 16.4)	45.8 (38.9, 52.8)	16.2 (11.7, 22.0)	100
High School	19.5 (18.1, 20.8)	2.7 (1.4, 5.1)	22.5 (17.9, 28.0)	10.2 (7.0, 14.8)	48.2 (41.8, 54.6)	16.4 (12.2, 21.6)	100
University or Higher	17.9 (14.8, 21.0)	6.4 (3.7, 10.8)	26.8 (19.6, 35.4)	16.7 (11.2, 24.3)	39.5 (31.9, 47.7)	10.6 (6.5, 16.8)	100



**Table 4.6: Percentage distribution of cigarettes smoked per day among daily cigarette smokers  $\geq 15$  years old, by gender and selected demographic characteristics – GATS Turkey, 2012.**

Demographic characteristics	Average number of cigarettes smoked per day	Number of cigarettes smoked on average per day					Total
		<6	6–10	11–15	16–20	>20	
Female	15.3 (13.7, 16.8)	16.4 (13.2, 20.1)	33.1 (28.8, 37.7)	9.1 (6.2, 13.4)	33.5 (28.9, 38.4)	7.9 (5.6, 11.1)	100
Age							
15–24	15.1 (12.8, 17.5)	5.9 (2.0, 16.2)	28.8 (14.8, 48.6)	22.9 (8.0, 50.3)	39.0 (21.5, 59.9)	3.5 (0.7, 15.1)	100
25–44	14.1 (12.6, 15.7)	17.8 (13.6, 23.0)	36.9 (31.5, 42.8)	8.6 (5.6, 12.9)	31.0 (25.5, 37.1)	5.6 (3.2, 9.7)	100
45–64	17.8 (13.9, 21.6)	16.2 (10.7, 23.8)	27.7 (20.8, 35.7)	4.8 (2.2, 10.4)	37.5 (28.9, 46.8)	13.8 (8.7, 21.3)	100
65+	*	*	*	*	*	*	
Residence	15.3 (13.7, 16.8)						
Urban	15.2 (13.5, 16.9)	16.6 (13.1, 20.8)	32.7 (27.9, 37.8)	9.3 (6.0, 14.2)	33.5 (28.3, 39.0)	7.9 (5.4, 11.5)	100
Rural	15.8 (12.8, 18.9)	14.8 (9.1, 23.2)	35.8 (27.9, 44.7)	7.8 (4.1, 14.3)	33.7 (26.6, 41.8)	7.8 (4.1, 14.3)	100
Education	15.3 (13.7, 16.8)						
Not Graduated	13.4 (10.3, 16.5)	27.8 (13.5, 48.6)	29.7 (15.6, 49.2)	3.8 (0.8, 15.5)	28.6 (15.6, 46.5)	10.1 (3.8, 24.3)	100
Primary	17.0 (14.0, 19.9)	11.6 (7.7, 17.2)	33.0 (26.3, 40.5)	8.7 (5.2, 14.1)	39.2 (31.2, 47.8)	7.5 (4.4, 12.7)	100
Secondary	14.2 (12.0, 16.4)	18.6 (10.9, 29.9)	33.9 (24.0, 45.4)	10.0 (4.7, 19.8)	26.5 (16.8, 39.2)	11.0 (5.5, 20.8)	100
High School	14.4 (11.9, 16.8)	16.4 (10.7, 24.3)	35.4 (26.1, 45.9)	11.6 (4.5, 26.8)	29.9 (21.3, 40.2)	6.8 (3.2, 13.8)	100
University or Higher	14.8 (11.9, 17.7)	18.7 (11.3, 29.5)	31.0 (21.1, 42.9)	9.1 (3.7, 20.7)	35.2 (23.6, 48.9)	6.0 (2.3, 14.7)	100

(\*) Percentages were not calculated due to small numbers.



The distribution of age(years) at daily smoking initiation among ever daily smokers aged 18– 34 years is presented in Table 4.7. Since 1996, the minimum legal age for purchasing tobacco products in Turkey is aged 18 years or older.

Among this age group, 16.1% started smoking daily before the age of 15; 42.6% between ages 15–17; 19.5% between ages 18–19; and 21.8% at 20 years or older. More than half of daily smokers surveyed (58.7%) in the 18–34 age group started smoking on a daily basis as a minor (younger than 18 years of age). By gender, more men (61.8%) in the 18–34 years age group started smoking daily before the age of 18 than women (49.0%) in the same age group. Similar to the overall trends of initiation, more than half of daily smokers aged 18–34 in rural areas (55.8%) and urban areas (59.4%) started daily smoking before the age of 18.

More young adults who were 18–24 (69.8%) started smoking before they were 18 years old compared to those in the 30–34 age group (51.2%).

**Table 4.7: Percentage distribution of age at daily smoking initiation among ever daily smokers 18–34 years old, by selected demographic characteristics – GATS Turkey, 2012.**

Demographic characteristics	Age at Daily Smoking Initiation (years)						Total				
	Average age		<15	15–17	18–19	20+					
Overall	17.1	(16.8, 17.3)	16.1	(13.3, 19.4)	42.6	(38.8, 46.5)	19.5	(16.8, 22.6)	21.8	(19.0, 24.8)	100
Gender											
Male	16.8	(16.5, 17.1)	16.7	(13.4, 20.6)	45.1	(40.7, 49.5)	19.0	(15.9, 22.6)	19.2	(16.1, 22.8)	100
Female	17.9	(17.4, 18.4)	14.3	(9.4, 21.2)	34.7	(28.7, 41.4)	21.1	(16.2, 26.9)	29.9	(24.7, 35.7)	100
Residence											
Urban	17.0	(16.8, 17.3)	16.8	(13.4, 20.8)	42.6	(38.2, 47.2)	18.8	(15.6, 22.4)	21.8	(18.6, 25.4)	100
Rural	17.1	(16.8, 17.4)	13.4	(9.8, 18.2)	42.4	(36.1, 48.9)	22.4	(17.8, 27.8)	21.8	(17.6, 26.6)	100
Age											
18–24	16.3	(15.8, 16.7)	21.4	(15.3, 29.1)	48.4	(40.3, 56.6)	17.7	(12.6, 24.3)	12.5	(8.5, 18.1)	100
25–29	17.1	(16.7, 17.5)	12.3	(8.7, 17.2)	45.3	(38.8, 52.0)	21.1	(16.4, 26.9)	21.2	(16.1, 27.5)	100
30–34	17.6	(17.2, 18.0)	15.4	(11.0, 21.1)	35.8	(30.6, 41.4)	19.5	(15.8, 23.8)	29.3	(24.6, 34.5)	100

#### 4.4 Quit Rate

**Table 4.8** presents the prevalence of former daily smokers among ever daily smokers. Overall, one in ten (9.4%) of all adults surveyed quit smoking, and one in four daily smokers quit (27.2%). Quit rate is a key indicator measuring the success of efforts to encourage cessation among former daily smokers.

$$\text{Quit rate} = [\text{former daily smokers} / \text{ever daily smokers}] \times 100$$

The prevalence rate of those who were former daily smokers among adults aged 15 years and older was 9.4% and the quit rate was 27.2%. The prevalence rate of male former daily smoker was three times that of women (14.4% vs. 4.6%). However, female former daily smokers had a slightly higher quit rate than male daily smokers (28.3% vs. 26.9%).

The prevalence of former daily smokers increased by age groups. The percentage of former daily smokers was 1.4% in the 15–24 age group; 7.3% in the 25–44 age group; 16.5% in 45–64 age group; and 18.6% in those aged 65 years and older. The quit rate also increased by age group. The youngest and oldest groups had the lowest and highest quit rates at 7.4% and 68.4%, respectively.

By residence, urban areas have a slightly higher percentage for former daily smokers than rural areas (9.7% and 8.9%, respectively), but rural areas have a slightly higher quit rate than urban areas (30.5% and 26.2%, respectively).

The percentage of former daily smokers among respondents' educational groups ranged between 6.4% and 12.9%, and the quit rate ranged between 18.9% and 39.2%.

**Table 4.8: Percentage of all adults and ever daily smokers ≥ 15 years old who are former daily smokers, by selected demographic characteristics – GATS Turkey, 2012.**

Demographic Characteristics	Former Daily Smokers (Among All Adults)		Former Daily Smokers (Among Ever Daily Smokers)	
Overall	9.4	(8.7, 10.2)	27.2	(25.3, 29.2)
Gender				
Male	14.4	(13.2, 15.8)	26.9	(24.7, 29.2)
Female	4.6	(3.9, 5.4)	28.3	(24.8, 32.1)
Age				
15–24	1.4	(0.9, 2.3)	7.4	(4.6, 11.7)
25–44	7.3	(6.3, 8.3)	17.8	(15.7, 20.2)
45–64	16.5	(14.9, 18.2)	40.1	(36.6, 43.7)
65+	18.6	(16.3, 21.1)	68.4	(62.6, 73.7)
Residence				
Urban	9.7	(8.7, 10.7)	26.2	(23.9, 28.7)
Rural	8.9	(8.0, 10.0)	30.5	(27.6, 33.5)
Education				
Not Graduated	6.4	(5.2, 7.9)	39.2	(32.0, 47.0)
Primary	12.8	(11.5, 14.2)	31.4	(28.5, 34.5)
Secondary	5.8	(4.6, 7.2)	18.9	(15.2, 23.3)
High School	7.5	(6.3, 9.0)	19.1	(16.3, 22.3)
University or Higher	12.9	(10.8, 15.3)	33.8	(28.7, 39.4)

**Table 4.9: Percentage distribution of time since quitting among former daily smokers  $\geq 15$  years old, by selected demographic characteristics – GATS Turkey, 2012.**

Demographic Characteristics	Time since quitting smoking (years)						Total
	<1	1–2	3–4	5–9	10+		
Overall	13.5	12.6	13.8	19.4	40.6	100	
Gender							
Male	11.9	10.7	14.0	19.1	44.3	100	
Female	18.2	18.6	13.4	20.4	29.4	100	
Age							
15–24	*	*	*	*	*	100	
25–44	20.1	20.5	19.9	16.4	23.0	100	
45–64	9.3	8.6	12.3	24.5	45.3	100	
65+	7.1	5.6	6.5	14.5	66.4	100	
Residence							
Urban	14.5	13.4	14.3	18.8	39.1	100	
Rural	10.8	10.7	12.6	21.2	44.8	100	
Education							
Not Graduated	7.7	12.3	10.3	19.6	50.1	100	
Primary	8.6	11.8	13.7	20.0	46.0	100	
Secondary	22.3	13.1	11.0	17.4	36.4	100	
High School	20.9	14.8	16.5	21.4	26.4	100	
University or Higher	16.4	12.9	15.9	17.5	37.3	100	

\* Suppressed due to sample size < 25.

One important dimension of the quitting phenomenon is how long smokers can refrain from smoking, since relapse is often a concern. Table 4.9 presents time since quitting among former daily smokers aged 15 years and older. These former daily smokers were classified into five categories according to the time since they quit smoking: less than one year; one to two years; three to four years; five to nine years; and 10 years or more. Among these categories, the majority were found in the group who quit for 10 years or more (40.6%) followed by one to less than five years (26.4%); five to less 10 years (19.4%); and less than one year (13.8%).

Female daily smokers had higher quit rates compared to men for almost all time periods (except for those that quit for 3–4 years and more than 10 years). Quitting smoking during the year prior to the survey was higher among women (18.2%) than men (11.9%).

Most of the older daily smoker group (those aged 45+ years) quit smoking for five years or longer. The percentage of those who had quit smoking for 10 years or more was 45.3% in the 45–64 age group and 66.4% in the 65 years of age and older group. It was also found that 23.0% of the daily smokers in the 25–44 years age group quit smoking for 10 years or more, and 39.4% of them had quit smoking for at least 5 years. However, the percentage of those who had quit smoking in 15–24 age group could not be calculated due to a small sample size. The sample size was too small even for the less than one year category.

The proportion of former daily smokers who had quit smoking for 10 years or more was 44.8% among residents of rural areas and 39.1% among those living in urban areas.

By education, the proportion of former daily smokers who had quit for 10 years or more was 50.1% among those with less than a primary education. This group had the highest percentage among all education groups.

#### **4.5 First Cigarette after Waking Up in the Morning**

One of the most important indicators of nicotine dependence is the time to having the first cigarette of the day upon waking. Distribution of daily tobacco users by the amount of time passed between waking up and having the first cigarette of the day is presented in Table 4.10.

Over four out of ten daily smokers (42.1%) aged 15 years and older smoked within 30 minutes of waking up (first 5 minutes, 16.4%; 6–30 minutes, 25.7%). More than one-fourth (26.2%) started to smoke 31 to 60 minutes after waking up, and 31.8% first smoked more than 1 hour after awakening. By gender, 42.7% of men and 39.7% of women smoked their first cigarette within 30 minutes of waking up.

Among the daily smokers aged 15 years and older in urban areas, 17.8% smoked their first cigarette in the first 5 minutes of waking up and 25.0% smoked their first cigarette within 6–30 minutes.

The percentages for daily smokers living in rural areas smoking their first cigarette in the first 5 minutes and within 6–30 minutes of waking up were 11.4% and 28.3%, respectively.

There was no consistent pattern for the time to first cigarettes by age group, but those in the oldest group (65 years and older) had the lowest proportion of having the first cigarette within 30 minutes after waking up (31.5%). One out of three (31.5%) older persons had heavy nicotine dependency.

**Table 4.10: Percentage distribution of time to first smoke upon waking among daily smokers  $\geq 15$  years old, by demographic characteristics – GATS Turkey, 2012.**

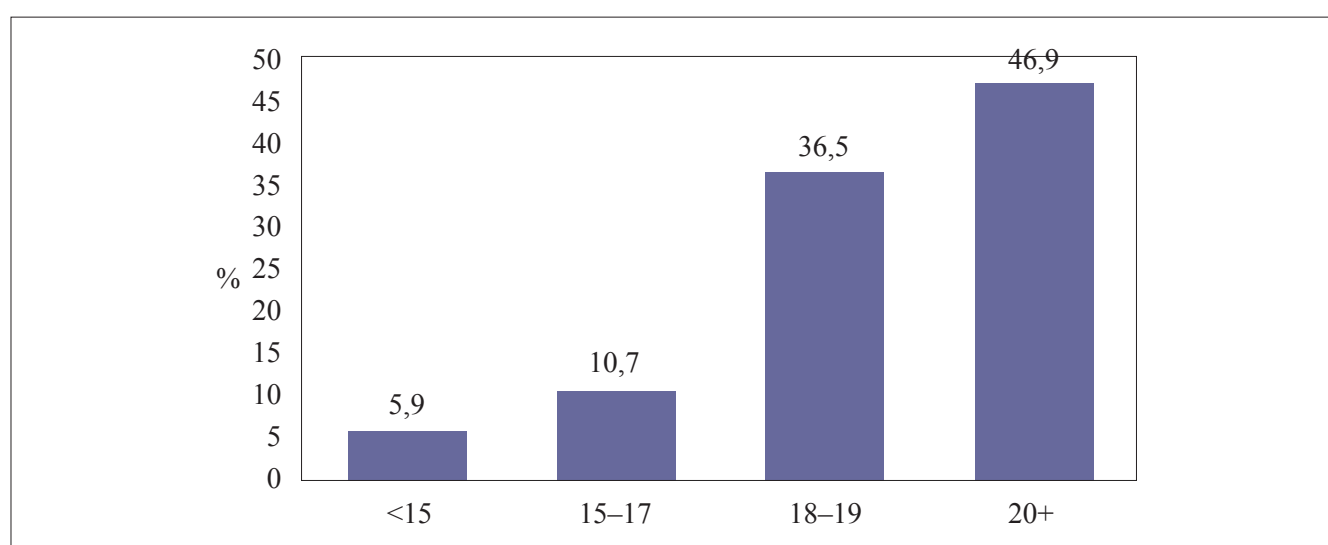
Demographic Characteristics	Time to first smoke								Total
	<6 minutes		6–30 minutes		31–60 minutes		> 60 minutes		
Overall	16.4	(14.1, 18.9)	25.7	(23.4, 28.1)	26.2	(23.9, 28.5)	31.8	(29.1, 34.5)	100
Gender									
Male	16.0	(13.7, 18.7)	26.7	(24.1, 29.5)	27.5	(24.9, 30.3)	29.8	(26.9, 32.8)	100
Female	17.4	(13.6, 22.1)	22.3	(18.6, 26.6)	21.7	(18.0, 25.9)	38.5	(33.7, 43.6)	100
Age									
15–24	13.7	(8.5, 21.2)	28.5	(21.6, 36.6)	29.7	(23.3, 37.1)	28.1	(21.3, 36.1)	100
25–44	16.9	(14.1, 20.0)	24.8	(22.0, 27.8)	24.7	(21.9, 27.8)	33.6	(30.4, 37.0)	100
45–64	18.5	(15.0, 22.5)	25.8	(22.0, 30.0)	26.5	(22.6, 30.9)	29.2	(25.0, 33.9)	100
65+	4.3	(1.8, 10.2)	27.2	(17.8, 39.3)	30.3	(20.1, 42.8)	38.2	(28.0, 49.5)	100
Residence									
Urban	17.8	(15.0, 21.0)	25.0	(22.3, 27.9)	24.8	(22.2, 27.7)	32.4	(29.3, 35.8)	100
Rural	11.4	(9.1, 14.1)	28.3	(24.4, 32.4)	30.9	(27.3, 34.9)	29.4	(25.6, 33.6)	100
Education									
Not Graduated	13.5	(7.9, 22.1)	28.6	(19.3, 40.0)	23.9	(16.5, 33.3)	34.1	(24.1, 45.6)	100
Primary	18.8	(15.5, 22.6)	29.7	(26.1, 33.6)	26.4	(23.0, 30.0)	25.2	(21.8, 28.9)	100
Secondary	15.5	(11.5, 20.7)	22.0	(17.7, 27.0)	31.2	(26.0, 36.9)	31.2	(25.8, 37.1)	100
High School	17.1	(13.2, 21.9)	25.1	(20.6, 30.1)	23.7	(19.5, 28.6)	34.0	(29.2, 39.3)	100
University or Higher	10.3	(6.6, 15.7)	20.0	(15.2, 25.9)	22.8	(17.5, 29.2)	46.9	(39.8, 54.2)	100

## 4.6 Waterpipe Use

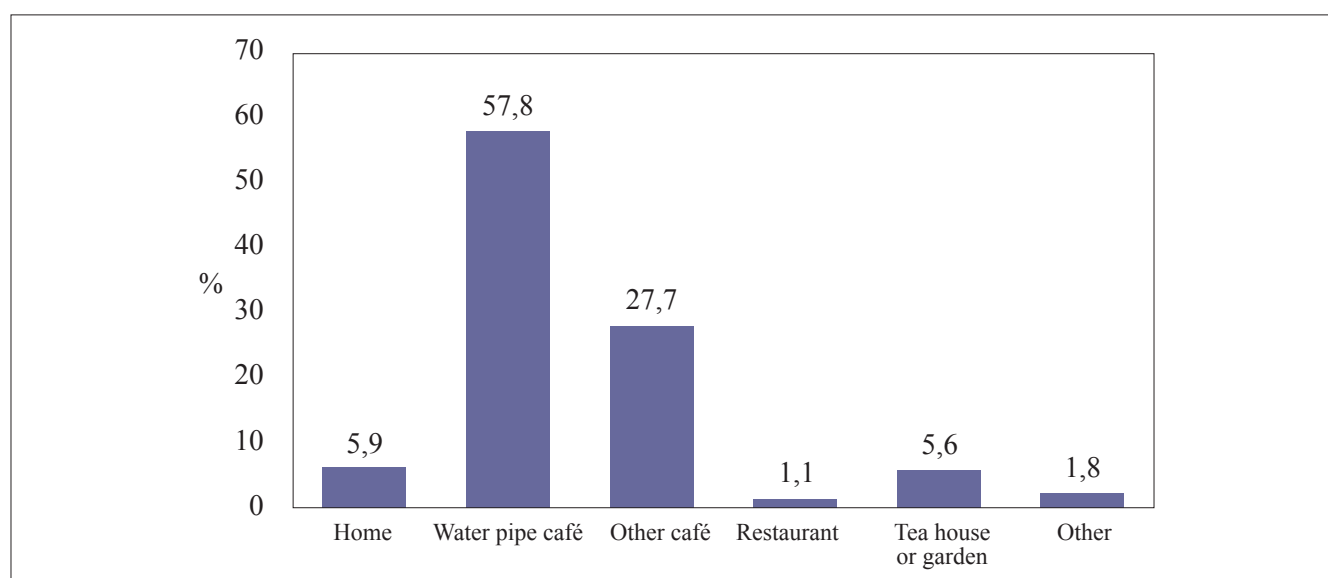
The distribution of age (years) at waterpipe smoking initiation among current waterpipe users is presented in Figure 4.2. Among this group, 5.9% started smoking waterpipe daily before the age of 15; 10.7% at ages 15–17; 36.5% at ages 18–19; and 46.9% at 20 or older. This means that more than half of the waterpipe smokers (53.1%) started before the age 19.

Figure 4.3 presents that more than half of the waterpipe smokers smoked a waterpipe at waterpipe cafes (57.8%), followed by 27.7% at other cafes, 5.9% at home, and 5.6% at tea gardens. Waterpipe use prevalence among rural residents seemed low; however, the rate was not calculated due to the small numbers.

**Figure 4.2: Percentage distribution of age at initiation of waterpipe smoking among current users of waterpipe – GATS Turkey, 2012.**



**Figure 4.3: Percentage distribution of location of last waterpipe session – GATS Turkey, 2012.**



# 5

## SMOKING CESSATION





## 5. Smoking Cessation

One of the objectives of the tobacco control program is to provide opportunities for smokers to stop smoking. Tobacco control programs in Turkey include health services provided to help the smokers to give up smoking.

The quit line provides counseling to help smokers stop smoking and was set up by the MoH in October 2010 as a round the clock hotline. Today, there are 185 operators working 24 hours a day at quit line clinics. Approximately six to seven thousand people call daily, asking for advice on how to quit smoking.

It is also known that smoke-free places create an environment that encourages smokers to cut back or stop. The ban on smoking in closed and common areas is causing smokers to change their attitudes and behavior.

This chapter deals with smoking cessation in three subheadings; attempts to quit smoking, as well as smoking cessation and health care seeking behavior; methods used for cessation; and smoker's interest in quitting. Availability of counseling and cessation services and access to these services, as well as non-evidence-based approaches (i.e., electronic cigarettes), are also mentioned in this chapter. Policy implications regarding cessation services and possible future developments are outlined in Chapter 11.

### Key Findings

- Nearly half (46.0%) of smokers aged 15 years or older had made an attempt to quit smoking in the past 12 months.
- Three out of four (73.4%) smokers who attempted to quit smoking in the past 12 months tried to quit without any assistance.
- Less than half (42.9%) of current smokers who had visited a health care provider (HCP) in the past 12 months received advice to quit smoking from the provider.
- More than half (55.1%) of current smokers planned to or were thinking about quitting.

### 5.1 Smoking Cessation and Healthcare Seeking Behaviours

A quit attempt in a GATS study is defined as current tobacco smokers and former tobacco smokers who have been abstinent for less than 12 months. Table 5.1 and Figure 5.1 present the proportion of adult smokers who made a quit attempt and received HCP assistance in the 12 month period preceding the survey.

Almost half (46.0%) of the smokers made a quit attempt during the 12 month period preceding the survey (Table 5.1). There was no difference between men (45.1%) and women (48.8%) regarding attempting to quit. Young smokers in the 15–24 years age group had the lowest quit attempt percentage (40.2%)

among all age groups. Smokers who lived in urban areas had a slightly higher quit attempt rate than people in rural residences (46.5% vs. 44.3%). Percentage of quit attempts varies from 43.3% to 47.4% by educational group. No education–level trend was evident for quit attempts.

Four out of ten (40.8%) smokers visited an HCP during the last year. Significantly more female smokers (52.1%) visited when compared to men (37.1%). Urban smokers (42.4%) visited more than rural ones (35.5%). Of smokers visiting an HCP, slightly more than half (51.4%) of the smokers were asked if they were smokers. More female smokers (56.3%) reported being asked more frequently than male smokers (49.1%).

Overall, more than four in five smokers (83.5%) who visited an HCP and were asked if they smoked were advised to quit. There was no significant difference between genders. Among age groups, those 65 years of age and older were advised to quit most often (97.8%). Smokers living in rural areas (86.2%) were also advised to quit more at higher rates than urban respondents (82.9%). No significant difference between the various education groups was found for smokers being advised to quit by an HCP (Table 5.1).

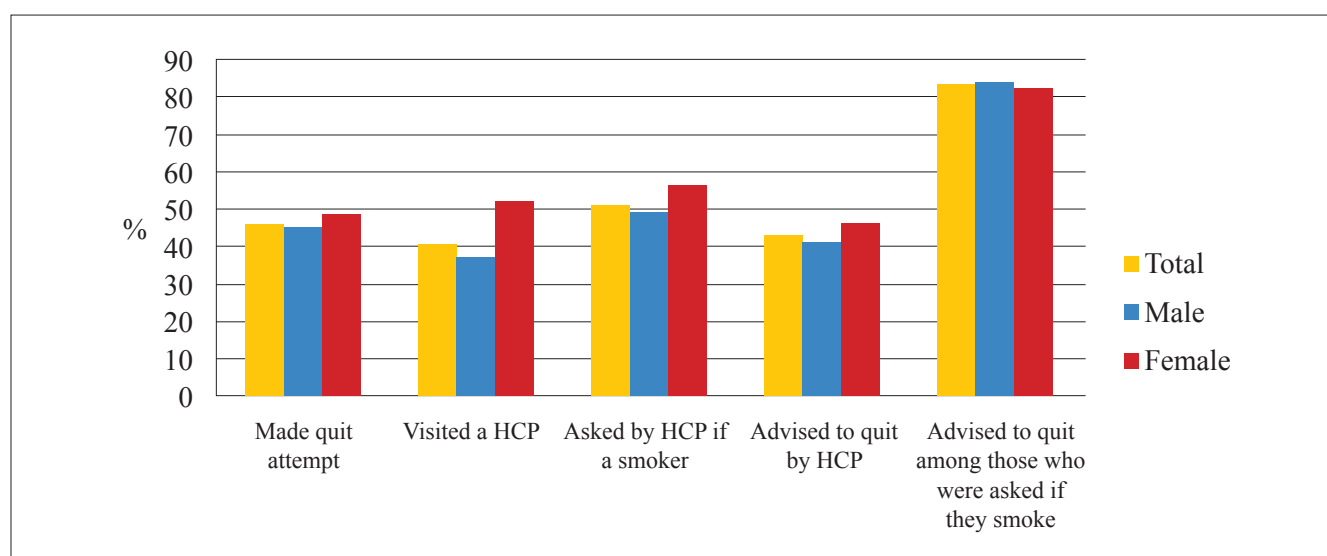
**Table 5.1: Percentage of smokers  $\geq 15$  years old who made a quit attempt and received health care provider assistance in the past 12 months, by selected demographic characteristics – GATS Turkey, 2012.**

Demographic Characteristics	Smoking cessation and health care seeking behavior					
	Made quit attempt	Visited a HCP	Asked by HCP if a smoker	Advised to quit by HCP <sup>(*)</sup>	Advised to quit among those who were asked if they smoke <sup>(**)</sup>	
Overall	46.0 (43.5, 48.5)	40.8 (37.6, 44.0)	51.4 (47.5, 55.3)	42.9 (39.1, 46.8)	83.5 (79.1, 87.1)	
Gender						
Male	45.1 (42.3, 47.9)	37.1 (33.9, 40.4)	49.1 (44.7, 53.6)	41.3 (36.9, 45.8)	84.0 (78.3, 88.4)	
Female	48.8 (44.2, 53.4)	52.1 (46.9, 57.2)	56.3 (50.1, 62.3)	46.4 (40.2, 52.7)	82.4 (75.5, 87.7)	
Age						
15–24	40.2 (33.5, 47.3)	32.6 (26.1, 39.7)	38.1 (28.3, 48.9)	33.3 (24.0, 44.0)	87.4 (72.7, 94.7)	
25–44	48.3 (45.0, 51.5)	41.5 (37.6, 45.5)	50.6 (45.3, 55.8)	40.0 (34.8, 45.5)	79.2 (72.7, 84.5)	
45–64	44.8 (40.8, 48.9)	43.2 (38.1, 48.5)	57.7 (50.8, 64.3)	50.5 (44.2, 56.8)	87.5 (80.6, 92.1)	
65+	47.1 (37.3, 57.0)	51.9 (41.6, 62.0)	64.5 (49.7, 77.0)	63.1 (48.4, 75.7)	97.8 (92.8, 99.4)	
Residence						
Urban	46.5 (43.5, 49.6)	42.4 (38.5, 46.3)	52.8 (48.1, 57.5)	43.8 (39.3, 48.4)	82.9 (77.7, 87.1)	
Rural	44.3 (40.6, 48.0)	35.5 (31.3, 40.0)	45.7 (40.0, 51.6)	39.4 (33.9, 45.3)	86.2 (79.9, 90.8)	
Education						
Not Graduated	44.1 (35.2, 53.4)	39.4 (31.0, 48.4)	50.0 (36.3, 63.6)	43.4 (30.7, 56.9)	86.8 (68.5, 95.2)	
Primary	46.9 (43.3, 50.6)	42.3 (37.6, 47.1)	52.0 (46.6, 57.5)	43.7 (38.3, 49.3)	84.0 (76.3, 89.6)	
Secondary	43.3 (38.6, 48.2)	33.2 (28.0, 38.8)	45.5 (36.5, 54.8)	37.7 (29.4, 46.8)	82.9 (70.0, 90.9)	
High School	47.4 (42.6, 52.3)	42.7 (37.5, 48.2)	50.1 (42.8, 57.4)	41.9 (35.1, 49.0)	83.6 (74.2, 90.1)	
University or Higher	46.0 (39.8, 52.4)	46.2 (39.8, 52.7)	59.8 (49.5, 69.3)	48.7 (38.5, 59.0)	81.4 (69.8, 89.3)	

(\*) Advised to quit among smokers visited HCP

(\*\*) Advised to quit among smokers visited HCP and asked by HCP if they smoked

**Figure 5.1: Percentage of smokers  $\geq 15$  years old who made a quit attempt and received health care provider assistance in the past 12 months by gender – GATS Turkey, 2012.**



## 5.2 Methods Used for Cessation

Smokers who had made a quit attempt in the past 12 months were asked about the cessation methods they used for cessation. The question had four response categories: pharmacotherapy, counseling/advise, quit without assistance, and others (methods not covered in the other three choices).

Among the smokers who had made quit attempt during the last 12 months, 13.6% used pharmacotherapy (nicotine replacement preparations and the evidence-based medicines) and 8.0% used counseling (provided by smoking cessation clinics or quit lines). Three out of four (73.4%) tried to quit (at least once) without any assistance. Irrespective of gender, age, or place of residence, a majority of respondents quit without assistance. A small proportion of respondents (4.7%) quit because of “other” reasons such as pregnancy or family concern.

Quitting with pharmacotherapy was less prevalent among the youngest and oldest respondents (10.2% and 9.0%, respectively). More female smokers used pharmacotherapy and counseling than male smokers (pharmacotherapy: women, 14.5%; men, 13.3%; counseling women, 9.5%; men, 7.5%).

Smokers living in urban areas were more likely to use pharmacotherapy (10.8% rural vs. 14.4% urban). Although the figures are relatively low, pharmacotherapy (16.4%) and counseling (10.0%) were more prevalent among smokers with a primary level education (Table 5.2).

**Table 5.2: Percentage of smokers  $\geq 15$  years old who made a quit attempt in the past 12 months and used various cessation methods for their last quit attempt, by selected demographic characteristics – GATS Turkey, 2012.**

Demographic Characteristics	Use of Cessation Method							
	Pharmacotherapy		Counseling/Advice		Quit without Assistance		Other <sup>1</sup>	
Overall	13.6	(11.3, 16.3)	8.0	(6.5, 9.8)	73.4	(69.5, 77.0)	4.7	(3.6, 6.3)
Gender								
Male	13.3	(10.8, 16.4)	7.5	(5.8, 9.6)	73.0	(68.5, 77.0)	4.9	(3.6, 6.7)
Female	14.5	(10.0, 20.4)	9.5	(6.6, 13.5)	74.7	(68.3, 80.2)	4.3	(2.4, 7.7)
Age								
15–24	10.2	(4.7, 20.8)	4.0	(1.3, 11.4)	80.1	(69.4, 87.8)	0.0	(0, 0)
25–44	13.6	(10.7, 17.1)	8.6	(6.6, 11.1)	71.8	(66.5, 76.5)	4.8	(3.3, 6.9)
45–64	16.4	(12.0, 22.0)	8.7	(5.8, 12.8)	73.0	(67.2, 78.1)	7.5	(4.6, 11.9)
65+	9.0	(2.9, 24.8)	10.5	(4.0, 24.6)	75.7	(59.2, 87.1)	3.7	(1.3, 9.8)
Residence								
Urban	14.4	(11.6, 17.8)	8.4	(6.6, 10.6)	73.9	(69.1, 78.3)	4.9	(3.5, 6.8)
Rural	10.8	(8.2, 14.2)	6.6	(4.7, 9.1)	71.6	(66.3, 76.4)	4.2	(2.6, 6.5)
Education								
Not Graduated	13.0	(5.0, 30.0)	1.1	(0.1, 7.6)	75.8	(60.6, 86.5)	4.1	(1.0, 15.4)
Primary	16.4	(12.7, 20.9)	10.0	(7.3, 13.6)	70.8	(65.0, 75.9)	7.2	(4.9, 10.4)
Secondary	9.6	(6.1, 14.7)	5.8	(3.0, 11.1)	78.7	(71.4, 84.6)	2.0	(0.8, 4.6)
High School	13.3	(8.7, 19.8)	8.8	(5.8, 13.1)	72.4	(65.0, 78.8)	4.6	(2.7, 7.8)
University or Higher	12.8	(7.7, 20.5)	6.9	(3.4, 13.7)	73.8	(64.4, 81.5)	2.4	(0.8, 6.6)

<sup>1</sup> Other responses included the following: “Family concern”, “e-cigarettes”, “pregnancy”, “illness”.

### 5.3 Smoker’s Interest in Quitting

More than half (55.1%) of smokers were thinking about quitting to quit smoking and had a plan to quit within 30 days, while only 12.9% were seriously thinking about planning to quit in the next month. Among smokers, 22.5% thought about quitting within the next 2 to 12 months, and 19.7% thought about quitting at some time in the future, but not in the next 12 months.

Slightly more women (14.5%) than men (12.4%) were planning to quit within the next month. The data showed minimal differences between those planning to quit within the next 30 days by age, residency, and educational groups. There were no significant differences in planning to quit within the next month when comparing between men and women, by residence or among educational groups. Less than half (42.0%) of the smokers were not interested quitting, with no major differences among the different groups. Lastly, and only 2.8% said that they were unsure about quitting (Table 5.3).

**Table 5.3: Percentage distribution of current smokers  $\geq 15$  years old by interest in quitting smoking and selected demographic characteristics – GATS Turkey, 2012.**

Demographic Characteristics	Interest in Quitting Smoking					Total
	Planning Quit Within Next Month	Thinking About Quitting Within Next 12 Months	Will Quit Someday, But Not in the next 12 Months	Not Interested in Quitting	Don't Know	
Overall	12.9 (11.1, 14.9)	22.5 (20.3, 25.0)	19.7 (17.6, 22.0)	42.0 (39.2, 44.8)	2.8 (1.9, 4.2)	100
Gender						
Male	12.4 (10.5, 14.6)	22.4 (19.9, 25.1)	19.1 (16.7, 21.7)	43.0 (39.9, 46.2)	3.1 (2.1, 4.7)	100
Female	14.5 (11.4, 18.2)	23.1 (19.2, 27.5)	21.7 (17.9, 26.1)	38.8 (34.1, 43.8)	1.9 (1.0, 3.8)	100
Age						
15–24	12.9 (9.1, 17.9)	16.4 (11.8, 22.3)	17.3 (12.8, 22.9)	49.8 (42.9, 56.7)	3.6 (1.7, 7.3)	100
25–44	12.9 (10.7, 15.5)	25.1 (22.2, 28.2)	19.6 (17.1, 22.5)	40.0 (36.3, 43.7)	2.4 (1.3, 4.3)	100
45–64	13.1 (10.6, 16.1)	21.4 (17.9, 25.4)	20.6 (16.9, 24.8)	41.4 (37.3, 45.8)	3.4 (2.0, 5.9)	100
65+	10.9 (6.6, 17.5)	19.3 (11.8, 30.0)	27.3 (18.4, 38.5)	40.7 (30.8, 51.5)	1.7 (0.5, 5.7)	100
Residence						
Urban	12.8 (10.7, 15.3)	22.5 (19.7, 25.5)	19.6 (17.0, 22.4)	42.3 (38.9, 45.8)	2.8 (1.6, 4.6)	100
Rural	13.1 (10.8, 15.9)	22.6 (19.8, 25.8)	20.2 (17.3, 23.4)	40.9 (37.2, 44.6)	3.2 (2.0, 5.0)	100
Education						
Not Graduated	11.0 (6.8, 17.5)	19.2 (12.5, 28.3)	15.3 (9.5, 23.6)	50.2 (39.5, 60.8)	4.3 (1.5, 11.6)	100
Primary	14.2 (11.7, 17.2)	22.1 (19.0, 25.6)	19.9 (17.1, 23.0)	41.3 (37.1, 45.5)	2.5 (1.4, 4.5)	100
Secondary	10.9 (7.9, 14.6)	22.5 (17.8, 27.9)	21.1 (16.7, 26.3)	41.7 (36.3, 47.2)	3.9 (2.1, 7.2)	100
High School	13.8 (10.7, 17.7)	21.2 (17.2, 25.9)	20.9 (17.1, 25.2)	41.1 (36.1, 46.2)	3.0 (1.5, 6.0)	100
University or Higher	11.4 (8.1, 16.0)	28.0 (22.2, 34.7)	16.7 (12.6, 21.9)	42.8 (36.3, 49.6)	1.0 (0.3, 3.0)	100

## 5.4 Factors Associated with Quitting

The most common factor for quitting indicated by respondents was health problems. Almost two-thirds (62.4%) of former smokers who quit smoking within the last 12 months quit smoking due to a health problem. Other reasons for cessation were "being asked to quit by family and children" (23.7%); cigarette prices (5.3%); and anti-smoking campaigns (1.6%).

Younger people, less educated people and those living in rural places seem to be more sensitive to cigarette prices. More men were former smokers (6.6%) than women (vs. 2.3% of women). More younger people aged 25–44 years old were more sensitive than those aged 45–64 years (8.6% vs 2.9%). People with a primary education (9.1%) were more likely to be former smokers than those with a high school (3.6%) or university education (5.2%) respectively. More of those living in rural places (7.4%) were former smokers than those living in urban places (4.7%) (Table 5.4).



Table 5.4: Percentage distribution of reasons for quitting among former smokers by demographic characteristics – GATS Turkey, 2012.

Demographic Characteristics	Most important factor in successfully quitting smoking						Total
	Cigarette price	Health problems	Family or children asked	Campaign for not smoking	Difficult to find places to smoke	Other	
Overall	5.3 (2.8, 9.8)	62.4 (53.8, 70.4)	23.7 (16.6, 32.7)	1.6 (0.4, 5.8)	0.0	7.0 (3.6, 12.9)	100
Gender							
Male	6.6 (3.3, 12.7)	63.9 (54.2, 72.6)	20.5 (13.4, 30.0)	1.4 (0.2, 9.1)	0.0	7.7 (3.6, 15.6)	100
Female	2.3 (0.5, 9.6)	58.9 (41.7, 74.2)	31.5 (17.2, 50.3)	2.1 (0.5, 8.9)	0.0	5.2 (1.6, 15.9)	100
Age							
15–24	*	*	*	*	*	*	100
25–44	8.6 (3.9, 17.8)	57.1 (44.8, 68.5)	26.5 (17.5, 38.1)	0.9 (0.1, 6.2)	0.0	6.9 (2.7, 16.7)	100
45–64	2.9 (0.7, 11.2)	75.5 (60.7, 86.0)	13.0 (5.8, 26.7)	4.1 (0.8, 18.4)	0.0	4.4 (1.1, 16.2)	100
65+	*	*	*	*	*	*	100
Residence							
Urban	4.7 (2.0, 10.6)	65.4 (54.7, 74.7)	21.9 (13.7, 33.2)	1.3 (0.2, 8.5)	0.0	6.8 (3.2, 14.0)	100
Rural	7.4 (3.3, 15.8)	52.9 (40.2, 65.3)	29.5 (18.5, 43.6)	2.6 (0.6, 10.8)	0.0	7.5 (2.2, 22.5)	100
Education							
Not Graduated	*	*	*	*	*	*	
Primary	9.1 (3.8, 20.3)	64.9 (50.2, 77.3)	15.7 (8.0, 28.2)	4.5 (1.0, 18.1)	0.0	5.8 (1.8, 16.6)	100
Secondary	1.3 (0.2, 8.8)	60.3 (38.4, 78.8)	27.8 (11.7, 52.7)	0.0	0.0	10.6 (3.4, 28.8)	100
High School	3.6 (0.5, 21.5)	60.7 (43.8, 75.4)	33.5 (19.8, 50.6)	0.0	0.0	2.2 (0.3, 14.5)	100
University or Higher	5.2 (1.0, 23.0)	60.2 (38.2, 78.8)	24.7 (11.3, 45.6)	0.0	0.0	10.0 (2.4, 33.4)	100

\* Suppressed due to sample size &lt; 25.

# 6

## **SECONDHAND SMOKE EXPOSURE**



## 6. Secondhand Smoke Exposure

When smoking, both mainstream (the smoke exhaled by smokers) and SHS are produced. SHS creates health hazards for smokers and non-smokers. For those who do not smoke and are exposed to SHS exposure, their exposure to SHS is involuntary or passive. People who are exposed to tobacco SHS have higher risk of three major health problems, namely; coronary heart disease, lung cancer, and stroke. Exposure to SHS may occur at public places such as government buildings, shops, hospitality venues (restaurant, cafe, coffee house and tea house, bar, night club, etc.), health care facilities, and public transportation, as well as private areas such as homes and private cars. In 1996, Turkey introduced a smoking ban in some major indoor public places such as health care facilities, sports events, and educational facilities, and public transportation. After 12 years of implementation, a 100% ban on smoking in all indoor public places, including the hospitality venues was introduced by the amended law in 2008. In this chapter, major places where SHS exposure may occur will be presented.

### Key Findings

- Among the adults who worked indoors, nearly one in every six were exposed to SHS in the workplace.
- Almost four in 10 adults were exposed to SHS at home.
- One in four of adults were exposed to SHS when visiting cafes/coffee houses, and almost one in eight were exposed when visiting restaurants.
- Among respondents, 6.5% of adults were exposed to SHS when visiting government buildings, 12.9% were exposed in restaurants, and one in 10 adults were exposed to SHS when using public transportation.
- Only 3.8% of adults were exposed to SHS when visiting health-care facilities.
- One in four adults who owned private cars were exposed to SHS in their private cars.

### 6.1 Secondhand Smoke Exposure at Workplace

The prevalence and estimated numbers of adults exposed to SHS at the workplace (among those working exclusively indoors or both indoors and outdoors) over the past 30 days by smoking status are shown in Table 6.1. Among adults who worked outside of their home, indoors or both indoors and outdoors, nearly 2 million men and four hundred thousand women in Turkey were exposed. Of that number, more than 1 million were non-smokers. SHS exposure at work was almost twice as high among men (17.8%) when compared to women (9.6%).

SHS exposure at work was more prevalent among people living in rural areas and people having lower education, and it was less prevalent among the elderly. One in six respondents (14.7% to 17.7%) less than 65 years of age were exposed to SHS at work (49.6%), while only 9.3% of the people aged 65 years

and older were exposed to SHS at work. Rural area SHS exposure in the workplace was more common (21.1%) than in urban areas (14.6%). One in three (35.5%) of the adults not graduated population and one in five (20.6%) of the adults with a primary level education group were exposed, whereas only 10.7% of the university graduates were exposed at work.

**Table 6.1: Percentage and number of adults  $\geq 15$  years old who work indoors and are exposed to tobacco smoke at work, by smoking status and selected demographic characteristics – GATS Turkey, 2012.**

Demographic characteristics	Adults Exposed to Tobacco Smoke at Work					
	Overall			Non-smokers		
	Percentage (95%CI)		Number in thousands	Percentage (95%CI)		Number in thousands
Overall	15.6	(13.7, 17.8)	2,434.6	12.3	(10.3, 14.7)	1,136.6
Gender						
Male	17.8	(15.5, 20.4)	2,040.7	14.0	(11.5, 16.9)	849.5
Female	9.6	(7.0, 13.0)	393.9	9.1	(6.2, 13.3)	287.2
Age						
15–24	17.2	(12.2, 23.8)	412.6	13.5	(8.3, 21.1)	203.8
25–44	14.7	(12.6, 17.1)	1,470.5	11.0	(8.6, 13.9)	624.4
45–64	17.7	(13.9, 22.3)	539.1	15.5	(11.3, 20.8)	298.3
65+	9.3	(2.9, 25.6)	12.3	10.8	(2.6, 35.1)	10.2
Residence						
Urban	14.6	(12.5, 17.0)	1,911.1	11.4	(9.3, 13.9)	876.4
Rural	21.1	(16.8, 26.3)	523.5	17.4	(12.4, 23.9)	260.2
Education						
Not Graduated	35.5	(20.1, 54.6)	102.5	26.2	(11.1, 50.2)	40.4
Primary	20.6	(16.8, 24.9)	842.0	16.9	(12.5, 22.4)	353.1
Secondary	18.3	(14.0, 23.4)	494.3	15.8	(10.9, 22.3)	227.5
High School	12.9	(9.8, 16.8)	528.6	10.4	(7.2, 14.8)	238.5
University or Higher	10.7	(8.3, 13.6)	467.2	8.6	(6.0, 12.1)	277.1

## 6.2 Secondhand Smoke Exposure at Home

Results of SHS exposure at home in the past 30 days are shown in Table 6.2. Almost four out of ten (38.3%) adults (21 million) were exposed to SHS at home. More than half (11.5 million) of these were non-smokers.

Men and women had a similar risk of being exposed to SHS at home (men, 39.2%; women, 37.4%). However, among the non-smokers, significantly more women (32.0%; 7.7 million) than men (24.5%; 3.8 million) among the non-smokers were exposed to SHS at home.

Younger age groups had higher risk of exposure than the older age groups. The prevalence of SHS exposure was 41.2% among those aged 25–44 years, 33.5% among those aged 45–64 and 24.9% for those aged 65 years and older. Among non-smokers, the youngest age group (15–24 years) had the highest exposure rate among all age groups, and there was a significant difference between the age groups of 15–24 years and 25–44 years.

The percentage of adults exposed to tobacco smoke at home in urban areas was 38.6%, while rural populations had an exposure of 37.5%. Among non-smokers, approximately three in ten were exposed to SHS at home (urban, 28.5%; rural, 30.4%).

Overall, adults with a university education or above had the lowest estimate of SHS exposure at home (32.5%, 2.1 millions). Similarly, non-smoking adults who graduated from university had the lowest percentage of at home SHS exposure (24.0%, 1.2 million).

**Table 6.2: Percentage and number of adults  $\geq 15$  years old who are exposed to tobacco smoke at least monthly at home, by smoking status and selected demographic characteristics – GATS Turkey, 2012.**

Demographic characteristics	Adults Exposed to Tobacco Smoke at Home					
	Overall			Non-smokers		
	Percentage (95%CI)		Number in thousands	Percentage (95%CI)		Number in thousands
Overall	38.3	(36.4, 40.2)	20,830.5	29.1	(27.1, 31.1)	11,519.9
Gender						
Male	39.2	(37.0, 41.6)	10,507.9	24.5	(22.0, 27.2)	3,838.9
Female	37.4	(35.1, 39.7)	10,322.6	32.0	(29.6, 34.5)	7,681.0
Age						
15–24	44.1	(40.6, 47.6)	5,369.9	38.5	(34.7, 42.3)	3,753.5
25–44	41.2	(38.8, 43.6)	9,401.6	28.9	(26.3, 31.7)	4,235.0
45–64	33.5	(31.2, 36.0)	4,778.3	24.2	(21.7, 26.8)	2,550.1
65+	24.9	(21.9, 28.2)	1,280.7	20.9	(18.0, 24.2)	981.3
Residence						
Urban	38.6	(36.3, 41.0)	15,116.5	28.5	(26.0, 31.1)	7,911.6
Rural	37.5	(34.6, 40.4)	5,714.0	30.4	(27.4, 33.6)	3,608.3
Education						
Not Graduated	38.4	(34.9, 42.0)	2,865.0	33.2	(29.7, 37.0)	2,206.1
Primary	37.9	(35.5, 40.4)	6,883.2	26.9	(24.3, 29.7)	3,434.4
Secondary	40.4	(37.2, 43.8)	4,599.4	32.0	(28.6, 35.7)	2,656.8
High School	40.3	(37.0, 43.7)	4,293.4	29.0	(25.3, 33.0)	2,037.2
University or Higher	32.5	(28.7, 36.5)	2,189.4	24.0	(20.2, 28.4)	1,185.4

### 6.3 Secondhand Smoke Exposure at Public Places

Exposure to SHS among those who visited various public places is given for some public places such as government buildings, health-care facilities, restaurants, public transportation, cafes/coffee houses, and schools in Table 6.3 and Figure 6.1.

SHS exposure among those who visited various public places was relatively low in most public places. The lowest exposure was lowest being 3.8% at health care facilities, followed by 10.4% on public transportation, 12.9% in restaurants. The highest exposure was found in cafes and coffee houses (26.6%). SHS exposure at various places was similar for the non-smokers group as well.

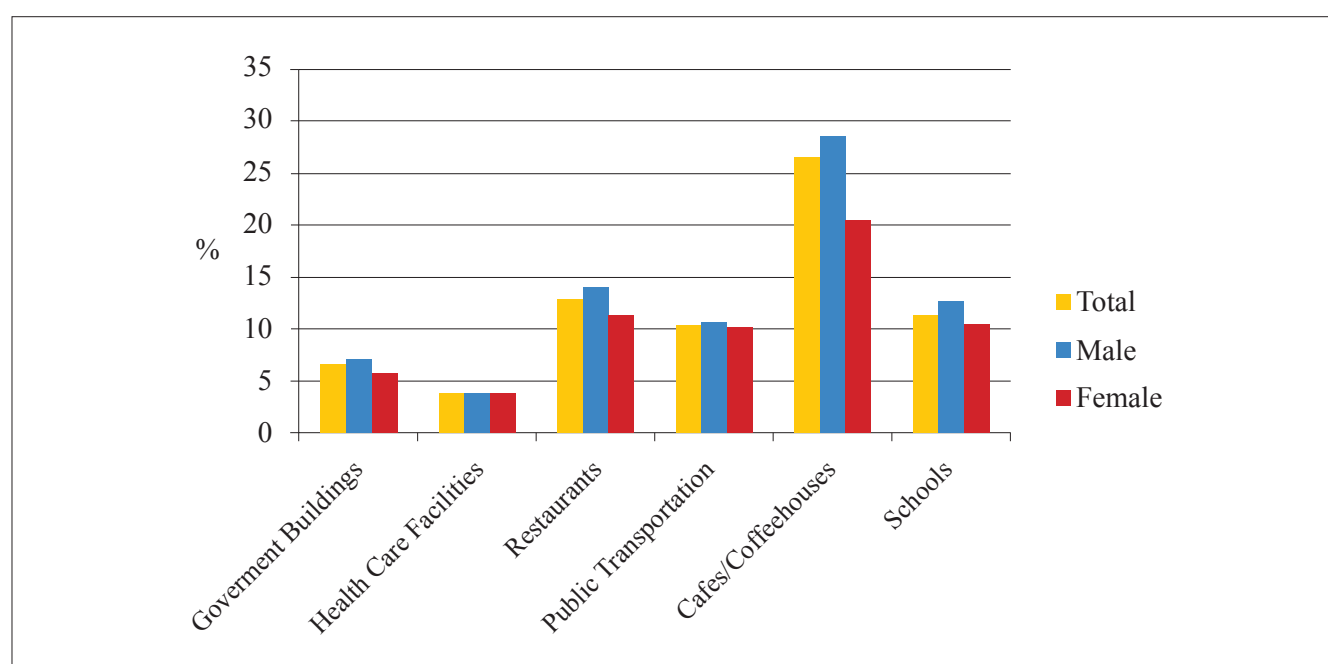
Exposure to SHS in cafes and coffee houses was significantly more prevalent among men than women (28.6% vs. 20.5%) and younger age groups (30.4% and 28.0% at 15–24 and 25–44 years age groups) than other ages (21.4% in 45–64 years and only 18.5% in 65 years and older). A similar distribution was

also observed for non-smokers. Over one out of four male non-smokers (27.4%) responded that they were exposed to SHS at cafes and coffee houses, while one out of five (19.9%) of female non-smoker participants were exposed in these same venues.

Young adults (15–24 and 25–44 age groups) had greater rates of SHS exposure while using public transportation than older age groups. The differences in SHS exposure by age groups in public transportation among the non-smoker group were significant both overall and among non-smokers. The percentage of SHS exposure in public transportation was 13.2% among those in the youngest age group (15–24), 11.1% among those in the age group 25–44, and 5.8% among those the oldest age group (65 years and older).

Respondents in the youngest age group both overall and among non-smokers, and those who graduated from secondary school were exposed to the highest levels of SHS at school. Almost one in five (18.2%) respondents of the 15–24 years age group was exposed to SHS at school, vs. one in twenty (5.2%) for those in the 65 years and older age group.

**Figure 6.1: Percentage of adults  $\geq 15$  years old who visited various public places in the past 30 days and were exposed to tobacco smoke – GATS Turkey, 2012.**



**Table 6.3: Percentage of adults  $\geq 15$  years old who visited various public places in the past 30 days and were exposed to tobacco smoke, by smoking status and selected demographic characteristics – GATS Turkey, 2012.**

Demographic Characteristics	Adults Exposed to Tobacco Smoke in...					
	Government Buildings	Health Care Facilities	Restaurants	Public Transportation	Cafes/Coffee houses	Schools
Overall	6.5 (5.5, 7.7)	3.8 (3.1, 4.7)	12.9 (11.3, 14.7)	10.4 (9.0, 12.0)	26.6 (23.7, 29.6)	11.4 (9.8, 13.2)
Gender						
Male	7.1 (5.8, 8.5)	3.8 (2.9, 5.0)	14.0 (11.9, 16.4)	10.7 (9.0, 12.7)	28.6 (25.3, 32.1)	12.7 (10.4, 15.3)
Female	5.7 (4.3, 7.6)	3.9 (3.0, 4.9)	11.3 (9.3, 13.7)	10.2 (8.6, 12.0)	20.5 (17.0, 24.6)	10.4 (8.4, 12.9)
Age						
15–24	8.0 (5.6, 11.3)	4.2 (2.7, 6.4)	16.2 (12.9, 20.2)	12.5 (10.0, 15.6)	30.4 (25.9, 35.3)	18.2 (15.0, 21.8)
25–44	7.0 (5.5, 8.8)	4.5 (3.6, 5.6)	11.8 (10.1, 13.8)	11.3 (9.4, 13.5)	28.0 (24.5, 31.9)	7.8 (6.1, 9.9)
45–64	5.3 (4.1, 6.9)	3.1 (2.2, 4.5)	11.8 (9.2, 14.9)	8.0 (6.4, 9.8)	21.4 (17.9, 25.3)	8.0 (5.6, 11.2)
65+	3.3 (1.8, 6.1)	2.7 (1.7, 4.1)	10.2 (5.9, 17.1)	6.8 (4.9, 9.6)	18.5 (13.8, 24.3)	5.2 (2.0, 12.6)
Residence						
Urban	6.0 (4.8, 7.5)	3.7 (2.8, 4.8)	13.5 (11.6, 15.7)	11.0 (9.3, 13.0)	26.5 (23.0, 30.4)	11.9 (10.0, 14.1)
Rural	8.0 (6.3, 10.2)	4.2 (3.3, 5.4)	10.6 (8.5, 13.2)	8.6 (6.8, 10.9)	26.7 (22.5, 31.4)	9.9 (7.6, 12.9)
Education						
Not Graduated	4.7 (2.7, 8.0)	4.4 (3.1, 6.1)	18.3 (11.0, 28.9)	8.1 (5.5, 11.8)	35.3 (26.1, 45.7)	5.9 (2.7, 12.3)
Primary	5.4 (4.1, 7.2)	2.9 (2.1, 4.0)	9.7 (7.5, 12.4)	9.1 (7.6, 10.9)	22.0 (18.3, 26.1)	9.1 (6.7, 12.3)
Secondary	7.6 (5.5, 10.5)	4.4 (3.0, 6.3)	10.6 (8.0, 13.8)	10.9 (8.7, 13.6)	27.7 (23.4, 32.5)	18.5 (15.1, 22.4)
High School	6.3 (4.4, 9.0)	3.8 (2.6, 5.6)	14.6 (12.0, 17.7)	12.8 (10.3, 15.9)	29.1 (24.7, 34.0)	9.4 (6.5, 13.3)
University or Higher	7.8 (5.9, 10.2)	4.9 (3.3, 7.3)	15.5 (12.6, 18.9)	11.0 (8.3, 14.3)	26.8 (22.1, 32.1)	7.3 (5.1, 10.6)
Non-smokers	6.3 (5.0, 7.8)	3.6 (2.8, 4.6)	12.5 (10.7, 14.6)	10.4 (9.0, 12.0)	25.0 (22.2, 28.1)	11.5 (9.7, 13.7)
Gender						
Male	6.8 (5.3, 8.7)	3.6 (2.6, 5.0)	14.0 (11.3, 17.1)	10.7 (8.7, 13.1)	27.4 (24.1, 31.0)	13.0 (10.3, 16.3)
Female	5.7 (4.2, 7.8)	3.6 (2.8, 4.7)	10.9 (8.6, 13.7)	10.2 (8.5, 12.1)	19.9 (16.1, 24.5)	10.6 (8.5, 13.2)



**Table 6.3: Percentage of adults  $\geq 15$  years old who visited various public places in the past 30 days and were exposed to tobacco smoke, by smoking status and selected demographic characteristics – GATS Turkey, 2012. (... continuation)**

Demographic Characteristics	Adults Exposed to Tobacco Smoke in...				
	Government Buildings	Health Care Facilities	Restaurants	Public Transportation	Cafes/Coffee houses Schools
Age					
15-24	8.2 (5.5, 12.1)	4.0 (2.5, 6.4)	15.9 (12.3, 20.4)	13.2 (10.4, 16.5)	29.0 (23.9, 34.8) 17.5 (14.1, 21.5)
25-44	6.3 (4.6, 8.5)	4.0 (3.1, 5.3)	10.5 (8.5, 13.0)	11.1 (9.1, 13.5)	24.7 (21.1, 28.8) 7.8 (6.0, 10.0)
45-64	5.8 (4.2, 7.8)	3.3 (2.2, 4.9)	12.9 (10.1, 16.4)	8.0 (6.3, 10.3)	22.6 (18.5, 27.4) 6.9 (4.6, 10.2)
65+	2.1 (1.1, 4.1)	2.4 (1.5, 3.8)	7.9 (4.2, 14.2)	5.8 (3.8, 8.6)	16.8 (12.0, 23.1) 3.3 (1.1, 9.8)
Residence					
Urban	5.8 (4.3, 7.7)	3.6 (2.6, 4.9)	13.0 (10.9, 15.5)	11.1 (9.3, 13.2)	24.3 (20.9, 28.2) 12.1 (9.8, 14.7)
Rural	7.7 (5.8, 10.3)	3.7 (2.8, 4.9)	10.5 (8.0, 13.7)	8.4 (6.5, 10.8)	26.9 (22.5, 31.8) 9.9 (7.2, 13.3)
Education					
Not Graduated	5.3 (3.0, 9.2)	3.9 (2.7, 5.7)	12.3 (6.3, 22.8)	7.5 (4.7, 11.7)	26.3 (18.1, 36.6) 6.2 (2.7, 13.8)
Primary	4.5 (3.0, 6.5)	2.8 (1.9, 4.1)	7.3 (5.1, 10.6)	8.4 (6.8, 10.4)	19.5 (15.8, 23.8) 8.2 (5.6, 11.9)
Secondary	7.9 (5.3, 11.7)	4.2 (2.7, 6.4)	11.6 (8.5, 15.7)	11.9 (9.2, 15.2)	28.4 (23.2, 34.2) 19.7 (15.8, 24.2)
High School	6.7 (4.3, 10.5)	3.1 (1.9, 5.1)	15.5 (12.1, 19.7)	13.0 (10.2, 16.4)	28.4 (22.9, 34.6) 9.2 (6.1, 13.5)
University or Higher	6.8 (4.9, 9.3)	5.2 (3.3, 8.0)	14.4 (11.5, 18.0)	11.8 (8.5, 16.1)	23.1 (18.3, 28.8) 5.8 (3.8, 8.7)

## 6.4 Secondhand Smoke Exposure in Taxis

Table 6.4 shows that the percentage of adults that used or saw a taxi and observed someone smoking tobacco in a taxi in the past 30 days. The results may not reflect the direct SHS exposure of the respondents in taxis. One in six adults (17.1%) saw a violation of the smoking ban who used or saw a taxi and observed someone smoking in a taxi. The percentage of those who observed smoking in taxis was significantly higher among men than women (20.0% and 14%). Among non-smokers, 17% of men and 13.5% of women responded that they observed a violation in the taxis, which was not significant.

The 45–64 years old and 65 years and older age groups observed fewer were less likely to observe people smoking in taxis (13.2% and 11.8%) than the youngest age group (15–24) (23.1%). The same pattern was found among the non-smokers: the percentages for the 45–64, 65 years and older, and 15–24 age groups were 12.1%, 9.6% and 20.5%, respectively.

By education, the proportions of adults, used or saw a taxi and observed someone smoking in a taxi ranges from 9.9% (in non-graduates) to 20.5% (in secondary school educated). A similar trend was observed among the non-smokers as well.

Those residing in urban areas (17.7%) observed more people smoking in taxis than those in rural areas (14.4%). The pattern was similar among the non-smokers as well.

**Table 6.4: Percentage of adults  $\geq 15$  years old who used or saw a taxi in the past 30 days and observed someone smoking tobacco, by smoking status and selected demographic characteristics – GATS Turkey, 2012.**

Demographic Characteristics	Observed Tobacco Smoke in a Taxi			
		Overall		Non-Smokers
Overall	17.1	(15.1, 19.4)	15.0	(13.1, 17.2)
Gender				
Male	20.0	(17.4, 22.9)	17.0	(14.2, 20.3)
Female	14.0	(11.7, 16.7)	13.5	(11.2, 16.2)
Age				
15–24	23.1	(18.8, 28.1)	20.5	(16.2, 25.5)
25–44	17.3	(14.7, 20.3)	14.8	(12.1, 18.0)
45–64	13.2	(10.9, 16.0)	12.1	(9.5, 15.2)
65+	11.8	(8.7, 15.9)	9.6	(6.6, 13.8)
Residence				
Urban	17.7	(15.4, 20.4)	15.7	(13.5, 18.3)
Rural	14.4	(11.5, 17.8)	12.0	(9.3, 15.4)
Education				
Not Graduated	9.9	(6.8, 14.1)	8.3	(5.4, 12.7)
Primary	14.2	(11.7, 17.1)	12.7	(9.9, 16.0)
Secondary	20.5	(16.7, 24.8)	17.9	(13.7, 23.1)
High School	19.6	(15.9, 24.0)	18.0	(13.7, 23.3)
University or Higher	19.5	(15.4, 24.4)	16.6	(12.5, 21.6)

## 6.5 Secondhand Smoke Exposure in Private Cars

The percentages of adults who allow smoking in their private car by smoking status and selected demographic characteristics are shown in Table 6.5.

Almost one in three (29.1%) adults allowed smoking in their private cars, and one in four (26.4%) adults indicated they were exposed monthly to SHS in their private cars. More non-smoking female participants (women, 23.4%; men, 12.5% of males) said smoking was allowed in their private cars.

Slightly more men than women (28.5% vs. 24.1%) indicated they were exposed to SHS in private cars monthly; however, among non-smokers, exposure to SHS in private cars was significantly higher among the women than men (20.2% vs. 9.7%).

Significantly fewer respondents in the 65 years and older age group (15.2%) were exposed to SHS in private cars than the younger age groups (27.4% in the 15–24 age group and 29.6% in 25–44 years age group).

Among non-smokers, those with university education had lower SHS exposure in private cars monthly (6.5%) compared to those in other education groups, ranging from 13.3% with high school education to 20.0% with secondary school education.

**Table 6.5: Percentage of adults  $\geq 15$  years old who allow smoking in their private car, by smoking status and selected demographic characteristics – GATS Turkey, 2012.**

Demographic Characteristics	Smoking is Allowed in Private Car		Exposed to Smoking at least Monthly in Private Car	
Overall	29.1	(27.0, 31.2)	26.4	(24.4, 28.4)
Gender				
Male	30.9	(28.1, 33.8)	28.5	(25.8, 31.3)
Female	27.1	(24.6, 29.8)	24.1	(21.8, 26.6)
Age				
15–24	30.0	(25.1, 35.4)	27.4	(22.6, 32.9)
25–44	32.4	(29.3, 35.6)	29.6	(26.6, 32.7)
45–64	25.5	(22.6, 28.7)	23.3	(20.5, 26.3)
65+	19.2	(13.3, 27.0)	15.2	(10.6, 21.4)
Residence				
Urban	29.0	(26.4, 31.7)	25.9	(23.5, 28.4)
Rural	29.3	(26.4, 32.4)	28.0	(25.1, 31.1)
Education				
Not Graduated	23.0	(17.6, 29.5)	20.9	(16.0, 27.0)
Primary	32.8	(29.7, 36.2)	30.4	(27.3, 33.6)
Secondary	32.2	(27.3, 37.6)	29.5	(24.7, 34.8)
High School	29.4	(25.2, 34.0)	26.2	(22.3, 30.5)
University or Higher	22.1	(18.5, 26.2)	19.5	(16.1, 23.4)
Non-smokers	18.7	(16.8, 20.8)	15.6	(14.0, 17.5)
Gender				
Men	12.5	(10.2, 15.1)	9.7	(7.7, 12.1)
Women	23.4	(20.8, 26.3)	20.2	(17.9, 22.6)
Age				
15–24	23.4	(18.8, 28.7)	20.1	(15.9, 25.2)
25–44	18.5	(15.8, 21.6)	15.4	(12.9, 18.3)
45–64	15.4	(12.6, 18.6)	12.9	(10.5, 15.8)
65+	18.9	(12.7, 27.1)	14.5	(9.8, 20.9)
Residence				
Urban	18.4	(16.0, 21.0)	14.7	(12.7, 16.9)
Rural	19.8	(16.9, 23.0)	18.6	(15.8, 21.8)
Education				
Not Graduated	21.9	(16.3, 28.8)	19.6	(14.5, 25.9)
Primary	22.3	(19.2, 25.7)	19.5	(16.6, 22.8)
Secondary	23.1	(18.5, 28.6)	20.0	(15.8, 25.0)
High School	17.1	(13.3, 21.7)	13.3	(10.1, 17.3)
University or Higher	9.3	(6.5, 13.2)	6.5	(4.1, 9.9)



7

**ECONOMICS**



## 7. Economics

One of the most effective measures to reduce tobacco use is to raise prices of tobacco products. Research has shown that a 10% increase in tobacco prices will reduce overall tobacco consumption by 4% and, particularly, reduce youth smoking by 7%.

Cigarette sales in Turkey have changed over the years, increasing from the 1960s and then decreasing by 2000, following the implementation of the 1996 Tobacco Control Law. The government strongly emphasized economic interventions in the tobacco action plan, and excise taxes on cigarettes increased progressively from 58.0 %to 65.25% of retail selling price between 2005 and 2013. Turkey used an ad valorem excise system with specific excise floor until 2013 where a specific excise of TL .09 per pack is levied alongside ad valorem excise of 65.25% of the retail selling price. The specific excise floor increased to TL .05 per pack. Currently, the total excise share of the retail price is 65.25% plus TL .09 and the total tax share is 81.2%.

According to the GATS Turkey Country Report 2008, almost 16 million people were smokers, and the number of cigarettes purchased was among the highest in the world. An average of 90 TRY (US\$ 58) per month was spent to buy cigarettes per person. The total amount spent on buying tobacco products was about 17 billion TL (US\$ 11 billion) annually in the country.

Consumption trends have changed since 2008, reflecting stronger economic enforcement implemented by the government, the number of cigarettes sold decreased to fewer than 100 billion sticks in 2010, reaching 93 billion sticks, in 2010.

This chapter focuses on economic aspects of manufactured cigarettes use among current smokers, including expenditures on cigarettes and illicit trade in tobacco products. WHO indicates “Illicit trade increases the accessibility and affordability of tobacco products thus undermining tobacco control policies and severely burdening health systems. In addition, illicit trade leads to significant revenue losses for governments. The elimination of all forms of illicit trade including smuggling and illegal manufacturing is therefore an essential component of tobacco control.” The report also presents findings on source of cigarette purchase and absence of tax stamps on cigarettes as an indicator for smuggling.

### Key Findings

- Smokers spent an average of 146.1 Turkish Lira (TL)) on manufactured cigarettes on average per month.
- Based on the absence of tax stamp on the cigarette packages, 9.1% of the manufactured cigarettes consumed were smuggled cigarettes.
- The great majority (91.3%) of the adult manufactured cigarette smokers declared that they bought cigarettes from stores.



## 7.1 Source of Last Purchase of Cigarettes

Table 7.1 shows the most common source of last purchase of cigarettes among current manufactured-cigarette smokers. The great majority (91.3%) of manufactured cigarette smokers declared that they bought cigarettes from stores. When other sources like kiosks and duty-free shops were included, almost all of the smokers seem to provide manufactured cigarettes from legal sources (96.2%).

Among manufactured cigarette smokers, only 2.6% bought their last cigarettes from street vendors, which were illegal sources, and 0.2% obtained cigarettes from vending machines, which are banned.

Male manufactured cigarette smokers bought their last cigarettes from vending machines and street vendors more frequently than women (2.8% vs. 2.0%). Similar percent of men and women bought their last cigarettes from legal sources.

Classified by age group, more young smokers between 15–24 years of age (4.0%) bought cigarettes from street vendors in comparison to older adults (2.3%) (Table 7.1).

There was not much difference between rural and urban manufactured cigarette smokers in the source of last purchase, but urban respondents declared vending machines as last purchasing source more frequently than rural respondents (0.3% vs. 0.0%) and most urban and rural smokers purchased manufactured cigarettes from stores (urban, 91.2%; rural, 91.7%).

**Table 7.1: Percentage distribution of the sources of last purchase of cigarettes among manufactured cigarette smokers  $\geq 15$  years, by selected demographic characteristics – GATS Turkey, 2012.**

Source	Gender			Age (years)			Residence	
	Overall	Male	Female	15–24	$\geq 25$		Urban	Rural
Vending machine	0.2 (0.0, 1.3)	0.3 (0.1, 1.7)	0.0	0.0	0.3 (0.1, 1.5)	0.3 (0.1, 1.6)	0.0	0.0
Store	91.3 (89.2, 93.0)	90.9 (88.4, 92.9)	92.5 (89.1, 94.9)	89.9 (83.7, 93.8)	91.6 (89.5, 93.2)	91.2 (88.5, 93.3)	91.7 (88.7, 93.9)	
Street vendor	2.6 (1.6, 4.4)	2.8 (1.5, 5.1)	2.0 (1.0, 4.3)	4.0 (1.9, 8.6)	2.3 (1.4, 3.8)	2.5 (1.3, 4.8)	3.1 (1.7, 5.8)	
Duty-free shop	0.6 (0.2, 1.7)	0.8 (0.3, 2.3)	0.0	1.1 (0.2, 7.7)	0.5 (0.2, 1.2)	0.7 (0.2, 2.2)	0.4 (0.1, 1.6)	
Outside the country	0.2 (0.1, 0.6)	0.2 (0.1, 0.8)	0.1 (0.0, 0.9)	0.0	0.2 (0.1, 0.8)	0.2 (0.0, 0.9)	0.3 (0.1, 0.9)	
Kiosks	4.3 (3.3, 5.7)	4.1 (3.1, 5.6)	4.8 (3.0, 7.7)	4.4 (1.9, 9.7)	4.3 (3.2, 5.7)	4.4 (3.1, 6.1)	4.0 (2.7, 5.9)	
From another person	0.6 (0.3, 1.2)	0.6 (0.3, 1.4)	0.5 (0.1, 3.3)	0.6 (0.1, 2.3)	0.6 (0.2, 1.4)	0.6 (0.3, 1.5)	0.4 (0.1, 1.3)	
Other	0.1 (0.0, 0.5)	0.2 (0.1, 0.7)	0.0	0.0	0.2 (0.1, 0.6)	0.2 (0.0, 0.7)	0.1 (0.0, 0.6)	

## 7.2 Expenditures on Cigarettes

Table 7.2 presents the average cigarette expenditure per month and average cost of 20 manufactured cigarettes by sociodemographic features among current smokers. Adult smokers spent an average of 146.1 Turkish Lira (TL) on manufactured cigarettes on average per month. Male current manufactured cigarette smokers spent 157.6 TL per month, which was significantly higher than women (110.0 TL). Those aged 45–64 spent the highest amount per month on average (158.1 TL). Younger age groups spent more than the oldest age group (127.9 TL, 148.0 TL and 158.1 TL, for those aged 15–24, 25–44, and 45–64 vs. 114.5 TL for those aged 65 years and older).

Current manufactured cigarette smokers living in urban areas had higher cigarette expenditure per month than smokers in rural areas (148.1 TL vs. 139.2 TL). People who had not graduated from any school spent the least (109.9 TL) compared to those with higher education (ranging from 141.8 to 153.4 TL).

Overall, the average cost of 20 manufactured cigarettes was 5.7 TL. The proportion of the amount spent on manufactured cigarettes from the minimum monthly salary was 20.8%. The findings were not statistically different by gender, age, residence, and education.

**Table 7.2: Average cigarette expenditure among manufactured cigarette smokers ≥ 15 years, by selected demographic characteristics – GATS Turkey, 2012.**

Demographic Characteristics	Cigarette expenditure per month <sup>1</sup>		Average cost of 20 manufactured cigarettes <sup>1</sup>	
Overall	146.1	(137.9, 154.3)	5.7	(5.6, 5.8)
Gender				
Male	157.6	(148.5, 166.6)	5.7	(5.6, 5.9)
Female	110.0	(99.3, 120.7)	5.4	(5.2, 5.6)
Age				
15–24	127.9	(115.6, 140.2)	5.6	(5.3, 5.9)
25–44	148.0	(136.7, 159.4)	5.7	(5.5, 5.8)
45–64	158.1	(145.6, 170.6)	5.7	(5.5, 6.0)
65+	114.5	(94.0, 135.1)	5.2	(4.6, 5.8)
Residence				
Urban	148.1	(137.8, 158.4)	5.7	(5.6, 5.9)
Rural	139.2	(131.4, 147.1)	5.5	(5.3, 5.6)
Education				
Not Graduated	109.9	(90.4, 129.5)	4.8	(4.3, 5.4)
Primary	153.4	(140.8, 166.1)	5.5	(5.3, 5.7)
Secondary	141.8	(129.0, 154.6)	5.6	(5.4, 5.8)
High School	147.0	(136.1, 157.9)	5.9	(5.7, 6.2)
University or Higher	144.5	(118.7, 170.3)	6.2	(5.9, 6.5)

<sup>1</sup>In Turkish lira

### 7.3 Smuggled Cigarettes

Table 7.3 describes purchases of cigarettes without a tax stamp and without Turkish health warnings. Since all legal manufactured cigarettes packaging must have a tax stamp or a Turkish health warning, the absence of a tax stamp or health warning can be interpreted as an indicator for smuggling.

Based on the absence of tax stamp on cigarette packages, 9.1% of the manufactured cigarettes consumed were smuggled. More women (9.3%) than men (9.0%) bought smuggled cigarettes. Manufactured cigarette smokers living in rural areas bought smuggled cigarettes more frequently than smokers in urban areas (11.5% vs. 8.4%). Purchase of smuggled cigarettes was significantly more common among those without a school degree (35.2%) than among smokers with more education (5.1 to 9.6%).

Based on the absence of Turkish health warnings on cigarette packages, 8.6% of the manufactured cigarettes consumed were smuggled. Those without a school degree were more likely to purchase such cigarettes than smokers with more education (32.5% vs. 5.5% to 8.5%).

**Table 7.3: Percentage of manufactured cigarette smokers whose usual type of cigarettes were smuggled, by selected demographic characteristics – GATS Turkey, 2012.**

Demographic Characteristics	Cigarette package had no tax stamp		Cigarette package did not have a Turkish health warning	
Overall	9.1	(6.8, 12.0)	8.6	(6.4, 11.4)
Gender				
Male	9.0	(6.6, 12.2)	8.2	(5.9, 11.3)
Female	9.3	(6.5, 13.1)	9.8	(7.0, 13.6)
Age				
15–24	13.6	(8.6, 21.0)	13.1	(8.3, 20.0)
25–44	9.1	(6.8, 12.0)	8.5	(6.2, 11.4)
45–64	5.6	(3.5, 8.8)	5.6	(3.5, 8.8)
65+	12.1	(6.5, 21.2)	10.7	(5.5, 19.8)
Residence				
Urban	8.4	(5.8, 12.0)	7.7	(5.2, 11.2)
Rural	11.5	(8.0, 16.1)	11.8	(8.2, 16.8)
Education				
Not Graduated	35.2	(24.4, 47.8)	32.5	(22.3, 44.7)
Primary	8.8	(6.1, 12.3)	8.5	(6.0, 12.1)
Secondary	9.6	(6.6, 13.8)	8.3	(5.6, 12.2)
High School	6.0	(3.7, 9.7)	5.5	(3.3, 9.0)
University or Higher	5.1	(2.2, 11.1)	6.3	(3.0, 12.5)



8

**MEDIA**



## 8. Media

Both the tobacco industry and tobacco control community use various media channels. The tobacco industry aims to promote their products through the media, while tobacco control organizations use anti-tobacco messages as well as aim to control media activities of tobacco industry. The tobacco control law in Turkey prohibited all kinds of advertisement and promotion in 1996, and the amended law in 2008 banned sponsorship by the tobacco industry. There has been no direct advertisement of tobacco products on television, radio, press media, and the billboards since 1997, although some indirect forms have been seen such as brand stretching or brand placement. The recent change made in the law in 2012 banned these kinds of placements and stretching.

TAPDK had some new rules for point-of-sale and obligatory pictorial health warnings on all tobacco products that covered 65% of the front and back sides of the packages.

The mass media campaign as part of the National Tobacco Control Program was carried out under the MoH through TV, radio, billboards, internet, and health services in Turkey. The media campaign had three phases: “clear air zone”; “awareness on SHS and the benefits of smoking ban in indoors”; and “some feeling and regret of the patients had some diseases caused by tobacco”.

To follow media activities on tobacco control, both the anti-tobacco and the pro-tobacco messages were evaluated. In this chapter, the percentage of adults who noticed anti-tobacco media campaign, tobacco advertisement, sponsorship and promotion, and pictorial warning on tobacco products were discussed.

### Key Findings

- During the last month, by equal frequency, a great majority (93.5%) of the smoking and the non-smoking respondents indicated that they had noticed anti-cigarette information at any location, mostly on TV or the radio. Similarly 92.0% of respondents noticed anti-cigarette information on TV and radio.
- A great majority of the current smokers had noticed health warnings (94.3%) and pictorial warnings (92.5%) on the cigarette packages during the last 30 days. and about half (48.5%) of the smokers have thought about quitting because of pictorial labels (48.5%) and text messages warnings (53.0%).
- Of the respondents, 15.7% had noticed any advertisement, sponsorship, and promotion of cigarettes in various places during the last month, mostly on television (6.3%) and in stores (3.6%).



## **8.1 Noticing Anti-Cigarette Information at Various Places during the Last 30 Days**

During the last month, by equal frequency, a great majority (93.5%) of smoking and non-smoking respondents indicated that they had noticed anti-cigarette information at any location, mostly on TV or the radio (92.0%). Nearly one in three (29.9%) respondents noticed anti-cigarette information on billboards and internet (26.5%). Although similar percentages of current smoking men and women (44.7% and 45.2%) indicated that they observed anti-cigarette information in newspapers and magazines, significantly more non-smoking men (46.8%) noticed anti-cigarette information in newspapers and magazines compared to non-smoking women (32.5%).

Noticing anti-cigarette messages on newspapers and magazines among smokers was higher among the 25+ age group (45.9%) than the younger ages at 15–24 (39.1%). This trend reversed among non-smokers (43.8% and 38.4% among the young and 25+ age groups, respectively).

Although more than 90.0% of the respondents had noticed anti-cigarette information on TV or radio, both at urban and rural places, significantly more adults living in urban places had noticed anti-cigarette information on billboards (33.8% vs. 19.8%); internet (31.4% vs. 13.8%); and newspapers and magazines (44.9% vs. 31.5%) than those living in rural settlements. These differences remained similar among smoking and non-smoking adults.

Significantly more young respondents aged 15 – 24 had noticed anti-cigarette information on the internet (41.0%) than adults aged 25+ years (22.3%). This finding was valid both for current smokers and the non-smoking individuals, whereas there was no significant difference in noticing anti-cigarette information on billboards (Table 8.1).

**Table 8.1: Percentage of adults ≥ 15 years who noticed anti-cigarette smoking information during the last 30 days in various places, by selected demographic characteristics – GATS Turkey, 2012.**

Places	Overall	Gender		Age (years)		Residence	
		Male	Female	15–24	≥ 25	Urban	Rural
Overall							
In newspapers or in magazines	41.1 (38.8, 43.5)	45.9 (43.1, 48.8)	36.5 (34.1, 38.9)	42.8 (39.2, 46.6)	40.6 (38.2, 43.0)	44.9 (41.8, 48.0)	31.5 (28.8, 34.2)
On television or the radio	92.0 (91.0, 93.0)	92.3 (91.0, 93.4)	91.8 (90.7, 92.8)	91.7 (89.4, 93.5)	92.2 (91.2, 93.1)	92.7 (91.4, 93.9)	90.3 (88.8, 91.7)
On television	91.4 (90.3, 92.3)	91.6 (90.2, 92.8)	91.2 (90.0, 92.2)	91.1 (88.8, 93.0)	91.5 (90.4, 92.4)	92.0 (90.6, 93.2)	89.8 (88.1, 91.2)
On the radio	25.2 (23.3, 27.2)	26.8 (24.5, 29.2)	23.7 (21.7, 25.9)	24.8 (21.6, 28.3)	25.4 (23.5, 27.3)	27.5 (25.1, 30.1)	19.3 (17.2, 21.7)
On billboards	29.9 (27.7, 32.2)	32.4 (29.8, 35.2)	27.4 (25.2, 29.8)	32.1 (28.6, 35.9)	29.3 (27.2, 31.4)	33.8 (31.0, 36.8)	19.8 (17.6, 22.2)
On the Internet	26.5 (24.7, 28.4)	30.6 (28.3, 33.0)	22.5 (20.5, 24.6)	41.0 (37.2, 44.9)	22.3 (20.5, 24.2)	31.4 (29.0, 34.0)	13.8 (12.1, 15.7)
Somewhere else	2.6 (2.0, 3.3)	2.7 (1.9, 3.7)	2.5 (1.8, 3.4)	2.9 (2.0, 4.4)	2.5 (1.9, 3.2)	3.2 (2.4, 4.2)	1.1 (0.7, 1.7)
Any Location	93.5 (92.5, 94.4)	94.1 (92.8, 95.2)	92.9 (91.8, 93.9)	93.7 (91.6, 95.3)	93.4 (92.5, 94.3)	94.2 (92.9, 95.3)	91.7 (90.3, 92.9)
Current smokers							
In newspapers or in magazines	44.8 (41.7, 48.0)	44.7 (41.2, 48.3)	45.2 (40.5, 49.9)	39.1 (32.3, 46.4)	45.9 (42.8, 49.1)	46.5 (42.6, 50.4)	39.1 (34.8, 43.5)
On television or the radio	92.8 (91.1, 94.2)	92.3 (90.2, 94.0)	94.4 (92.0, 96.1)	89.7 (84.3, 93.4)	93.4 (91.9, 94.7)	92.9 (90.7, 94.6)	92.5 (90.4, 94.2)
On television	91.6 (89.8, 93.1)	91.0 (88.8, 92.8)	93.5 (91.0, 95.3)	88.5 (83.0, 92.4)	92.2 (90.6, 93.6)	91.7 (89.4, 93.5)	91.4 (89.0, 93.3)
On the radio	28.4 (25.6, 31.4)	27.4 (24.3, 30.7)	31.7 (27.2, 36.5)	25.8 (19.1, 33.9)	28.9 (26.2, 31.9)	30.3 (26.8, 34.1)	22.0 (18.7, 25.7)
On billboards	32.9 (29.8, 36.2)	32.2 (28.8, 35.9)	35.0 (30.7, 39.6)	29.3 (23.2, 36.4)	33.6 (30.5, 37.0)	35.8 (31.9, 39.8)	23.3 (19.6, 27.5)
On the Internet	30.0 (27.5, 32.5)	29.3 (26.5, 32.3)	32.1 (28.1, 36.2)	38.7 (32.1, 45.6)	28.2 (25.7, 31.0)	33.7 (30.7, 36.9)	17.4 (14.7, 20.4)
Somewhere else	2.8 (2.0, 3.9)	2.2 (1.4, 3.4)	4.5 (2.8, 7.0)	1.6 (0.6, 4.2)	3.0 (2.1, 4.3)	3.0 (2.1, 4.4)	2.0 (1.0, 3.9)
Any Location	94.1 (92.5, 95.4)	93.8 (91.7, 95.4)	95.0 (92.7, 96.6)	90.5 (85.3, 94.0)	94.8 (93.3, 96.0)	94.3 (92.2, 95.9)	93.3 (91.3, 94.9)
Non-smokers							
In newspapers or in magazines	39.7 (37.3, 42.2)	46.8 (43.6, 50.0)	35.2 (32.7, 37.7)	43.8 (40.0, 47.6)	38.4 (35.9, 41.0)	44.2 (40.9, 47.5)	29.3 (26.7, 32.1)
On television or the radio	91.8 (90.6, 92.8)	92.3 (90.6, 93.7)	91.4 (90.2, 92.5)	92.2 (89.8, 94.0)	91.6 (90.5, 92.7)	92.6 (91.1, 93.9)	89.7 (87.9, 91.3)
On television	91.3 (90.1, 92.3)	92.0 (90.3, 93.4)	90.8 (89.6, 92.0)	91.8 (89.3, 93.7)	91.1 (89.9, 92.2)	92.1 (90.6, 93.4)	89.3 (87.5, 90.9)
On the radio	24.0 (22.1, 26.1)	26.4 (23.7, 29.2)	22.5 (20.5, 24.7)	24.5 (21.1, 28.2)	23.9 (22.0, 25.9)	26.4 (23.8, 29.1)	18.6 (16.4, 21.0)
On billboards	28.8 (26.6, 31.0)	32.6 (29.6, 35.7)	26.3 (24.1, 28.7)	32.8 (29.0, 36.9)	27.5 (25.4, 29.6)	33.1 (30.2, 36.1)	18.8 (16.6, 21.2)
On the Internet	25.2 (23.2, 27.2)	31.5 (28.8, 34.4)	21.0 (19.0, 23.3)	41.6 (37.4, 45.9)	19.8 (18.0, 21.8)	30.5 (27.8, 33.3)	12.7 (11.0, 14.7)
Somewhere else	2.5 (1.9, 3.3)	3.0 (2.1, 4.3)	2.2 (1.5, 3.1)	3.3 (2.1, 4.9)	2.3 (1.6, 3.1)	3.2 (2.3, 4.4)	0.8 (0.5, 1.4)
Any Location	93.3 (92.2, 94.2)	94.3 (92.8, 95.5)	92.6 (91.4, 93.6)	94.5 (92.3, 96.1)	92.9 (91.8, 93.8)	94.1 (92.7, 95.3)	91.2 (89.7, 92.6)

## 8.2 Health Warnings on Cigarette Packages during the Last 30 Days and Thinking about Quitting

The majority of the current smokers had noticed health warnings (94.3%) and pictorial warnings (92.5%) on the cigarette packages during the last 30 days, and about half (48.5%) of the smokers have thought about quitting because of pictorial labels and text messages (53.0%). Noticing text warnings was higher among each of the groups than noticing pictorial warnings though the difference was not significant. Noticing pictorial warnings on the cigarette packages was about the same for male (92.3%) and female (93.2%) smokers whereas more women (57.5%) indicated that they had noticed text warnings than men (51.6%) respondents.

Although not significant, young smokers in the 15–24 age group (88.2% vs. 93.9% in the aged 25–44 years group); smokers living in rural settlements (89.1% vs. 93.5% at urban residencies); and non– less educated smokers (80.6% vs. 93.4% among university graduates), were less likely to notice pictorial warnings on the cigarette packages (Table 8.2). Slightly more smokers thought about quitting because of health warnings rather than because of pictorial warnings, but the difference was not significant. There were no significant differences in noticing warnings nor in thinking about quitting because of warnings when comparing age groups, educational categories, or urban vs. rural.

**Table 8.2: Percentage of current smokers  $\geq 15$  years old who noticed health warnings on cigarette packages and thought about quitting because of the warning label on cigarette packages during the last 30 days, by selected demographic characteristics – GATS Turkey, 2012.**

Demographic Characteristics	Current smokers who...							
	Noticed health warnings on cigarette package		Thought about quitting because of warning label		Noticed pictorial warnings on cigarette package		Thought about quitting because of pictorial label	
Overall	94.3	(92.7, 95.6)	53.0	(50.1, 55.9)	92.5	(90.6, 94.1)	48.5	(45.7, 51.4)
Gender								
Male	93.8	(91.9, 95.3)	51.6	(48.1, 55.0)	92.3	(90.2, 94.0)	46.8	(43.5, 50.2)
Female	95.8	(93.6, 97.3)	57.5	(52.9, 62.0)	93.2	(89.6, 95.5)	53.9	(49.2, 58.4)
Age								
15–24	90.2	(84.8, 93.8)	40.7	(33.7, 48.1)	88.2	(81.9, 92.6)	37.1	(30.6, 44.1)
25–44	95.4	(93.7, 96.7)	55.7	(51.9, 59.4)	93.9	(91.8, 95.4)	51.3	(47.5, 55.2)
45–64	94.9	(92.6, 96.6)	55.5	(50.8, 60.1)	92.9	(90.2, 94.9)	50.3	(45.7, 54.8)
65+	91.4	(83.8, 95.6)	50.9	(39.9, 61.9)	89.0	(81.1, 93.9)	45.9	(35.0, 57.3)
Residence								
Urban	95.0	(93.0, 96.5)	52.3	(48.7, 55.9)	93.5	(91.2, 95.3)	47.8	(44.3, 51.3)
Rural	91.8	(88.8, 94.1)	55.4	(51.4, 59.3)	89.1	(85.5, 92.0)	51.1	(47.1, 55.1)
Education								
Not Graduated	89.4	(82.1, 93.9)	42.6	(33.0, 52.8)	80.6	(71.8, 87.1)	37.7	(29.4, 46.8)
Primary	94.7	(92.3, 96.4)	57.2	(52.7, 61.5)	93.2	(90.2, 95.3)	52.1	(47.7, 56.5)
Secondary	94.0	(90.4, 96.4)	51.7	(45.7, 57.6)	93.1	(89.3, 95.6)	47.2	(41.3, 53.1)
High School	95.4	(92.5, 97.2)	52.5	(47.5, 57.5)	93.4	(89.6, 95.8)	48.8	(43.8, 53.9)
University or Higher	93.6	(88.6, 96.4)	48.7	(41.7, 55.9)	93.4	(88.5, 96.3)	44.4	(37.7, 51.4)

### 8.3 Noticing Cigarette Marketing at Various Places during the Last 30 Days

All kinds of cigarette marketing were banned in Turkey by the tobacco control law in 1996. The amended law in 2008 clearly defined the implementation of fines and millions of Turkish Lira fines were issued. Despite the high amount of the penalties, some violations may still occur.

Of the adults who participated in the survey, 15.7% had noticed any advertisement, sponsorship, and promotion of cigarette in various any places during the last month. Overall more men than women (18.5% vs. 13.0%) noticed any advertisement, sponsorship, and promotion, and men noticed cigarette advertising at higher rate at most public places. Those in men (18.5%) than women (13.0%), the youngest age group (19.2% in the 15–24 age group; 14.7% in the 25+ age group) and in urban areas (urban, 16.5%; rural, 13.7%) noticed advertising, promotion, and sponsorship more often than those in the older age group. vs.14.7% in the 25+ age group) and those living in urban settlements (16.5%vs.13.7%) had noticed any advertisement, sponsorship, and promotion. Television (6.3%) and stores (3.6%) were the places where cigarette advertisements were more frequently noticed. More men (6.8%) than women (5.8%) and adults living in urban places (6.6%) than rural places (5.5%) have noticed cigarette advertisements on television during the last 30 days.

Only 1.9% of the participants had noticed sports sponsorship, and 3.1% had been offered a free sample of cigarettes during the last 30 days. Free cigarette sample offers were more prevalent among the young (4.1% in the 15–24 age group) than adults (2.8% in the 25+ age group); people living in urban areas (3.2%) than rural (2.8%) ,areas; and significantly more prevalent for men (4.3%) than women (1.9%).

Noticing any cigarette advertisement was more common among current smokers (18.4%) than non-smokers (14.7%); however, the difference was not significant. The most common place for noticing cigarette advertisements was television for both current smokers and non-smokers (6.5% and 6.2%, respectively). Having been offered a free cigarette sample was significantly more common among current smokers (5.5%) than non-smokers (2.2%) (Tables 8.3, 8.4, and 8.5).

**Table 8.3: Percentage of adults ≥ 15 years who noticed cigarette marketing during the last 30 days in various places, by selected demographic characteristics – GATS Turkey, 2012.**

Places	Overall	Gender		Age (years)		Residence	
		Male	Female	15–24	≥ 25	Urban	Rural
Noticed cigarette advertising							
In stores	3.6 (2.7, 4.8)	3.9 (2.9, 5.3)	3.3 (2.3, 4.6)	3.5 (2.1, 5.6)	3.6 (2.8, 4.7)	4.1 (2.9, 5.8)	2.3 (1.8, 3.0)
On television	6.3 (4.8, 8.2)	6.8 (5.2, 8.9)	5.8 (4.3, 7.8)	6.6 (4.1, 10.4)	6.2 (4.9, 7.9)	6.6 (4.6, 9.3)	5.5 (4.2, 7.2)
On the radio	0.8 (0.5, 1.2)	0.8 (0.5, 1.3)	0.7 (0.4, 1.3)	0.7 (0.3, 1.6)	0.8 (0.5, 1.1)	0.9 (0.5, 1.5)	0.4 (0.2, 0.7)
On billboards	1.1 (0.6, 1.8)	1.0 (0.5, 1.9)	1.2 (0.7, 1.9)	0.9 (0.4, 2.1)	1.1 (0.7, 1.8)	1.3 (0.7, 2.3)	0.6 (0.3, 1.2)
On posters	1.5 (0.9, 2.5)	1.5 (0.9, 2.7)	1.5 (0.8, 2.5)	1.5 (0.7, 3.2)	1.5 (0.9, 2.5)	1.8 (1.0, 3.3)	0.7 (0.4, 1.2)
In newspapers or magazines	1.8 (1.1, 2.9)	2.2 (1.3, 3.7)	1.5 (0.9, 2.3)	2.3 (1.1, 4.9)	1.7 (1.1, 2.5)	2.0 (1.1, 3.5)	1.3 (0.8, 2.1)
In cinemas	1.5 (1.1, 2.0)	1.3 (0.9, 1.9)	1.6 (1.2, 2.3)	2.9 (1.9, 4.4)	1.1 (0.8, 1.5)	1.7 (1.2, 2.4)	0.9 (0.6, 1.4)
On the internet	2.1 (1.5, 3.0)	2.4 (1.6, 3.4)	1.9 (1.2, 2.9)	3.5 (2.3, 5.4)	1.7 (1.2, 2.5)	2.4 (1.6, 3.6)	1.4 (1.0, 2.1)
On public transportation	2.2 (1.5, 3.3)	2.4 (1.6, 3.6)	2.1 (1.4, 3.2)	2.6 (1.5, 4.6)	2.1 (1.4, 3.1)	2.6 (1.6, 4.1)	1.4 (0.9, 2.1)
On public walls	1.6 (1.0, 2.8)	1.8 (1.0, 3.4)	1.4 (0.9, 2.3)	2.3 (1.0, 5.1)	1.4 (0.9, 2.3)	2.0 (1.1, 3.6)	0.8 (0.5, 1.4)
Somewhere else	0.3 (0.2, 0.5)	0.4 (0.2, 0.7)	0.2 (0.1, 0.5)	0.5 (0.2, 1.2)	0.3 (0.2, 0.4)	0.3 (0.2, 0.6)	0.3 (0.2, 0.5)
Noticed sports sponsorship	1.9 (1.4, 2.5)	2.4 (1.8, 3.2)	1.4 (0.9, 2.0)	3.3 (2.1, 5.0)	1.5 (1.1, 1.9)	2.0 (1.4, 2.8)	1.6 (1.2, 2.1)
Noticed music/theatre sponsorship	0.7 (0.5, 1.1)	0.7 (0.4, 1.1)	0.7 (0.4, 1.2)	1.0 (0.4, 2.4)	0.6 (0.4, 0.9)	0.9 (0.5, 1.4)	0.3 (0.1, 0.6)
Noticed cigarette promotions							
Free samples	3.1 (2.4, 4.0)	4.3 (3.3, 5.7)	1.9 (1.3, 2.7)	4.1 (2.8, 6.0)	2.8 (2.2, 3.6)	3.2 (2.4, 4.4)	2.8 (2.1, 3.7)
Free gifts/discounts on other products	0.5 (0.4, 0.8)	0.5 (0.3, 0.9)	0.5 (0.3, 1.0)	0.6 (0.3, 1.2)	0.5 (0.3, 0.8)	0.6 (0.3, 1.0)	0.4 (0.2, 0.8)
Clothing/item with brand name or logo	2.0 (1.5, 2.7)	2.7 (1.9, 3.6)	1.4 (0.9, 2.0)	2.4 (1.4, 4.1)	1.9 (1.4, 2.5)	2.3 (1.6, 3.3)	1.2 (0.9, 1.7)
Noticed any advertisement, sponsorship or promotion							
	15.7 (13.7, 17.9)	18.5 (16.1, 21.0)	13.0 (11.0, 15.2)	19.2 (15.7, 23.4)	14.7 (12.9, 16.6)	16.5 (13.9, 19.4)	13.7 (11.8, 15.8)

**Table 8.4: Percentage of current smokers  $\geq 15$  years who noticed cigarette marketing during the last 30 days in various places, by selected demographic characteristics – GATS Turkey, 2012.**

Places	Overall	Gender		Age (years)			Residence	
		Male	Female	15–24	≥ 25	Urban	Rural	
Noticed cigarette advertising								
In stores	4.0 (2.8, 5.6)	3.8 (2.5, 5.8)	4.3 (2.7, 6.9)	5.1 (2.4, 10.4)	3.7 (2.7, 5.2)	4.3 (2.9, 6.5)	2.7 (1.6, 4.5)	
On television	6.5 (4.7, 8.8)	6.6 (4.7, 9.3)	6.0 (4.1, 8.7)	4.4 (2.0, 9.3)	6.9 (5.2, 9.1)	6.8 (4.6, 9.7)	5.5 (3.8, 8.0)	
On the radio	1.0 (0.6, 1.7)	1.0 (0.6, 1.8)	1.0 (0.5, 2.3)	0.5 (0.1, 3.7)	1.1 (0.7, 1.9)	1.1 (0.6, 2.0)	0.7 (0.3, 1.6)	
On billboards	1.1 (0.7, 1.7)	0.8 (0.5, 1.5)	2.0 (1.1, 3.6)	0.0	1.3 (0.9, 2.0)	1.3 (0.8, 2.0)	0.6 (0.2, 1.7)	
On posters	1.7 (0.9, 3.2)	1.6 (0.7, 3.3)	2.1 (1.1, 3.9)	1.2 (0.3, 4.5)	1.8 (0.9, 3.6)	1.8 (0.8, 3.8)	1.6 (0.8, 3.1)	
In newspapers or magazines	1.9 (1.1, 3.2)	2.0 (1.1, 3.7)	1.7 (0.9, 3.0)	1.6 (0.4, 6.4)	2.0 (1.2, 3.1)	1.9 (1.0, 3.7)	1.8 (0.9, 3.5)	
In cinemas	1.4 (0.9, 2.1)	1.2 (0.7, 1.9)	2.1 (1.1, 4.0)	1.8 (0.5, 6.8)	1.3 (0.9, 2.0)	1.5 (0.9, 2.5)	0.9 (0.5, 1.8)	
On the internet	2.8 (1.9, 4.0)	2.5 (1.6, 3.8)	3.7 (2.3, 5.9)	4.8 (2.4, 9.6)	2.4 (1.5, 3.6)	3.1 (2.0, 4.8)	1.6 (0.9, 2.9)	
On public transportation	2.2 (1.2, 3.7)	2.1 (1.2, 3.8)	2.2 (1.1, 4.3)	2.3 (0.8, 6.3)	2.1 (1.3, 3.5)	2.4 (1.2, 4.5)	1.4 (0.7, 2.8)	
On public walls	1.5 (0.8, 2.8)	1.5 (0.7, 3.2)	1.6 (0.8, 3.2)	1.9 (0.5, 7.5)	1.4 (0.8, 2.4)	1.6 (0.8, 3.3)	1.1 (0.5, 2.5)	
Somewhere else	0.3 (0.1, 0.7)	0.3 (0.1, 0.8)	0.3 (0.1, 1.2)	0.5 (0.2, 1.5)	0.3 (0.1, 0.7)	0.2 (0.1, 0.7)	0.6 (0.2, 1.5)	
Noticed sports sponsorship	2.2 (1.6, 3.1)	2.4 (1.7, 3.4)	1.8 (0.9, 3.5)	3.3 (1.5, 6.9)	2.0 (1.4, 2.9)	2.4 (1.6, 3.5)	1.7 (1.1, 2.8)	
Noticed music/theatre sponsorship	0.7 (0.4, 1.2)	0.6 (0.3, 1.3)	0.9 (0.3, 2.3)	0.5 (0.1, 2.4)	0.7 (0.4, 1.3)	0.8 (0.4, 1.5)	0.3 (0.1, 0.9)	
Noticed cigarette promotions								
Free samples	5.5 (4.0, 7.6)	5.3 (3.7, 7.7)	6.2 (3.8, 9.7)	7.2 (4.0, 12.7)	5.2 (3.7, 7.2)	5.6 (3.7, 8.2)	5.4 (3.7, 7.9)	
Free gifts/discounts on other products	1.1 (0.7, 1.7)	1.0 (0.6, 1.7)	1.5 (0.7, 3.2)	0.8 (0.3, 2.6)	1.1 (0.7, 1.8)	1.1 (0.7, 1.9)	1.0 (0.5, 2.2)	
Clothing/item with brand name or logo	2.7 (1.8, 4.1)	3.0 (1.9, 4.7)	1.8 (0.9, 3.5)	3.7 (1.4, 9.4)	2.5 (1.7, 3.7)	3.0 (1.8, 4.8)	1.8 (1.1, 3.0)	
Noticed any advertisement, sponsorship or promotion								
	18.4 (15.8, 21.4)	19.3 (16.3, 22.6)	15.9 (12.5, 20.1)	19.1 (13.4, 26.5)	18.3 (15.7, 21.2)	18.9 (15.6, 22.6)	17.0 (13.8, 0.7)	

**Table 8.5: Percentage of non-smokers ≥ 15 years who noticed cigarette marketing during the last 30 days in various places, by selected demographic characteristics – GATS Turkey, 2012.**

Places	Overall	Gender		Age (years)		Residence	
		Male	Female	15–24	≥25	Urban	Rural
Noticed cigarette advertising							
In stores	3.4 (2.5, 4.7)	4.0 (2.8, 5.5)	3.1 (2.1, 4.5)	3.1 (1.8, 5.3)	3.6 (2.7, 4.8)	4.0 (2.7, 5.8)	2.2 (1.6, 2.9)
On television	6.2 (4.6, 8.3)	6.9 (5.2, 9.3)	5.7 (4.1, 7.9)	7.1 (4.4, 11.2)	5.9 (4.5, 7.7)	6.5 (4.4, 9.5)	5.5 (4.2, 7.2)
On the radio	0.7 (0.4, 1.2)	0.7 (0.3, 1.5)	0.7 (0.3, 1.3)	0.7 (0.3, 1.9)	0.6 (0.4, 1.1)	0.8 (0.4, 1.6)	0.3 (0.2, 0.6)
On billboards	1.1 (0.6, 2.0)	1.1 (0.5, 2.7)	1.0 (0.6, 1.8)	1.1 (0.5, 2.6)	1.1 (0.6, 1.9)	1.3 (0.6, 2.6)	0.6 (0.3, 1.2)
On posters	1.4 (0.8, 2.6)	1.5 (0.7, 3.0)	1.4 (0.7, 2.5)	1.6 (0.7, 3.5)	1.4 (0.8, 2.4)	1.8 (0.9, 3.5)	0.5 (0.2, 0.9)
In newspapers or magazines	1.8 (1.1, 3.0)	2.3 (1.3, 4.2)	1.4 (0.9, 2.3)	2.5 (1.2, 5.1)	1.5 (0.9, 2.6)	2.0 (1.1, 3.8)	1.2 (0.7, 1.9)
In cinemas	1.5 (1.1, 2.2)	1.4 (0.9, 2.2)	1.6 (1.1, 2.3)	3.2 (2.1, 4.9)	1.0 (0.6, 1.5)	1.8 (1.2, 2.7)	0.9 (0.6, 1.4)
On the internet	1.9 (1.3, 2.8)	2.3 (1.5, 3.4)	1.6 (1.0, 2.6)	3.2 (2.0, 5.2)	1.5 (1.0, 2.2)	2.1 (1.3, 3.4)	1.4 (0.9, 2.1)
On public transportation	2.3 (1.5, 3.4)	2.5 (1.5, 4.3)	2.1 (1.3, 3.2)	2.7 (1.5, 4.8)	2.1 (1.4, 3.2)	2.7 (1.6, 4.4)	1.3 (0.8, 2.1)
On public walls	1.7 (0.9, 3.0)	2.1 (1.0, 4.2)	1.4 (0.8, 2.4)	2.4 (1.1, 5.1)	1.4 (0.8, 2.5)	2.1 (1.1, 4.0)	0.7 (0.4, 1.3)
Somewhere else	0.3 (0.2, 0.5)	0.4 (0.2, 0.9)	0.2 (0.1, 0.5)	0.5 (0.1, 1.4)	0.3 (0.2, 0.5)	0.4 (0.2, 0.7)	0.2 (0.1, 0.4)
Noticed sports sponsorship	1.7 (1.3, 2.4)	2.4 (1.6, 3.6)	1.3 (0.9, 1.9)	3.3 (1.9, 5.4)	1.3 (0.9, 1.7)	1.8 (1.2, 2.8)	1.5 (1.1, 2.2)
Noticed music/theatre sponsorship	0.7 (0.4, 1.2)	0.7 (0.4, 1.3)	0.7 (0.4, 1.3)	1.1 (0.4, 2.8)	0.6 (0.4, 0.9)	0.9 (0.5, 1.6)	0.3 (0.1, 0.7)
Noticed cigarette promotions							
Free samples	2.2 (1.7, 2.9)	3.7 (2.8, 4.8)	1.3 (0.9, 1.9)	3.4 (2.1, 5.3)	1.8 (1.4, 2.5)	2.3 (1.6, 3.2)	2.0 (1.5, 2.8)
Free gifts/discounts on other products	0.3 (0.2, 0.6)	0.2 (0.1, 0.7)	0.4 (0.2, 0.8)	0.5 (0.2, 1.3)	0.3 (0.1, 0.6)	0.4 (0.2, 0.8)	0.3 (0.1, 0.6)
Clothing/item with brand name or logo	1.7 (1.3, 2.4)	2.4 (1.7, 3.5)	1.3 (0.8, 2.0)	2.1 (1.3, 3.6)	1.6 (1.1, 2.3)	2.1 (1.4, 3.0)	1.0 (0.7, 1.5)
Noticed any advertisement, sponsorship or promotion	14.7 (12.7, 16.9)	17.9 (15.3, 20.8)	12.5 (10.5, 14.9)	19.3 (15.5, 23.7)	13.2 (11.4, 15.1)	15.5 (12.8, 18.6)	12.7 (10.9, 14.8)



## 8.4 Noticing Video Clips on TV on Harms of Smoking during the Last 30 Days

This information was collected specifically to evaluate the impact of media campaigns conducted after the implementation of the amended Tobacco Control Law in 2008 and 2009. At the beginning, relatively soft messages were broadcasted promoting the concept of “clean air” policy. Political leaders, scientists, well-known artists and sportsmen took appeared in these clips and gave the message “smoke-free airspace; protect your clean air”. In the second phase, more hard-hitting messages were given. For this phase, real cases highlighting serious health problem as a consequence of cigarette smoking were broadcasted, stressing difficulties with their health and their regret of for smoking. The third phase displayed various health problems as the results of smoking; some role models were presented. The fourth phase consisted of real people who quit smoking; i.e., their success stories coupled with the message that everyone can quit smoking.

Three out of four (77.1%) of adults and current smokers had noticed video clips on TV about the harms of smoking during the last 30 days, with no major differences between men and women (77.3% and 76.9%); those living in urban and rural settlements (77.6% and 75.8%); different age groups; and education categories. The figures were similar for current smokers as well. Among all categories, between 70% and 80% of all respondents noticed video clips on TV. The ranges for current smokers were similar in all categories. Half (49.8%) of current smokers who noticed video clips on TV about harms of smoking thought about quitting because of seeing the clip. Female smokers (54.0% vs. 48.5% of the men) and smokers living at urban places (50.2% vs. 48.8% in rural settlements) were slightly more likely to think about quitting because of seeing the clip. Young smokers in the 15–24 age group (44.3% vs. 51.8% among the aged 45–64 years group) and non-graduated smokers (42.3% vs. 53.8% among the primary school graduates) were less likely to think about quitting because of seeing TV clips; nevertheless the differences were not significant. There were no significant difference in thinking about quitting because of TV clips when comparing between age groups or educational categories (Table 8.6).



**Table 8.6: Percentage of adults  $\geq 15$  years old who noticed video clips on TV that show patients talking about the harms of smoking during the last 30 days, by selected demographic characteristics – GATS Turkey, 2012.**

Demographic Characteristics	Adults who noticed video clips on TV		Current smokers who noticed video clips on TV		Among current smokers who noticed video clips on TV, percent who thought about quitting because of seeing them	
Overall	77.1	(75.1, 79.0)	77.1	(74.3, 79.7)	49.8	(46.9, 52.8)
Gender						
Male	77.3	(75.0, 79.5)	77.1	(74.0, 79.9)	48.5	(45.2, 51.8)
Female	76.9	(74.7, 78.9)	77.0	(72.6, 80.9)	54.0	(49.1, 58.7)
Age						
15–24	77.5	(73.9, 80.8)	76.0	(68.3, 82.4)	44.3	(37.2, 51.6)
25–44	77.0	(74.6, 79.1)	76.5	(73.2, 79.4)	50.5	(46.8, 54.2)
45–64	78.8	(76.4, 81.0)	79.0	(74.8, 82.6)	51.8	(47.1, 56.4)
65+	72.2	(69.0, 75.2)	78.7	(69.1, 85.9)	51.6	(40.7, 62.5)
Residence						
Urban	77.6	(75.0, 80.0)	77.5	(74.0, 80.7)	50.2	(46.5, 53.8)
Rural	75.8	(73.2, 78.2)	75.6	(71.7, 79.1)	48.8	(44.6, 53.0)
Education						
Not Graduated	71.0	(67.7, 74.0)	76.3	(66.5, 83.9)	42.3	(33.1, 52.0)
Primary	79.4	(76.8, 81.8)	79.3	(75.4, 82.6)	53.8	(49.5, 58.0)
Secondary	77.3	(73.9, 80.4)	74.9	(69.0, 80.0)	49.3	(43.7, 54.9)
High School	76.1	(73.0, 79.0)	76.5	(71.9, 80.6)	47.5	(42.7, 52.4)
University or Higher	79.1	(75.5, 82.3)	75.9	(68.7, 81.8)	47.1	(40.7, 53.5)

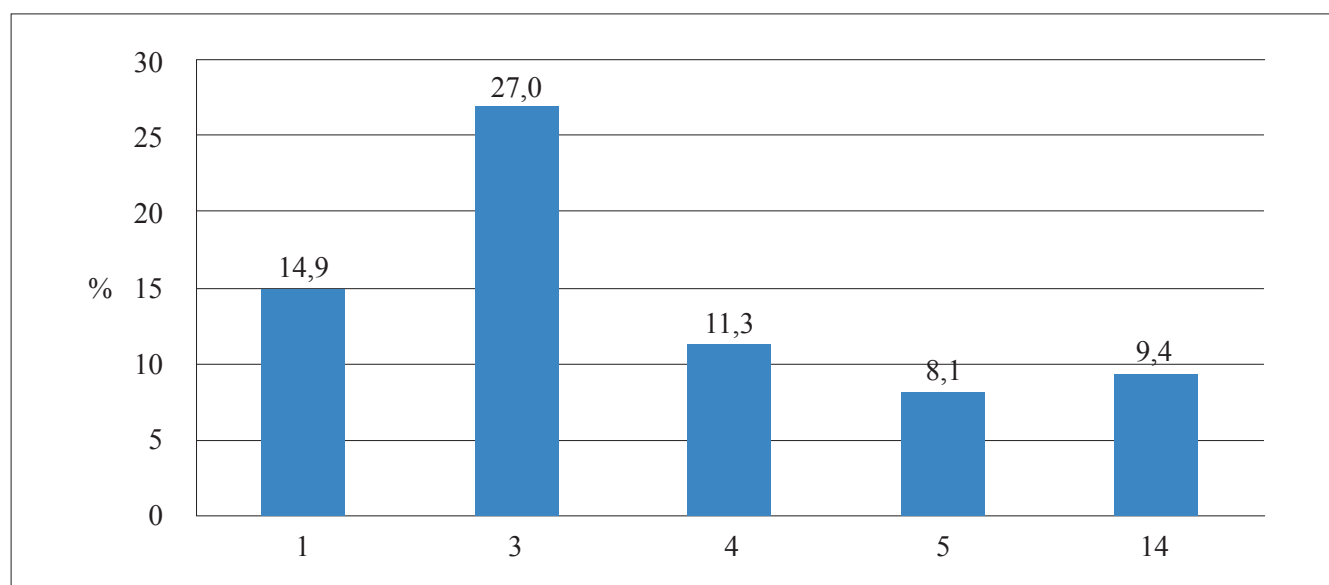
### 8.5 Pictorial Health Warnings which Make Smokers Want to Quit

The simple text warnings appeared on cigarette packages starting late 1980's. In 2005, these were then replaced with 14 rotating text warnings from the European Union. In May 2010, picture pictorial warnings (selected from among the pictures pictorial warnings prepared by European Union) were introduced to Turkish cigarette packaging, covering 65% of the main surface of the packages. The text warnings were placed at the back surface covering the 30% of the area. Some previous studies indicated the pictures No. 3, No. 9 and No. 4 were identified as entitled “smoking causes fatal lung cancer”, “smoking may reduce blood flow and cause impotence”, and “smoking when pregnant harms your baby” were the most effective pictures both among the youngest age groups and the adults (Table 8.7 and Figure 8.1).

Among current smokers, picture No. 3 “smoking causes fatal lung cancer” was indicated as the most effective picture in making them want to quit (27.0%). There were no considerable significant differences between men and women and different education groups. Smokers living in rural places and smokers in the aged 45–64 years group seem to be more sensitive to this picture. Among current smokers, 14.9% indicated picture No. 1 “smokers die younger” and 11.3% indicated picture No.4 “smoking when pregnant” made them want to quit. Few smokers (3.2%) of the smokers said none of the pictures were effective in making them to want to quit.

For picture No. 1 “smokers die younger”, one in five (21.3%) smokers in the aged 15–24 years age group indicated that the picture makes them want to quit, while the non-graduated group was the least sensitive (7.7%). Female smokers (19.7%) seem more sensitive than male smokers (8.5%) to “smoking when pregnant harms your baby” picture No. 4. Similarly, more smokers living in urban places (12.3%) than living in rural areas (7.8%) seem to be more sensitive to this picture. Other pictures indicated as making the smokers want to quit were the pictures entitled “smoking contains benzene, nitrosamines, formaldehyde and hydrogen cyanide” picture No. 14 and picture No. 5 “protect children: don’t make them breathe your smoke”. More than 10% of men (10.2%); smokers over 45 years of age (10.2% and 15.3% at 45–64 years and 65+ years age groups), and most of the educational groups indicated that “smoke contains benzene, nitrosamines, formaldehyde and hydrogen cyanide” 14 made them want to quit.

**Figure 8.1: The pictorial health warnings which make current smokers  $\geq 15$  years old want to quit the most – GATS Turkey, 2012.**



1: Smokers die younger



3: Smoking causes fatal lung cancer



4: Smoking when pregnant harms your baby



5: Protect children: don't make them breathe your smoke



14: Smoke contains benzene, nitrosamines, formaldehyde and hydrogen cyanide

**Table 8.7: Percentage distribution of the pictorial health warnings which makes current smokers  $\geq 15$  years old want to quit the most, by selected demographic characteristics – GATS Turkey, 2012.**



Demographic Characteristics	Pictorial health warning <sup>1</sup> which makes current smoker want to quit														Total	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	None of them	
Overall	14.9 (13.0, 17.0)	6.0 (4.9, 7.3)	27.0 (24.8, 29.3)	11.3 (9.9, 12.8)	8.1 (6.9, 9.5)	3.3 (2.6, 4.2)	5.3 (4.1, 6.8)	1.2 (0.8, 1.8)	2.6 (1.9, 3.4)	2.4 (1.8, 3.3)	1.5 (1.0, 2.3)	0.5 (0.3, 0.8)	3.4 (2.6, 4.5)	9.4 (8.1, 11.0)	3.2 (2.4, 4.2)	100
Gender																
Male	15.5 (13.3, 17.9)	6.6 (5.2, 8.3)	27.3 (24.8, 29.8)	8.5 (7.1, 10.2)	6.7 (5.5, 8.2)	3.8 (2.9, 4.9)	6.0 (4.6, 7.7)	1.3 (0.8, 2.0)	3.0 (2.2, 4.1)	2.2 (1.5, 3.3)	1.3 (0.8, 2.4)	0.6 (0.3, 1.0)	3.6 (2.6, 4.8)	10.2 (8.5, 12.1)	3.5 (2.5, 4.7)	100
Female	12.9 (10.0, 16.5)	4.2 (2.8, 6.2)	26.3 (22.4, 30.6)	19.7 (16.2, 23.7)	12.5 (9.6, 16.0)	1.7 (0.9, 3.1)	3.3 (2.0, 5.3)	0.9 (0.4, 1.9)	1.2 (0.6, 2.4)	2.9 (1.7, 5.1)	1.9 (1.0, 3.5)	0.1 (0.0, 0.5)	2.9 (1.7, 5.1)	7.2 (5.2, 9.7)	2.4 (1.4, 4.0)	100
Age																
15–24	21.3 (15.6, 28.3)	3.6 (1.9, 6.7)	20.6 (15.7, 26.5)	9.9 (6.2, 15.4)	5.4 (2.9, 10.0)	2.4 (1.0, 5.3)	7.6 (4.5, 12.5)	1.0 (0.2, 5.0)	4.7 (2.5, 8.6)	2.7 (1.2, 6.1)	3.0 (1.1, 8.0)	0.7 (0.2, 2.2)	5.7 (3.3, 9.6)	8.9 (5.7, 13.6)	2.7 (1.1, 6.6)	100
25–44	15.2 (12.8, 17.9)	6.0 (4.6, 7.8)	26.5 (23.7, 29.5)	13.4 (11.5, 15.5)	8.3 (6.7, 10.2)	3.6 (2.6, 5.0)	4.4 (3.1, 6.2)	1.3 (0.8, 2.1)	2.2 (1.5, 3.1)	2.8 (1.9, 4.2)	1.3 (0.8, 2.1)	0.5 (0.2, 1.0)	2.6 (1.8, 3.7)	8.9 (7.2, 11.0)	3.0 (2.1, 4.3)	100
45–64	10.6 (8.0, 13.9)	7.4 (5.4, 10.0)	32.4 (28.4, 36.6)	7.7 (5.6, 10.6)	10.4 (8.0, 13.4)	3.3 (2.1, 5.1)	5.4 (3.7, 7.7)	1.1 (0.5, 2.4)	2.1 (1.1, 3.8)	1.4 (0.7, 2.7)	0.8 (0.3, 2.0)	0.2 (0.0, 0.7)	3.7 (2.3, 5.7)	10.2 (7.7, 13.5)	3.4 (2.2, 5.3)	100
65+	10.1 (5.2, 18.5)	7.6 (3.3, 16.3)	27.1 (18.8, 37.5)	10.6 (4.3, 23.7)	1.1 (0.2, 7.7)	2.2 (0.8, 5.8)	8.5 (4.3, 16.1)	0.7 (0.2, 3.4)	1.6 (0.6, 4.3)	0.8 (0.2, 3.9)	1.8 (0.4, 7.1)	1.4 (0.5, 4.4)	4.1 (1.4, 11.2)	15.3 (8.3, 26.3)	7.0 (3.1, 15.4)	100
Residence																
Urban	15.5 (13.2, 18.1)	5.8 (4.5, 7.5)	25.7 (23.1, 28.5)	12.3 (10.6, 14.3)	8.9 (7.4, 10.6)	3.2 (2.4, 4.3)	5.4 (4.0, 7.3)	1.1 (0.6, 1.8)	2.4 (1.7, 3.4)	2.7 (1.9, 3.8)	1.4 (0.8, 2.5)	0.3 (0.1, 0.6)	3.4 (2.4, 4.8)	9.0 (7.4, 10.9)	3.0 (2.1, 4.4)	100
Rural	12.8 (10.6, 15.5)	6.6 (5.0, 8.7)	31.5 (28.0, 35.2)	7.8 (6.2, 9.7)	5.6 (4.1, 7.5)	3.5 (2.3, 5.1)	5.1 (3.6, 7.1)	1.6 (1.0, 2.8)	3.2 (2.2, 4.5)	1.5 (0.9, 2.4)	1.6 (0.9, 2.8)	1.2 (0.6, 2.3)	3.3 (2.3, 4.9)	11.1 (8.8, 13.8)	3.7 (2.6, 5.3)	100
Education																
Not Graduated	7.7 (4.2, 13.9)	9.9 (5.1, 18.5)	31.0 (22.6, 40.8)	7.7 (3.6, 15.7)	4.6 (1.3, 15.3)	2.0 (0.7, 5.7)	7.5 (3.0, 17.5)	1.9 (0.7, 5.5)	4.7 (1.9, 11.0)	2.5 (0.5, 10.7)	1.4 (0.3, 5.8)	1.5 (0.5, 4.2)	3.9 (1.4, 10.8)	9.1 (5.3, 15.3)	4.5 (1.4, 13.2)	100
Primary	13.6 (11.0, 16.7)	8.4 (6.5, 10.6)	28.6 (25.1, 32.5)	10.0 (8.0, 12.4)	8.8 (6.9, 11.0)	3.6 (2.5, 5.2)	5.5 (4.0, 7.5)	0.8 (0.4, 1.8)	1.7 (1.0, 2.7)	2.4 (1.4, 4.0)	0.4 (0.2, 1.1)	0.3 (0.1, 0.8)	3.1 (2.1, 4.5)	9.2 (7.4, 11.3)	3.7 (2.6, 5.2)	100
Secondary	17.9 (13.6, 23.1)	3.3 (1.9, 5.6)	24.5 (20.1, 29.4)	10.0 (7.5, 13.2)	7.5 (5.2, 10.8)	3.2 (1.7, 6.0)	6.9 (4.1, 11.2)	0.9 (0.2, 3.8)	2.8 (1.5, 5.4)	1.5 (0.7, 3.3)	3.2 (1.5, 6.7)	0.6 (0.2, 1.9)	3.6 (1.9, 6.6)	12.5 (9.1, 16.8)	1.8 (0.9, 3.4)	100
High School	14.4 (11.1, 18.4)	4.8 (3.0, 7.5)	26.5 (22.1, 31.5)	14.2 (10.9, 18.3)	9.0 (6.8, 12.0)	3.0 (1.6, 5.3)	4.2 (2.4, 7.4)	1.0 (0.5, 2.2)	3.0 (1.7, 5.2)	2.9 (1.7, 4.9)	1.1 (0.4, 2.9)	0.6 (0.2, 1.7)	3.1 (1.7, 5.3)	9.3 (6.6, 13.0)	2.8 (1.5, 5.3)	100
University or Higher	17.7 (13.3, 23.2)	4.1 (2.3, 7.3)	25.8 (20.5, 31.9)	13.3 (9.0, 19.2)	6.9 (4.1, 11.4)	3.6 (1.9, 6.6)	3.2 (1.6, 6.4)	2.7 (1.3, 5.6)	3.1 (1.3, 7.1)	2.7 (1.0, 6.9)	2.6 (1.2, 5.5)	0.1 (0.0, 1.0)	4.5 (2.5, 8.0)	5.5 (3.2, 9.1)	4.2 (1.9, 9.0)	100

<sup>1</sup> Pictorial health warning text and pictures can be found in Appendix A.

# 9

## **KNOWLEDGE, ATTITUDES, AND PERCEPTIONS**



## 9. Knowledge, Attitudes, and Perceptions

There are approximately 4000 chemicals in the cigarette smoke; more than 50 are accepted as a cause of cancer. Tobacco use is one of the main risk factors for a number of chronic diseases, including cancer, lung respiratory diseases, and cardiovascular diseases. Cardiovascular diseases, cancers, and cerebrovascular diseases are the leading causes of death in Turkey as in the rest of the world. The duration and intensity of smoking increases the risk of dying from tobacco-related diseases. Exposure to SHS also causes the same diseases. Tobacco kills more than 100 000 thousand people each year in the country. The tobacco epidemic is one of the biggest public health threats in Turkey and the other parts of world.

It is necessary to increase the public awareness of harmful effects of tobacco among the people through mass media campaigns and other activities conducted by government, civil society, and international agencies. In Turkey, media campaigns have been used for a long time for public information. Following amendment of the Law No 4207, there was a great need to inform the public about the scientific basis for the smoke-free legislation and its benefits, particularly the prevention of exposure to SHS. Mass media campaigns have been conducted all over Turkey by MoH, non-governmental organizations, and international organizations since 2008. The campaign has included several different topics such as the right to smoke-free air, various diseases, passive exposure to SHS, and benefits of quitting on radio, TV, billboards, newspapers, web pages of institutions, etc.

This chapter presents the perceptions GATS results on knowledge, attitudes, and perceptions about tobacco use among Turkish adults aged 15 years or older, including their beliefs about illnesses caused by tobacco use, exposure to SHS. Public opinion regarding the prohibition of indoor smoking in various places and other potential tobacco control laws are also presented. The GATS has revealed a high level of awareness about the dangers of exposure to SHS, including serious illness, as well as strong evidence of public support for tobacco control laws.

### Key Findings

- Overall, 96.2% of adults aged 15 years or older (96.2% of non-smokers and 96.0% of current smokers) believed that smoking causes serious illness.
- Most of the adults believed that SHS caused serious illness in non-smokers (96.2%).
- A majority (95.5%) of respondents (aged ≥15 years) were in favour of prohibiting smoking in workplaces and at indoor public places and workplaces.

## **9.1 Knowledge of Health Effects of Tobacco Smoking**

The GATS Survey covers current beliefs of the respondents on the effects of tobacco smoking on health among the population aged 15 and above adults, and diseases caused by smoking. Overall, 96.2% of adults aged 15 years or older (96.2% of non-smokers and 96.0% of current smokers) believed that smoking causes serious illness. Most of the respondents also believed that smoking causes heart attack (95.5%), chronic lung disease (93.9%), premature birth (80.2%), stroke (84.8%), impotence (82.3%), and bone loss (64.8%). Respondents were more aware that smoking causes respiratory and cardiovascular diseases, than osteoporosis, impotence, and stroke (Table 9.1).

Great majority of the participants believed that smoking is the main causes of the diseases such as lung cancer (97.7%), stomach cancer (87.5%), and bladder cancer (78.3%).

There was no difference between genders, age groups, residence, and education in the beliefs about the health effects of tobacco use.

A higher proportion of current non-smokers believe that tobacco causes lung cancer (98.0%) and heart attack (96.1) than current smokers (96.9% and 94.1% for the same health problems respectively).

The belief among the current smokers and non-smokers that tobacco causes serious illness and specific diseases did not differ by demographic characteristics such as gender, education, residence, and age group. There is only one significant difference between smokers and non-smokers over the perception that smoking caused premature births (75.6% of smokers and 82.0 of non-smokers). More current women smokers believed that premature births are caused by tobacco than current men smokers (72.5% of men and 84.9% of women). The difference in the belief that smoking causes premature birth was also significant between non-smoking men and women (77.4% of men and 84.9% of women).

**Table 9.1: Percentage of adults  $\geq 15$  years who believe that smoking causes serious illness and various diseases, by smoking status and selected demographic characteristics – GATS Turkey, 2012.**

Demographic Characteristics	Adults who believe that smoking causes...										
	Serious illness	Stroke	Heart attack	Lung cancer	Bladder cancer	Stomach cancer	Chronic Lung Disease	Bone Loss	Impotence	Premature Birth	
<b>Overall</b>	96.2 (95.1, 97.0)	84.8 (83.1, 86.4)	95.5 (94.7, 96.3)	97.7 (97.2, 98.2)	78.3 (76.0, 80.5)	87.5 (85.8, 88.9)	93.9 (92.7, 94.8)	64.8 (62.1, 67.4)	82.3 (80.3, 84.2)	80.2 (78.1, 82.2)	
<b>Gender</b>											
Male	96.0 (94.7, 96.9)	84.7 (82.6, 86.5)	95.2 (94.0, 96.1)	97.5 (96.7, 98.0)	78.4 (75.7, 80.9)	86.1 (83.9, 88.0)	94.1 (92.7, 95.2)	64.8 (61.9, 67.7)	84.6 (82.4, 86.6)	75.4 (72.7, 77.9)	
Female	96.4 (95.2, 97.3)	85.0 (83.1, 86.8)	95.9 (94.9, 96.7)	98.0 (97.3, 98.5)	78.2 (75.7, 80.6)	88.8 (87.2, 90.2)	93.7 (92.3, 94.8)	64.8 (61.8, 67.8)	80.1 (77.7, 82.3)	84.9 (82.9, 86.7)	
<b>Age</b>											
15–24	96.4 (94.8, 97.6)	84.7 (82.0, 87.0)	96.2 (94.7, 97.3)	98.2 (97.1, 98.9)	77.2 (73.6, 80.5)	85.5 (82.5, 88.1)	93.8 (91.7, 95.3)	62.9 (59.0, 66.7)	80.6 (77.1, 83.6)	76.9 (73.4, 80.1)	
25–44	96.6 (95.2, 97.6)	84.4 (82.1, 86.4)	95.2 (93.9, 96.3)	97.8 (96.9, 98.4)	78.9 (76.1, 81.5)	88.1 (86.2, 89.8)	93.9 (92.7, 95.3)	64.2 (61.0, 67.3)	84.4 (82.3, 86.4)	82.8 (80.5, 85.0)	
45–64	95.8 (94.5, 96.8)	85.0 (82.9, 86.9)	95.6 (94.4, 96.5)	97.8 (96.9, 98.4)	79.8 (77.3, 82.1)	88.8 (87.0, 90.5)	94.7 (93.5, 95.7)	66.4 (63.3, 69.3)	82.6 (80.3, 84.7)	81.4 (78.9, 83.6)	
65+	94.8 (92.9, 96.3)	86.8 (84.4, 89.0)	95.1 (93.5, 96.3)	96.4 (94.9, 97.4)	74.1 (70.4, 77.5)	85.3 (82.7, 87.6)	91.5 (89.4, 93.2)	67.7 (63.9, 71.3)	76.5 (72.9, 79.8)	73.2 (69.3, 76.7)	
<b>Residence</b>											
Urban	96.3 (94.9, 97.4)	85.3 (83.1, 87.3)	95.8 (94.7, 96.7)	97.9 (97.2, 98.4)	79.0 (75.9, 81.8)	88.2 (86.0, 90.0)	94.2 (92.7, 95.4)	65.3 (61.7, 68.7)	83.3 (80.6, 85.7)	81.4 (78.6, 83.9)	
Rural	95.7 (94.5, 96.7)	83.6 (81.3, 85.7)	94.8 (93.5, 95.9)	97.3 (96.4, 98.0)	76.5 (73.5, 79.2)	85.6 (83.3, 87.7)	93.1 (91.6, 94.4)	63.7 (60.3, 66.9)	79.9 (77.2, 82.3)	77.2 (74.6, 79.6)	
<b>Education</b>											
Not Graduated	95.0 (93.3, 96.3)	82.6 (79.9, 85.0)	94.0 (92.2, 95.4)	96.5 (95.2, 97.4)	73.1 (69.2, 76.6)	83.1 (80.3, 85.6)	89.7 (87.4, 91.5)	62.1 (58.2, 65.9)	69.6 (65.7, 73.2)	74.9 (70.8, 78.6)	
Primary	96.1 (94.2, 97.4)	84.5 (82.2, 86.5)	95.0 (93.6, 96.1)	97.7 (96.7, 98.5)	77.9 (75.0, 80.5)	88.2 (86.3, 89.9)	94.1 (92.7, 95.3)	63.6 (60.4, 66.7)	82.5 (80.2, 84.7)	79.4 (76.8, 81.7)	
Secondary	96.6 (95.0, 97.7)	84.6 (81.9, 87.0)	96.1 (94.8, 97.1)	97.6 (96.3, 98.4)	78.6 (75.1, 81.6)	87.2 (84.5, 89.6)	93.7 (91.7, 95.2)	65.5 (61.8, 69.1)	83.2 (80.1, 85.8)	77.6 (74.3, 80.6)	
High School	96.0 (93.9, 97.3)	85.8 (83.1, 88.2)	95.8 (93.9, 97.1)	98.3 (97.4, 98.9)	79.4 (75.8, 82.5)	87.3 (84.6, 89.5)	95.0 (93.2, 96.4)	64.0 (59.9, 67.9)	83.9 (80.7, 86.6)	81.9 (78.9, 84.4)	
University or Higher	97.2 (95.6, 98.2)	87.0 (83.6, 89.8)	97.3 (95.9, 98.2)	98.4 (97.3, 99.0)	83.1 (79.2, 86.4)	90.8 (88.0, 93.0)	96.3 (94.3, 97.6)	71.3 (67.0, 75.2)	92.0 (89.4, 94.1)	90.1 (87.6, 92.2)	
<b>Current smokers</b>											
Gender											
Male	96.0 (94.4, 97.1)	83.2 (80.6, 85.5)	94.1 (92.4, 95.4)	96.9 (95.9, 97.8)	77.7 (74.3, 80.8)	85.2 (82.3, 87.7)	92.4 (90.2, 94.2)	62.1 (58.5, 65.5)	83.4 (80.8, 85.7)	75.6 (72.3, 78.5)	
Female	95.7 (94.0, 96.9)	82.5 (79.5, 85.1)	93.5 (91.6, 95.0)	96.7 (95.4, 97.6)	77.2 (73.3, 80.7)	83.9 (80.3, 86.9)	91.9 (89.5, 93.9)	61.8 (57.9, 65.5)	82.9 (79.9, 85.6)	72.5 (68.7, 76.1)	
Age											
15–24	94.3 (88.8, 97.2)	86.1 (80.7, 90.1)	93.6 (89.6, 96.1)	97.0 (93.9, 98.5)	77.9 (70.7, 83.7)	84.1 (76.6, 89.5)	92.1 (87.5, 95.1)	61.4 (54.0, 68.3)	82.1 (76.4, 86.7)	69.7 (62.4, 76.1)	
25–44	96.7 (94.9, 97.8)	82.0 (78.6, 85.0)	94.2 (91.7, 95.9)	96.9 (95.4, 98.0)	77.2 (73.2, 80.7)	85.1 (81.8, 87.9)	92.3 (89.6, 94.4)	60.5 (56.2, 64.6)	82.9 (79.5, 85.8)	77.8 (74.1, 81.1)	
45–64	96.0 (93.6, 97.5)	83.8 (80.4, 86.6)	94.2 (91.7, 96.0)	97.1 (94.8, 98.4)	79.2 (75.1, 82.8)	86.3 (82.7, 89.2)	93.2 (90.2, 95.3)	65.2 (60.6, 69.6)	85.4 (81.7, 88.4)	75.4 (70.7, 79.6)	
65+	92.0 (84.6, 96.0)	83.9 (75.5, 89.8)	93.3 (87.1, 96.6)	95.5 (90.1, 98.0)	74.5 (64.4, 82.5)	85.2 (77.4, 90.7)	90.9 (84.3, 94.9)	69.2 (58.4, 78.2)	83.5 (75.3, 89.4)	67.9 (56.7, 77.3)	
<b>Residence</b>											
Urban	96.2 (94.3, 97.5)	83.7 (80.4, 86.5)	94.2 (92.1, 95.7)	97.3 (96.0, 98.2)	78.2 (73.9, 82.0)	85.6 (81.9, 88.7)	92.8 (90.0, 94.9)	62.4 (58.1, 66.6)	84.2 (80.9, 86.9)	76.7 (72.6, 80.3)	
Rural	95.1 (93.1, 96.5)	81.6 (77.9, 84.7)	93.6 (91.3, 95.3)	95.7 (93.6, 97.1)	76.1 (72.2, 79.6)	84.0 (80.5, 87.0)	91.2 (88.5, 93.3)	60.8 (56.0, 65.5)	80.9 (76.9, 84.4)	71.9 (68.2, 75.3)	
<b>Education</b>											
Not Graduated	92.5 (85.7, 96.3)	74.1 (64.5, 81.8)	87.4 (78.5, 93.0)	92.1 (83.7, 96.4)	69.7 (58.4, 79.0)	80.0 (70.4, 87.1)	81.3 (72.5, 87.7)	56.5 (46.8, 65.8)	68.4 (58.8, 76.7)	65.6 (55.7, 74.3)	
Primary	96.1 (93.5, 97.6)	82.2 (78.3, 85.5)	93.5 (91.0, 95.3)	96.4 (94.4, 97.7)	76.5 (72.0, 80.4)	84.8 (81.2, 87.8)	91.8 (88.7, 94.1)	60.1 (55.4, 64.6)	82.6 (78.6, 86.0)	71.9 (67.4, 76.0)	
Secondary	95.0 (90.7, 97.4)	85.9 (81.4, 89.4)	94.7 (91.7, 96.7)	96.3 (93.6, 97.9)	82.4 (77.6, 86.3)	88.5 (84.1, 91.9)	94.1 (91.4, 96.0)	67.7 (62.1, 72.7)	85.7 (81.4, 89.1)	77.5 (72.3, 81.9)	
High School	96.4 (93.4, 98.0)	83.8 (79.0, 87.7)	94.4 (90.3, 96.8)	98.6 (97.2, 99.3)	76.4 (70.9, 81.1)	83.3 (78.4, 87.2)	92.9 (89.0, 95.5)	59.3 (53.5, 64.9)	82.7 (77.8, 86.7)	77.2 (72.1, 81.6)	
University or Higher	98.0 (95.3, 99.2)	84.3 (78.9, 88.6)	96.9 (93.9, 98.4)	98.6 (96.5, 99.4)	79.6 (72.6, 85.2)	87.1 (81.2, 91.4)	95.7 (90.6, 98.1)	66.5 (59.3, 73.0)	90.1 (85.4, 93.4)	84.4 (78.3, 89.0)	
<b>Non-smokers</b>											
Gender											
Male	96.2 (95.2, 97.1)	85.5 (83.7, 87.1)	96.1 (95.2, 96.8)	98.0 (97.5, 98.5)	78.5 (76.2, 80.7)	88.3 (86.7, 89.7)	94.4 (93.3, 95.3)	65.8 (63.0, 68.6)	81.9 (79.8, 83.9)	82.0 (79.9, 83.8)	
Female	96.1 (94.6, 97.2)	86.2 (83.8, 88.3)	96.3 (94.9, 97.4)	98.0 (97.1, 98.7)	79.3 (76.5, 81.8)	87.6 (85.4, 89.6)	95.6 (94.3, 96.6)	67.0 (63.8, 70.0)	85.8 (83.3, 88.0)	77.4 (74.8, 79.9)	
Age											
15–24	97.0 (95.5, 98.0)	84.3 (81.1, 87.0)	96.9 (95.2, 98.0)	98.5 (97.3, 99.1)	77.0 (73.2, 80.5)	85.8 (82.7, 88.5)	94.2 (91.9, 95.8)	63.3 (58.9, 67.5)	80.2 (76.3, 83.5)	78.7 (75.0, 82.0)	
25–44	96.5 (94.9, 97.6)	85.7 (83.4, 87.8)	95.8 (94.6, 96.8)	98.2 (97.4, 98.8)	79.9 (77.0, 82.5)	89.8 (87.9, 91.4)	94.9 (93.3, 96.1)	66.3 (62.9, 69.5)	85.3 (82.9, 87.3)	85.6 (83.2, 87.8)	



Demographic Characteristics	Adults who believe that smoking causes...									
	Serious illness	Stroke	Heart attack	Lung cancer	Bladder cancer	Stomach cancer	Chronic Lung Disease	Bone Loss	Impotence	Premature Birth
45–64	95.7 (94.3, 96.8)	85.4 (83.0, 87.6)	96.1 (94.7, 97.1)	98.0 (97.1, 98.6)	80.0 (77.4, 82.4)	89.7 (87.8, 91.4)	95.2 (93.9, 96.3)	66.8 (63.4, 70.0)	81.6 (78.9, 84.1)	83.5 (81.0, 85.7)
65+	95.1 (93.1, 96.6)	87.1 (84.5, 89.3)	95.2 (93.6, 96.5)	96.4 (94.9, 97.5)	74.1 (70.3, 77.5)	85.3 (82.6, 87.6)	91.5 (89.3, 93.3)	67.6 (63.7, 71.2)	75.8 (72.1, 79.2)	73.7 (69.8, 77.2)
Residence										
Urban	96.4 (94.9, 97.5)	86.0 (83.6, 88.1)	96.5 (95.3, 97.3)	98.1 (97.4, 98.7)	79.4 (76.2, 82.2)	89.2 (87.2, 91.0)	94.7 (93.3, 95.8)	66.4 (62.6, 70.0)	82.9 (80.1, 85.5)	83.3 (80.7, 85.7)
Rural	95.9 (94.7, 96.9)	84.2 (81.8, 86.3)	95.2 (93.8, 96.3)	97.8 (96.9, 98.4)	76.6 (73.5, 79.5)	86.1 (83.7, 88.1)	93.7 (92.1, 95.0)	64.5 (61.0, 67.8)	79.6 (76.8, 82.1)	78.7 (75.8, 81.3)
Education										
Not Graduated	95.3 (93.7, 96.6)	83.6 (80.8, 86.1)	94.8 (93.2, 96.0)	97.0 (95.9, 97.9)	73.5 (69.6, 77.0)	83.5 (80.7, 86.0)	90.7 (88.6, 92.5)	62.8 (58.7, 66.7)	69.7 (65.5, 73.6)	76.1 (71.9, 79.7)
Primary	96.1 (94.2, 97.4)	85.5 (83.2, 87.5)	95.6 (94.2, 96.7)	98.3 (97.4, 98.9)	78.5 (75.5, 81.2)	89.7 (87.9, 91.3)	95.1 (93.9, 96.1)	65.1 (61.7, 68.3)	82.5 (80.1, 84.7)	82.5 (80.2, 84.6)
Secondary	97.2 (95.7, 98.2)	84.2 (80.9, 87.0)	96.6 (95.1, 97.6)	98.1 (96.8, 98.8)	77.1 (73.2, 80.7)	86.7 (83.6, 89.4)	93.6 (91.1, 95.4)	64.7 (60.5, 68.7)	82.2 (78.5, 85.4)	77.7 (73.8, 81.2)
High School	95.7 (93.0, 97.4)	86.9 (83.7, 89.5)	96.5 (94.6, 97.8)	98.2 (96.8, 98.9)	80.9 (76.9, 84.3)	89.3 (86.2, 91.8)	96.1 (94.4, 97.3)	66.3 (61.7, 70.7)	84.5 (80.8, 87.5)	84.2 (80.9, 87.1)
University or Higher	96.9 (94.8, 98.1)	88.0 (84.2, 91.0)	97.5 (95.9, 98.4)	98.3 (96.8, 99.1)	84.4 (80.4, 87.7)	92.2 (89.4, 94.2)	96.5 (94.3, 97.9)	73.0 (68.3, 77.3)	92.8 (89.4, 95.1)	92.2 (89.8, 94.1)

## 9.2 Knowledge of Health Effects of Secondhand Smoke

Table 9.2 presents the respondents' beliefs on risk of developing tobacco-related illnesses among non-smokers due to SHS exposure. Overall, most adults – irrespective of gender – believed that SHS caused serious illness (96.2%), lung illness in children (95.4%), lung cancer in adults (94.8%), heart disease in adults (92.4%), and low birth weight (78.9%).

When evaluated by gender, there was no difference in beliefs about the adverse effects of SHS with one exception. A lower proportion of male respondents reported that exposure to SHS caused low birth weight compared to women (75.2% and 82.5% respectively). Respondents from rural area (74.9%) and the oldest age group (65 years and older) (72.0%) were also less likely to report that exposure to SHS causes low birth weight when compared to those from urban areas (80.4%) and younger age groups (78.5% for 45–64 age group, 81.2% for 24–44 age group, and 77.9% for 15–24 age group).

The belief on the SHS causes lung illness in children was widely held (as 95.4% of adults), but the oldest age group (65 years and older) were significantly less likely to believe this (90.5%) than the younger age groups.

Across almost all demographic categories for every illness, except low birth weight, nearly 90% or more of respondents believed smoking caused serious illnesses. The belief that low birth weight was linked to SHS exposure ranged from approximately 70–90% across the various demographic categories.

**Table 9.2: Percentage of adults ≥ 15 years who believe that breathing other people's smoke causes serious illness in non-smokers, by smoking status and selected demographic characteristics – GATS Turkey, 2012.**

Demographic Characteristics	Adults who believe that breathing other peoples' smoke causes serious illnesses in non-smokers			
	Serious illness	Heart disease in adults	Lung illnesses in children	Low birth weight
Overall	96.2 (95.3, 97.0)	92.4 (91.2, 93.4)	95.4 (94.7, 96.1)	94.8 (93.9, 95.6) 78.9 (76.8, 80.8)
Gender				
Male	96.0 (95.0, 96.8)	91.9 (90.4, 93.3)	95.3 (94.4, 96.1)	94.7 (93.6, 95.6) 75.2 (72.5, 77.6)
Female	96.4 (95.3, 97.3)	92.8 (91.6, 93.9)	95.5 (94.6, 96.3)	94.9 (93.8, 95.8) 82.5 (80.4, 84.4)
Age				
15-24	96.9 (95.6, 97.9)	93.0 (90.8, 94.7)	96.3 (95.0, 97.3)	95.3 (93.8, 96.5) 77.9 (74.6, 80.8)
25-44	96.3 (95.1, 97.3)	91.8 (90.3, 93.2)	96.2 (95.2, 97.0)	95.0 (93.9, 96.0) 81.2 (79.0, 83.3)
45-64	96.2 (94.9, 97.1)	93.0 (91.5, 94.2)	95.3 (94.0, 96.3)	95.0 (93.8, 95.9) 78.5 (75.8, 81.0)
65+	94.2 (92.2, 95.6)	91.7 (89.7, 93.4)	90.5 (88.3, 92.3)	92.2 (90.2, 93.9) 72.0 (68.3, 75.4)
Residence				
Urban	96.4 (95.1, 97.3)	92.6 (91.1, 93.9)	96.0 (95.0, 96.8)	95.2 (94.0, 96.1) 80.4 (77.7, 82.9)
Rural	95.8 (94.7, 96.7)	91.7 (90.2, 93.0)	93.9 (92.7, 95.0)	93.9 (92.7, 95.0) 74.9 (72.4, 77.3)
Education				
Not Graduated	94.0 (92.2, 95.4)	89.7 (87.3, 91.7)	90.4 (88.2, 92.2)	90.4 (88.1, 92.3) 73.8 (70.4, 77.0)
Primary	96.6 (94.9, 97.7)	92.9 (91.4, 94.2)	95.7 (94.6, 96.6)	95.5 (94.4, 96.4) 78.1 (75.4, 80.6)
Secondary	96.3 (94.9, 97.3)	92.8 (90.9, 94.4)	96.1 (95.0, 97.0)	95.1 (93.8, 96.1) 77.1 (74.0, 79.8)
High School	96.4 (95.0, 97.4)	92.4 (90.1, 94.2)	96.9 (95.7, 97.8)	95.4 (93.9, 96.6) 80.9 (77.9, 83.6)
University or Higher	97.2 (95.8, 98.2)	93.3 (91.3, 94.9)	96.7 (95.1, 97.7)	96.3 (94.5, 97.6) 86.4 (83.3, 89.0)
Current smokers	94.7 (93.3, 95.8)	90.6 (88.7, 92.3)	95.0 (93.9, 95.9)	93.3 (92.0, 94.5) 75.5 (72.4, 78.4)
Gender				
Men	94.4 (92.9, 95.7)	89.9 (87.5, 91.9)	94.5 (93.2, 95.5)	93.1 (91.5, 94.5) 73.4 (69.8, 76.7)
Women	95.5 (93.1, 97.1)	92.8 (90.3, 94.7)	96.6 (94.7, 97.9)	94.0 (91.6, 95.8) 82.1 (78.0, 85.6)
Age				
15-24	94.9 (91.3, 97.0)	90.3 (85.9, 93.4)	95.0 (91.7, 97.1)	93.0 (89.0, 95.6) 73.2 (66.1, 79.3)
25-44	95.3 (93.5, 96.6)	91.0 (88.5, 93.0)	95.8 (94.5, 96.9)	93.9 (92.1, 95.3) 78.0 (74.5, 81.2)
45-64	93.5 (91.1, 95.4)	90.1 (86.9, 92.7)	93.8 (91.5, 95.5)	92.7 (90.1, 94.6) 72.6 (67.9, 76.9)
65+	93.0 (86.8, 96.4)	89.4 (82.1, 94.0)	89.5 (82.2, 94.1)	90.5 (83.6, 94.7) 67.3 (56.1, 76.9)

**Table 9.2: Percentage of adults ≥ 15 years who believe that breathing other people's smoke causes serious illness in non-smokers, by smoking status and selected demographic characteristics – GATS Turkey, 2012.**

Demographic Characteristics	Adults who believe that breathing other peoples> smoke causes serious illnesses in non-smokers				
	Serious illness	Heart disease in adults	Lung illnesses in children		Low birth weight
Residence					
Urban	95.1 (93.3, 96.4)	91.1 (88.7, 93.1)	95.7 (94.4, 96.7)	93.8 (92.1, 95.2)	76.6 (72.6, 80.1)
Rural	93.4 (91.2, 95.1)	88.8 (86.3, 91.0)	92.6 (90.3, 94.3)	91.6 (89.4, 93.5)	72.0 (68.3, 75.4)
Education					
Not Graduated	92.3 (85.6, 96.0)	83.9 (74.3, 90.3)	86.4 (77.0, 92.3)	88.6 (80.5, 93.6)	69.0 (59.6, 77.1)
Primary	94.8 (92.1, 96.6)	91.2 (88.3, 93.5)	95.6 (93.6, 97.0)	94.1 (91.6, 95.8)	74.5 (70.0, 78.5)
Secondary	95.3 (92.9, 96.9)	90.9 (87.3, 93.5)	96.0 (93.9, 97.4)	93.0 (90.1, 95.1)	77.4 (72.3, 81.9)
High School	93.8 (90.9, 95.8)	90.0 (86.1, 92.9)	95.9 (93.5, 97.4)	93.5 (90.6, 95.6)	74.2 (69.2, 78.7)
University or Higher	96.2 (93.3, 97.9)	92.8 (88.8, 95.4)	93.8 (90.1, 96.2)	93.5 (90.0, 95.8)	80.8 (75.1, 85.4)
Non-smokers	96.8 (95.8, 97.5)	93.0 (91.8, 94.1)	95.6 (94.7, 96.3)	95.4 (94.4, 96.2)	80.1 (78.1, 82.0)
Gender					
Men	97.2 (96.0, 98.0)	93.4 (91.6, 94.8)	96.0 (94.7, 96.9)	95.9 (94.7, 96.8)	76.4 (73.6, 79.1)
Women	96.5 (95.4, 97.4)	92.8 (91.6, 93.9)	95.3 (94.3, 96.2)	95.0 (94.0, 95.9)	82.5 (80.4, 84.4)
Age					
15-24	97.4 (95.9, 98.4)	93.7 (91.2, 95.5)	96.6 (95.2, 97.6)	95.9 (94.2, 97.1)	79.0 (75.5, 82.2)
25-44	96.9 (95.5, 97.9)	92.3 (90.5, 93.8)	96.3 (95.1, 97.3)	95.6 (94.4, 96.6)	83.0 (80.6, 85.1)
45-64	97.1 (95.9, 98.0)	94.0 (92.4, 95.2)	95.8 (94.3, 96.9)	95.8 (94.6, 96.7)	80.6 (77.9, 83.0)
65+	94.3 (92.2, 95.8)	91.9 (89.8, 93.6)	90.6 (88.4, 92.4)	92.4 (90.3, 94.0)	72.4 (68.6, 75.9)
Residence					
Urban	96.9 (95.5, 97.9)	93.3 (91.6, 94.6)	96.1 (95.0, 97.0)	95.7 (94.4, 96.7)	82.0 (79.3, 84.4)
Rural	96.5 (95.3, 97.3)	92.5 (90.9, 93.9)	94.3 (92.9, 95.5)	94.6 (93.2, 95.6)	75.8 (73.0, 78.3)
Education					
Not Graduated	94.2 (92.3, 95.6)	90.4 (88.1, 92.3)	90.9 (88.7, 92.7)	90.6 (88.3, 92.5)	74.4 (70.9, 77.7)
Primary	97.4 (95.8, 98.3)	93.6 (92.2, 94.8)	95.8 (94.6, 96.8)	96.1 (95.1, 97.0)	79.6 (77.0, 82.0)
Secondary	96.7 (95.0, 97.8)	93.5 (91.3, 95.3)	96.2 (94.7, 97.3)	95.9 (94.3, 97.0)	76.9 (73.5, 80.0)
High School	97.7 (96.2, 98.7)	93.6 (90.9, 95.6)	97.4 (95.8, 98.4)	96.4 (94.7, 97.6)	84.4 (81.0, 87.2)
University or Higher	97.6 (95.8, 98.6)	93.5 (90.9, 95.4)	97.7 (95.9, 98.7)	97.4 (95.3, 98.6)	88.4 (84.8, 91.2)

The other two significant findings in Table 9.2 were that the fewer people who were not graduated any school had the reported a belief on that SHS causes lung illness in children (90.4%) and lung cancer in adults (90.4%) compared to the people who had higher education (96,7% and 96,3% respectively).

Non-smokers were more likely than smokers to believe that breathing other people's smoke causes serious illness, heart diseases in adults, lung illness in children, lung cancer in adults, and low birth weight. There was significant difference between these two groups in believing that breathing other people's smoke causes low birth weight (80.1% of non-smokers and 75.5% of smokers).

Among current smokers, men and women have similar beliefs regarding SHS being the cause of serious illness, heart diseases in adults, lung cancer in adults, and lung illness in children. However, more women than men believe that SHS was responsible for low birth weight (82.1% women and 73.4% of men). Current smokers in urban areas had reported a lower level of belief of lung illness in children than current smokers in rural areas (95.7% and 92.6%, respectively). Less current smokers in the 65 years and older age group believed that SHS causes lung illness in children (89.5%) than in the 25–44 years old group (95.8%). As a result of beliefs of current smokers on health effects of SHS, they were known by the current smokers, but low birth weight was known by men, and the oldest age group and people in rural areas had less awareness on lung illness in children.

Among current non-smokers, men and women have similar rates of beliefs about the health effects of SHS in regards to serious illness, heart disease in adults, lung illness in children, and lung cancer in adults as the health effects of SHS. However, beliefs for low birth weight differed significantly between gender (76.4%, women; 82.5%, men) and place of residence (urban, 82.0%; rural, 75.8%). More non-smoking women and people living at urban areas believed SHS causes low birth weight than men and people in rural area (82.5% of women and 76.4 % of men; 82.0% in urban and 75.8% in rural). When categorized by educational level, fewer people who were non-graduated had statistically significantly lower levels of belief of surrounding the impact of believed that SHS on lung illness in children and lung cancer in adults causes serious illness, lung illness in children, and lung cancer in adults than respondents with primary school or higher levels of education. Similarly, when categorized by age, respondents aged 65 years or older had statistically significant lower levels of belief surrounding the impact of SHS on lung illness in children and lung cancer in adults than respondents in younger age groups. Beliefs about serious illness, lung illness in children, lung cancer in adults, and low birth weight were significantly less reported by fewer non-smokers who are in the 65 years and older age group than younger age groups.

### 9.3 Support for the Tobacco Control Law

Overall, 95.5% of respondents were in favor of prohibiting smoking at indoor workplaces and public areas. More women were in favor of prohibiting smoking in indoor workplaces and public places (97.3%) than men (93.7%) (Table 9.3).

There was no difference between age groups, by residence or between educational levels. Overall, in the beliefs on support for the prohibition of indoor smoking in public areas as an effective tobacco control intervention between age groups, residence, and education.

More non-smokers than smokers supported a law prohibiting smoking (98.5% and 87.7%, respectively). Smoking status was the only significant indicator on this belief among all the socio-demographic features.

Respondents supported Tobacco Control Law on “prohibiting all advertisement for tobacco products” (90.6%). Again, smoking status was found as the only indicator upon people’s support differed. Non-smokers were in favor of prohibiting all advertisements for tobacco product significantly more than smokers (91.9% and 87.1%, respectively). There was no difference in the support for prohibiting all advertisement for tobacco products as an effective tobacco control intervention between age groups, residence, and education.

Fewer people supported increasing tax on tobacco products. The percentages were lower than the other two statements on banning smoking in indoors places and banning advertisement of tobacco products (72.5%, 95.5%, and 90.6%, respectively). Overall, more women were in favor of increasing tax on tobacco products than men (79.1% vs. 65.6%). More people living in rural areas supported the intervention on increasing tax on tobacco products significantly more than people living in urban areas (76.7% and 70.8%).

Smoking status was the most important indicator of whether people supported the intervention of increasing tax on tobacco products among all socio–demographic characteristics. Less than half of smokers (40.3%) and more than 80% of non-smokers (84.4%) were favored increasing taxes on tobacco products.

**Table 9.3: Percentage of adults  $\geq 15$  years who favor tobacco control laws, by smoking status and selected demographic characteristics – GATS Turkey, 2012.**

Demographic Characteristics	Adults who favor a law...					
	Prohibiting smoking in indoor workplaces and public places		Increasing tax on tobacco products		Prohibiting all advertisements for tobacco products	
Overall	95.5	(94.7, 96.2)	72.5	(70.9, 74.0)	90.6	(89.0, 92.0)
Gender						
Male	93.7	(92.4, 94.8)	65.6	(63.5, 67.6)	90.1	(88.3, 91.7)
Female	97.3	(96.6, 97.9)	79.1	(77.4, 80.8)	91.0	(89.2, 92.5)
Age						
15–24	94.9	(93.2, 96.2)	75.2	(72.0, 78.1)	89.7	(86.8, 92.1)
25–44	94.7	(93.5, 95.8)	69.1	(67.1, 71.1)	90.2	(88.3, 91.9)
45–64	96.7	(95.9, 97.4)	72.4	(70.1, 74.6)	91.1	(89.4, 92.6)
65+	97.4	(95.9, 98.3)	81.0	(78.1, 83.5)	92.7	(90.6, 94.4)
Residence						
Urban	95.4	(94.3, 96.2)	70.8	(68.8, 72.8)	90.4	(88.2, 92.2)
Rural	96.0	(94.8, 97.0)	76.7	(74.6, 78.7)	91.1	(89.4, 92.6)
Education						
Not Graduated	96.2	(94.3, 97.4)	80.1	(77.0, 83.0)	88.5	(85.4, 91.0)
Primary	96.3	(95.2, 97.1)	72.1	(69.9, 74.1)	90.9	(89.2, 92.4)
Secondary	95.0	(93.4, 96.2)	72.9	(70.0, 75.7)	90.4	(87.3, 92.8)
High School	94.4	(92.5, 95.9)	68.8	(65.7, 71.8)	90.9	(88.5, 92.8)
University or Higher	95.7	(94.0, 96.9)	70.0	(66.2, 73.5)	91.8	(89.5, 93.7)
Current smokers	87.7	(85.5, 89.7)	40.3	(37.7, 42.9)	87.1	(84.9, 89.0)

**Table 9.3: Percentage of adults  $\geq 15$  years who favor tobacco control laws, by smoking status and selected demographic characteristics – GATS Turkey, 2012. (...continuation)**

Demographic Characteristics	Adults who favor a law...					
	Prohibiting smoking in indoor workplaces and public places		Increasing tax on tobacco products		Prohibiting all advertisements for tobacco products	
Gender						
Men	86.9	(84.3, 89.1)	38.9	(36.0, 42.0)	86.8	(84.1, 89.1)
Women	90.3	(86.7, 93.1)	44.4	(39.9, 49.0)	87.9	(84.7, 90.5)
Age						
15–24	80.9	(74.0, 86.2)	34.4	(27.7, 41.9)	87.2	(81.8, 91.1)
25–44	88.0	(85.2, 90.2)	42.5	(39.2, 45.8)	87.2	(84.3, 89.7)
45–64	91.1	(88.2, 93.3)	39.2	(34.9, 43.6)	86.4	(82.9, 89.2)
65+	93.0	(86.7, 96.5)	40.5	(30.9, 50.9)	89.2	(81.1, 94.1)
Residence						
Urban	87.0	(84.2, 89.4)	38.7	(35.6, 41.9)	87.4	(84.6, 89.7)
Rural	90.1	(87.4, 92.3)	45.5	(41.7, 49.4)	86.0	(83.0, 88.5)
Education						
Not Graduated	85.2	(76.2, 91.2)	51.8	(41.0, 62.4)	79.3	(69.5, 86.6)
Primary	90.6	(87.5, 93.0)	41.6	(37.9, 45.5)	86.4	(83.0, 89.3)
Secondary	85.8	(81.1, 89.5)	40.2	(34.5, 46.1)	89.0	(85.1, 92.0)
High School	85.9	(81.0, 89.6)	38.0	(33.2, 43.0)	87.6	(82.8, 91.2)
University or Higher	87.1	(82.1, 90.9)	35.8	(29.3, 42.7)	88.1	(83.2, 91.7)
Non-smokers	98.5	(97.9, 98.9)	84.4	(82.9, 85.8)	91.9	(90.1, 93.3)
Gender						
Men	98.6	(97.7, 99.2)	84.5	(82.4, 86.3)	92.5	(90.5, 94.1)
Women	98.4	(97.7, 98.8)	84.4	(82.7, 86.0)	91.5	(89.4, 93.1)
Age						
15–24	98.4	(97.4, 99.1)	85.4	(82.5, 87.9)	90.4	(86.8, 93.1)
25–44	98.5	(97.6, 99.1)	83.9	(81.9, 85.7)	91.8	(89.7, 93.5)
45–64	98.7	(98.0, 99.2)	84.0	(81.8, 86.0)	92.8	(91.0, 94.2)
65+	97.8	(96.2, 98.7)	84.9	(82.1, 87.3)	93.1	(90.8, 94.8)
Residence						
Urban	98.8	(98.2, 99.2)	83.9	(81.9, 85.8)	91.6	(89.1, 93.5)
Rural	97.7	(96.4, 98.5)	85.5	(83.5, 87.3)	92.6	(90.8, 94.0)
Education						
Not Graduated	97.5	(96.1, 98.4)	83.6	(80.5, 86.4)	89.7	(86.5, 92.1)
Primary	98.7	(98.0, 99.1)	84.9	(83.1, 86.6)	92.8	(91.0, 94.2)
Secondary	98.4	(97.3, 99.1)	85.2	(82.1, 87.8)	90.9	(87.1, 93.7)
High School	98.8	(97.3, 99.5)	84.6	(81.5, 87.3)	92.6	(90.0, 94.5)
University or Higher	98.8	(97.4, 99.4)	82.5	(79.2, 85.3)	93.2	(90.4, 95.2)

# 10

**CHANGE OVER  
TIME: COMPARISON  
OF 2008 AND 2012**





## 10. Change Over Time: Comparison of 2008 and 2012

The Global Adult Tobacco Survey (GATS) has been performed twice in Turkey; once in 2008 and again in 2012. During the four year period between the surveys, tobacco use declined relatively by 13.4%. Turkey has achieved remarkable success regarding tobacco control. This chapter tracks the 2008 and 2012 findings over time.<sup>1</sup>

### 10.1 Tobacco Use, 2008 and 2012

#### Key Findings

- Prevalence of overall current tobacco smoking decreased from 2008 (31.2%) to 2012 (27.1%), and significant decreases were noticed among both men and women.
- There was a significant decrease in overall prevalence of waterpipe smoking between 2008 and 2012, with a relative reduction of 64.9%. However, this decrease was not observed among women and those with less than primary education.

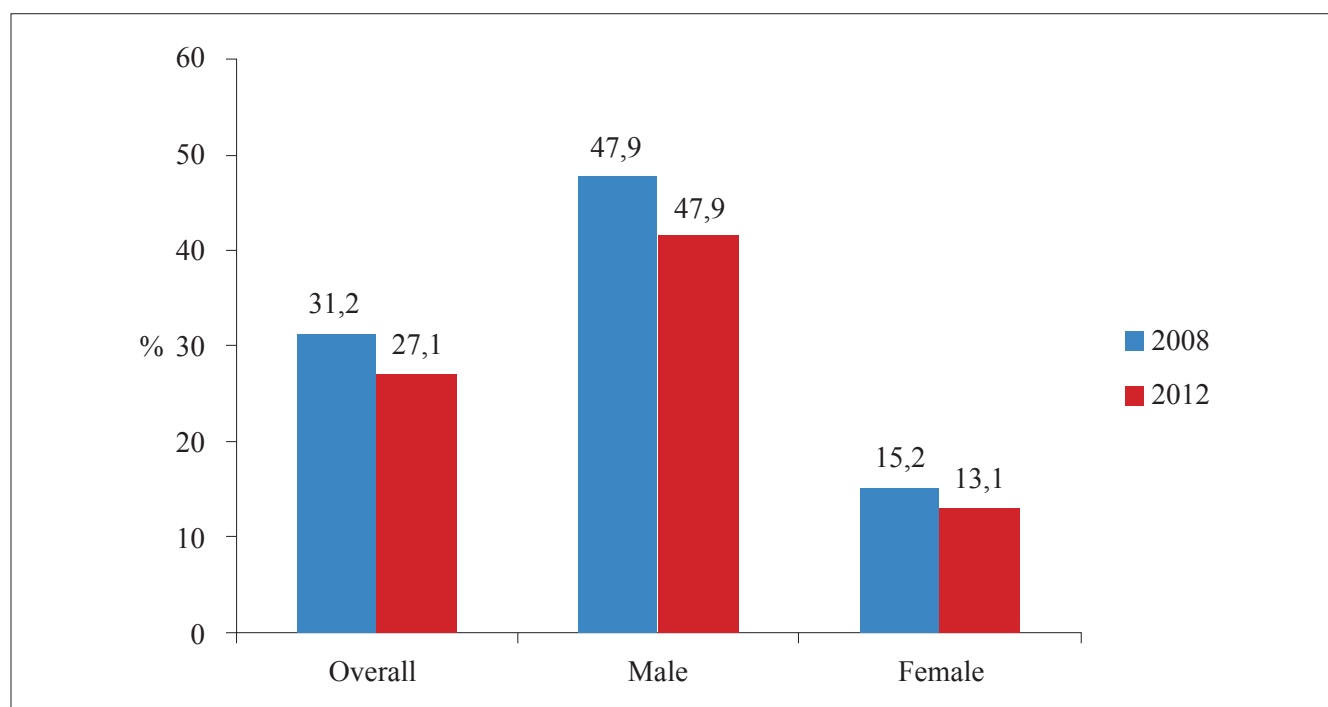
#### 10.1.1 Tobacco Use Prevalence

**Table 10.1** shows status of tobacco use in 2008 and 2012. There was a significant decrease in overall current smoking prevalence between 2008 (31.2 %) and 2012 (27.1 %). There was also a significant reduction noticed among both men (47.9% in 2008 and 41.5% in 2012) and women (15.2% in 2008 and 13.1% in 2012) (Figure 10.1).

Overall, there was a significant decrease in the prevalence of daily smoking (from 27.4% in 2008 to 23.8% in 2012) and occasional smoking (from 3.8% in 2008 to 3.3% in 2012). Among men, the same pattern of change was observed between 2008 and 2012 for prevalence of daily smoking (43.8% and 37.3%, respectively). However, there was no change in prevalence of occasional smoking. Among women, a decrease in prevalence was noticed for occasional smokers (3.6% in 2008 and 2.4% in 2012) (Table 10.3).

The overall prevalence of non-smokers increased from 68.8% in 2008 to 72.9% in 2012. Increases were also noticed among both men (52.1% in 2008 and 58.5% in 2012) and women (84.8% in 2008 and 86.9% in 2012).

<sup>1</sup> Please refer to Appendix G for the relevant tables.

**Figure 10.1: Change in prevalence of tobacco use by gender, GATS Turkey, 2008 and 2012.**

### 10.1.2 Types of Tobacco Products Used

**Table 10.2** shows the prevalence of current smokers by demographic characteristics as well as by types of smoked tobacco products from the 2008 and 2012 GATS. The types of smoked tobacco products were any cigarette, which includes manufactured cigarettes and hand-rolled cigarettes; waterpipe; and other smoked tobacco products.

There was a significant decrease in the overall prevalence of any cigarette product between 2008 and 2012 (31.1% and 26.9%, respectively). There was a significant decrease across all demographic characteristics, including gender, age (for 65 years and older age group), residence, and education. No change was seen in the overall prevalence of hand-rolled cigarette smoking.

There was a significant decrease in overall prevalence of waterpipe smoking between 2008 (2.3%) and 2012 (0.8%). The decrease was noticed in all demographic characteristics except those with less than primary education.

There was no significant change in the overall prevalence of hand-rolled cigarette smoking between 2008 and 2012. However, a significant reduction was noticed among those residing in rural areas and those with university education.

Table 10.4 shows the average number of cigarettes smoked per day for daily cigarette smokers by demographic characteristics (gender, age, residency, and education level).

Overall, the number of cigarettes smoked increased from 2008 to 2012 (17.7 and 19.2, respectively). A similar trend was seen among both men (19.3 in 2008 and 20.3 in 2012) and women (12.2 in 2008 and 15.3 in 2012). There were also increases in the number of cigarettes smoked in the 15–24 and 25–44 age groups, while the number decreased for those 65 years of age and above. While no change is shown in the rural areas, there was an increase in urban areas (17.1 in 2008 and 18.9 in 2012). The number of cigarettes smoked also increased for those with primary and secondary school education.

### 10.1.3 Age of Initiation

Table 10.5 presents the age at smoking initiation of ever daily smokers aged 18–34 years in four groups (less than 15 years, 15–17 years, 18–19 years and 20+ years) by gender and residence.

Overall, there were no differences in the age at smoking initiation between 2008 and 2012, except in the 15 and below age category, where a decrease is shown (19.6% in 2008 and 16.1% in 2012).

When considering the demographic characteristics of gender and residence, significant differences were noticed between 2008 and 2012 in those in the 15 years and below age category. Among men in the 15 years and below age category, a decrease was noticed (22.2% in 2008 and 16.7% in 2012). Smokers in rural areas showed a significant decrease in the 15 years and below category (23.8% in 2008 and 13.4% in 2012).

From 2008 to 2012, no differences were noticed for the average age at smoking initiation among all demographic characteristics except for those residing in rural areas (16.4 in 2008 and 17.1 in 2012) (**Table 10.6**).

Table 10.7 shows the percentage of former daily smokers among all adults (i.e., the quit rate) and the percentage of former daily smokers among ever daily smokers (i.e., the quit ratio). The “quit rate” is determined by the number of former daily smokers (i.e., current non-smokers) divided by all adults. The “quit ratio” is determined by the number of former daily smokers (i.e., current non-smokers) divided by the number of ever daily smokers.

From 2008 to 2012, the overall prevalence of former daily smokers among all adults has decreased from 10.5% to 9.4%, respectively. All age groups, except for the 45–64 category, experienced declines between 2008 and 2012 in former daily smokers among all adults. The percentages of former daily smokers among those residing in rural areas; those that have below primary education; and those with secondary education decreased between 2008 and 2012.

Overall and across all demographic characteristics, the percentage of former daily smokers among ever daily smokers did not change between 2008 and 2012.

## 10.2 Cessation Practices, 2008 and 2012

### Key Findings

- The percentage of overall quit attempts did not change between 2008 and 2012; however, a significant decrease in quit attempts was noted among the younger age group 15–24 years.
- Significant increases were found in the percentages of female smokers who were asked if they smoked tobacco products by health-care providers (HCPs) in the past 12 months (48.8% in 2008 and 56.3% in 2012), and female smokers who were advised to quit by HCPs (38.0% in 2008 and 46.4% in 2012).

Table 10.8 presents the quit attempt prevalence in 2008 and 2011 among those who smoked in the past 12 months preceding the survey (includes current smokers and former smokers who were abstinent for less than 12 months). Overall, the surveys revealed that quit attempts in the past 12 months did not change between 2008 and 2012 (44.8% and 46.0%, respectively). A significant decrease in quit attempts was noted among those aged 15–24 (52.3% in 2008 and 40.2% in 2012). Among those aged 25–44, the prevalence of quit attempts significantly increased from 42.7% in 2008 to 48.3% in 2012.

Table 10.9 presents the prevalence of smokers who visited a HCP, and were asked by a HCP if they used any smoked tobacco product and were advised to quit by the HCP.

The overall prevalence of smokers who were asked by HCPs if they used any smoked tobacco product and smokers who were advised to quit smoking by HCPs did not change from 2008 to 2012. However, a significant increase was seen among women for both indicators; the prevalence of female smokers asked by HCPs of their smoking status increased from 48.8% (2008) to 56.3% (2012) and the prevalence of female smokers advised to quit by HCPs increased from 38.0% (2008) to 46.4% (2012). No significant change was shown across other demographic characteristics including age, residence, and education.

Table 10.10 presents the prevalence of smokers who made a quit attempt in the past 12 months and used various cessation methods (pharmacotherapy and counseling/advice) for their last quit attempt and selected demographic characteristics.

Overall, there were significant increases between 2008 and 2012 in the prevalence of use for both pharmacotherapy (9.3% in 2008 and 13.6% in 2012; relative change of 45.9%) and counseling/advice (1.8% in 2008 and 8.0% in 2012; relative change of 335.5%) as cessation methods among smokers who attempted to quit in the past 12 months.

Significant increases were seen among both men and women across the two methods except for the use of pharmacotherapy among women. Among the four age categories, only the 25–44 group had seen significant increases for both cessation methods (pharmacotherapy: 9.2% in 2008 and 13.6% in 2012; counseling/advice: 1.3% in 2008 and 8.6% in 2012). Among urban residents, significant increases were seen for use of both methods (pharmacotherapy: 10.4% in 2008 and 14.4% in 2012; counseling/advice: 2.4% in 2008 and 8.4% in 2012). Those with primary school education experienced increases

between 2008 and 2012 in the use of both methods (pharmacotherapy: 8.6% in 2008 and 16.4% in 2012; counseling/advice: 1.8% in 2008 and 10.0% in 2012), as did those with high school education in the use of counseling/advice (2.0% in 2008 and 8.8% in 2012).

**Figure 10.2: Change in quit attempts and cessation methods used, GATS Turkey, 2008 and 2012.**

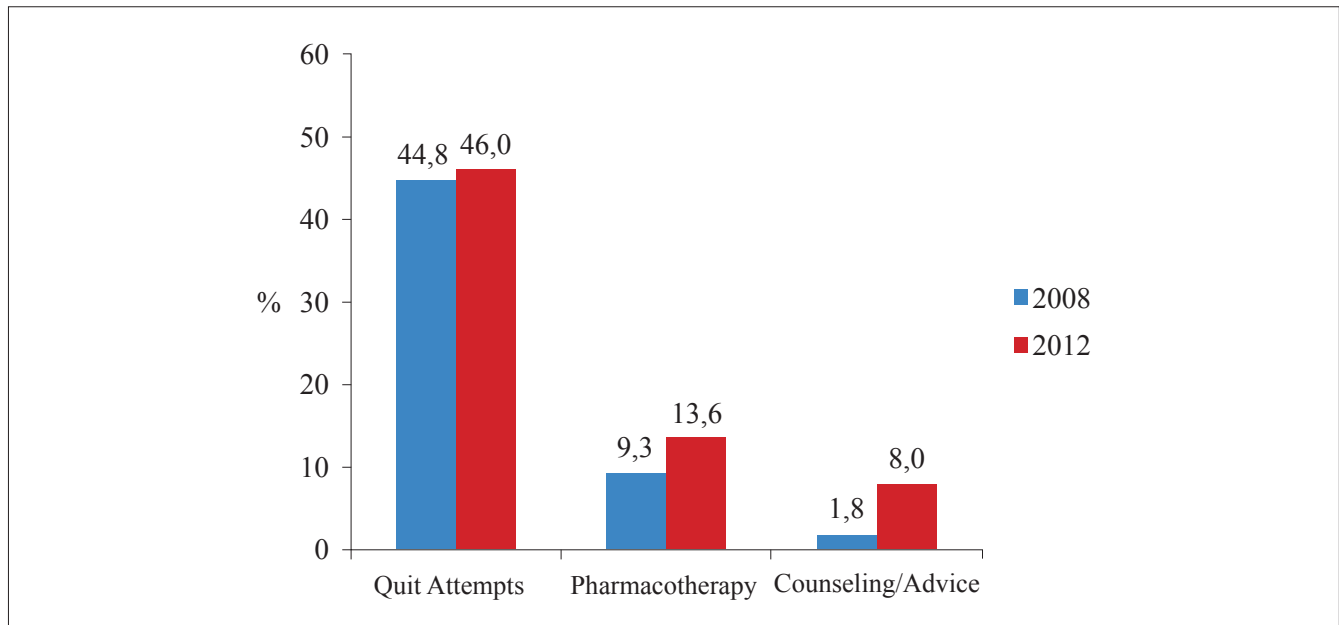


Table 10.11 presents the percentage distribution of current smokers by interest in quitting and selected demographic characteristics.

Overall, there were significant increases between 2008 and 2012 in the prevalence of smokers planning to quit within the next month (9.9% in 2008 and 12.9% in 2012) and thinking about quitting within the next 12 months (17.8% in 2008 and 22.5% in 2012). On the other hand, there were significant decreases among smokers planning to quit someday, but not in the next 12 months (25.2% in 2008 and 19.7% in 2012) and smokers who don't know if they are interested to in quitting (4.6% in 2008 and 2.8% in 2012). There is no change between 2008 and 2012 in those not interested in quitting across all demographic characteristics.

Among women, a significant increase was noticed for smokers thinking about quitting within the next 12 months. Among men, there was a decrease in those planning to quit someday, but not in the next 12 months. Among both men and women, significant decreases were seen in those who don't know. Among men, the percentage of smokers who plan to quit within next 12 months significantly increased from 17.6% in 2008 to 22.4% in 2012.

Most significant changes were noticed among the 25–44 age group, with significant increases in smokers planning to quit within the next month and thinking about quitting within the next 12 months. Significant decreases were seen in this age group among smokers who plan to quit someday, but not in the next 12 months and those who don't know.

The same pattern was noticed among urban residents and those with primary school education. There were also significant decreases among smokers who plan to quit someday, but not in the next 12 months and those who don't know.

### 10.3 Exposure to Secondhand Smoke, 2008 and 2012

#### Key Findings

- There was a significantly large reduction in SHS exposure at the workplace overall, from 37.3% in 2008 to 15.6% in 2012.
- There was a significantly large reduction in SHS exposure in all public places, particularly in restaurants (from 55.9% in 2008 to 12.9% in 2012).
- There was a significantly larger reduction (approximately double) in SHS exposure among men than women in government buildings, healthcare facilities and public transportation.
- Although not covered by the law, there was a substantial decrease (relative change of 32.0%) of SHS exposure observed in homes.

Figure 10.3 illustrates the change over time in exposure to SHS in public places and at homes. The results show that between 2008 and 2012, there has been a substantially large reduction in SHS exposure in all public places, particularly in restaurants, with a relative reduction of 76.9%, from 55.9% in 2008 to 12.9% in 2012%.

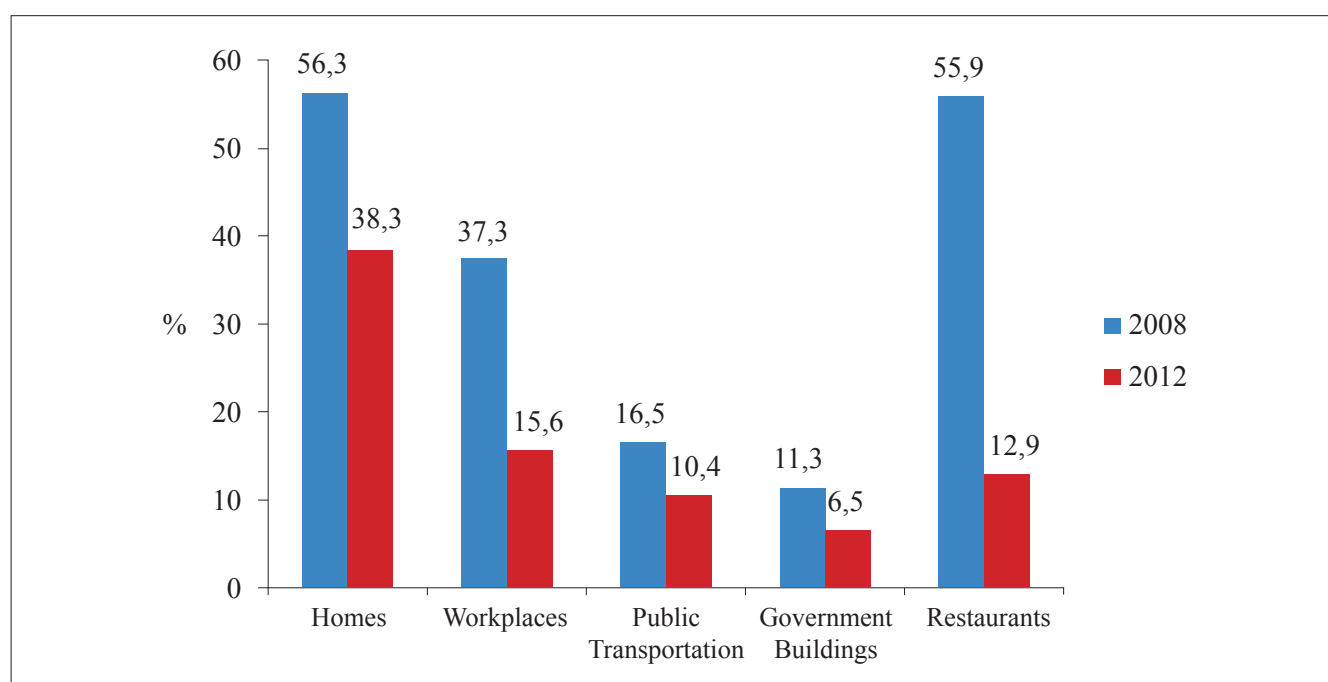
This is a reflection of the policy change between the 2008 and 2012 GATS, with the implementation of the second-phase of the 2008 smoke-free law, extending into the hospitality sector, effective July 2009. 2012 estimates of SHS exposure in cafes are excluded from the comparisons since this information was not collected in 2008.

Additionally, a large decrease of SHS exposure was also observed in workplaces (from 37.3% in 2008 to 15.6% in 2012, relative reduction of 58.0%), government buildings (from 11.3% in 2008 to 6.5% in 2012, relative change of 42.1%), public transportation (from 16.5% in 2008 to 10.4% in 2012, relative reduction 36.7%), and healthcare facilities (relative reduction 36.1, from 6.0% in 2008 to 2.8% in 2012). This is a reflection on the continuing momentum achieved by the 2008 law.

Although not covered by the law, there was a substantial decrease (from 56.3% in 2008 to 38.3% in 2012, relative change of 32.0%) of SHS exposure observed in homes as well.

Among both men and women, there was a greater decrease in exposure of tobacco smoke in homes among non-smokers than in the overall population.

**Figure 10.3: Exposure to secondhand smoke in various places in the past 30 days, GATS Turkey, 2008 and 2012.**



Tables 10.12, 10.13, and 10.14 present the prevalence of exposure to SHS in the workplace, home, and public places and homes, during the past 30 days, by gender, age group, educational group, and residence.

At the workplaces, among men, there was a greater decrease in exposure of tobacco smoke among non-smokers (35.0% in 2008 and 14.0% in 2012) than among the overall population (40.1% in 2008 and 17.8% in 2012). In contrast, among women, there was a smaller decrease in exposure among non-smokers (22.9% in 2008 and 9.1% in 2012) than among the overall population (28.1% in 2008 and 9.6% in 2012).

In homes, among both men and women, there was a greater decrease in exposure of tobacco smoke among non-smokers than among the overall population.

Results show that among all public places, there was a significant decrease in SHS exposure among both men and women.

Within government buildings, healthcare facilities, and public transportation, there was a substantially larger decrease of smoke exposure among men than women than in other public places and at homes.

Among men, there was a greater decrease in exposure of tobacco smoke at workplaces among non-smokers (relative reduction of 60.0%) than among the overall population (relative reduction of 55.6%). In contrast, among women, there was a smaller decrease in exposure among non-smokers (relative reduction of 60.1%) than among the overall population (relative reduction of 66.0%).

In homes, among both men and women, there was a greater decrease in exposure of tobacco smoke among non-smokers than among the overall population.



Results show that among all public places and homes, there was a significant decrease among all age groups. Government buildings had a significantly larger decrease among the population aged 65 years and older than all other age groups.

Across all age groups, with the exception of those aged 65 years and older, the greatest decrease in smoke exposure was observed in restaurants, followed by workplaces. In the 65 years and older age group, the greatest decrease was observed in government buildings (11.5% in 2008 and 3.3% in 2012, relative reduction of 71.2%), followed by workplaces (30.6% in 2008 and 9.3% in 2012, relative reduction of 69.7), and restaurants (32.7% in 2008 and 10.2% in 2012, relative reduction of 68.8%).

Within the workplace, a larger reduction in exposure of tobacco smoke was observed among non-smokers than the overall population in the 15–44 age group. Similarly, at homes, a larger reduction in exposure to tobacco smoke was observed among non-smokers than the overall population in all age groups.

Results show that among most public places, there was a significant decrease in smoke exposure among all education levels. Exceptions involve workplaces and healthcare facilities, in which there was no significant decrease observed among those that had not graduated.

Across the educational levels, the largest decrease in exposure was observed at restaurants in comparison to other public places. All educational levels, with the exception of those “not graduated”, had a significantly larger difference in restaurants in comparison to other public places and homes. In contrast, those that had not graduated had a similar relative reduction in restaurants of 53.8% and government buildings of 51.7%.

In workplaces, all educational levels, with the exception of those that had not graduated, observed a decrease in exposure among non-smokers between 2008 and 2012. Additionally, the decrease in exposure among non-smokers was larger than in the overall population, with the exception of high school graduates (non-smokers, 28.6% in 2008 and 10.4% in 2012; overall, 37.8% in 2008 and 12.9% in 2012) relative reduction of non-smokers, 63.6% and relative reduction of overall population 65.9%).

In contrast, among those that had not graduated, there had been an increase (although insignificant) in the exposure of tobacco smoke among non-smokers, from 23.3% in 2008 to 26.2% in 2012.

Results show that in governmental buildings and healthcare facilities, a significantly larger decrease is observed in urban than rural areas, with no significant reduction in exposure among the rural. This is also observed in workplaces, although it is not a large difference. In contrast, a larger decrease is observed among rural compared to urban in public transportation and homes. This is also observed in restaurants, although it is not a large difference.

In the workplace, in both rural and urban settings, there was no large difference observed in the reduction of exposure between the overall population (urban, 35.6% in 2008 and 9.3% in 2012; rural, 44.4% in 2008 and 21.1% in 2012) relative reductions of 59.0% for urban and 52.4% for rural) and that of non-smokers (urban, 29.4% in 2008 and 11.4% in 2012; rural, 37.6% in 2008 and 17.4% in 2012) relative reductions of 61.4% for urban and 53.8% for rural). In contrast, at home, there was a relatively larger difference observed, with greater reduction among non-smokers (urban, 44.7% in 2008 and 28.5% in 2012; rural, 53.3% in 2008 and 30.4% in 2012, relative reductions of 36.3% for urban and 43.0% for rural) than the overall population (urban, 55.0% in 2008 and 38.6% in 2012; rural, 59.2% in 2008 and 37.5% in 2012, relative reductions of 29.8% for urban and 36.7% for rural).

## 10.4 Tobacco Economics, 2008 and 2012

### Key Findings

- There was a slight increase of smokers (of manufactured cigarettes) that purchased their last cigarettes at a store or kiosk (92.8% in 2008 and 95.6% in 2012). Similarly, there was a significant increase of smokers that purchased their last cigarettes from a street vendor (0.5% in 2008 and 2.6% in 2012).
- Overall, the amount of cigarette expenditure per month increased significantly, from 98.3 TL liras in 2008 (adjusted) to 146.1 TL lira in 2012. This was highest among women, those in the 25–44 and 45–64 age groups, and urban respondents. The only group that did not have a significant increase was those who had not graduated.

Table 10.15 presents the percentage distribution of smokers (of manufactured cigarettes) who last purchased their cigarettes at various sources.

Overall, there was a slight increase of smokers (of manufactured cigarettes) that purchased their last cigarettes at a store or kiosk (92.8% in 2008 and 95.6% in 2012). Similarly, there was a significant increase of smokers that purchased their last cigarettes from a street vendor (0.5% in 2008 and 2.6% in 2012).

Among women, there was a significant increase of smokers (of manufactured cigarettes) that purchased their last cigarettes at a store or kiosk (relative change of 5.4%). Among men, an increase was similarly observed, there was no significant change. Among both men and women, an increase of purchasing their last cigarettes from a street vendor was observed, from 0.6% for men in 2008 and 2.8% in 2012, and 0.2% for women in 2008 and 2.0% in 2012.

Among adults 25 years and over, there was a significant increase of smokers (of manufactured cigarettes) that purchased their last cigarettes at a store or kiosk (relative increase of 2.7%). Among the younger age group (15–24 years), an increase was similarly observed, although not statistically significant. Among both age groups, an increase of purchasing their last cigarettes from a street vendor was observed, from 0.0% for 15–24 years age group in 2008 and 4.0% in 2012, and 0.7% for the 25+ age group in 2008 and 2.3% in 2012.

Among urban respondents, there was a significant increase of smokers (of manufactured cigarettes) that purchased their last cigarettes at a store or kiosk (relative change increase of 4.1%). However, among rural respondents, a decrease was observed, although not statistically significant. There was no significant change among rural respondents. Among both residence groups, an increase of purchasing their last cigarettes from a street vendor was observed, from 0.5% for urban in 2008 and 2.5% in 2012, and 0.5% for rural in 2008 and 3.1% in 2012.

Table 10.16 presents cigarette expenditures among manufactured cigarette smokers 15 years and older.

Overall, the amount of cigarette expenditure per month increased significantly, from 98.3 TL in 2008 (adjusted) to 146.1 TL in 2012. The average amount spent on 20 manufactured cigarettes increased from 4.0 TL in 2008 (adjusted) to 5.7 TL in 2012.

The amount of cigarette expenditure per month increased significantly for both men and women, although the increase among women was substantially higher (relative increase of 71.6%) than among men (relative change of 46.0%). The average amount spent on 20 manufactured cigarettes increased at relatively equal change rate among both men (relative increase of: 42.7%) and women (relative increase of: 47.9%).

The amount of cigarette expenditure per month increased significantly among all age groups, although the largest increase was observed among the 25–44 (relative change increase of: 50.7%) and 45–64 age groups (relative change increase of: 49.6%). The average amount spent on 20 manufactured cigarettes increased across all age groups, with the largest increase observed among those aged 65 years and older the oldest age group 65+ (58.8%).

The amount of cigarette expenditure per month increased significantly among both urban and rural respondents, although the largest increase was observed among urban respondents, with a relative change of 51.6%vs. 39.0% among rural respondents. The average amount spent on 20 manufactured cigarettes increased among both urban (relative increase of 41.7%) and rural (relative increase of 45.6%) respondents.

The amount of cigarette expenditure per month increased significantly among all educational levels, with the exception of those that had not graduated. The increase was higher among those with primary and secondary levels than those with high school or university or higher educational levels. The average amount spent on 20 manufactured cigarettes increased more among those not graduated, primary or secondary educational levels than those with high school or university or higher levels.

## 10.5 Media Awareness, 2008 and 2012

### Key findings

- There was an overall increase in the percentage of noticing any anti-cigarette information between 2008 and 2012, with a relative change of 5.3%. The largest significant increase was observed in television, from 85.5% in 2008 to 91.4% in 2012.
- Between 2008 and 2012, there has been a significant increase (relative change of 14.4%) in those that thought about quitting because of the health warning label on cigarette packages.
- The effectiveness of the health warning labels, as measured by those indicating thinking about quitting because of the health warning labels, was most evident among women (approximately two times that of men), respondents in urban areas, those in the 25–64 age group and respondents with a university educational level.
- Between 2008 and 2012, there has been a significant increase (relative change of 18.3%) among those that noticed any advertisement, promotion, and sponsorship. An increase between 2008 and 2012 in noticing advertisement in both stores where cigarettes are bought and noticing any advertisement, promotion and sponsorship was largest among women, those 25+ years and older and those in rural areas.

Table 10.17 presents the percentage of adults who noticed anti-cigarette information during the past 30 days by location of information. There was an overall increase in the percentage of noticing any anti-cigarette information between 2008 (88.8%) and 2012 (93.5%).

The largest significant increase was observed on television, from 85.5% in 2008 to 91.4% in 2012. An increase was also observed on the radio, although not statistically significant. A decrease noticing anti-cigarette information was observed for newspapers/magazines (46.3% in 2008 to 41.1% in 2012) and on billboards (36.0% in 2008 to 29.9% in 2012).

A larger reduction in noticing anti-cigarette information in newspapers/magazines and billboards was observed for men in comparison to women.

There was a significant increase in observing anti-cigarette information on television among both men (relative change of 7.0%) and women (relative change of 6.8%). On the other hand, there was a significant increase among men in noticing anti-cigarette information on the radio (23.7% in 2008 and 26.8% in 2012); while there was no significant change among women.

A larger reduction in noticing anti-cigarette information in newspapers/magazines and billboards was observed in the younger age group (15–24 years) than those 25 years and above. There was a significant increase in observing anti-cigarette information on television or radio among both 15–24 year olds (relative change of 5.4%) and those 25 years and above (relative change of 7.3%). On the other hand,

there was a significant increase among those 25 years and above in noticing anti-cigarette information on the radio (22.6% in 2008 and 25.4% in 2012), while the increase observed among those 15–24 years old was very minimal and not statistically significant.

The pattern between urban and rural residences is very similar, with a significant increase in noticing anti-cigarette information on television observed in both urban (relative change of 6.9%) and rural (relative change of 6.7%) and a non-significant increase observed for the radio. Similarly, both urban and rural respondents had a decrease in noticing anti-cigarette information on billboards; however, the decrease was larger among rural respondents (relative reduction of 24.2%) than urban respondents (relative reduction of 15.9%).

Between 2008 and 2012, there was a significant increase (14.4%) in those that thought about quitting because of the health warning label on cigarette packages.

The effectiveness of the health warning labels, as measured by those indicating thinking about quitting because of the health warning labels, was most evident among women (approximately two times that of men), respondents in urban areas, those in the 25–64 age group, and respondents with high school and university educational level.

While there was an insignificant decrease among men and an insignificant increase among women in noticing health warnings between 2008 and 2012, there was a large increase in those that thinking about quitting because of the health warning labels, among both men (relative change of 11.2%) and women (relative change of 24.3%).

While there was an insignificant decrease among the age group 15–24 and an insignificant increase among all other age groups in noticing health warnings between 2008 and 2012. There was also a large increase in those that thought about quitting because of the health warning labels in the 25–64 age group. In contrast, there was a decrease, although insignificant, in the 15–24 age group in thinking about quitting because of the health warnings and an insignificant increase in those aged 65 years and older age group.

While there was an insignificant increase among urban and an insignificant decrease among rural in noticing health warnings between 2008 and 2012. There was a large increase in those that thought about quitting because of the health warning labels in both urban (relative change of 16.7%) and rural areas (relative change of 9.6%).

Across the education levels, only those that have not graduated had a statistically significant increase in noticing health warnings on cigarette packages between 2008 (79.7%) and 2012 (89.4%). However, although they were more likely to notice the health warnings than their other counterparts, they were the least likely to think about quitting smoking because of them and there was no significant increase in thinking about quitting between 2008 and 2012 among this group.

Those with a university degree had the largest increase in thinking about quitting because of the warning label, with 36.9% in 2008 and 48.7% in 2012. These are then followed by high school graduates (42.8% in 2008 and 52.5% in 2012).

Between 2008 and 2012, there has been a significant increase (13.3% in 2008 and 15.7% in 2012 relative change of 18.3%) among those that noticed any advertisement, sponsorship and promotion (Figure 10.4),

while there was a non-significant increase in those that noticed advertisement in stores where cigarettes are sold.

An increase between 2008 and 2012 in noticing advertisement in both stores where cigarettes are bought and noticing any advertisement, promotion and sponsorship was largest among women, those 25 years of age and older, and those in rural areas.

An increase between 2008 and 2012 in noticing any advertisement, promotion, and sponsorship was largest among those that had not graduated, followed by those with a primary education. In contrast, the only significant decrease between 2008 and 2012 in noticing any advertisement, promotion, and sponsorship was observed in those with a university education level.

Between 2008 and 2012, women experienced a significant increase in noticing cigarette advertisements in both stores where cigarettes are bought (1.8% in 2008 and 3.3% in 2012), as well as any advertisement, promotion, and sponsorship (9.6% in 2008 and 13.0% in 2012). There was no significant increase observed among men.

Between 2008 and 2012, those 25+ years old experienced a significant increase in noticing cigarette advertisements in both stores where cigarettes are bought (2.2% in 2008 and 3.6% in 2012) as well as any advertisement, promotion, and sponsorship (11.2% in 2008 and 14.7% in 2012). In contrast, there was no significant change among the younger age group, 15–24.

Between 2008 and 2012, those in rural areas experienced a significant increase in noticing cigarette advertisements in both stores where cigarettes are bought (1.4% in 2008 and 2.3% in 2012) as well as any advertisement, promotion, and sponsorship (10.7% in 2008 and 13.7% in 2012). There no significant change among those in urban settings.

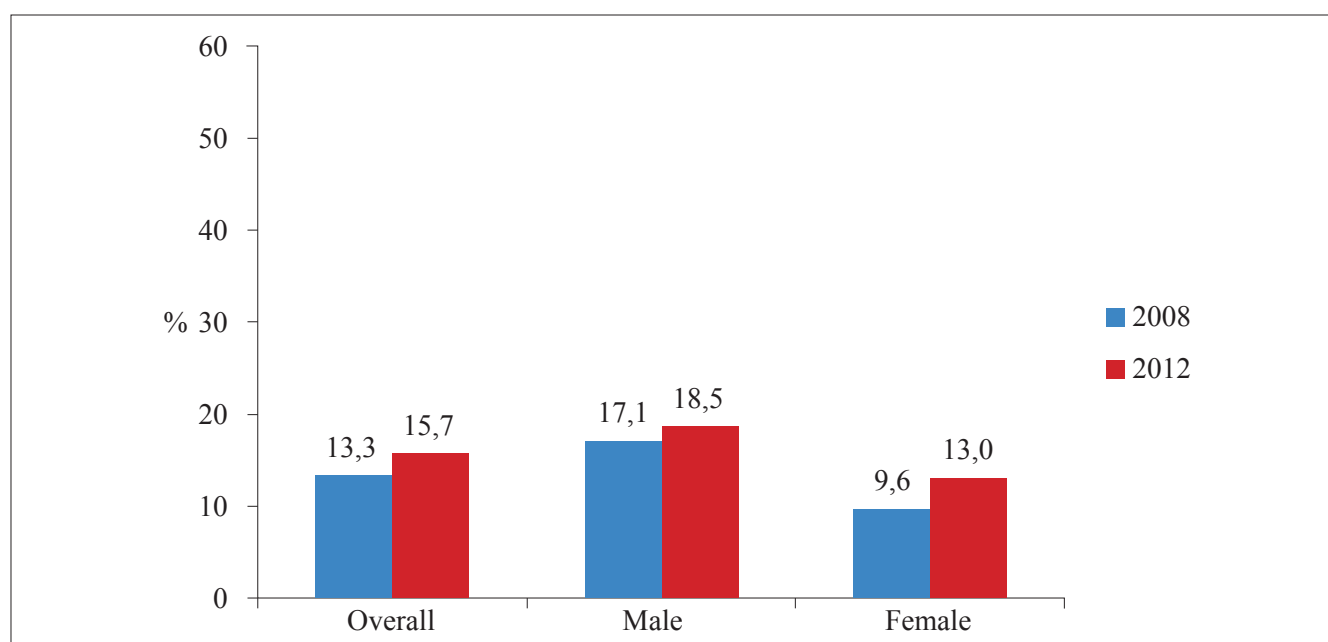
Between 2008 and 2012, an increase in noticing any advertisement, promotion, and sponsorship was largest among those that had not graduated (6.4% in 2008 and 11.3% in 2012), followed by those with a primary education (10.1% in 2008 and 12.9% in 2012). There was an insignificant increase among those with secondary or high school education level.

In contrast, the only significant decrease between 2008 and 2012 in noticing any advertisement, promotion and sponsorship was observed in those with a university education level (22.3% in 2008 and 17.6% in 2012).

There were insignificant increases between 2008 and 2012 in noticing advertisements in stores where cigarettes are sold across all educational levels.



**Figure 10.4: Noticing any cigarette advertisement, promotion, or sponsorship in the past 30 days by gender, GATS Turkey, 2008 and 2012.**



## 10.6 Knowledge, Attitudes, and Perceptions, 2008 and 2012

### Key findings

- Overall, there was a significant decrease in those that believed smoking causes serious illness, from 97.2% in 2008 to 96.2% in 2012. There was a decrease observed for men (from 97.8% in 2008 to 96.0% in 2012), while no change was observed for women.
- Overall, there was no change between 2008 and 2012 in percentages of those believing SHS causes serious illness in non-smokers.

Table 10.20 presents the percentage of adults who believe that smoking causes serious illness and that SHS (SHS) causes serious illness, by selected demographic characteristics.

Overall, there was a decrease in those that believed smoking causes serious illness, from 97.2% in 2008 to 96.2% in 2012. While this decrease is significant among men (from 97.8% in 2008 to 96.0% in 2012), and no change was observed for women. There were also decreases noticed across all age groups except for those aged 65 years and older. When looking at residence, urban residents experienced a decrease in believing that smoking causes serious illness (97.7% in 2008 and 96.3% in 2012). By educational attainment, an increase was seen among those who have not graduated, from 91.8% in 2008 to 95.0% in 2012. Decreases were seen among all other educational categories except those with university or higher, where no change was noticed.

Overall, there was no change between 2008 and 2012 in percentages of those believing SHS causes serious illness in non-smokers. Significant increases were observed among women for those believing SHS causes serious illness in non-smokers. Increases were also seen among those aged 65 years and older, rural residents, and those in the not graduated educational category.

# 11

## **CONCLUSIONS AND RECOMMENDATIONS**





## 11. Conclusions and Recommendations

The WHO FCTC sets the principles and foundations of global tobacco control. The impact-oriented measures for reducing tobacco use set out in MPOWER provide a practical, cost-effective way to scale up implementation of specific WHO FCTC provisions and help countries fight tobacco. GATS enables countries to collect data on key tobacco control indicators in the adult population. Results from GATS assist countries in the formulation, tracking, and implementation of effective tobacco control interventions.

Overall, Turkey has made considerable achievements in tobacco control during the last 15–20 years. Once a tobacco producing country, these tobacco control improvements during a relatively short time are significant. However, still there are some challenging areas. Conclusions are summarized below and divided by individual MPOWER strategies, taking change over time from GATS 2008 and 2012 into consideration. Policy recommendations have also been included.<sup>2</sup>

### **M: Monitor Tobacco Use and Prevention Strategies**

The overall prevalence of tobacco use reduced from 31.2% to 27.1% during the 4 year period between 2008 and 2012. Manufactured cigarettes were the most common form of tobacco products used (25.7%). Also, a reduction was noticed for waterpipe use from 2.3% to 0.8%.

Current smokers consumed 19.2 cigarettes on average daily; men smoked 5 cigarettes more on average daily than women (20.3 cigarettes vs. 15.3 cigarettes). A total of 14.8 million adults consumed 14.8 million packs cigarette in a day.

Although there was no change in the overall age of initiation of daily smoking between 2008 and 2012, the percent of people who started smoking below the age of 15 was reduced significantly both in urban and rural areas. The average age of initiation of smoking was 17.1 years; men started smoking one year before women (16.8 years vs. 17.9 years). Although the minimum age for purchasing tobacco products is 18, more than half (58.7%) of smokers started smoking before the legal age of 18.

### **Recommendations:**

- Although considerable reduction was achieved, smoking prevalence is still too high compared to other countries. More effort is needed to increase awareness on harms of smoking and encourage people to refrain from tobacco use.
- Ban on selling tobacco products to adolescents should be enforced to reduce youth accessibility.
- Additional studies on youth access to tobacco products are recommended.

<sup>2</sup> The policy recommendations in this chapter are consistent with the recommendations from the WHO FCTC and MPOWER. These recommendations are views expressed by the government of Turkey and are not necessarily those of the U.S. Centers for Disease Control and Prevention (CDC).

## **P: Protect People from Tobacco Smoke**

One of Turkey's biggest accomplishment is the implementation of a comprehensive smoking ban in July 2009. Compared to the 2008 figures, large and significant reductions were observed in SHS exposure in all indoor public places. Both men and women were less exposed to SHS in government buildings, health care facilities, public transport, and restaurants. In 2012, almost 90% of the adults said they were not exposed.

The Tobacco Control Law (TCL) does not include private premises such as homes or private cars as complete smoke-free places; nevertheless, SHS exposure was reduced in homes as well. This reflects the public's general understanding and adoption of smoke-free policies as beneficial to health and quality of life.

### ***Recommendations:***

- Although a great effort has been made regarding enforcement, some violations still are observed. Enforcement capacity should be enhanced and in case of violation, fines should be applied immediately.
- In order to increase the success of smoke-free implementations, more vigorous media campaigns should be done.
- Although it was lower, many people in homes or private cars were still exposed to SHS. Specific programs are needed to protect children and pregnant women in homes and private cars.

## **O: Offer Help to Quit Tobacco Use**

One in four (27.2%) of the ever daily smokers have quit. The prevalence of former daily smokers increased by age, with the greatest increase being the 65 years and over age group. One in five adults in this age group have quit (18.6%).

HCPs played an important role in smoking cessation. Although only half of HCP regularly asked their patients whether they smoked, and less than half advised to quit, HCP's interest in the smoking status of their patients increased significantly (asking increased from 49.0% to 51.4%, and giving advise increased from 40.7% to 42.9% in 2008 and 2012, respectively). More female smokers were asked about their smoking status and were advised to quit by their HCPs in 2012 compared to 2008. Use of effective cessation methods (pharmacotherapy and counseling/advise by HCP) also increased significantly in 2012.

### ***Recommendations:***

- More smoking cessation services are needed throughout the country as well as professional staff to maintain these services.
- Smoking status of people should be asked by health care professionals (family physicians) at every appointment, and smokers should be offered a cessation method, particularly those having health problems and pregnant women.

## **W: Warn People about Dangers of Tobacco**

Text and pictorial warnings on tobacco packages aim to warn people about the negative health effects of tobacco use, while discourage youths from initiating smoking, and initiation as well as encourage smokers to quit. Between 2008 and 2012, there was a significant increase (relative change of 14.4%) in those that thought about quitting because of the health warnings on cigarette packages.

A majority of current smokers had noticed health warnings (94.3%) and pictorial warnings (92.5%) on the cigarette packages during the last 30 days and about half (48.5%) of smokers thought about quitting because of pictorial labels (48.5%) and text messages warnings (53.0%). The effectiveness of the health warning labels, as measured by those thinking about quitting because of the health warnings, was most evident among females (approximately two times that of males); respondents in urban areas; those in the 25–64 years age group; and respondents having university education.

The increase in those that thought about quitting because of the health warning labels on cigarette packages is a reflection of the policy change between the 2008 and 2012 GATS, regarding of implementing pictorial warnings in 2010.

### ***Recommendations:***

- Even more effective health warnings should be put on the packages and all the messages should be changed at certain intervals (i.e., every two years).
- In addition to tar, nicotine and CO levels, information on other emissions should be written on the packages.
- Specific curricula should be developed and integrated into school programs on hazards of smoking and benefits of not smoking.
- Vigorous media campaigns and public conferences should be organized to increase awareness on dangers of smoking.
- Information on public opinion and perception regarding harms of tobacco use should be collected.

## **E: Enforce Ban on Advertisement, Promotion and Sponsorship of Tobacco Products**

The percentage of noticing any anti–cigarette information during the last 30 days increased between 2008 (88.8%) and 2012 (93.5%), both among men and women and across all age groups. The most frequently mentioned places for noticing anti–cigarette information were TV and radio, which could be attributed to the large national mass media campaigns introduced in 2010.

Although the percentages were small, noticing cigarette advertisement at stores where cigarettes were sold in rural settlements increased significantly between 2008 and 2012 (1.4% and 2.3%, respectively).

### ***Recommendations:***

- Effective mechanisms should be established to trace and monitor advertising violations. Where violations occur, rapid and effective reaction should be applied.

- All possible sponsorship activities (particularly school programs) should be detected and prevented.

### **R: Raise Taxes on Tobacco**

Smokers spend 146.1 TL on manufactured cigarettes as a monthly average. Male current smokers spent 47.6 TL more than female smokers (157.6 TL vs. 110.0 TL). The average amount spent for a pack of cigarettes was 5.7 TL and was slightly more in urban areas (5.8 TL in urban vs. 5.5 TL in rural).

Overall, the amount of cigarette expenditure per month increased significantly, from 98.3 TL in 2008 (adjusted) to 146.1 TL in 2012. The increase was highest among females, those in the 25–44 and 45–64 years age groups and urban respondents. The only people that did not experience a significant increase in the cost of cigarette were those that had not graduated observed a non-significant increase.

### ***Recommendations:***

- More effective mechanism for prevention of illicit trade should be established.
- Limit of duty-free sales at arrival points should be reduced.
- The lower limit of fixed tax per pack should be increased.

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# **Appendix A. Questionnaire**

## **Global Adult Tobacco Survey (GATS) Turkey 2012 Questionnaire**

Full Study  
24 April 2012

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## Household Questionnaire

**INTRO.** [THE HOUSEHOLD SCREENING RESPONDENT SHOULD BE 18 YEARS OF AGE OR OLDER AND YOU MUST BE CONFIDENT THAT THIS PERSON CAN PROVIDE ACCURATE INFORMATION ABOUT ALL MEMBERS OF THE HOUSEHOLD. IF NEEDED, VERIFY THE AGE OF THE HOUSEHOLD SCREENING RESPONDENT TO MAKE SURE HE/SHE IS 18 YEARS OF AGE OR OLDER.]

THE HOUSEHOLD SCREENING RESPONDENT CAN BE LESS THAN 18 YEARS OLD, ONLY IF NO HOUSEHOLD MEMBERS ARE 18 YEARS OF AGE OR OLDER.]

**INTRO1.** An important survey of adult tobacco use behavior is being conducted by the Turkish Statistical Institute throughout Turkey and your household has been selected to participate. All houses selected were chosen from a scientific sample and it is very important to the success of this project that each participates in the survey. All information gathered will be kept strictly confidential. I have a few questions to find out who in your household is eligible to participate.

**HH1.** First, I'd like to ask you a few questions about your household. In total, how many persons live in this household?

[INCLUDE ANYONE WHO CONSIDERS THIS HOUSEHOLD THEIR USUAL PLACE OF RESIDENCE]

--	--

**HH2.** How many of these household members are 15 years of age or older?

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**[IF HH2 = 00 (NO HOUSEHOLD MEMBERS ≥ 15 IN HOUSEHOLD)]**

[THERE ARE NO ELIGIBLE HOUSEHOLD MEMBERS.]

THANK THE RESPONDENT FOR HIS/HER TIME.

THIS WILL BE RECORDED IN THE RECORD OF CALLS AS A CODE 201.]

**HH4both.** I now would like to collect information about only these persons that live in this household who are 15 years of age or older. Let's start listing them from oldest to youngest.

**HH4a.** What is the oldest/next oldest person's first name? \_\_\_\_\_

**HH4b.** What is this person's age?

[IF RESPONDENT DOESN'T KNOW, PROBE FOR AN ESTIMATE]

--	--	--

**[IF REPORTED AGE IS 15 THROUGH 17, BIRTH DATE IS ASKED]**

**HH4c.** What is the month of this person's date of birth?

**HH4cYEAR.** What is the year of this person's date of birth?

[IF DON'T KNOW, ENTER 7777

IF REFUSED, ENTER 9999]

**HH4d.** Is this person male or female?

MALE ..... 1

FEMALE.....2

**HH4e.** Does this person currently smoke tobacco, including cigarettes, hand-rolled cigarettes, pipes, cigars and waterpipes?

YES ..... 1

NO ..... 2

DON'T KNOW ..... 7

REFUSED ..... 9

**[REPEAT HH4a – HH4e FOR EACH PERSON REPORTED IN HH2]**

**HH5.** [NAME OF THE SELECTED ELIGIBLE PERSON IS:

**{FILL SELECTED HH MEMBER'S FIRST NAME}**

ASK IF SELECTED RESPONDENT IS AVAILABLE AND IF SO, PROCEED TO THE INDIVIDUAL QUESTIONNAIRE.

IF SELECTED RESPONDENT IS NOT AVAILABLE, MAKE AN APPOINTMENT AND RECORD IT AS A COMMENT ON RECORD OF CALLS.]

## Individual Questionnaire

**CONSENT1.** [SELECT THE APPROPRIATE AGE CATEGORY BELOW. IF NEEDED, CHECK THE AGE OF SELECTED RESPONDENT FROM THE “CASE INFO” SCREEN IN THE TOOLS MENU.]

15–17.....1 → **GO TO CONSENT2**

18 OR OLDER.....2 → **GO TO CONSENT5**

EMANCIPATED MINOR (15–17) 3 → **GO TO CONSENT5**

**CONSENT2.** Before starting the interview, I need to obtain consent from a parent or guardian of [NAME OF RESPONDENT] and from [NAME OF RESPONDENT].

[IF BOTH SELECTED RESPONDENT AND PARENT/GUARDIAN ARE AVAILABLE, CONTINUE WITH INTERVIEW.

IF PARENT/GUARDIAN IS NOT AVAILABLE, BREAK–OFF INTERVIEW AND SCHEDULE AN APPOINTMENT TO RETURN.

IF MINOR RESPONDENT IS NOT AVAILABLE, CONTINUE WITH OBTAINING PARENTAL CONSENT.]

**CONSENT3.** [READ THE FOLLOWING TO THE PARENT/GUARDIAN AND SELECTED RESPONDENT (IF AVAILABLE):]

I am working with the Turkish Statistical Institute. This institution is collecting information about tobacco use in Turkey. This information will be used for public health purposes by the Ministry of Health.

Your household and [NAME OF RESPONDENT] have been selected at random. [NAME OF RESPONDENT] responses are very important to us and the community, as these answers will represent many other persons.

The interview will last around 30 minutes. [NAME OF RESPONDENT] participation in this survey is entirely voluntary. The information that [NAME OF RESPONDENT] will provide will be kept strictly confidential and [NAME OF RESPONDENT] will not be identified by his/her responses. Personal information will not be shared with anyone else, not even other family members including you. [NAME OF RESPONDENT] can withdraw from the study at any time, and may refuse to answer any question.

We will leave the necessary contact information with you. If you have any questions about this survey, you can contact the telephone numbers listed.

If you agree with [NAME OF RESPONDENT]’s participation in this survey, we will conduct a private interview with him/her.

[ASK PARENT/GUARDIAN:] Do you agree with [NAME OF RESPONDENT]'s participation?

YES ....1→ **GO TO CONSENT4**

NO .....2→ **END INTERVIEW**

**CONSENT4.** [WAS THE SELECTED MINOR RESPONDENT PRESENT?]

PRESENT .....1→ **GO TO CONSENT6**

NOT PRESENT ...2→ **GO TO CONSENT5**

**CONSENT5.** [READ TO THE SELECTED RESPONDENT:]

I am working with the Turkish Statistical Institute. This institution is collecting information about tobacco use in Turkey. This information will be used for public health purposes by the Ministry of Health.

Your household and you have been selected at random. Your responses are very important to us and the community, as these answers will represent many other persons. The interview will last around 30 minutes. Your participation in this survey is entirely voluntary. The information that you will provide us will be kept strictly confidential, and you will not be identified by your responses. Personal information will not be shared with anyone else, not even other family members. You can withdraw from the study at any time, and may refuse to answer any question.

We will leave the necessary contact information with you. If you have any questions about this survey, you can contact the telephone numbers listed.

**{FILL IF CONSENT4=2:** Your parent/guardian has given his/her permission for you to participate in this study}

If you agree to participate, we will conduct a private interview with you.

**CONSENT6.** [ASK SELECTED RESPONDENT:] Do you agree to participate?

YES ....1→ **PROCEED WITH INTERVIEW**

NO .....2 → **END INTERVIEW**

**Section A. Background Characteristics**

**A00.** I am going to first ask you a few questions about your background.

**A01.** [RECORD GENDER FROM OBSERVATION. ASK IF NECESSARY.]

MALE .....1

FEMALE..2

**A02a.** What is the month of your date of birth?

01.....1

02.....2

03.....3

04.....4

05.....5

06.....6

07.....7

08..... 8

09..... 9

10.....10

11.....11

12.....12

DON'T KNOW        77

REFUSED.....99

**A02b.** What is the year of your date of birth?

[IF DON'T KNOW, ENTER 7777

IF REFUSED, ENTER 9999]

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**[IF MONTH=77/99 OR YEAR=7777/9999, ASK A03. OTHERWISE SKIP TO A04.]**



**A03.** How old are you?

[IF RESPONDENT IS UNSURE, PROBE FOR AN ESTIMATE AND RECORD AN ANSWER.

IF REFUSED, BREAK-OFF AS WE CANNOT CONTINUE INTERVIEW WITHOUT AGE]

--	--	--

**A03a.** [WAS RESPONSE ESTIMATED?]

YES .....1

NO .....2

DON'T KNOW ....7

**A04.** What is the highest level of education you have completed?

[SELECT ONLY ONE CATEGORY]

NOT GRADUATED .....1

ELEMENTARY SCHOOL .....2

PRIMARY EDUCATION .....3

SECONDARY SCHOOL OR EQUIVALENT .....4

HIGH SCHOOL AND EQUIVALENT .....5

COLLEGE OR FACULTY .....6

MASTER'S OR DOCTORATE DEGREE .....7

DON'T KNOW .....77

REFUSED .....99

[IF A04 = 1 OR 77, GO TO A12. OTHERWISE, GO TO A05.]

**A12.** Are you literate?

YES .....1

NO .....2

REFUSED .....9

**A05.** Which of the following best describes your \*main\* work status over the past 12 months?  
Government employee, non-government employee, self-employed, student, homemaker, retired,  
unemployed-able to work, or unemployed-unable to work?

[INCLUDE SUBSISTENCE FARMING AS SELF-EMPLOYED]

GOVERNMENT EMPLOYEE .....	1
NON-GOVERNMENT EMPLOYEE.....	2
SELF-EMPLOYED .....	3
STUDENT .....	4
HOMEMAKER .....	5
RETIRED.....	6
UNEMPLOYED, ABLE TO WORK .....	7
UNEMPLOYED, UNABLE TO WORK .....	8
DON'T KNOW .....	77
REFUSED.....	99

**A06.** Please tell me whether this household or any person who lives in the household has the following items:

YES	NO	DON'T KNOW	REFUSED
▼	▼	▼	▼

- a. Electricity?..... 1.....2.....7.....9
- b. Flush toilet?..... 1.....2.....7.....9
- b1. Sewage connection..... 1.....2.....7.....9
- c. Fixed telephone?..... 2.....7.....9
- d. Cell telephone?..... 2.....7.....9
- e. Television?..... 1.....2.....7.....9
- f. Radio?..... 1.....2.....7.....9
- g. Refrigerator?..... 1.....2.....7.....9
- j. Washing machine?..... 7.....9
- h. Car?..... 1.....2.....7.....9
- i. Motorcycle?..... 1.....2.....7.....9

## Section B. Tobacco Smoking

**B00.** I would now like to ask you some questions about \*smoking\* tobacco, including cigarettes, hand-rolled cigarettes, pipes, cigars and waterpipes. Please do not answer about smokeless tobacco at this time.

**B01.** Do you \*currently\* smoke tobacco on a daily basis, less than daily, or not at all?

DAILY.....1→ **SKIP TO B04**

LESS THAN DAILY .2

NOT AT ALL .....3→ **SKIP TO B03**

DON'T KNOW .....7→ **SKIP TO NEXT SECTION**

REFUSED.....9→ **SKIP TO NEXT SECTION**

**B02.** Have you smoked tobacco daily in the past?

YES.....1→ **SKIP TO B08**

NO.....2→ **SKIP TO B10**

DON'T KNOW .....7→ **SKIP TO B10**

REFUSED.....9→ **SKIP TO B10**

**B03.** In the \*past\*, have you smoked tobacco on a daily basis, less than daily, or not at all?

[IF RESPONDENT HAS DONE BOTH “DAILY” AND “LESS THAN DAILY” IN THE PAST, CHECK “DAILY”]

DAILY.....1→ **SKIP TO B11**

LESS THAN DAILY .2→ **SKIP TO B13**

NOT AT ALL .....3→ **SKIP TO NEXT SECTION**

DON'T KNOW .....7→ **SKIP TO NEXT SECTION**

REFUSED.....9→ **SKIP TO NEXT SECTION**

**[CURRENT DAILY SMOKERS]**

**B04.** How old were you when you first started smoking tobacco \*daily\*?

[IF DON'T KNOW OR REFUSED, ENTER 99]

--	--

**[IF B04 = 99, ASK B05. OTHERWISE SKIP TO B06.]**

**B05.** How many years ago did you first start smoking tobacco \*daily\*?

[IF REFUSED, ENTER 99]

--	--

**B06.** On average, how many of the following products do you currently smoke each day? Also, let me know if you smoke the product, but not every day.

[IF RESPONDENT REPORTS SMOKING THE PRODUCT BUT NOT EVERY DAY, ENTER 888]

IF RESPONDENT REPORTS IN PACKS OR CARTONS, PROBE TO FIND OUT HOW MANY ARE IN EACH AND CALCULATE TOTAL NUMBER]

a. Manufactured cigarettes?				PER DAY
a1. [IF B06a=888] On average, how many manufactured cigarettes do you currently smoke each week?				PER WEEK
b. Hand-rolled cigarettes?				PER DAY
b1. [IF B06b=888] On average, how many hand-rolled cigarettes do you currently smoke each week?				PER WEEK
d. Pipes full of tobacco?				PER DAY
d1. [IF B06d=888] On average, how many pipes full of tobacco do you currently smoke each week?				PER WEEK
e. Cigars?				PER DAY
e1. [IF B06e=888] On average, how many cigars do you currently smoke each week?				PER WEEK
f. Number of waterpipe sessions per day?				PER DAY
f1. [IF B06f=888] On average, how many waterpipe sessions do you currently participate in each week?				PER WEEK
g. Any others? (→ g1. Please specify the other type you currently smoke each day: _____)				PER DAY
g2. [IF B06g=888] On average, how many [FILL PRODUCT] do you currently smoke each week?				PER WEEK

**B07.** How soon after you wake up do you usually have your first smoke? Would you say within 5 minutes, 6 to 30 minutes, 31 to 60 minutes, or more than 60 minutes?

WITHIN 5 MINUTES .....1

6 TO 30 MINUTES.....2

31 TO 60 MINUTES.....3

MORE THAN 60 MINUTES 4

REFUSED.....9

[SKIP TO NEXT SECTION]

[CURRENT LESS THAN DAILY SMOKERS]

**B08.** How old were you when you first started smoking tobacco \*daily\*?

[IF DON'T KNOW OR REFUSED, ENTER 99]

--	--

**[IF B08 = 99, ASK B09. OTHERWISE SKIP TO B10.]**

**B09.** How many years ago did you first start smoking tobacco \*daily\*?

[IF REFUSED, ENTER 99]

--	--

**B10.** How many of the following do you currently smoke during a usual week?

[IF RESPONDENT REPORTS DOING THE ACTIVITY \*WITHIN THE PAST 30 DAYS\*, BUT LESS THAN ONCE PER WEEK, ENTER 888

IF RESPONDENT REPORTS IN PACKS OR CARTONS, PROBE TO FIND OUT HOW MANY ARE IN EACH AND CALCULATE TOTAL NUMBER]

a.	Manufactured cigarettes?				PER WEEK
b.	Hand-rolled cigarettes?				PER WEEK
d.	Pipes full of tobacco?				PER WEEK
e.	Cigars?				PER WEEK
f.	Number of waterpipe sessions per week?				PER WEEK
g.	Any others?				PER WEEK

→ g1. Please specify the other type you currently smoke during a usual week:

\_\_\_\_\_

**[SKIP TO NEXT SECTION]**

**[FORMER SMOKERS]**

**B11.** How old were you when you first started smoking tobacco \*daily\*?

[IF DON'T KNOW OR REFUSED, ENTER 99]

--	--

**[IF B11 = 99, ASK B12. OTHERWISE SKIP TO B13a.]**

**B12.** How many years ago did you first start smoking tobacco \*daily\*?

[IF REFUSED, ENTER 99]

--	--

**B13a.** How long has it been since you stopped smoking?

[ONLY INTERESTED IN WHEN RESPONDENT STOPPED SMOKING REGULARLY — DO NOT INCLUDE RARE INSTANCES OF SMOKING]

ENTER UNIT ON THIS SCREEN AND NUMBER ON NEXT SCREEN]

YEARS .....1

MONTHS.....2

WEEKS.....3

DAYS.....4

LESS THAN 1 DAY ..5→ **SKIP TO B14**

DON'T KNOW .....7→ **SKIP TO NEXT SECTION**

REFUSED .....9→ **SKIP TO NEXT SECTION**

**B13b.** [ENTER NUMBER OF (YEARS/MONTHS/WEEKS/DAYS)]

--	--	--

**[IF B13a/b < 1 YEAR (< 12 MONTHS), THEN CONTINUE WITH B14. OTHERWISE SKIP TO NEXT SECTION.]**

**B14.** Have you visited a doctor or other health care provider in the past 12 months?

YES .....1

NO .....2→ **SKIP TO B18**

REFUSED .....9→ **SKIP TO B18**

**B15.** How many times did you visit a doctor or health care provider in the past 12 months? Would you say 1 or 2 times, 3 to 5 times, or 6 or more times?

1 OR 2 .....1

3 TO 5 .....2

6 OR MORE ..3

REFUSED.....9

**B16.** During any visit to a doctor or health care provider in the past 12 months, were you asked if you smoke tobacco?

YES .....1

NO.....2→ **SKIP TO B18**

REFUSED.....9→ **SKIP TO B18**

**B17.** During any visit to a doctor or health care provider in the past 12 months, were you advised to quit smoking tobacco?

YES .....1

NO.....2

REFUSED.....9

**B18.** During the past 12 months, did you use any of the following to TL to stop smoking tobacco?

YES	NO	REFUSED
▼	▼	▼

a. Counseling, including at a smoking cessation clinic? .....1.....2.....9

b. Nicotine replacement therapy, such as the patch or gum?.....1.....2.....9

c. Other prescription medications, for example Zyban, Champix?.....1.....2

d. Traditional medicines? .....1.....2.....9

e. A quit line or a smoking telephone support line? .....1.....2.....9

f. Quit without assistance? .....1.....2.....9

g. Anything else? .....1.....2.....9

→ g1. Please specify what you used to TL to stop smoking:

**BB1.** What was the most important factor which pushed you to quit smoking successfully? Would you say cigarette price, health problems, family or children asked you to quit, campaign for not smoking, difficult to find places to smoke, or another reason?

- CIGARETTE PRICE ..... 1
- HEALTH PROBLEMS ..... 2
- FAMILY OR CHILDREN ASKED FOR QUITTING ..... 3
- CAMPAIGN FOR NOT SMOKING ..... 4
- DIFFICULT TO FIND PLACES TO SMOKE ..... 5
- OTHER REASON..... 6 → **BB1a.** Please specify: \_\_\_\_\_
- DON'T KNOW ..... 7
- REFUSED ..... 9

#### Optional Section WP – Waterpipe (Shisha/Waterpipe) Module

**ROUTING:** B06f/B10f ask for the number of waterpipe smoking sessions per day/week

–IF B01=1 AND B06f>0 AND <888 (CURRENT DAILY WATERPIPE SMOKERS), GO TO WP3

–IF B01=1 AND B06f=888 (CURRENT LESS THAN DAILY WATERPIPE SMOKERS), GO TO WP3

–IF B01=2 AND B10f>0 AND <=888 (CURRENT LESS THAN DAILY WATERPIPE SMOKERS), GO TO WP3

–ELSE, GO TO NEXT SECTION

**WP3.** I would now like to ask you some questions about smoking waterpipe.

How old were you when you first started smoking a waterpipe?

[IF DON'T KNOW OR REFUSED, ENTER 99]

--	--

**WP8.** The last time you smoked a waterpipe, where did you smoke it?

- HOME.....1
- WATERPIPE CAFE.....2
- OTHER CAFE .....3



RESTAURANT .....	4
TEA HOUSE.....	5
TEA GARDEN .....	6
OTHER .....	7 → <b>WP8a.</b> Specify other place:_____
DON'T KNOW .....	77
REFUSED .....	99

**Section D1. Cessation – Tobacco Smoking**

**IF B01=1 or 2 (RESPONDENT CURRENTLY SMOKES TOBACCO), CONTINUE WITH THIS SECTION.**

**IF B01=3, 7, OR 9 (RESPONDENT DOES NOT CURRENTLY SMOKE TOBACCO), SKIP TO NEXT SECTION.**

**D01.** The next questions ask about any attempts to stop smoking that you might have made during the past 12 months. Please think about tobacco smoking.

During the past 12 months, have you tried to stop smoking?

YES.....1

NO.....2→ **SKIP TO D04**

REFUSED.....9→ **SKIP TO D04**

**D02a.** Thinking about the last time you tried to quit, how long did you stop smoking?

[ENTER UNIT ON THIS SCREEN AND NUMBER ON NEXT SCREEN]

MONTHS.....1

WEEKS.....2

DAYS.....3

LESS THAN 1 DAY (24 HOURS) 4→ **SKIP TO D03**

DON'T KNOW.....7→ **SKIP TO D03**

REFUSED.....9→ **SKIP TO D03**

**D02b.** [ENTER NUMBER OF (MONTHS/WEEKS/DAYS)]

--	--	--

**D03.** During the past 12 months, did you use any of the following to TL to stop smoking tobacco?

YES	NO	REFUSED
▼	▼	▼

a.

Counseling, including at a smoking cessation clinic

b.

Nicotine replacement therapy, such as the patch

c.

Other prescription medications, for example

d.

Traditional medicines?.....1.....2.....9

- e. A quit line or a smoking telephone support line?
- f. Quit without assistance?.....1.....2.....9
- g. Anything else?.....1.....2.....9

→ g1. Please specify what you used to TL to stop smoking:

\_\_\_\_\_

**D04.** Have you visited a doctor or other health care provider in the past 12 months?

YES.....1

NO.....2→ **SKIP TO D08**

REFUSED.....9→ **SKIP TO D08**

**D05.** How many times did you visit a doctor or health care provider in the past 12 months? Would you say 1 or 2 times, 3 to 5 times, or 6 or more times?

1 OR 2.....1

3 TO 5 .....2

6 OR MORE ..3

REFUSED.....9

**D06.** During any visit to a doctor or health care provider in the past 12 months, were you asked if you smoke tobacco?

YES.....1

NO.....2→ **SKIP TO D08**

REFUSED.....9→ **SKIP TO D08**

**D07.** During any visit to a doctor or health care provider in the past 12 months, were you advised to quit smoking tobacco?

YES.....1

NO.....2

REFUSED.....9

- D08.** Which of the following best describes your thinking about quitting smoking? I am planning to quit within the next month, I am thinking about quitting within the next 12 months, I will quit someday but not within the next 12 months, or I am not interested in quitting?

QUIT WITHIN THE NEXT MONTH.....1

THINKING WITHIN THE NEXT 12 MONTHS    2

QUIT SOMEDAY, BUT NOT NEXT 12 MONTHS.3

NOT INTERESTED IN QUITTING .....4

DON'T KNOW .....7

REFUSED .....9

**Section E. Secondhand Smoke**

**E01.** I would now like to ask you a few questions about smoking in various places.

Which of the following best describes the rules about smoking inside of your home: Smoking is allowed inside of your home, smoking is generally not allowed inside of your home but there are exceptions, smoking is never allowed inside of your home, or there are no rules about smoking in your home?

ALLOWED.....1

NOT ALLOWED, BUT EXCEPTIONS      2

NEVER ALLOWED.....3→ **SKIP TO E04**

NO RULES .....4→ **SKIP TO E03**

DON'T KNOW .....7→ **SKIP TO E03**

REFUSED .....9→ **SKIP TO E03**

**E02.** Inside your home, is smoking allowed in every room?

YES.....1

NO.....2

DON'T KNOW ....7

REFUSED.....9

**E03.** How often does \*anyone\* smoke inside your home? Would you say daily, weekly, monthly, less than monthly, or never?

DAILY.....1

WEEKLY .....2

MONTHLY .....3

LESS THAN MONTHLY4

NEVER .....5

DON'T KNOW .....7

REFUSED.....9

**E04.** Do you currently work outside of your home?

YES .....1

NO/DON'T WORK .....2→ **SKIP TO E09**

REFUSED .....9→ **SKIP TO E09**

**E05.** Do you usually work indoors or outdoors?

INDOORS .....1→ **SKIP TO E07**

OUTDOORS .....2

BOTH .....3→ **SKIP TO E07**

REFUSED .....9

**E06.** Are there any indoor areas at your work place?

YES .....1

NO .....2→ **SKIP TO E09**

DON'T KNOW ....7→ **SKIP TO E09**

REFUSED .....9→ **SKIP TO E09**

**E07.** Which of the following best describes the indoor smoking policy where you work: Smoking is allowed anywhere, smoking is allowed only in some indoor areas, smoking is not allowed in any indoor areas, or there is no policy?

ALLOWED ANYWHERE .....1

ALLOWED ONLY IN SOME INDOOR AREAS 2

NOT ALLOWED IN ANY INDOOR AREAS 3

THERE IS NO POLICY .....4

DON'T KNOW .....7

REFUSED .....9

**E08.** During the past 30 days, did anyone smoke in indoor areas where you work?

YES .....1

NO .....2

DON'T KNOW ....7

REFUSED .....9

**E08a. [ONLY ADMINISTERED IF E08 = YES]**

How often does anyone smoke in indoor areas where you work? Would you say daily, weekly, monthly, or less than monthly?

DAILY .....1

WEEKLY .....2

MONTHLY .....3

LESS THAN MONTHLY 4

DON'T KNOW .....7

REFUSED .....9

**E09. During the past 30 days, did you visit any government buildings or government offices?**

YES .....1

NO .....2 → **SKIP TO E11**

DON'T KNOW ....7 → **SKIP TO E11**

REFUSED .....9 → **SKIP TO E11**

**E10. Did anyone smoke inside of any government buildings or government offices that you visited in the past 30 days?**

YES .....1

NO .....2

DON'T KNOW ....7

REFUSED .....9

**E11. During the past 30 days, did you visit any health care facilities?**

YES .....1

NO .....2 → **SKIP TO E13**

DON'T KNOW ....7 → **SKIP TO E13**

REFUSED .....9 → **SKIP TO E13**

**E12.** Did anyone smoke inside of any health care facilities that you visited in the past 30 days?

YES .....1

NO .....2

DON'T KNOW ....7

REFUSED .....9

**E13.** During the past 30 days, did you visit any restaurants?

YES .....1

NO .....2 → **SKIP TO E27**

DON'T KNOW ....7 → **SKIP TO E27**

REFUSED .....9 → **SKIP TO E27**

**E14.** Did anyone smoke inside of any restaurants that you visited in the past 30 days?

YES .....1

NO .....2

DON'T KNOW ....7

REFUSED .....9

**E27.** During the past 30 days, did you visit any cafes, coffee shops, or tea houses?

YES .....1

NO .....2 → **SKIP TO E19**

DON'T KNOW ....7 → **SKIP TO E19**

REFUSED .....9 → **SKIP TO E19**

**E28.** Did anyone smoke inside of any cafes, coffee shops, or tea houses that you visited in the past 30 days?

YES .....1

NO .....2

DON'T KNOW ....7

REFUSED .....9



**E19.** During the past 30 days, did you visit any schools or educational facilities?

YES .....1

NO .....2→ **SKIP TO E15**

DON'T KNOW ....7→ **SKIP TO E15**

REFUSED .....9→ **SKIP TO E15**

**E20.** Did anyone smoke inside of any schools or educational facilities that you visited in the past 30 days?

YES .....1

NO .....2

DON'T KNOW ....7

REFUSED .....9

**E15.** During the past 30 days, did you use any public transportation?

YES .....1

NO .....2→ **SKIP TO EE1**

DON'T KNOW ....7→ **SKIP TO EE1**

REFUSED .....9→ **SKIP TO EE1**

**E16.** Did anyone smoke inside of any public transportation that you used in the past 30 days?

YES .....1

NO .....2

DON'T KNOW ....7

REFUSED .....9

**EE1.** During the last 30 days, did you use a taxi or just see a taxi?

YES .....1

NO .....2→ **SKIP TO EE2**

DON'T KNOW ....7→ **SKIP TO EE2**

REFUSED .....9→ **SKIP TO EE2**

**EE1a.** Did anyone smoke inside any taxis that you used or saw in the last 30 days?

YES .....1

NO .....2

DON'T KNOW ....7

REFUSED .....9

**EE2.** Is smoking allowed in your private car?

YES .....1

NO .....2 → **SKIP TO E17**

DON'T HAVE A CAR      3 → **SKIP TO E17**

DON'T KNOW .....7

REFUSED .....9

**EE2a.** How often does \*anyone\* smoke in your car? Would you say daily, weekly, monthly, less than monthly, or never?

DAILY .....1

WEEKLY .....2

MONTHLY .....3

LESS THAN MONTHLY 4

NEVER .....5

DON'T KNOW .....7

REFUSED .....9

**E17.** Based on what you know or believe, does breathing other people's smoke cause serious illness in non-smokers?

YES .....1

NO .....2

DON'T KNOW ....7

REFUSED .....9

**E18.** Based on what you know or believe, does breathing smoke from other people's cigarettes cause any of the following?

YES	NO	DON'T KNOW	REFUSED
▼	▼	▼	▼

- a. Heart disease in adults?.....7.....9
- b. Lung illnesses in children?.....7.....9
- c. Lung cancer in adults?.....7.....9
- d. Low birth weight (<2.5 kilograms)?.....9

**Section F. Economics – Manufactured Cigarettes**

**IF [B01\_1 OR 2 (RESPONDENT CURRENTLY SMOKES DAILY OR LESS THAN DAILY) AND**

**[(B06a OR B10a)>0 AND <=888 (RESPONDENT SMOKES MANUFACTURED CIGARETTES)],**

**THAN CONTINUE WITH THIS SECTION.**

**OTHERWISE, SKIP TO NEXT SECTION.**

**F01a.** The next few questions are about the last time you purchased cigarettes for yourself to smoke.

The last time you bought cigarettes for yourself, how many cigarettes did you buy?

[ENTER UNIT ON THIS SCREEN AND NUMBER ON NEXT SCREEN]

CIGARETTES .....1

PACKS .....2

CARTONS .....3

OTHER (SPECIFY).....4 → F01c. [SPECIFY THE UNIT]: \_\_\_\_\_

NEVER BOUGHT CIGARETTES 5 → **SKIP TO NEXT SECTION**

REFUSED .....9 → **SKIP TO F03**

**F01b.** [ENTER NUMBER OF (CIGARETTES/PACKS/CARTONS/OTHER)]

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**[IF F01a=CIGARETTES, GO TO F02]**

**[IF F01a=PACKS, GO TO F01dPack]**

**[IF F01a=CARTONS, GO TO F01dCart]**

**[IF F01a=OTHER, GO TO F01dOther]**

**F01dPack.** Did each pack contain 10 sticks, 20 sticks, or another amount?

10.....1

20.....2

OTHER AMOUNT 7 → F01dPackA. How many sticks were in each pack?

REFUSED .....9

**[GO TO F02]**

**F01dCart.** Did each carton contain 100 sticks, 200 sticks, or another amount?

100.....1

200.....2

OTHER AMOUNT      3 → F01dCartA. How many sticks were in each carton?

REFUSED.....9

**[GO TO F02]**

**F01dOther.** How many sticks were in each {OTHER}?

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**[GO TO F02]**

**F02.** In total, how much money did you pay for this purchase?

[IF DON'T KNOW OR REFUSED, ENTER 999]

--

**RANGE: 1 – 500**

**F04.** The last time you purchased cigarettes for yourself, where did you buy them?

VENDING MACHINE.....1

STORE.....2

STREET VENDOR.....3

DUTY-FREE SHOP.....5

OUTSIDE THE COUNTRY..6

KIOSKS.....7

FROM ANOTHER PERSON 9

OTHER.....10 → **F04a.** [SPECIFY LOCATION]:\_\_\_\_\_

DON'T REMEMBER.....77

REFUSED.....99

**FF1 .** Does the cigarette package you usually use have any tax stamp?

YES .....1

NO.....2

DON'T KNOW ....7

REFUSED.....9

**FF2 .** Would you say the cigarette package you usually use has pictorial health warnings in Turkish, has pictorial health warnings but in a foreign language, or does not have any pictorial health warnings?

PICTORIAL HEALTH WARNINGS IN TURKISH.....1

PICTORIAL HEALTH WARNINGS IN FOREIGN LANGUAGE 2

NO PICTORIAL HEALTH WARNINGS .....3

DON'T KNOW .....7

REFUSED.....9

## Section G. Media

**G01intro.** The next few questions ask about your exposure to the media and advertisements in the last 30 days.

**G01.** In the last 30 days, have you noticed \*information\* about the dangers of smoking cigarettes or that encourages quitting in any of the following places?

YES	NO	NOT APPLICABLE	REFUSED
▼	▼	▼	▼

- a. In newspapers or in magazines?..... 9
- b. On television?..... 1..... 2..... 7..... 9
- c. On the radio?..... 1..... 2..... 7..... 9
- d. On billboards?..... 1..... 2..... 7..... 9
- e. On the Internet?..... 1..... 2..... 7..... 9
- f. Somewhere else?..... 2..... 9

[DO NOT INCLUDE HEALTH WARNINGS ON CIGARETTE PACKAGES]

→ f1. Please specify where: \_\_\_\_\_

**G02.** In the last 30 days, did you notice any health warnings on cigarette packages?

YES.....1

NO.....2→ **SKIP TO G04**

DID NOT SEE ANY CIGARETTE PACKAGES 3→ **SKIP TO G04**

REFUSED.....9→ **SKIP TO G04**

**G03.** [ADMINISTER IF B01 = 1 OR 2. ELSE GO TO GG1]

In the last 30 days, have warning labels on cigarette packages led you to think about quitting?

YES.....1

NO.....2

DON'T KNOW....7

REFUSED.....9

**GG1.** In the last 30 days, did you notice any \*pictorial\* health warnings (images, pictures) on cigarette packages?

YES .....1

NO .....2 → **SKIP TO G04**

REFUSED .....9 → **SKIP TO G04**

**GG2. [ADMINISTER IF G03=1. ELSE GO TO G04]**

In the last 30 days, have \*pictorial\* health warnings (images, pictures) on cigarette packages led you to think about quitting?

YES .....1

NO .....2

DON'T KNOW ....7

REFUSED .....9

**G04.** In the last 30 days, have you noticed any \*advertisements or signs promoting\* cigarettes in the following places?

YES	NO	NOT APPLICABLE	REFUSED
▼	▼	▼	▼

a. In stores where cigarettes are sold? ..... 1 ..... 2 ..... 7 ..... 9

b. On television? ..... 1 ..... 2 ..... 7 ..... 9

c. On the radio? ..... 1 ..... 2 ..... 7 ..... 9

d. On billboards? ..... 1 ..... 2 ..... 7 ..... 9

e. On posters? ..... 1 ..... 2 ..... 7 ..... 9

f. In newspapers or magazines? ..... 1 ..... 2 ..... 7 ..... 9

g. In cinemas? ..... 1 ..... 2 ..... 7 ..... 9

h. On the internet? ..... 1 ..... 2 ..... 7 ..... 9

i. On public transportation vehicles or stations? ... 1 ..... 2 ..... 7 ..... 9

j. On public walls? ..... 1 ..... 2 ..... 7 ..... 9

k. Anywhere else? ..... 1 ..... 2 ..... 9

→ k1. Please specify where: \_\_\_\_\_



**G05.** In the last 30 days, have you noticed any sport or sporting event that is associated with cigarette brands or cigarette companies?

YES.....1

NO.....2

DON'T KNOW....7

REFUSED.....9

**G05a.** In the last 30 days, have you noticed any music, theatre, art, or fashion events that are associated with cigarette brands or cigarette companies?

YES.....1

NO.....2

DON'T KNOW7

REFUSED.....9

**G06.** In the last 30 days, have you noticed any of the following types of cigarette promotions?

YES	NO	DON'T KNOW	REFUSED
▼	▼	▼	▼

a. Free samples of cigarettes?.....1.....2.....7.....9

d. Free gifts or special discount offers on other products when buying cigarettes?.....1.....2.....7.....9

e. Clothing or other items with a cigarette brand name or logo?.....1.....2.....7.....9

**GG3.** In the last 30 days, did you see any video clips on TV that show patients talking about the harms of smoking?

YES.....1

NO.....2→ **SKIP TO SECTION H**

DON'T KNOW....7→ **SKIP TO SECTION H**

REFUSED.....9→ **SKIP TO SECTION H**

**GG4.** [ADMINISTER IF B01 = 1 OR 2. ELSE GO TO SECTION H]

Did the video clips encourage you to think about quitting smoking?

YES .....1

NO.....2

DON'T KNOW ....7

REFUSED.....9

## Section H. Knowledge, Attitudes & Perceptions

**H01.** The next question is asking about \*smoking\* tobacco.

Based on what you know or believe, does smoking tobacco cause serious illness?

YES.....1

NO.....2

DON'T KNOW....7

REFUSED.....9

**H02.** Based on what you know or believe, does smoking tobacco cause the following...

YES	NO	DON'T KNOW	REFUSED
▼	▼	▼	▼

- a. Stroke (blood clots in the brain that may cause paralysis)? .....1.....2.....7.....9
- b. Heart attack?.....1.....2.....7.....9
- c. Lung cancer?.....1.....2.....7.....9
- d. Bladder cancer?.....1.....2.....7.....9
- e. Stomach cancer?.....1.....2.....7.....9
- f. Chronic lung disease?.....1.....2.....7.....9
- g. Bone loss?.....1.....2.....7.....9
- h. Impotence?.....1.....2.....7.....9
- i. Premature birth?.....1.....2.....7.....9

**H04.** Do you favor or oppose the law that prohibits smoking in indoor workplaces and public places, such as restaurants and bars?

FAVOR.....1

OPPOSE.....2

DON'T KNOW 7

REFUSED.....9

**H05.** Would you favor or oppose increasing taxes on tobacco products?

FAVOR.....1

OPPOSE.....2

DON'T KNOW        7

REFUSED.....9

**H06.** Would you favor or oppose a law prohibiting all advertisements for tobacco products?

FAVOR.....1

OPPOSE.....2

DON'T KNOW        7

REFUSED.....9

## Section PHW. Pictorial Health Warning

**PHWcomp.** [IF B01=1 OR 2 (Current Smoker), GO TO PHW1. ELSE GO TO END QUESTIONNAIRE.]

**PHW1.** [INTERVIEWER: TAKE OUT THE PICTORIAL HEALTH WARNING PICTURES AND SHOW THEM TO THE RESPONDENT]

[NOTE: THE INTERVIEWERS WILL HAVE HARD COPIES OF THESE PICTURES TO SHOW TO THE RESPONDENTS]

Picture 1	Picture 2	Picture 3	Picture 4
Smokers die younger	Smoking clogs the arteries and causes heart attacks and strokes	Smoking Causes Fatal lung cancer	Smoking when pregnant harms your baby



Picture 5	Picture 6	Picture 7	Picture 8
Protect children: don't make them breathe your smoke	Stopping smoking reduces the risk of fatal heart and lung diseases	Smoking can cause a slow and painful death	You can get help from the nearest health centre



Picture 9	Picture 10	Picture 11	Picture 12
Smoking may reduce the blood flow and causes impotence	Smoking causes ageing of the skin	Smoking can damage the sperm and decreases fertility	Your doctor can help you stop smoking



Picture 13	Picture 14
Smoking is highly addictive don't start	Smoke contains benzene, nitrosamines, formaldehyde and hydrogen cyanide



**PHW2.** Of these pictorial health warnings, which one makes you want to quit smoking the most?

PICTURE 1 SMOKERS DIE YOUNGER.....	1
PICTURE 2 SMOKING CLOGS THE ARTERIES AND CAUSES HEART ATTACKS AND STROKES.....	2
PICTURE 3 SMOKING CAUSES FATAL LUNG CANCER.....	3
PICTURE 4 SMOKING WHEN PREGNANT HARMS YOUR BABY.....	4
PICTURE 5 PROTECT CHILDREN: DON'T MAKE THEM BREATHE YOUR SMOKE .....	5
PICTURE 6 STOPPING SMOKING REDUCES THE RISK OF FATAL HEART AND LUNG DISEASES.....	6
PICTURE 7 SMOKING CAN CAUSE A SLOW AND PAINFUL DEATH.....	7
PICTURE 8 YOU CAN GET HELP FROM THE NEAREST HEALTH CENTRE .....	8
PICTURE 9 SMOKING MAY REDUCE THE BLOOD FLOW AND CAUSES IMPOTENCE.....	9
PICTURE 10 SMOKING CAUSES AGEING OF THE SKIN.....	10
PICTURE 11 SMOKING CAN DAMAGE THE SPERM AND DECREASES FERTILITY .....	11
PICTURE 12 YOUR DOCTOR CAN HELP YOU STOP SMOKING .....	12
PICTURE 13 SMOKING IS HIGHLY ADDICTIVE DON'T START.....	13
PICTURE 14 SMOKE CONTAINS BENZENE, NITROSAMINES, FORMALDEHYDE AND HYDROGEN CYANIDE.....	14
NONE OF THEM.....	15
DON'T KNOW.....	77
REFUSED.....	99

## **End Individual Questionnaire**

**I00.** Those are all of the questions I have. Thank you very much for participating in this important survey.

**I02.** [RECORD ANY NOTES ABOUT INTERVIEW:]

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## Appendix B. Sample Design

### Geographical Coverage

All settlements in Turkey were covered in the sample selection, except for villages with populations less than 200. These small villages were not included in the survey because they had too few households to attain a sufficient block size.

### Covered Population

All persons aged 15 and over living in private households in Turkey were covered. Residents of schools, dormitories, hotels, kindergartens, rest homes for the elderly, hospitals and prisons, military barracks and recreation quarters for officers were not included.

### Estimation Level and Sample Size

The sample size was calculated according to the requirements of GATS Sample Design Manual (at least 8000 completed respondent questionnaires, with 2000 each for urban men and women, and rural men and women). Based on the results of the 2008 Turkey GATS, the sample size calculated as initially 11 595 and final sample size considered as 11 536 households for 2012 GATS. Table B1 shows the eligibility rates and detailed computations are shown below. Table B2 shows the sample allocation by residence (urban/rural).

Since non-response was also taken into account when calculating the sample size, substitutions for households or individuals were not used in the survey.

**Table B1. Response and Eligibility Rates for 2008 GATS results**

Response and Eligibility Rates	Percentage
Household Eligibility Rate (HER)	0.88
Household Response Rate (HRR)	0.94
Household Screening Rate (HSR)	0.94
Person Eligibility Rate (PER)	1.00
Person Response Rate – Men (PRR Men)	0.88
Person Response Rate – Women (PRR Women)	0.89

Male Sample Size =  $4000 / (\text{PER} * \text{PRR Men}) = 4000 / (1000 * 0.882) = 4536$

Female Sample Size =  $4000 / (\text{PER} * \text{PRR Women}) = 4000 / (1000 * 0.888) = 4506$

Initial Total Sample Size =  $(\text{Male Sample Size} + \text{Female Sample Size}) / (\text{HER} * \text{HSR} * \text{HRR}) = (4536 + 4506) / (0.884 * 0.939 * 0.939) = 11\ 595$



**Table B2. Number of Sample Households by Residence (urban/rural)**

Residence	Total
Urban	5768
Rural	5768
Total	11 536

**Sampling method:**

The sampling method of the Turkey GATS 2012 survey was a three-stage, stratified systematic cluster sampling method.

**First Stage**

In the first stage, 206 clusters from urban areas and 206 clusters from rural areas were selected, for a total of 412 clusters (Primary Sampling Units (PSU)). For urban areas and rural areas with organized municipalities, the selection was done to yield a PSU size of approximately 300 addresses. In rural areas, without organized municipalities the villages having greater than 200 addresses were identified as a PSU. Selection of first stage was done by using PPS. Table B3 shows the sample allocation by residence. (urban/rural)

**Table B3. Number of Sample PSU's by Residence (urban/rural)**

Residence	Total
Urban	206
Rural	206
Total	412

**Second Stage**

In the second stage, 28 households were selected systematically within each selected PSU.

**Third Stage**

In the last stage, one eligible individual aged 15 years old or older was selected randomly from each selected household, using a roster of all eligible members of the household.

**Address Frame**

The frame used in sampling was the National Address Database (dated January 2012), which is the basis of the 2007 Address Based Population Registry System. Updating the Address Based Population Registry System also provided updates on the National Address Database; hence households were selected directly from National Address Database without having to use address-listing procedures

**Stratification Criterion**

Settlements with populations 20 000 and below were defined as “rural”, while settlements with populations 20 001 and over were defined as “urban”.

## Sampling Distribution

In the urban areas, 5768 households were selected within the 206 selected PSU, 28 households from each PSU. A total of 4917 eligible individuals who lived in the selected households were interviewed. Similarly, 5768 households were selected from within 206 selected rural PSU, 28 households from each selected PSU. A total of 4934 eligible individuals who lived in the selected households were interviewed.

## Weighting:

Weighting is a method used to obtain parameters from the data set resulting from sampling so as to represent the universe. A three-step weighting procedure was used in accordance with the GATS Sample Weights Manual.

First stage of weighting: Base weights were calculated, which were inversely proportional to the overall selection probabilities for each sample respondent. Calculations at this stage included probabilities for the selection of PSU, households, and eligible individuals. Base weights were calculated using these probabilities, based on household and individual.

Second stage of weighting: In the second stage, base weights were adjusted to compensate for losses in the sample outcome due to non-response. In this stage, household-level non-response adjustment was made by using un-weighted data on the PSU base; individual-level non-response adjustment was made by using weighted data on PSU base.

The household-level non-response adjustment was made by applying the following household-level response rate calculation formula, based on each PSU:

Household-Level Response Rate =  $[1] / ([1] + [3] + [4] + [5] + [6] + [9])$ .

Where,

1 = Completed Household Questionnaire, One Person Selected

2 = Completed Household Questionnaire, No One Selected

3 = Completed Part of Household Questionnaire, Could Not Finished Roster (Incomplete Interview)

4 = Household Questionnaire Not Complete, Could Not Identify Appropriate Screening Respondent

5 = Nobody Home

6 = Household Refusal

9 = Other Household Non response

Household-level adjustment values were then calculated by using  $1/(\text{Household-Level Response Rate})$  for each PSU.

**Table B4. List of all household-level non-response adjustment factors by PSU.**

	PSU	Household-level non-response adjustment factors	PSU	Household-level non-response adjustment factors	PSU	Household-level non-response adjustment factors	PSU	Household-level non-response adjustment factors
URBAN	1001	1.0800	1053	1.1304	1105	1.0000	1157	1.0000
URBAN	1002	1.0769	1054	1.1667	1106	1.0769	1158	1.0833
URBAN	1003	1.0800	1055	1.0400	1107	1.0385	1159	1.0000
URBAN	1004	1.0000	1056	1.1250	1108	1.1250	1160	1.0385
URBAN	1005	1.0000	1057	1.1818	1109	1.2174	1161	1.0000
URBAN	1006	1.1739	1058	1.0000	1110	1.0000	1162	1.1818
URBAN	1007	1.0833	1059	1.0000	1111	1.0000	1163	1.0370
URBAN	1008	1.0000	1060	1.0000	1112	1.0400	1164	1.0000
URBAN	1009	1.0909	1061	1.1739	1113	1.0000	1165	1.2174
URBAN	1010	1.0800	1062	1.0833	1114	1.3333	1166	1.0833
URBAN	1011	1.2273	1063	1.4000	1115	1.3500	1167	1.0000
URBAN	1012	1.1739	1064	1.1250	1116	1.2727	1168	1.0833
URBAN	1013	1.0833	1065	1.4444	1117	1.0000	1169	1.0800
URBAN	1014	1.0800	1066	1.0909	1118	1.0385	1170	1.1250
URBAN	1015	1.0385	1067	1.0833	1119	1.1250	1171	1.1250
URBAN	1016	1.0000	1068	1.3889	1120	1.0000	1172	1.0370
URBAN	1017	1.1200	1069	1.0000	1121	1.0385	1173	1.1667
URBAN	1018	1.0800	1070	1.4118	1122	1.0400	1174	1.1250
URBAN	1019	1.0385	1071	1.0769	1123	1.3333	1175	1.0769
URBAN	1020	1.2857	1072	1.5333	1124	1.2000	1176	1.0833
URBAN	1021	1.0833	1073	1.1364	1125	1.0417	1177	1.0800
URBAN	1022	1.2273	1074	1.1250	1126	1.0769	1178	1.0370
URBAN	1023	1.1818	1075	1.0000	1127	1.1905	1179	1.2857
URBAN	1024	1.1739	1076	1.0000	1128	1.2273	1180	1.3889
URBAN	1025	1.1739	1077	1.0370	1129	1.0000	1181	1.1739
URBAN	1026	1.1739	1078	1.1304	1130	1.0000	1182	1.0000
URBAN	1027	1.1200	1079	1.0769	1131	1.0800	1183	1.2500
URBAN	1028	1.1739	1080	1.0000	1132	1.0370	1184	1.2727
URBAN	1029	1.0833	1081	1.0400	1133	1.2500	1185	1.1667
URBAN	1030	1.3333	1082	1.0833	1134	1.0000	1186	1.4211
URBAN	1031	1.1200	1083	1.1739	1135	1.0000	1187	1.0000
URBAN	1032	1.0000	1084	1.1200	1136	1.0800	1188	1.3684
URBAN	1033	1.2857	1085	1.0833	1137	1.0370	1189	1.4000
URBAN	1034	1.1667	1086	1.0769	1138	1.0000	1190	1.0370
URBAN	1035	1.1200	1087	1.1739	1139	1.0385	1191	1.0385
URBAN	1036	1.1667	1088	1.2174	1140	1.0833	1192	1.1500
URBAN	1037	1.1667	1089	1.3000	1141	1.1250	1193	1.0000
URBAN	1038	1.0400	1090	1.1667	1142	1.0400	1194	1.0000
URBAN	1039	1.0000	1091	1.0370	1143	1.0000	1195	1.0000
URBAN	1040	1.1200	1092	1.4706	1144	1.0385	1196	1.0357
URBAN	1041	1.0769	1093	1.1200	1145	1.3158	1197	1.1739
URBAN	1042	1.0833	1094	1.0800	1146	1.0000	1198	1.0800

**Table B4. List of all household-level non-response adjustment factors by PSU.**  
 (... continuation)

	PSU	Household-level non-response adjustment factors	PSU	Household-level non-response adjustment factors	PSU	Household-level non-response adjustment factors	PSU	Household-level non-response adjustment factors
URBAN	1043	1.0000	1095	1.0385	1147	1.0385	1199	1.1200
URBAN	1044	1.0385	1096	1.0833	1148	1.0769	1200	1.2727
URBAN	1045	1.2000	1097	1.1304	1149	1.0000	1201	1.1304
URBAN	1046	1.0000	1098	1.0385	1150	1.1739	1202	1.0800
URBAN	1047	1.1200	1099	1.1200	1151	1.1250	1203	1.1304
URBAN	1048	1.0385	1100	1.0455	1152	1.1250	1204	1.2273
URBAN	1049	1.1304	1101	1.0370	1153	1.0833	1205	1.0000
URBAN	1050	1.0800	1102	1.2273	1154	1.1667	1206	1.0000
URBAN	1051	1.0769	1103	1.2273	1155	1.2174		
URBAN	1052	1.0870	1104	1.1818	1156	1.0000		
RURAL	1207	1.0833	1259	1.1200	1311	1.0769	1363	1.0385
RURAL	1208	1.0000	1260	1.0400	1312	1.0400	1364	1.0000
RURAL	1209	1.0000	1261	1.0833	1313	1.1250	1365	1.1667
RURAL	1210	1.1667	1262	1.1304	1314	1.0385	1366	1.0435
RURAL	1211	1.0385	1263	1.1739	1315	1.2727	1367	1.0000
RURAL	1212	1.3684	1264	1.0385	1316	1.0417	1368	1.0800
RURAL	1213	1.0769	1265	1.0000	1317	1.5625	1369	1.0000
RURAL	1214	1.2381	1266	1.0000	1318	1.0909	1370	1.0000
RURAL	1215	1.1364	1267	1.0800	1319	1.2381	1371	1.0000
RURAL	1216	1.4000	1268	1.0000	1320	1.0833	1372	1.0000
RURAL	1217	1.0769	1269	1.0000	1321	1.0370	1373	1.0370
RURAL	1218	1.0833	1270	1.0000	1322	1.0769	1374	1.0000
RURAL	1219	1.1739	1271	1.2941	1323	1.0000	1375	1.1818
RURAL	1220	1.0870	1272	1.0769	1324	1.0385	1376	1.0000
RURAL	1221	1.0000	1273	1.2500	1325	1.0000	1377	1.1250
RURAL	1222	1.0370	1274	1.0385	1326	1.0000	1378	1.0385
RURAL	1223	1.0000	1275	1.0833	1327	1.0000	1379	1.0357
RURAL	1224	1.0000	1276	1.0000	1328	1.0357	1380	1.0370
RURAL	1225	1.1200	1277	1.0385	1329	1.0000	1381	1.1250
RURAL	1226	1.1200	1278	1.0000	1330	1.0400	1382	1.3333
RURAL	1227	1.2381	1279	1.0370	1331	1.0385	1383	1.1739
RURAL	1228	1.2500	1280	1.0385	1332	1.0370	1384	1.0833
RURAL	1229	1.0769	1281	1.0800	1333	1.0000	1385	1.0000
RURAL	1230	1.0000	1282	1.4375	1334	1.0000	1386	1.1905
RURAL	1231	1.0800	1283	1.2381	1335	1.1739	1387	1.0000
RURAL	1232	1.0000	1284	1.2174	1336	1.0370	1388	1.0385
RURAL	1233	1.0000	1285	1.1364	1337	1.0370	1389	1.2273
RURAL	1234	1.2174	1286	1.1739	1338	1.1200	1390	1.1200
RURAL	1235	1.0417	1287	1.1250	1339	1.0000	1391	1.0833
RURAL	1236	1.0000	1288	1.0000	1340	1.0000	1392	1.0370
RURAL	1237	1.0800	1289	1.0417	1341	1.0000	1393	1.2857

**Table B4. List of all household-level non-response adjustment factors by PSU.  
(... continuation)**

	PSU	Household-level non-response adjustment factors	PSU	Household-level non-response adjustment factors	PSU	Household-level non-response adjustment factors	PSU	Household-level non-response adjustment factors
RURAL	1238	1.1667	1290	1.0385	1342	1.0800	1394	1.3125
RURAL	1239	1.0800	1291	1.0000	1343	1.1200	1395	1.0000
RURAL	1240	1.5882	1292	1.1250	1344	1.3500	1396	1.0000
RURAL	1241	1.0370	1293	1.0000	1345	1.0000	1397	1.0000
RURAL	1242	1.3158	1294	1.3750	1346	1.1667	1398	1.0000
RURAL	1243	1.2273	1295	1.0370	1347	1.8667	1399	1.0000
RURAL	1244	1.6667	1296	1.0000	1348	1.0000	1400	1.0357
RURAL	1245	1.0526	1297	1.0400	1349	1.1579	1401	1.0000
RURAL	1246	1.0769	1298	1.0357	1350	1.0417	1402	1.0000
RURAL	1247	1.0800	1299	1.1200	1351	1.0385	1403	1.1667
RURAL	1248	1.0800	1300	1.1667	1352	1.0385	1404	1.2273
RURAL	1249	1.2632	1301	1.1667	1353	1.0000	1405	1.1304
RURAL	1250	1.1200	1302	1.0417	1354	1.2727	1406	1.0800
RURAL	1251	1.1200	1303	1.0833	1355	1.0800	1407	1.2381
RURAL	1252	1.4000	1304	1.1250	1356	1.1200	1408	1.0000
RURAL	1253	1.1667	1305	1.0769	1357	1.1667	1409	1.0000
RURAL	1254	1.1250	1306	1.0000	1358	1.0000	1410	1.0000
RURAL	1255	1.1739	1307	1.0769	1359	1.0370	1411	1.1200
RURAL	1256	1.1304	1308	1.0870	1360	1.0400	1412	1.0800
RURAL	1257	1.1200	1309	1.0800	1361	1.0000		
RURAL	1258	1.0833	1310	1.6667	1362	1.0000		

Next level of nonresponse adjustment related with Individual-level was made by applying the following individual-level response rate calculation formula, based on each PSU:

Individual-Level Response Rate =  $[11] / ([11]+[12]+[14]+[15]+[16]+[17])$ .

Where,

11= Completed Individual Questionnaire

12 = Incomplete Interview

13 = Selected Individual Was Later Determined to Be Ineligible for GATS

14 = Selected Respondent Not Home

15 = Selected Respondent Refusal

16 = Selected Respondent Incompetent

17 = Other Individual Non response

Individual level adjustment values were then calculated by using  $1 / (\text{Individual Level Response Rate})$  for each weighting PSU.

**Table B5. Individual-level Non-response Adjustment Factors.**

	PSU	Individual-level non-response adjustment factors	PSU	Individual-level non-response adjustment factors	PSU	Individual-level non-response adjustment factors	PSU	Individual-level non-response adjustment factors
URBAN	1001	1.04545	1053	1.00000	1105	1.00000	1157	1.00000
URBAN	1002	1.08333	1054	1.00000	1106	1.00000	1158	1.00000
URBAN	1003	1.09836	1055	1.00000	1107	1.00000	1159	1.00000
URBAN	1004	1.00000	1056	1.00000	1108	1.00000	1160	1.00000
URBAN	1005	1.00000	1057	1.03704	1109	1.06349	1161	1.00000
URBAN	1006	1.12069	1058	1.00000	1110	1.00000	1162	1.00000
URBAN	1007	1.00000	1059	1.00000	1111	1.00000	1163	1.00000
URBAN	1008	1.00000	1060	1.00000	1112	1.00000	1164	1.00000
URBAN	1009	1.00000	1061	1.00000	1113	1.00000	1165	1.00000
URBAN	1010	1.12698	1062	1.05797	1114	1.00000	1166	1.00000
URBAN	1011	1.11321	1063	1.00000	1115	1.00000	1167	1.00000
URBAN	1012	1.00000	1064	1.00000	1116	1.00000	1168	1.00000
URBAN	1013	1.26471	1065	1.00000	1117	1.00000	1169	1.00000
URBAN	1014	1.03774	1066	1.00000	1118	1.00000	1170	1.00000
URBAN	1015	1.00000	1067	1.00000	1119	1.00000	1171	1.00000
URBAN	1016	1.00000	1068	1.00000	1120	1.00000	1172	1.00000
URBAN	1017	1.00000	1069	1.00000	1121	1.00000	1173	1.00000
URBAN	1018	1.06061	1070	1.07692	1122	1.00000	1174	1.00000
URBAN	1019	1.09091	1071	1.00000	1123	1.00000	1175	1.00000
URBAN	1020	1.09302	1072	1.06122	1124	1.00000	1176	1.06173
URBAN	1021	1.11765	1073	1.00000	1125	1.00000	1177	1.14894
URBAN	1022	1.00000	1074	1.00000	1126	1.00000	1178	1.00000
URBAN	1023	1.16279	1075	1.00000	1127	1.00000	1179	1.00000
URBAN	1024	1.00000	1076	1.00000	1128	1.00000	1180	1.00000
URBAN	1025	1.11290	1077	1.06780	1129	1.00000	1181	1.00000
URBAN	1026	1.00000	1078	1.00000	1130	1.00000	1182	1.00000
URBAN	1027	1.00000	1079	1.00000	1131	1.00000	1183	1.00000
URBAN	1028	1.04000	1080	1.10345	1132	1.00000	1184	1.00000
URBAN	1029	1.00000	1081	1.06780	1133	1.00000	1185	1.00000
URBAN	1030	1.12281	1082	1.00000	1134	1.00000	1186	1.11364
URBAN	1031	1.00000	1083	1.00000	1135	1.00000	1187	1.00000
URBAN	1032	1.00000	1084	1.00000	1136	1.00000	1188	1.00000
URBAN	1033	1.00000	1085	1.00000	1137	1.00000	1189	1.00000
URBAN	1034	1.00000	1086	1.00000	1138	1.00000	1190	1.00000
URBAN	1035	1.00000	1087	1.00000	1139	1.00000	1191	1.00000
URBAN	1036	1.00000	1088	1.00000	1140	1.00000	1192	1.00000
URBAN	1037	1.09259	1089	1.00000	1141	1.00000	1193	1.00000
URBAN	1038	1.12308	1090	1.08163	1142	1.00000	1194	1.00000
URBAN	1039	1.00000	1091	1.00000	1143	1.00000	1195	1.00000
URBAN	1040	1.00000	1092	1.00000	1144	1.00000	1196	1.00000
URBAN	1041	1.00000	1093	1.00000	1145	1.00000	1197	1.00000
URBAN	1042	1.00000	1094	1.00000	1146	1.00000	1198	1.00000
URBAN	1043	1.00000	1095	1.00000	1147	1.00000	1199	1.00000

**Table B5. Individual-level Non-response Adjustment Factors. (... continuation)**

	PSU	Individual-level non-response adjustment factors	PSU	Individual-level non-response adjustment factors	PSU	Individual-level non-response adjustment factors	PSU	Individual-level non-response adjustment factors
URBAN	1044	1.00000	1096	1.00000	1148	1.00000	1200	1.07273
URBAN	1045	1.00000	1097	1.00000	1149	1.00000	1201	1.02899
URBAN	1046	1.00000	1098	1.00000	1150	1.00000	1202	1.00000
URBAN	1047	1.00000	1099	1.17241	1151	1.00000	1203	1.00000
URBAN	1048	1.00000	1100	1.00000	1152	1.00000	1204	1.00000
URBAN	1049	1.00000	1101	1.00000	1153	1.04688	1205	1.00000
URBAN	1050	1.00000	1102	1.00000	1154	1.00000	1206	1.00000
URBAN	1051	1.00000	1103	1.00000	1155	1.00000		
URBAN	1052	1.00000	1104	1.00000	1156	1.00000		
RURAL	1207	1.000000	1259	1.042857	1311	1.000000	1363	1.000000
RURAL	1208	1.000000	1260	1.000000	1312	1.000000	1364	1.000000
RURAL	1209	1.000000	1261	1.000000	1313	1.000000	1365	1.000000
RURAL	1210	1.000000	1262	1.086207	1314	1.000000	1366	1.040816
RURAL	1211	1.000000	1263	1.000000	1315	1.000000	1367	1.000000
RURAL	1212	1.000000	1264	1.000000	1316	1.000000	1368	1.000000
RURAL	1213	1.057143	1265	1.000000	1317	1.000000	1369	1.000000
RURAL	1214	1.000000	1266	1.000000	1318	1.000000	1370	1.000000
RURAL	1215	1.000000	1267	1.000000	1319	1.044118	1371	1.000000
RURAL	1216	1.000000	1268	1.000000	1320	1.045455	1372	1.000000
RURAL	1217	1.000000	1269	1.000000	1321	1.036364	1373	1.000000
RURAL	1218	1.060606	1270	1.000000	1322	1.062500	1374	1.050000
RURAL	1219	1.038462	1271	1.000000	1323	1.000000	1375	1.044444
RURAL	1220	1.000000	1272	1.000000	1324	1.000000	1376	1.086207
RURAL	1221	1.000000	1273	1.181818	1325	1.000000	1377	1.000000
RURAL	1222	1.000000	1274	1.000000	1326	1.000000	1378	1.033333
RURAL	1223	1.000000	1275	1.153846	1327	1.000000	1379	1.000000
RURAL	1224	1.000000	1276	1.000000	1328	1.000000	1380	1.131868
RURAL	1225	1.000000	1277	1.036364	1329	1.000000	1381	1.000000
RURAL	1226	1.000000	1278	1.000000	1330	1.033898	1382	1.000000
RURAL	1227	1.069767	1279	1.000000	1331	1.000000	1383	1.000000
RURAL	1228	1.000000	1280	1.465517	1332	1.000000	1384	1.000000
RURAL	1229	1.000000	1281	1.030769	1333	1.000000	1385	1.000000
RURAL	1230	1.000000	1282	1.000000	1334	1.000000	1386	1.000000
RURAL	1231	1.000000	1283	1.000000	1335	1.093023	1387	1.000000
RURAL	1232	1.035714	1284	1.033898	1336	1.100000	1388	1.000000
RURAL	1233	1.000000	1285	1.000000	1337	1.000000	1389	1.000000
RURAL	1234	1.148936	1286	1.000000	1338	1.307692	1390	1.000000
RURAL	1235	1.089286	1287	1.000000	1339	1.000000	1391	1.000000
RURAL	1236	1.000000	1288	1.000000	1340	1.000000	1392	1.000000
RURAL	1237	1.042857	1289	1.000000	1341	1.000000	1393	1.000000
RURAL	1238	1.000000	1290	1.000000	1342	1.000000	1394	1.000000
RURAL	1239	1.000000	1291	1.000000	1343	1.000000	1395	1.000000

**Table B5. Individual-level Non-response Adjustment Factors. (... continuation)**

	PSU	Individual-level non-response adjustment factors	PSU	Individual-level non-response adjustment factors	PSU	Individual-level non-response adjustment factors	PSU	Individual-level non-response adjustment factors
RURAL	1240	1.000000	1292	1.066667	1344	1.000000	1396	1.000000
RURAL	1241	1.000000	1293	1.133333	1345	1.057143	1397	1.000000
RURAL	1242	1.121951	1294	1.000000	1346	1.000000	1398	1.000000
RURAL	1243	1.000000	1295	1.000000	1347	1.076923	1399	1.000000
RURAL	1244	1.000000	1296	1.000000	1348	1.000000	1400	1.000000
RURAL	1245	1.000000	1297	1.000000	1349	1.000000	1401	1.000000
RURAL	1246	1.000000	1298	1.000000	1350	1.000000	1402	1.000000
RURAL	1247	1.000000	1299	1.000000	1351	1.000000	1403	1.026316
RURAL	1248	1.000000	1300	1.000000	1352	1.000000	1404	1.000000
RURAL	1249	1.000000	1301	1.000000	1353	1.000000	1405	1.034483
RURAL	1250	1.000000	1302	1.096774	1354	1.000000	1406	1.172043
RURAL	1251	1.000000	1303	1.000000	1355	1.000000	1407	1.000000
RURAL	1252	1.000000	1304	1.038462	1356	1.000000	1408	1.000000
RURAL	1253	1.000000	1305	1.000000	1357	1.000000	1409	1.000000
RURAL	1254	1.000000	1306	1.000000	1358	1.000000	1410	1.000000
RURAL	1255	1.000000	1307	1.000000	1359	1.000000	1411	1.000000
RURAL	1256	1.000000	1308	1.076923	1360	1.000000	1412	1.000000
RURAL	1257	1.000000	1309	1.000000	1361	1.000000		
RURAL	1258	1.000000	1310	1.000000	1362	1.037500		

Final stage of weighting: In the final stage of weighting, calibration adjustments were carried out on weighted data to adjust weights to known population totals, using the “raking ratio method”. The variables used for calibration were age groups, the non-institutional projected population age 15 and older as of 15 May 2012, gender, rural/urban and Nomenclature of Units for Territorial Statistics ((NUTS)–Level 1). First, an adjustment was done on NUTS–Level 1 and rural/urban bases. Second, an adjustment was done on age groups and gender bases; the other adjustments were iteratively. Finally, weights were adjusted to the age 15 and older non-institutional population as of 15 May 2012. Thus, final weights were obtained. Education was not included as that population information was not available.

Tables B6.1, B6.2, B6.3, B6.4 and B6.5 Shows the calibration adjustment factors.

**Table B6.1. The First Calibration Adjustment Factors (by NUTS1, Urban/Rural Status)**

NUTS1 Level	Urban	Rural
1	0.998	0.920
2	0.998	1.117
3	0.944	1.030
4	0.933	1.025
5	0.890	0.884
6	1.027	1.066
7	0.994	1.265
8	0.883	1.247



NUTS1 Level	Urban	Rural
9	0.698	1.012
10	0.689	0.894
11	1.333	1.171
12	1.081	1.421

**Table B6.2. The Second Calibration Adjustment Factors (by Urban/Rural Status, Gender, Age Group)**

Age group	Male	Female
15–24	1.303	1.188
25–34	1.197	0.976
35–44	1.045	0.911
45–54	0.899	0.872
55–64	0.902	0.835
65+	0.881	0.849

**Table B6.3. The Third Calibration Adjustment Factors (by NUTS1, Urban/Rural Status)**

NUTS1 Level	Urban	Rural
1	0.993	1.034
2	1.033	1.059
3	1.007	1.038
4	0.986	1.031
5	0.998	1.023
6	0.992	1.015
7	1.006	1.018
8	1.012	1.050
9	1.009	1.016
10	0.961	0.985
11	0.966	0.960
12	0.969	0.963

**Table B6.4. The Fourth Calibration Adjustment Factors by Sex (by using projected population)**

Residence	Total
Male	1,186
Female	1,186

**Table B6.5. The Last Calibration Adjustment Factors by Residence**

Residence	Total
Urban	1,0000013
Rural	0,9999999

## Assuring the quality of the weights

After the completion of weighting procedures, the multiplicative effect (Meff), which indicates whether there is a need to adjust the weights for minimum and maximum extreme values, was calculated. The multiplicative effect formula is defined in the GATS Sample Weights Manual as follows:

$$Meff_w = 1 + \frac{s_w^2}{\bar{w}^2}$$

$$Meff_w = 1 + \frac{s_w^2}{\bar{w}^2}$$

Where,  $s_w^2$  is variance of the weight,  $\bar{w}$  is mean of the weights. Meff was found to be 1.5277 by using this formula. This value is within the normal limits and less than predicted maximum value (2.0); no adjustment was needed on calculated weights. So, there was no need for any extreme value adjustment on calculated weights.

**Table B7. Multiplicative Effect (Meff) by Residence (Urban/Rural)**

Residence	Meff
Overall	1.5277
Urban	1.2623
Rural	1.3903

## Other Computational Checks

To validate whether the calibration reflected the distribution of the known population by urban/rural status, sample weights were computed by strata. Appendix Table B8 reveals that the population counts were the same as the sum of the sample weights by urban/rural age group /sex status.

**Table B8. Sum of Final Weights by Residence (Urban/Rural Status)**

Residence	Sample weights	Population count
Urban	39 294 827	39 294 828
Rural	15 306 397	15 306 396
Total	54 601 223	54 601 224

## Producing the Estimates

All tables were created using weighted data. Standard error of the estimates were produced calculations, developed by SAS, were done based on desirable variables and are given with the confidence intervals in the tables. SAS codes were prepared by the GATS Committee. Standard error calculations were made by using the module in SAS/STAT 9.1 (see Appendix B: Variance Estimation for details).

## Appendix C. Estimates of Sampling Errors

The estimates from a sample survey are affected by two types of error: (1) non-sampling errors, and (2) sampling errors. *Non-sampling errors* are the result of errors or mistakes that cannot be attributable to sampling and were made in implementing data collection and data processing, such as errors in coverage, response errors, non-response errors, faulty questionnaires, interviewer recording errors, data processing errors, etc. Although numerous efforts were made during the implementation of GATS in Turkey to minimize those errors, non-sampling errors are impossible to avoid and difficult to evaluate statistically.

The sample of respondents selected in the GATS Turkey was only one of the samples that could have been selected from the same population, using the same design and sample size. Each of these samples would yield results that differed somewhat from the results of the actual sample selected. *Sampling errors* are a measure of the variability between all possible samples. The extent of variability is not known exactly, but can be estimated statistically from the survey results.

The following sampling error measures are presented for each of the selected indicator:

**Estimate (R):** Weighted prevalence estimate of the indicator

**Standard Error (SE):** Sampling errors are usually measured in terms of standard errors for particular estimate or indicator (R). Standard error of an estimate is thus simply the square root of the variance of that estimate, and is computed in the same units as the estimate.

**Sample Size (n):** Total number of observations used to calculate the prevalence estimate (R).

**Design Effect (Deff):** *Design effect* denoted by 'deff' is the ratio of the actual variance of an indicator, under the sampling method used in the survey, to the variance calculated under the assumption of simple random sampling. A DEFF value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a DEFT value above 1.0 indicates the increase in the standard error due to the use of a more complex sample design. In general, for a well-designed survey, DEFT usually ranges from 1 to 3. It is common, however, for DEFT to be much larger, up to 7 or 8.

**Relative Standard Error (RSE):** Relative standard error also known as coefficient of variation (CV) is the ratio of the standard error to the value of the indicator.

**Margin of Error (MOE):** Margin of error is computed as the product of the desired confidence measure and the standard error of the estimate. The level of confidence is usually based on a value (Z) of the standard normal distribution. For example, for a 95% level of confidence, we can use  $Z=1.96$ .

**Confidence Limits ( $R \pm 1.96SE$ ):** are calculated to show the interval within which the true value for the population can be reasonably assumed to fall. For any given statistic calculated from the survey, the value of that statistics will fall within a range of plus or minus two times the standard error of the statistic in 95 percent of all possible samples of identical size and design.

### Calculation of Standard Error:

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the GATS Turkey sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulae. For the calculation of sampling errors from GATS Turkey data, SPSS complex samples version 18 was used. The Taylor linearization method of variance estimation was used for survey estimates that are means or proportions.

The Taylor linearization method treats any percentage or average as a ratio estimate,  $r = y/x$ , where  $y$  represents the total sample value for variable  $y$ , and  $x$  represents the total number of cases in the group or subgroup under consideration. The variance of  $r$  is computed using the formula given below:

$$E^2(r) = \text{var}(r) = \frac{1-f}{x^2} \sum_{h=1}^2 \left[ \frac{m_h}{m_h-1} \left( \sum_{i=1}^{m_h} Z_h^2 - \frac{Z_h^2}{m_h} \right) \right]$$

in which,  $Z_h = y_h - \pi_h$ , and  $Z_h = y_h - \pi_h$

$$E^2(r) = \text{var}(r) = \frac{1-f}{x^2} \sum_{h=1}^2 \left[ \frac{m_h}{m_h-1} \left( \sum_{i=1}^{m_h} Z_h^2 - \frac{Z_h^2}{m_h} \right) \right]$$

$Z_h = y_h - \pi_h$ ,  $Z_h = y_h - \pi_h$ ,  $Z_h = y_h - \pi_h$ ,  $Z_h = y_h - \pi_h$  where  $h$  (=1 or 2) represents the stratum which is urban or rural,

$m_h$  is the total number of PSUs selected in the  $h$ th stratum,

$y_{hi}$  is the sum of the weighted values of variable  $y$  in the  $i$ th PSU in the  $h$ th stratum,

$x_{hi}$  is the sum of the weighted number of cases in the  $i$ th PSU in the  $h$ th stratum, and

$f$  is the overall sampling fraction, which is so small that it is ignored.

The results are presented in this appendix for the country as a whole, for urban and rural areas, and for gender. For each variable or indicator, the type of statistic (mean, proportion, or rate) and the base population are given in **Table C-1**. In addition to the standard error (SE) described above, **Tables C-2 to C-6** includes the value of the estimate (R), the sample size (n), the design effect (DEFF), the relative standard error (SE/R), margin of error (MOE) and the 95 percent confidence limits ( $R \pm 1.96SE$ ), for each indicator.

**Table C–1: List of Indicators for Sampling Errors, GATS Turkey, 2012.**

<b>Indicator</b>	<b>Estimate</b>	<b>Base Population</b>
Current Tobacco Smokers	Proportion	Adults $\geq$ 15 years old
Current Cigarette Smokers	Proportion	Adults $\geq$ 15 years old
Daily Tobacco Smokers	Proportion	Adults $\geq$ 15 years old
Daily Cigarette Smokers	Proportion	Adults $\geq$ 15 years old
Former Daily Tobacco Smokers Among All Adults	Proportion	Adults $\geq$ 15 years old
Former Tobacco Smokers Among Ever Daily Tobacco Smokers	Proportion	Adults $\geq$ 15 years old
Time to First Smoke within 5 minutes of waking	Proportion	Adults $\geq$ 15 years old
Time to First Smoke within 6–30 minutes of waking	Proportion	Adults $\geq$ 15 years old
Smoking Quit Attempt in the Past 12 Months	Proportion	Adults $\geq$ 15 years old
Health Care Provider Asked about Smoking	Proportion	Adults $\geq$ 15 years old
Health Care Provider Advised Quitting Smoking	Proportion	Adults $\geq$ 15 years old
Use of Pharmacotherapy for Smoking Cessation	Proportion	Ever daily tobacco users $\geq$ 15 years old
Use of Counseling/Advice or Quit Lines for Smoking Cessation	Proportion	Adults $\geq$ 15 years old
Planning to quit, thinking about quitting or will quit smoking	Proportion	Ever daily tobacco smokers $\geq$ 15 years old
Exposure to SHS at Home	Proportion	Daily tobacco users $\geq$ 15 years old
Exposure to SHS at Workplace	Proportion	Daily tobacco users $\geq$ 15 years old
Exposure to SHS in Government Building/Offices	Proportion	Current smokers and former smokers who have been abstinent for less than 12 months
Exposure to SHS in Health Care Facilities	Proportion	Current smokers and former smokers who have been abstinent for less than 12 months and who visited a HCP during the past 12 months
Exposure to SHS in Restaurants	Proportion	Current smokers and former smokers who have been abstinent for less than 12 months and who visited a HCP during the past 12 months
Exposure to SHS in Public Transportation	Proportion	Current smokers and former smokers who have been abstinent for less than 12 months
Last cigarette purchased in store	Proportion	Current smokers $\geq$ 15 years old
Last cigarette purchased at street vendor	Proportion	Adults $\geq$ 15 years old
Last cigarette purchased at kiosk	Proportion	Adults who work indoors
Noticed Anti–tobacco Information on radio or television	Proportion	Adults $\geq$ 15 years old
Noticed Health Warning Labels on Cigarette Packages	Proportion	Current manufactured cigarette smokers $\geq$ 15 years old
Thinking of Quitting Because of Health Warning Labels on Cigarette Package	Proportion	Current manufactured cigarette smokers $\geq$ 15 years old

Indicator	Estimate	Base Population
Noticed Any Cigarette Advertisement or Promotion	Proportion	Adults $\geq$ 15 years old
Believes that Tobacco Smoking Causes Serious Illness	Proportion	Adults $\geq$ 15 years old
Believes that Tobacco Smoking Causes Strokes	Proportion	Adults $\geq$ 15 years old
Believes that Tobacco Smoking Causes Heart Attacks	Proportion	Adults $\geq$ 15 years old
Believes that Tobacco Smoking Causes Lung Cancer	Proportion	Adults $\geq$ 15 years old
Believes that SHS Causes Serious Illness in Non-Smokers	Proportion	Adults $\geq$ 15 years old
Number of Cigarettes Smoked per Day (by daily smokers)	Mean	Current daily cigarette smokers $\geq$ 15 years old
Time since Quitting Smoking (in years)	Mean	Former smokers $\geq$ 15 years old
Monthly Expenditures on Manufactured Cigarettes	Mean	Current manufactured cigarette smokers $\geq$ 15 years old
Age at Daily Smoking Initiation	Mean	Ever daily smokers $\geq$ 15 years old
Believes that Tobacco Smoking Causes Heart Attacks	Proportion	Adults $\geq$ 15 years old
Believes that Tobacco Smoking Causes Lung Cancer	Proportion	Adults $\geq$ 15 years old
Believes that Tobacco Smoking Causes Chronic Obstructive Pulmonary Disease (COPD)	Proportion	Adults $\geq$ 15 years old
Believes that Tobacco Smoking Causes Premature Birth	Proportion	Adults $\geq$ 15 years old
Believes that Using Smokeless Tobacco Causes Serious Illness	Proportion	Adults $\geq$ 15 years old
Believes that SHS Causes Serious Illness in Non-Smokers	Proportion	Adults $\geq$ 15 years old
Number of Cigarettes Smoked per Day (by daily smokers)	Mean	Current daily cigarette smokers $\geq$ 15 years old
Time since Quitting Smoking (in years)	Mean	Former smokers $\geq$ 15 years old
Average Amount Spent on 20 Manufactured Cigarettes	Mean	Current manufactured cigarette smokers $\geq$ 15 years old
Average Amount Spent on 20 Kretek Cigarettes	Mean	Current Kretek cigarette smokers $\geq$ 15 years old
Monthly Expenditures on Manufactured Cigarettes	Mean	Current manufactured cigarette smokers $\geq$ 15 years old
Monthly Expenditures on Kretek Cigarettes	Mean	Current Kretek cigarette smokers $\geq$ 15 years old
Age at Daily Smoking Initiation	Mean	Ever daily smokers $\geq$ 15 years old

**Table C–2: Sampling Errors – Overall, GATS Turkey, 2012.**

Indicator	Estimate ( R )	Standard Error (SE)	Sample size (n)	Design Effect (DEFF)	Relative Error (SE/R)	MOE	Confidence Limits	
							Lower Limit (R–1.96SE)	Upper Limit (R+1.96SE)
Current Tobacco Smokers	0.271	0.643	9851	2.07	0.024	0.013	0.258	0.283
Current Cigarette Smokers	0.269	0.643	9851	2.07	0.024	0.013	0.257	0.282
Daily Tobacco Smokers	0.238	0.594	9851	1.92	0.025	0.012	0.226	0.250
Daily Cigarette Smokers	0.238	0.593	9851	1.92	0.025	0.012	0.226	0.249
Former Daily Tobacco Smokers Among All Adults	0.094	0.387	9851	1.72	0.041	0.008	0.087	0.102
Former Tobacco Smokers Among Ever Daily Tobacco Smokers	0.272	0.998	3309	1.66	0.037	0.020	0.253	0.292
Time to First Smoke within 5 minutes of waking	0.164	1.208	2113	2.25	0.074	0.024	0.140	0.187
Time to First Smoke within 6–30 minutes of waking	0.257	1.193	2113	1.58	0.046	0.023	0.234	0.280
Smoking Quit Attempt in the Past 12 Months	0.460	1.273	2583	1.69	0.028	0.025	0.435	0.485
Health Care Provider Asked about Smoking	0.514	1.992	1071	1.70	0.039	0.039	0.475	0.553
Health Care Provider Advised Quitting Smoking	0.429	1.946	1071	1.65	0.045	0.038	0.391	0.467
Use of Pharmacotherapy for Smoking Cessation	0.136	1.262	1199	1.62	0.093	0.025	0.112	0.161
Use of Counseling/Advice or Quit Lines for Smoking Cessation	0.080	0.824	1199	1.10	0.103	0.016	0.064	0.096
Planning to quit, thinking about quitting or will quit smoking	0.552	1.430	2412	1.99	0.026	0.028	0.524	0.580
Exposure to SHS at Home	0.383	0.967	9819	3.88	0.025	0.019	0.364	0.402
Exposure to SHS at Workplace	0.156	1.040	2365	1.94	0.066	0.020	0.136	0.177
Exposure to SHS in Government Building/ Offices	0.065	0.569	3676	1.95	0.087	0.011	0.054	0.076
Exposure to SHS in Health Care Facilities	0.038	0.395	5861	2.48	0.103	0.008	0.031	0.046
Exposure to SHS in Restaurants	0.129	0.864	3378	2.24	0.067	0.017	0.112	0.146
Exposure to SHS in Public Transportation	0.104	0.747	6481	3.87	0.072	0.015	0.090	0.119
Last cigarette purchased in store	0.913	0.973	2226	2.65	0.011	0.019	0.894	0.932
Last cigarette purchased at street vendor	0.026	0.680	2226	4.01	0.258	0.013	0.013	0.040

**Table C–2: Sampling Errors – Overall, GATS Turkey, 2012. (...continuation)**

Indicator	Estimate (R)	Standard Error (SE)	Sample size (n)	Design Effect (DEFF)	Relative Error (SE/R)	MOE	Confidence Limits	
							Lower Limit (R–1.96SE)	Upper Limit (R+1.96SE)
Last cigarette purchased at kiosk	0.043	0.616	2226	2.05	0.143	0.012	0.031	0.055
Noticed Anti–tobacco Information on radio or television	0.920	0.499	9851	3.35	0.005	0.010	0.911	0.930
Noticed Health Warning Labels on Cigarette Packages	0.943	0.742	2412	2.47	0.008	0.015	0.928	0.958
Thinking of Quitting Because of Health Warning Labels on Cigarette Package	0.530	1.481	2412	2.12	0.028	0.029	0.501	0.559
Noticed Any Cigarette Advertisement or Promotion	0.157	1.049	9851	8.20	0.067	0.021	0.136	0.177
Believes that Tobacco Smoking Causes Serious Illness	0.962	0.468	9851	5.86	0.005	0.009	0.952	0.971
Believes that Tobacco Smoking Causes Strokes	0.848	0.832	9851	5.30	0.010	0.016	0.832	0.865
Believes that Tobacco Smoking Causes Heart Attacks	0.955	0.405	9851	3.78	0.004	0.008	0.947	0.963
Believes that Tobacco Smoking Causes Lung Cancer	0.977	0.255	9851	2.88	0.003	0.005	0.972	0.982
Believes that SHS Causes Serious Illness in Non–Smokers	0.962	0.427	9851	4.93	0.004	0.008	0.954	0.971
Number of Cigarettes Smoked per Day (by daily smokers)	19.164	0.509	2110	2.63	0.027	0.998	18.166	20.162
Time since Quitting Smoking (in years)	9.532	0.339	1047	1.28	0.036	0.665	8.868	10.197
Monthly Expenditures on Manufactured (TL)	146.134	4.176	2218	2.22	0.029	8.185	137.949	154.319
Age at Daily Smoking Initiation	17.054	0.122	956	1.37	0.007	0.239	16.815	17.293



**Table C–3: Sampling Errors –Male, GATS Turkey, 2012.**

Indicator	Estimate ( R )	Standard Error (SE)	Sample size (n)	Design Effect (DEFF)	Relative Error (SE/R)	MOE	Confidence Limits	
							Lower Limit (R–1.96SE)	Upper Limit (R+1.96SE)
Current Tobacco Smokers	0.415	1.040	4470	1.99	0.025	0.020	0.394	0.435
Current Cigarette Smokers	0.413	1.044	4470	2.01	0.025	0.020	0.393	0.434
Daily Tobacco Smokers	0.373	0.991	4470	1.88	0.027	0.019	0.354	0.393
Daily Cigarette Smokers	0.373	0.994	4470	1.89	0.027	0.019	0.353	0.392
Former Daily Tobacco Smokers Among All Adults	0.144	0.653	4470	1.54	0.045	0.013	0.132	0.157
Former Tobacco Smokers Among Ever Daily Tobacco Smokers	0.269	1.147	2490	1.67	0.043	0.022	0.246	0.291
Time to First Smoke within 5 minutes of waking	0.160	1.275	1593	1.92	0.079	0.025	0.136	0.185
Time to First Smoke within 6–30 minutes of waking	0.267	1.378	1593	1.54	0.052	0.027	0.240	0.294
Smoking Quit Attempt in the Past 12 Months	0.451	1.430	1902	1.57	0.032	0.028	0.423	0.479
Health Care Provider Asked about Smoking	0.491	2.288	707	1.48	0.047	0.045	0.447	0.536
Health Care Provider Advised Quitting Smoking	0.413	2.277	707	1.51	0.055	0.045	0.368	0.458
Use of Pharmacotherapy for Smoking Cessation	0.133	1.438	868	1.55	0.108	0.028	0.105	0.162
Use of Counseling/Advice or Quit Lines for Smoking Cessation	0.075	0.957	868	1.14	0.127	0.019	0.056	0.094
Planning to quit, thinking about quitting or will quit smoking	0.538	1.638	1782	1.92	0.030	0.032	0.506	0.570
Exposure to SHS at Home	0.392	1.162	4455	2.52	0.030	0.023	0.370	0.415
Exposure to SHS at Workplace	0.178	1.233	1740	1.80	0.069	0.024	0.154	0.203
Exposure to SHS in Government Building/ Offices	0.071	0.684	2184	1.56	0.097	0.013	0.057	0.084
Exposure to SHS in Health Care Facilities	0.038	0.538	2452	1.95	0.142	0.011	0.027	0.048
Exposure to SHS in Restaurants	0.140	1.149	2014	2.21	0.082	0.023	0.117	0.162
Exposure to SHS in Public Transportation	0.107	0.937	2984	2.74	0.088	0.018	0.089	0.125
Last cigarette purchased in store	0.909	1.146	1653	2.62	0.013	0.022	0.887	0.931
Last cigarette purchased at street vendor	0.028	0.855	1653	4.41	0.304	0.017	0.011	0.045
Last cigarette purchased at kiosk	0.041	0.631	1653	1.65	0.152	0.012	0.029	0.054
Noticed Anti–tobacco Information on radio or television	0.923	0.626	4470	2.46	0.007	0.012	0.911	0.935
Noticed Health Warning Labels on Cigarette Packages	0.938	0.876	1782	2.36	0.009	0.017	0.921	0.955
Thinking of Quitting Because of Health Warning Labels on Cigarette Package	0.516	1.758	1782	2.20	0.034	0.034	0.481	0.550
Noticed Any Cigarette Advertisement or Promotion	0.185	1.248	4470	4.62	0.068	0.024	0.160	0.209

**Table C–3: Sampling Errors –Male, GATS Turkey, 2012. (...continuation)**

Indicator	Estimate ( R )	Standard Error (SE)	Sample size (n)	Design Effect (DEFF)	Relative Error (SE/R)	MOE	Confidence Limits	
							Lower Limit (R–1.96SE)	Upper Limit (R+1.96SE)
Believes that Tobacco Smoking Causes Serious Illness	0.960	0.540	4470	3.35	0.006	0.011	0.949	0.970
Believes that Tobacco Smoking Causes Strokes	0.847	1.003	4470	3.47	0.012	0.020	0.827	0.866
Believes that Tobacco Smoking Causes Heart Attacks	0.952	0.547	4470	2.90	0.006	0.011	0.941	0.962
Believes that Tobacco Smoking Causes Lung Cancer	0.975	0.332	4470	1.99	0.003	0.007	0.968	0.981
Believes that SHS Causes Serious Illness in Non–Smokers	0.960	0.457	4470	2.46	0.005	0.009	0.951	0.969
Number of Cigarettes Smoked per Day (by daily smokers)	20.313	0.511	1590	2.09	0.025	1.001	19.312	21.314
Time since Quitting Smoking (in years)	10.333	0.412	795	1.33	0.040	0.807	9.527	11.140
Monthly Expenditures on Manufactured Cigarettes	157.560	4.617	1646	1.94	0.029	9.050	148.510	166.610
Age at Daily Smoking Initiation	16.787	0.134	670	1.43	0.008	0.263	16.524	17.050

**Table C–4: Sampling Errors –Female, GATS Turkey, 2012.**

Indicator	Estimate (R)	Standard Error (SE)	Sample size (n)	Design Effect (DEFF)	Relative Error (SE/R)	MOE	Confidence Limits	
							Lower Limit (R–1.96SE)	Upper Limit (R+1.96SE)
Current Tobacco Smokers	0.131	0.589	5381	1.64	0.045	0.012	0.119	0.143
Current Cigarette Smokers	0.130	0.586	5381	1.63	0.045	0.011	0.119	0.142
Daily Tobacco Smokers	0.107	0.550	5381	1.71	0.052	0.011	0.096	0.117
Daily Cigarette Smokers	0.107	0.550	5381	1.71	0.052	0.011	0.096	0.117
Former Daily Tobacco Smokers Among All Adults	0.046	0.367	5381	1.65	0.080	0.007	0.039	0.053
Former Tobacco Smokers Among Ever Daily Tobacco Smokers	0.283	1.865	819	1.40	0.066	0.037	0.246	0.319
Time to First Smoke within 5 minutes of waking	0.174	2.150	520	1.67	0.123	0.042	0.132	0.216
Time to First Smoke within 6–30 minutes of waking	0.223	2.027	520	1.23	0.091	0.040	0.184	0.263
Smoking Quit Attempt in the Past 12 Months	0.488	2.353	681	1.51	0.048	0.046	0.442	0.534
Health Care Provider Asked about Smoking	0.563	3.140	364	1.45	0.056	0.062	0.501	0.624
Health Care Provider Advised Quitting Smoking	0.464	3.197	364	1.49	0.069	0.063	0.401	0.526
Use of Pharmacotherapy for Smoking Cessation	0.145	2.609	331	1.82	0.180	0.051	0.093	0.196
Use of Counseling/Advice or Quit Lines for Smoking Cessation	0.095	1.724	331	1.14	0.182	0.034	0.061	0.129
Planning to quit, thinking about quitting or will quit smoking	0.593	2.416	630	1.52	0.041	0.047	0.545	0.640
Exposure to SHS at Home	0.374	1.174	5364	3.16	0.031	0.023	0.351	0.397
Exposure to SHS at Workplace	0.096	1.516	625	1.66	0.159	0.030	0.066	0.125
Exposure to SHS in Government Building/ Offices	0.057	0.815	1492	1.83	0.142	0.016	0.041	0.073
Exposure to SHS in Health Care Facilities	0.039	0.478	3409	2.09	0.123	0.009	0.029	0.048
Exposure to SHS in Restaurants	0.113	1.114	1364	1.69	0.099	0.022	0.091	0.135
Exposure to SHS in Public Transportation	0.102	0.858	3497	2.82	0.084	0.017	0.085	0.119
Last cigarette purchased in store	0.925	1.452	573	1.74	0.016	0.028	0.897	0.954
Last cigarette purchased at street vendor	0.020	0.788	573	1.77	0.385	0.015	0.005	0.036
Last cigarette purchased at kiosk	0.048	1.173	573	1.71	0.242	0.023	0.025	0.071
Noticed Anti–tobacco Information on radio or television	0.918	0.551	5381	2.17	0.006	0.011	0.907	0.929
Noticed Health Warning Labels on Cigarette Packages	0.958	0.910	630	1.29	0.010	0.018	0.940	0.976
Thinking of Quitting Because of Health Warning Labels on Cigarette Package	0.575	2.322	630	1.39	0.040	0.046	0.530	0.621
Noticed Any Cigarette Advertisement or Promotion	0.130	1.074	5381	5.50	0.083	0.021	0.109	0.151
Believes that Tobacco Smoking Causes Serious Illness	0.964	0.524	5381	4.23	0.005	0.010	0.953	0.974

**Table C–4: Sampling Errors –Female, GATS Turkey, 2012. (...continuation)**

Indicator	Estimate ( R )	Standard Error (SE)	Sample size (n)	Design Effect (DEFF)	Relative Error (SE/R)	MOE	Confidence Limits	
							Lower Limit (R–1.96SE)	Upper Limit (R+1.96SE)
Believes that Tobacco Smoking Causes Strokes	0.850	0.934	5381	3.68	0.011	0.018	0.832	0.868
Believes that Tobacco Smoking Causes Heart Attacks	0.959	0.442	5381	2.67	0.005	0.009	0.950	0.968
Believes that Tobacco Smoking Causes Lung Cancer	0.980	0.304	5381	2.51	0.003	0.006	0.974	0.986
Believes that SHS Causes Serious Illness in Non–Smokers	0.964	0.502	5381	3.89	0.005	0.010	0.954	0.974
Number of Cigarettes Smoked per Day (by daily smokers)	15.271	0.798	520	1.50	0.052	1.563	13.708	16.834
Time since Quitting Smoking (in years)	7.093	0.561	252	1.24	0.079	1.101	5.992	8.193
Monthly Expenditures on Manufactured Cigarettes (TL))	109.980	5.429	572	1.27	0.049	10.640	99.340	120.620
Age at Daily Smoking Initiation	17.895	0.239	286	0.99	0.013	0.468	17.427	18.363

**Table C–5: Sampling Errors – Urban, GATS Turkey, 2012.**

Indicator	Estimate ( R )	Standard Error (SE)	Sample size (n)	Design Effect (DEFF)	Relative Error (SE/R)	MOE	Confidence Limits	
							Lower Limit (R–1.96SE)	Upper Limit (R+1.96SE)
Current Tobacco Smokers	0.290	0.823	4917	1.61	0.028	0.016	0.274	0.306
Current Cigarette Smokers	0.289	0.822	4917	1.62	0.028	0.016	0.273	0.305
Daily Tobacco Smokers	0.257	0.759	4917	1.48	0.030	0.015	0.242	0.272
Daily Cigarette Smokers	0.257	0.759	4917	1.48	0.030	0.015	0.242	0.271
Former Daily Tobacco Smokers Among All Adults	0.097	0.499	4917	1.41	0.052	0.010	0.087	0.106
Former Tobacco Smokers Among Ever Daily Tobacco Smokers	0.262	1.217	1862	1.43	0.046	0.024	0.238	0.286
Time to First Smoke within 5 minutes of waking	0.178	1.510	1238	1.93	0.085	0.030	0.148	0.207
Time to First Smoke within 6–30 minutes of waking	0.250	1.421	1238	1.33	0.057	0.028	0.222	0.277
Smoking Quit Attempt in the Past 12 Months	0.465	1.554	1498	1.45	0.033	0.030	0.435	0.496
Health Care Provider Asked about Smoking	0.528	2.381	659	1.50	0.045	0.047	0.482	0.575
Health Care Provider Advised Quitting Smoking	0.438	2.324	659	1.44	0.053	0.046	0.392	0.483
Use of Pharmacotherapy for Smoking Cessation	0.144	1.554	709	1.39	0.108	0.030	0.114	0.175
Use of Counseling/Advice or Quit Lines for Smoking Cessation	0.084	1.007	709	0.93	0.119	0.020	0.065	0.104
Planning to quit, thinking about quitting or will quit smoking	0.549	1.764	1401	1.76	0.032	0.035	0.515	0.584

**Table C–5: Sampling Errors – Urban, GATS Turkey, 2012. (...continuation)**

Indicator	Estimate ( R )	Standard Error (SE)	Sample size (n)	Design Effect (DEFF)	Relative Error (SE/R)	MOE	Confidence Limits	
							Lower Limit (R–1.96SE)	Upper Limit (R+1.96SE)
Exposure to SHS at Home	0.386	1.214	4904	3.05	0.031	0.024	0.362	0.410
Exposure to SHS at Workplace	0.146	1.137	1609	1.67	0.078	0.022	0.124	0.168
Exposure to SHS in Government Building/ Offices	0.060	0.684	2029	1.67	0.113	0.013	0.047	0.074
Exposure to SHS in Health Care Facilities	0.037	0.502	2993	2.11	0.136	0.010	0.027	0.047
Exposure to SHS in Restaurants	0.135	1.042	2080	1.93	0.077	0.020	0.114	0.155
Exposure to SHS in Public Transportation	0.110	0.928	3553	3.12	0.084	0.018	0.092	0.128
Last cigarette purchased in store	0.912	1.193	1316	2.33	0.013	0.023	0.888	0.935
Last cigarette purchased at street vendor	0.025	0.827	1316	3.71	0.332	0.016	0.009	0.041
Last cigarette purchased at kiosk	0.044	0.757	1316	1.80	0.172	0.015	0.029	0.059
Noticed Anti–tobacco Information on radio or television	0.927	0.628	4917	2.87	0.007	0.012	0.915	0.939
Noticed Health Warning Labels on Cigarette Packages	0.950	0.877	1401	2.28	0.009	0.017	0.933	0.967
Thinking of Quitting Because of Health Warning Labels on Cigarette Package	0.523	1.823	1401	1.87	0.035	0.036	0.488	0.559
Noticed Any Cigarette Advertisement or Promotion	0.165	1.405	4917	7.05	0.085	0.028	0.137	0.192
Believes that Tobacco Smoking Causes Serious Illness	0.963	0.611	4917	5.20	0.006	0.012	0.951	0.975
Believes that Tobacco Smoking Causes Strokes	0.853	1.069	4917	4.49	0.013	0.021	0.832	0.874
Believes that Tobacco Smoking Causes Heart Attacks	0.958	0.510	4917	3.18	0.005	0.010	0.948	0.968
Believes that Tobacco Smoking Causes Lung Cancer	0.979	0.318	4917	2.40	0.003	0.006	0.973	0.985
Believes that SHS Causes Serious Illness in Non–Smokers	0.964	0.559	4917	4.41	0.006	0.011	0.953	0.975
Number of Cigarettes Smoked per Day (by daily smokers)	18.919	0.640	1236	3.08	0.034	1.254	17.665	20.173
Time since Quitting Smoking (in years)	8.998	0.413	541	1.56	0.046	0.809	8.189	9.806
Monthly Expenditures on Manufactured Cigarettes (TL))	148.112	5.251	1310	2.54	0.035	10.291	137.820	158.403
Age at Daily Smoking Initiation	17.046	0.146	620	1.55	0.009	0.286	16.760	17.332

**Table C–6: Sampling Errors – Rural, GATS Turkey, 2012.**

Indicator	Estimate ( R )	Standard Error (SE)	Sample size (n)	Design Effect (DEFF)	Relative Error (SE/R)	MOE	Confidence Limits	
							Lower Limit (R–1.96SE)	Upper Limit (R+1.96SE)
Current Tobacco Smokers	0.220	0.873	4934	2.19	0.040	0.017	0.203	0.237
Current Cigarette Smokers	0.220	0.870	4934	2.18	0.040	0.017	0.203	0.237
Daily Tobacco Smokers	0.189	0.793	4934	2.03	0.042	0.016	0.174	0.205
Daily Cigarette Smokers	0.189	0.793	4934	2.02	0.042	0.016	0.173	0.204
Former Daily Tobacco Smokers Among All Adults	0.089	0.510	4934	1.58	0.057	0.010	0.079	0.099
Former Tobacco Smokers Among Ever Daily Tobacco Smokers	0.305	1.523	1447	1.58	0.050	0.030	0.275	0.335
Time to First Smoke within 5 minutes of waking	0.114	1.253	875	1.36	0.110	0.025	0.089	0.138
Time to First Smoke within 6–30 minutes of waking	0.283	2.031	875	1.78	0.072	0.040	0.243	0.322
Smoking Quit Attempt in the Past 12 Months	0.443	1.871	1085	1.54	0.042	0.037	0.406	0.479
Health Care Provider Asked about Smoking	0.457	2.939	412	1.43	0.064	0.058	0.400	0.515
Health Care Provider Advised Quitting Smoking	0.394	2.895	412	1.44	0.073	0.057	0.338	0.451
Use of Pharmacotherapy for Smoking Cessation	0.108	1.522	490	1.18	0.141	0.030	0.078	0.138
Use of Counseling/Advice or Quit Lines for Smoking Cessation	0.066	1.103	490	0.97	0.167	0.022	0.044	0.088
Planning to quit, thinking about quitting or will quit smoking	0.560	1.912	1011	1.50	0.034	0.037	0.522	0.597
Exposure to SHS at Home	0.375	1.483	4915	4.61	0.040	0.029	0.346	0.404
Exposure to SHS at Workplace	0.211	2.418	756	2.65	0.114	0.047	0.164	0.259
Exposure to SHS in Government Building/Offices	0.080	0.966	1647	2.08	0.120	0.019	0.062	0.099
Exposure to SHS in Health Care Facilities	0.042	0.553	2868	2.17	0.131	0.011	0.031	0.053
Exposure to SHS in Restaurants	0.106	1.182	1298	1.91	0.111	0.023	0.083	0.129
Exposure to SHS in Public Transportation	0.086	1.032	2928	3.97	0.120	0.020	0.066	0.106
Last cigarette purchased in store	0.917	1.305	910	2.03	0.014	0.026	0.891	0.942
Last cigarette purchased at street vendor	0.031	0.994	910	2.96	0.317	0.019	0.012	0.051
Last cigarette purchased at kiosk	0.040	0.804	910	1.52	0.199	0.016	0.025	0.056
Noticed Anti–tobacco Information on radio or television	0.903	0.750	4934	3.18	0.008	0.015	0.889	0.918
Noticed Health Warning Labels on Cigarette Packages	0.918	1.340	1011	2.42	0.015	0.026	0.892	0.945
Thinking of Quitting Because of Health Warning Labels on Cigarette Package	0.554	2.009	1011	1.65	0.036	0.039	0.515	0.593
Noticed Any Cigarette Advertisement or Promotion	0.137	1.004	4934	4.21	0.073	0.020	0.117	0.156

**Table C–6: Sampling Errors – Rural, GATS Turkey, 2012. (...continuation)**

Indicator	Estimate ( R )	Standard Error (SE)	Sample size (n)	Design Effect (DEFF)	Relative Error (SE/R)	MOE	Confidence Limits	
							Lower Limit (R–1.96SE)	Upper Limit (R+1.96SE)
Believes that Tobacco Smoking Causes Serious Illness	0.957	0.571	4934	3.95	0.006	0.011	0.946	0.969
Believes that Tobacco Smoking Causes Strokes	0.836	1.124	4934	4.54	0.013	0.022	0.814	0.858
Believes that Tobacco Smoking Causes Heart Attacks	0.948	0.607	4934	3.71	0.006	0.012	0.936	0.960
Believes that Tobacco Smoking Causes Lung Cancer	0.973	0.398	4934	2.99	0.004	0.008	0.965	0.981
Believes that SHS Causes Serious Illness in Non–Smokers	0.958	0.507	4934	3.14	0.005	0.010	0.948	0.968
Number of Cigarettes Smoked per Day (by daily smokers)	20.017	0.487	874	0.65	0.024	0.954	19.064	20.971
Time since Quitting Smoking (in years)	11.017	0.545	506	0.69	0.049	1.069	9.949	12.086
Monthly Expenditures on Manufactured Cigarettes (TL))	139.210	3.989	908	0.61	0.029	7.818	131.392	147.028
Age at Daily Smoking Initiation	17.088	0.170	336	0.56	0.010	0.334	16.754	17.421

## Appendix D. Glossary of Terms

GATS	GATS Global Adult Tobacco Survey
FCTC	FCTC World Health Organization Framework Convention on Tobacco Control
MPOWER	2008 WHO publication with six key strategies on Tobacco Control <b>M</b> onitor tobacco use and prevention policies <b>P</b> rotect people from tobacco smoke <b>O</b> ffer help to quit tobacco use <b>W</b> arn about the dangers of tobacco <b>E</b> nforce bans on tobacco advertising, promotion and sponsorship <b>R</b> aise taxes on tobacco
CDC	Centers for Disease Control and Prevention, USA
WHO	World Health Organization
MoH	Ministry of Health, Turkey
TURKSTAT	Turkish Statistical Institute
PSUs	Primary Sampling Units
SSUs	Secondary Sampling Units
Adults	Population who aged 15 years and over
SES	Socioeconomic status
PHW	Pictorial Health Warning
Tobacco Products	Two types of tobacco products; 1) Smoked tobacco: manufactured cigarettes, hand-rolled cigarettes, others smoked tobacco such as pipe, cigar, khi-yo, cheroots, water pipes, hookah, and others 2) Smokeless tobacco: snuff by keeping mouth/nose, chewing tobacco, betel quid with tobacco, and others
Smoking frequency	Classified into three categories, i.e., 1) Daily smoking means smoking at least one tobacco product every day or nearly every day over a period of a month or more 2) Occasional smoking (/less than daily) 3) Never smoking includes tried once or twice in lifetime
Current smoker	Smoker who daily and occasional smokes any tobacco product
SHS	Second-hand smoke
Exposure to secondhand smoke at home	Emphasize inside the respondent's home, not include areas outside such as patios, balcony, garden, etc. that are not fully enclosed
Prevalence (%)	Statistical concept referred to the number of occurrences of tobacco use that are present in a particular population, aged 15 years and over at a given time
Quit attempt	Current tobacco smokers who tried to quit during the past 12 months and former tobacco smokers who have been abstinences for > 12 months
Interest in quitting smoking	Current tobacco smokers who are planning or thinking about quitting smoking within the next month, 12 months, or someday
HCPs	Health Care Providers include various health professions such as medical doctors, nurses, pharmacist, health workers etc.



Exposure to secondhand smoke	Includes smoking by respondents and saw somebody smoke, smelled the smoke, or saw tobacco butts inside (indoor areas) the public places during their visit in the past 30 days, i.e., <ul style="list-style-type: none"> <li>o <i>Government Building: covering indoor areas which are non-smoking areas by the national smoke free laws</i></li> <li>o <i>Health Care Facilities: covering indoor areas of both public and private healthcare facilities which are non-smoking areas by the national smoke free laws</i></li> <li>o <i>Restaurants: covering food and/ or beverage selling place inside the building, not include place in front of any building and wayside</i></li> <li>o <i>Public Transportation: All public transport with both air conditioner and non air conditioner</i></li> </ul>
Exposure to antismoking information	Respondents who have noticed information on various media in the last 30 days about the dangers of cigarettes smoking and those encourage quitting
Thinking of quitting because of pictorial health warning on cigarettes package	Current tobacco smokers who thought about quitting smoking in the last 30 days because of the pictorial health warning on cigarettes or shredded tobacco package
Awareness of cigarettes advertising, promotion and sponsorship	Respondents who have noticed cigarettes at point of sale, free gifts or discount offers on other products when buy cigarettes, or any advertisement or signs promoting cigarettes in stores where cigarettes are sold in the last 30 days, or who have noticed any advertisement or signs promoting cigarettes of cigarettes company, sponsorship of sporting event or other that in store where cigarettes are sold in the last 30 days
Beliefs about the dangers of tobacco smoking	Respondents who believe that tobacco smoking causes serious illness and specific diseases, i.e., stroke, heart attack, lung cancer, mouth cancer, larynx cancer, impotent, and emphysema
Beliefs about the dangers of secondhand smoke	Respondents who believe that breathing other smoke causes serious illness and specific disease in non-smokers, i.e., heart disease in adults, lung illness in children, lung cancer in adults, emphysema, low birth weight (< 2,500 grams), premature birth (28–34 weeks)

## Appendix E. MPOWER Summary Indicators

Table E–1. MPOWER Summary Indicators, GATS Turkey 2012.

Indicator	Overall (%)	Gender		Residence	
		Male (%)	Female (%)	Urban (%)	Rural (%)
M: Monitor tobacco use and prevention policies					
Current tobacco smokers	27.1	41.5	13.1	29.0	22.0
Current cigarette smokers	26.9	41.3	13.0	28.9	22.0
Current manufactured cigarette smokers	25.7	39.2	12.6	27.8	20.3
Average number of cigarettes smoked per day*	19.2	20.3	15.3	18.9	20.0
Average age at daily smoking initiation*	17.1	16.8	17.9	17.0	17.1
Former daily smokers among ever daily smokers	27.2	26.9	28.3	26.2	30.5
P: Protect people from tobacco smoke					
Exposure to secondhand smoke at home at least monthly	38.3	39.2	37.4	38.6	37.5
Exposure to secondhand smoke at work	15.6	17.8	9.6	14.6	21.1
Exposure to secondhand smoke in public places:					
Government building/offices	6.5	7.1	5.7	6.0	8.0
Health care facilities	3.8	3.8	3.9	3.7	4.2
Restaurants	12.9	14.0	11.3	13.5	10.6
Public transportation	10.4	10.7	10.2	11.0	8.6
O: Offer help to quit tobacco use					
Made a quit attempt in the past 12 months	46.0	45.1	48.8	46.5	44.3
Advised to quit smoking by a health care provider	42.9	41.3	46.4	43.8	39.4
Attempted to quit smoking using a specific cessation method:					
Pharmacotherapy	13.6	13.3	14.5	14.4	10.8
Counseling/advice	8.0	7.5	9.5	8.4	6.6
Interest in quitting smoking	55.2	53.8	59.3	54.9	56.0
W: Warn about the dangers of tobacco					
Belief that tobacco smoking causes serious illness	96.2	96.0	96.4	96.3	95.7
Belief that breathing other peoples> smoke causes serious illness	96.2	96.0	96.4	96.4	95.8
Noticed anti–cigarette smoking information at any location	93.5	94.1	92.9	94.2	91.7
Thinking of quitting because of health warnings on cigarette packages	53.0	51.6	57.5	52.3	55.4
E: Enforce bans on tobacco advertising, promotion and sponsorship					
Noticed advertisements in stores where cigarettes are sold	3.6	3.9	3.3	4.1	2.3
Noticed any cigarette advertisement, sponsorship or promotion	15.7	18.5	13.0	16.5	13.7
R: Raise taxes on tobacco					
Average cigarette expenditure per month (Turkish Lira)*	146.1	157.6	110.0	148.1	139.2
Average cost of a pack of manufactured cigarettes (Turkish Lira)*	5.7	5.7	5.4	5.7	5.5
Last cigarette purchase was from a store	91.3	90.9	92.5	91.2	91.7

\* Estimate presented as number

Table E–2. MPOWER Summary Indicators, Change Over Time, GATS Turkey, 2008–2012.

Indicator	2008			2012			Relative Change (%)	
	Overall % (95% CI)	Male % (95% CI)	Female % (95% CI)	Overall % (95% CI)	Male % (95% CI)	Female % (95% CI)	Overall	Male
<b>M: Monitor tobacco use and prevention policies</b>								
Current tobacco smokers	31.2 (30.0, 32.6)	47.9 (45.9, 50.0)	15.2 (14.0, 16.5)	27.1 (25.8, 28.3)	41.5 (39.4, 43.5)	13.1 (12.0, 14.3)	-13.4+	-13.5+
Current cigarette smokers	31.1 (29.9, 32.5)	47.8 (45.7, 49.9)	15.1 (13.9, 16.4)	26.9 (25.7, 28.2)	41.3 (39.3, 43.4)	13.0 (11.9, 14.2)	-13.5+	-13.5+
Current manufactured cigarette smokers	30.1 (28.8, 31.4)	45.8 (43.7, 47.9)	14.9 (13.8, 16.2)	25.7 (24.5, 27.0)	39.2 (37.2, 41.3)	12.6 (11.5, 13.8)	-14.6+	-14.4+
Average number of cigarettes smoked per day	17.7 (17.2, 18.3)	19.3 (18.6, 19.9)	12.2 (11.2, 13.1)	19.2 (18.2, 20.2)	20.3 (19.3, 21.3)	15.3 (13.7, 16.8)	8.1+	5.5+
Average age at daily smoking initiation	16.9 (16.7, 17.1)	16.6 (16.3, 16.8)	17.8 (17.4, 18.2)	17.1 (16.8, 17.3)	16.8 (16.5, 17.1)	17.9 (17.4, 18.4)	1.0	1.4
Former smokers among ever daily smokers	26.5 (24.7, 28.3)	27.2 (25.3, 29.2)	23.9 (20.7, 27.4)	27.2 (25.3, 29.2)	26.9 (24.7, 29.2)	28.3 (24.8, 32.1)	2.8	-1.2
<b>Protect people from tobacco smoke</b>								
Exposure to secondhand smoke at home at least monthly	56.3 (54.4, 58.2)	56.1 (53.8, 58.4)	56.5 (54.3, 58.7)	38.3 (36.4, 40.2)	39.2 (37.0, 41.6)	37.4 (35.1, 39.7)	-32.0+	-30.1+
Exposure to secondhand smoke at work	37.3 (34.4, 40.2)	40.1 (36.9, 43.5)	28.1 (23.4, 33.4)	15.6 (13.7, 17.8)	17.8 (15.5, 20.4)	9.6 (7.0, 13.0)	-58.0+	-55.6+
Exposure to secondhand smoke in public places:								
Government building/offices	11.3 (9.7, 13.0)	13.0 (11.2, 15.1)	7.8 (5.6, 10.7)	6.5 (5.5, 7.7)	7.1 (5.8, 8.5)	5.7 (4.3, 7.6)	-42.1+	-45.9+
Health care facilities	6.0 (5.1, 7.0)	6.6 (5.3, 8.2)	5.5 (4.5, 6.7)	3.8 (3.1, 4.7)	3.8 (2.9, 5.0)	3.9 (3.0, 4.9)	-36.1+	-42.7+
Restaurants	55.9 (53.4, 58.4)	57.7 (54.8, 60.5)	52.3 (48.1, 56.5)	12.9 (11.3, 14.7)	14.0 (11.9, 16.4)	11.3 (9.3, 13.7)	-76.9+	-75.8+
Public Transportation	16.5 (14.8, 18.2)	18.7 (16.5, 21.1)	14.1 (12.3, 16.0)	10.4 (9.0, 12.0)	10.7 (9.0, 12.7)	10.2 (8.6, 12.0)	-36.7+	-42.7+
<b>O: Offer help to quit tobacco use</b>								
Made a quit attempt in the past 12 months	44.8 (42.5, 47.0)	44.1 (41.5, 46.6)	46.9 (42.6, 51.1)	46.0 (43.5, 48.5)	45.1 (42.3, 47.9)	48.8 (44.2, 53.4)	2.8	2.4
Advised to quit smoking by a health care provider	40.7 (37.6, 44.0)	42.2 (38.5, 46.0)	38.0 (32.8, 43.5)	42.9 (39.1, 46.8)	41.3 (36.9, 45.8)	46.4 (40.2, 52.7)	5.3	-2.2
Attempted to quit smoking using a specific cessation on method:								
Pharmacotherapy	9.3 (7.7, 11.3)	9.4 (7.4, 11.9)	9.1 (6.2, 13.2)	13.6 (11.3, 16.3)	13.3 (10.8, 16.4)	14.5 (10.0, 20.4)	45.9+	41.4+
Counseling/advice	1.8 (1.1, 3.1)	1.7 (0.8, 3.4)	2.2 (1.1, 4.5)	8.0 (6.5, 9.8)	7.5 (5.8, 9.6)	9.5 (6.6, 13.5)	335.5+	341.6+
Interest in quitting smoking	53.0 (50.1, 55.8)	53.6 (50.6, 56.5)	51.1 (46.4, 55.8)	55.2 (52.3, 58.0)	53.8 (50.6, 57.0)	59.3 (54.4, 63.9)	4.2	0.5
<b>W: Warn about the dangers of tobacco</b>								
Belief that tobacco smoking causes serious illness	97.2 (96.6, 97.7)	97.8 (97.2, 98.2)	96.7 (95.7, 97.4)	96.2 (95.1, 97.0)	96.0 (94.7, 96.9)	96.4 (95.2, 97.3)	-1.1+	-1.8+
Belief that breathing other peoples smoke causes serious illness	95.5 (94.9, 96.1)	95.9 (95.1, 96.6)	95.1 (94.2, 95.8)	96.2 (95.3, 97.0)	96.0 (95.0, 96.8)	96.4 (95.3, 97.3)	0.7	0.1
Noticed anti-cigarette smoking information at any location	88.8 (87.6, 90.0)	89.9 (88.4, 91.2)	87.8 (86.3, 89.2)	93.5 (92.5, 94.4)	94.1 (92.8, 95.2)	92.9 (91.8, 93.9)	5.3+	4.7+
Thinking of quitting because of health warnings on cigarette packages	46.3 (43.6, 49.1)	46.4 (43.2, 49.5)	46.3 (41.8, 50.8)	53.0 (50.1, 55.9)	51.6 (48.1, 55.0)	57.5 (52.9, 62.0)	14.4+	11.2+
<b>E: Enforce bans on tobacco advertising, promotion and sponsorship</b>								
Notices advertisements in stores where cigarettes are sold	2.7 (2.1, 3.5)	3.6 (2.6, 5.0)	1.8 (1.3, 2.5)	3.6 (2.7, 4.8)	3.9 (2.9, 5.3)	3.3 (2.3, 4.6)	32.4	8.2
Noticed any cigarette advertisement, sponsorship or promotion	13.3 (12.0, 14.6)	17.1 (15.3, 19.1)	9.6 (8.4, 10.9)	15.7 (13.7, 17.9)	18.5 (16.1, 21.0)	13.0 (11.0, 15.2)	18.3+	8.0
<b>R: Raise taxes on tobacco</b>								
Average cigarette expenditure per month (Turkish Lira)	98.3 (94.6, 102.1)	107.9 (103.5, 112.3)	64.1 (58.4, 69.8)	146.1 (137.9, 154.3)	157.6 (148.5, 166.6)	110.0 (99.3, 120.7)	48.6+	46.0+
Average cost of a pack of manufactured cigarettes (Turkish Lira)	4.0 (3.9, 4.1)	4.0 (3.9, 4.1)	3.8 (3.6, 3.9)	5.7 (5.6, 5.8)	5.7 (5.6, 5.9)	5.4 (5.2, 5.6)	42.1+	42.1+
Last cigarette purchase was from a store or kiosk	92.5 (90.8, 93.8)	92.7 (90.9, 94.2)	91.6 (88.4, 93.9)	91.3 (89.2, 93.0)	90.9 (88.4, 92.9)	92.5 (89.1, 94.9)	-1.3	-1.9

Note: Relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008]\*100

## Appendix F. GATS Turkey 2008 and 2012 Comparison Tables

**Table 10.1: Percentage of adults  $\geq 15$  years old, by detailed smoking status and gender – GATS Turkey, 2008 and 2012.**

Smoking Status	2008 <i>Percentage (95% CI)</i>	2012	Relative change
Overall			
Current tobacco smoker	31.2 (30.0, 32.6)	27.1 (25.8, 28.3)	−13.4+
Daily smoker	27.4 (26.2, 28.7)	23.8 (22.6, 25.0)	−13.2+
Occasional smoker	3.8 (3.4, 4.4)	3.3 (2.9, 3.7)	−14.6+
Occasional smoker, formerly daily	1.8 (1.5, 2.1)	1.5 (1.2, 1.8)	−17.0
Occasional smoker, never daily	2.0 (1.7, 2.5)	1.8 (1.5, 2.2)	−12.5
Non-smoker	68.8 (67.4, 70.0)	72.9 (71.7, 74.2)	6.1+
Former daily smoker	10.5 (9.8, 11.2)	9.4 (8.7, 10.2)	−10.1+
Never daily smoker	58.2 (57.0, 59.5)	63.5 (62.1, 64.8)	9.0+
Former occasional smoker	5.4 (4.8, 6.1)	3.7 (3.3, 4.2)	−31.4+
Never smoker	52.8 (51.5, 54.2)	59.8 (58.3, 61.2)	13.1+
Male			
Current tobacco smoker	47.9 (45.9, 50.0)	41.5 (39.4, 43.5)	−13.5+
Daily smoker	43.8 (41.8, 45.9)	37.3 (35.4, 39.3)	−14.9+
Occasional smoker	4.1 (3.4, 4.9)	4.1 (3.5, 4.9)	1.5
Occasional smoker, formerly daily	2.1 (1.6, 2.7)	2.0 (1.6, 2.5)	−6.5
Occasional smoker, never daily	2.0 (1.5, 2.6)	2.2 (1.7, 2.8)	10.2
Non-smoker	52.1 (50.0, 54.1)	58.5 (56.5, 60.6)	12.4+
Former daily smoker	17.2 (15.9, 18.5)	14.4 (13.2, 15.8)	−15.9+
Never daily smoker	34.9 (33.0, 36.9)	44.1 (42.1, 46.1)	26.3+
Former occasional smoker	4.9 (4.1, 5.8)	4.2 (3.6, 5.0)	−13.8
Never smoker	30.0 (28.1, 31.9)	39.9 (37.9, 41.9)	32.9+
Female			
Current tobacco smoker	15.2 (14.0, 16.5)	13.1 (12.0, 14.3)	−13.7+
Daily smoker	11.6 (10.5, 12.8)	10.7 (9.6, 11.8)	−7.9
Occasional smoker	3.6 (3.0, 4.3)	2.4 (2.0, 3.0)	−32.4+
Occasional smoker, formerly daily	1.5 (1.1, 1.9)	1.0 (0.7, 1.3)	−31.9+
Occasional smoker, never daily	2.1 (1.7, 2.7)	1.4 (1.1, 1.9)	−32.7+
Non-smoker	84.8 (83.5, 86.0)	86.9 (85.7, 88.0)	2.5+
Former daily smoker	4.1 (3.5, 4.8)	4.6 (3.9, 5.4)	12.6
Never daily smoker	80.7 (79.3, 82.1)	82.3 (80.9, 83.7)	1.9
Former occasional smoker	5.9 (5.0, 7.0)	3.2 (2.7, 3.9)	−45.5+
Never smoker	74.8 (73.1, 76.5)	79.1 (77.5, 80.6)	5.7+

Note: Current use includes both daily and occasional (less than daily) use; relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008]\*100

+  $p < 0.05$

**Table 10.2: Percentage of adults  $\geq 15$  years old who are current smokers of various smoked tobacco products, by selected demographic characteristics – GATS Turkey, 2008 and 2012.**

Characteristic	2008										2012										relative change	
	Any smoked tobacco product	Any cigarette <sup>1</sup>	Type of Cigarette					Type of Cigarette					Any smoked tobacco product	Other smoked tobacco <sup>2</sup>	Any cigarette <sup>1</sup>	Type of Cigarette		Water pipe	Other smoked tobacco <sup>2</sup>			
			Manufactured	Hand-rolled	Water pipe	Other smoked tobacco <sup>2</sup>	Any smoked tobacco product	Any cigarette <sup>1</sup>	Manufactured	Hand-rolled	Water Pipe	Other smoked tobacco <sup>2</sup>				Any smoked tobacco product	Any cigarette <sup>1</sup>			Manufactured	Hand-rolled	
																						Percentage (95% CI)
Overall	31.2 (30.0, 32.6)	31.1 (29.9, 32.5)	30.1 (28.8, 31.4)	2.6 (2.1, 3.2)	2.3 (1.8, 2.9)	0.9 (0.7, 1.2)	27.1 (25.8, 28.3)	26.9 (25.7, 28.2)	25.7 (24.5, 27.0)	2.6 (2.1, 3.4)	0.8 (0.6, 1.1)	0.4 (0.2, 0.7)	-13.4+	-13.5+	-14.6+	0.6	-64.9+	-58.9+				
Gender																						
Male	47.9 (45.9, 50.0)	47.8 (45.7, 49.9)	45.8 (43.7, 47.9)	4.7 (3.8, 5.8)	4.0 (3.0, 5.1)	1.6 (1.2, 2.1)	41.5 (39.4, 43.5)	41.3 (39.3, 43.4)	39.2 (37.2, 41.3)	4.6 (3.6, 5.8)	1.1 (0.7, 1.7)	0.6 (0.3, 1.3)	-13.5+	-13.5+	-14.4+	-2.7	-71.9+	-59.8+				
Female	15.2 (14.0, 16.5)	15.1 (13.9, 16.4)	14.9 (13.8, 16.2)	0.6 (0.4, 1.0)	0.7 (0.4, 1.1)	0.2 (0.1, 0.5)	13.1 (12.0, 14.3)	13.0 (11.9, 14.2)	12.6 (11.5, 13.8)	0.8 (0.5, 1.1)	0.5 (0.3, 0.9)	0.1 (0.0, 0.3)	-13.7+	-14.0+	-15.7+	22.0	-26.7	-53.7+				
Age (years)																						
15-24	25.3 (22.2, 28.6)	25.2 (22.2, 28.5)	24.5 (21.5, 27.8)	2.5 (1.6, 3.8)	4.3 (2.9, 6.4)	1.0 (0.5, 2.0)	20.0 (17.4, 22.9)	19.7 (17.1, 22.6)	19.1 (16.6, 22.0)	1.7 (1.0, 2.9)	1.5 (0.9, 2.5)	0.3 (0.1, 0.9)	-20.8+	-21.8+	-22.0+	-29.7	-64.7+	-66.7+				
25-44	39.9 (38.0, 41.9)	39.9 (37.9, 41.8)	38.8 (36.8, 40.7)	2.9 (2.2, 3.7)	2.5 (1.9, 3.3)	1.0 (0.7, 1.5)	35.7 (33.8, 37.5)	35.6 (33.8, 37.5)	34.4 (32.5, 36.2)	2.8 (2.1, 3.7)	1.0 (0.7, 1.6)	0.5 (0.2, 1.2)	-10.7+	-10.7+	-11.3+	-3.0	-59.5+	-47.4+				
45-64	29.5 (27.4, 31.6)	29.4 (27.3, 31.5)	27.9 (25.9, 30.1)	2.7 (2.1, 3.5)	0.9 (0.5, 1.5)	0.7 (0.4, 1.3)	25.9 (23.8, 28.1)	25.8 (23.7, 28.0)	23.8 (21.8, 25.9)	3.5 (2.6, 4.9)	0.1 (0.1, 0.4)	0.2 (0.1, 0.6)	-12.1+	-12.1+	-14.8+	30.5	-84.7+	-65.1+				
65+	10.3 (8.5, 12.4)	10.0 (8.2, 12.1)	9.2 (7.5, 11.3)	1.6 (0.9, 2.8)	0.2 (0.0, 0.7)	0.5 (0.2, 1.1)	8.8 (7.2, 10.7)	8.8 (7.2, 10.7)	8.0 (6.4, 9.8)	1.6 (0.9, 2.8)	0.0	0.0	-14.5	-11.9	-13.7	1.2						
Residence																						
Urban	33.0 (31.4, 34.7)	32.9 (31.3, 34.6)	32.4 (30.7, 34.0)	1.8 (1.4, 2.3)	2.9 (2.2, 3.8)	1.0 (0.7, 1.4)	29.0 (27.4, 30.7)	28.9 (27.3, 30.5)	27.8 (26.2, 29.4)	2.5 (1.8, 3.4)	1.0 (0.7, 1.4)	0.5 (0.2, 1.0)	-12.1+	-12.3+	-14.1+	37.4	-65.8+	-52.3+				
Rural	27.2 (25.3, 29.1)	27.0 (25.2, 29.0)	24.8 (23.0, 26.8)	4.5 (3.3, 6.2)	1.0 (0.6, 1.4)	0.7 (0.4, 1.1)	22.0 (20.4, 23.8)	22.0 (20.3, 23.7)	20.3 (18.7, 22.1)	3.1 (2.4, 4.0)	0.3 (0.2, 0.6)	0.1 (0.0, 0.3)	-18.9+	-18.7+	-18.2+	-31.6+	-63.9+	-84.7+				
Education Level																						
Not Graduated	15.0 (12.5, 18.0)	14.9 (12.4, 17.9)	13.1 (10.7, 16.0)	2.7 (1.7, 4.1)	0.0 (0.0, 0.2)	0.2 (0.1, 0.6)	11.0 (8.9, 13.4)	11.0 (8.9, 13.4)	9.5 (7.7, 11.8)	2.5 (1.6, 3.9)	0.2 (0.0, 1.6)	0.1 (0.0, 0.8)	-27.0+	-26.4+	-27.2+	-6.8	413.5	-50.1				
Primary	34.0 (32.0, 36.1)	33.9 (31.9, 36.0)	32.7 (30.7, 34.8)	2.9 (2.3, 3.7)	1.4 (0.9, 2.1)	0.6 (0.3, 0.9)	29.7 (27.7, 31.8)	29.7 (27.7, 31.8)	27.8 (25.8, 29.8)	3.4 (2.6, 4.5)	0.3 (0.1, 0.7)	0.3 (0.2, 0.7)	-12.5+	-12.4+	-15.1+	17.5	-77.7+	-38.9				
Secondary	31.1 (27.9, 34.4)	31.0 (27.8, 34.3)	30.3 (27.1, 33.6)	2.2 (1.4, 3.4)	2.9 (1.8, 4.5)	0.7 (0.3, 1.4)	27.2 (24.6, 29.9)	27.0 (24.5, 29.7)	26.0 (23.5, 28.6)	2.9 (1.8, 4.5)	0.3 (0.1, 0.9)	0.5 (0.1, 2.2)	-12.5+	-12.9+	-14.2+	33.0	-88.5+	-22.7				
High School	40.7 (37.5, 44.1)	40.7 (37.4, 44.0)	39.9 (36.6, 43.2)	2.8 (1.9, 4.2)	5.1 (3.4, 7.5)	1.7 (1.0, 3.1)	33.9 (31.1, 36.8)	33.5 (30.8, 36.4)	32.7 (29.9, 35.6)	2.3 (1.5, 3.5)	2.2 (1.4, 3.4)	0.6 (0.2, 1.3)	-16.8+	-17.5+	-18.0+	-19.1	-56.6+	-68.3+				
University	31.8 (28.1, 35.7)	31.6 (27.9, 35.5)	31.3 (27.6, 35.3)	1.8 (1.0, 3.3)	3.9 (2.4, 6.1)	2.3 (1.4, 3.8)	26.7 (23.5, 30.3)	26.7 (23.4, 30.2)	26.5 (23.2, 30.1)	0.9 (0.4, 1.8)	1.4 (0.8, 2.5)	0.1 (0.0, 0.6)	-15.8+	-15.5+	-15.2+	-50.3+	-64.4+	-93.8+				

Note: Current use includes both daily and occasional (less than daily) use.

<sup>1</sup>Includes manufactured cigarettes and hand rolled cigarettes.

<sup>2</sup>Includes pipes, cigars/cheroots/cigarillos, and other.

+ p<0.05

Note: Relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008]\*100

**Table 10.3: Percentage of adults ≥15 years old who are current, daily or occasional smokers, by selected demographic characteristics—GATS Turkey, 2008 and 2012.**

Demographic Characteristics	2008			Smoking frequency 2012			Relative change	
	Current	Daily Percentage (95% CI)	Occasional <sup>1</sup>	Current	Daily Percentage (95% CI)	Occasional <sup>1</sup>	Current	Daily Occasional <sup>1</sup> Percentage (95% CI)
Overall	31.2 (30.0, 32.6)	27.4 (26.2, 28.7)	3.8 (3.4, 4.4)	27.1 (25.8, 28.3)	23.8 (22.6, 25.0)	3.3 (2.9, 3.7)	-13.4+	-13.2+ -14.6+
Gender								
Male	47.9 (45.9, 50.0)	43.8 (41.8, 45.9)	4.1 (3.4, 4.9)	41.5 (39.4, 43.5)	37.3 (35.4, 39.3)	4.1 (3.5, 4.9)	-13.5+	-14.9+ 1.5
Female	15.2 (14.0, 16.5)	11.6 (10.5, 12.8)	3.6 (3.0, 4.3)	13.1 (12.0, 14.3)	10.7 (9.6, 11.8)	2.4 (2.0, 3.0)	-13.7+	-7.9 -32.4+
Age (years)								
15–24	25.3 (22.2, 28.6)	21.7 (18.9, 24.8)	3.6 (2.6, 4.9)	20.0 (17.4, 22.9)	16.9 (14.5, 19.6)	3.1 (2.2, 4.3)	-20.8+	-22.0+ -13.4
25–44	39.9 (38.0, 41.9)	34.7 (32.9, 36.6)	5.2 (4.5, 6.1)	35.7 (33.8, 37.5)	31.4 (29.6, 33.2)	4.3 (3.6, 5.1)	-10.7+	-9.6+ -18.2+
45–64	29.5 (27.4, 31.6)	27.0 (25.0, 29.0)	2.5 (1.9, 3.4)	25.9 (23.8, 28.1)	23.2 (21.3, 25.3)	2.7 (2.1, 3.4)	-12.1+	-13.8+ 5.6
65+	10.3 (8.5, 12.4)	8.7 (7.0, 10.8)	1.6 (1.0, 2.7)	8.8 (7.2, 10.7)	7.9 (6.4, 9.8)	0.9 (0.5, 1.6)	-14.5	-9.1 -44.0+
Residence								
Urban	33.0 (31.4, 34.7)	29.0 (27.4, 30.6)	4.1 (3.5, 4.8)	29.0 (27.4, 30.7)	25.7 (24.2, 27.2)	3.3 (2.8, 3.9)	-12.1+	-11.2+ -17.9+
Rural	27.2 (25.3, 29.1)	23.9 (22.2, 25.7)	3.3 (2.7, 4.1)	22.0 (20.4, 23.8)	18.9 (17.4, 20.5)	3.1 (2.6, 3.8)	-18.9+	-20.8+ -5.6
Education Level								
Not Graduated	15.0 (12.5, 18.0)	12.0 (9.9, 14.5)	3.0 (2.0, 4.5)	11.0 (8.9, 13.4)	9.5 (7.5, 12.0)	1.5 (0.9, 2.6)	-27.0+	-20.9+ -51.1+
Primary	34.0 (32.0, 36.1)	30.4 (28.5, 32.4)	3.6 (2.9, 4.5)	29.7 (27.7, 31.8)	26.3 (24.4, 28.3)	3.4 (2.8, 4.2)	-12.5+	-13.3+ -5.6
Secondary	31.1 (27.9, 34.4)	26.3 (23.4, 29.5)	4.7 (3.4, 6.4)	27.2 (24.6, 29.9)	23.9 (21.5, 26.6)	3.2 (2.4, 4.4)	-12.5+	-9.2 -31.1+
High School	40.7 (37.5, 44.1)	36.8 (33.7, 39.9)	3.9 (2.8, 5.4)	33.9 (31.1, 36.8)	29.5 (26.8, 32.4)	4.4 (3.3, 5.7)	-16.8+	-19.7+ 10.7
University	31.8 (28.1, 35.7)	27.3 (23.8, 31.2)	4.4 (3.1, 6.3)	26.7 (23.5, 30.3)	23.6 (20.3, 27.2)	3.2 (2.2, 4.5)	-15.8+	-13.8 -28.3

<sup>1</sup> Occasional refers to less than daily use.

+ p<0.05

Note: Relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008]\*100

**Table 10.4: Average number of cigarettes smoked per day for daily cigarette smokers, by selected demographic characteristics – GATS Turkey, 2008 and 2012.**

Demographic Characteristics	2008	2012	Relative change
	<i>Number (95% CI)</i>	<i>Number (95% CI)</i>	<i>Percentage</i>
Overall	17.7 (17.2, 18.3)	19.2 (18.2, 20.2)	8.1+
Gender			
Male	19.3 (18.6, 19.9)	20.3 (19.3, 21.3)	5.5+
Female	12.2 (11.2, 13.1)	15.3 (13.7, 16.8)	25.6+
Age (years)			
15–24	16.2 (14.9, 17.4)	18.1 (16.4, 19.9)	12.3+
25–44	17.3 (16.5, 18.0)	18.9 (17.6, 20.2)	9.4+
45–64	19.8 (18.7, 20.9)	20.6 (19.3, 21.9)	4.3
65+	18.1 (15.3, 20.8)	17.1 (14.6, 19.5)	–5.5
Residence			
Urban	17.1 (16.4, 17.8)	18.9 (17.7, 20.2)	10.8+
Rural	19.6 (18.7, 20.4)	20.0 (19.1, 21.0)	2.3
Education Level			
Not Graduated	18.6 (16.3, 20.8)	17.6 (15.1, 20.2)	–5.0
Primary	18.6 (17.7, 19.5)	20.6 (19.0, 22.3)	11.0+
Secondary	16.8 (15.6, 18.0)	19.2 (17.4, 20.9)	13.8+
High School	17.2 (16.1, 18.3)	18.3 (17.1, 19.5)	6.8
University	15.9 (14.6, 17.2)	17.1 (14.5, 19.6)	7.1

+ p&lt;0.05

Note: Relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008]\*100

**Table 10.5: Percentage distribution of age at daily smoking initiation among ever daily smokers 18–34 years old, by selected demographic characteristics – GATS Turkey, 2008 and 2012.**

Characteristic	Age at Smoking Initiation (years)												
	2008				2012				Relative change				
	<15	15-17	18-19	20+	<15	15-17	18-19	20+	<15	15-16	17-19	20+	
		Percentage (95% CI)				Percentage (95% CI)				Percentage (95% CI)			
Overall	19.6 (16.9, 22.6)	39.3 (35.8, 42.9)	21.4 (18.4, 24.6)	19.7 (17.3, 22.4)	16.1 (13.3, 19.4)	42.6 (38.8, 46.5)	19.5 (16.8, 22.6)	21.8 (19.0, 24.8)	-17.7+	8.3	-8.7	10.5	
Gender													
Male	22.2 (18.8, 26.1)	40.3 (36.1, 44.7)	21.1 (17.7, 24.9)	16.4 (13.7, 19.4)	16.7 (13.4, 20.6)	45.1 (40.7, 49.5)	19.0 (15.9, 22.6)	19.2 (16.1, 22.8)	-24.8+	11.8	-9.9	17.4	
Female	12.4 (8.9, 17.0)	36.5 (31.0, 42.4)	22.1 (17.0, 28.2)	28.9 (23.7, 34.8)	14.3 (9.4, 21.2)	34.7 (28.7, 41.4)	21.1 (16.2, 26.9)	29.9 (24.7, 35.7)	15.4	-4.9	-4.7	3.3	
Residence													
Urban	18.2 (15.1, 21.9)	39.1 (34.9, 43.4)	22.4 (18.8, 26.4)	20.3 (17.4, 23.6)	16.8 (13.4, 20.8)	42.6 (38.2, 47.2)	18.8 (15.6, 22.4)	21.8 (18.6, 25.4)	-8.1	9.2	-16.0	7.3	
Rural	23.8 (19.1, 29.4)	40.2 (34.6, 46.1)	18.1 (14.2, 23.0)	17.8 (14.1, 22.3)	13.4 (9.8, 18.2)	42.4 (36.1, 48.9)	22.4 (17.8, 27.8)	21.8 (17.6, 26.6)	-43.6+	5.4	23.4	22.2	
+ p<0.05													

+ p<0.05

Note: Relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008] \* 100



**Table 10.6: Average age at initiation among ever daily smokers 18–34 years old, by selected demographic characteristics – GATS Turkey, 2008 and 2012.**

Demographic Characteristics	Average Age at Smoking Initiation (years) <sup>1</sup>		
	2008	2012	Relative change
	<i>Number (95% CI)</i>	<i>Number (95% CI)</i>	<i>Percentage (95% CI)</i>
Overall	16.9 (16.7, 17.1)	17.1 (16.8, 17.3)	1.0
Gender			
Male	16.6 (16.3, 16.8)	16.8 (16.5, 17.1)	1.4
Female	17.8 (17.4, 18.2)	17.9 (17.4, 18.4)	0.4
Residence			
Urban	17.0 (16.7, 17.3)	17.0 (16.8, 17.3)	0.1
Rural	16.4 (16.0, 16.8)	17.1 (16.8, 17.4)	4.0+

<sup>1</sup>Among respondents 18–34 years of age who are ever daily smokers

+ p<0.05

Note: Relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008]\*100

**Table 10.7: Percentage of adults and ever daily smokers ≥15 years old who are former daily smokers (current non-smokers), by selected demographic characteristics – GATS Turkey, 2008 and 2012.**

Demographic Characteristics	Former Daily Smokers (Among All Adults) <sup>1</sup>			Former Daily Smokers (Among Ever Daily Smokers) <sup>1,2</sup>		
	2008	2012	Relative change	2008	2012	Relative change
	<i>Percentage (95% CI)</i>			<i>Percentage (95% CI)</i>		
Overall	10.5 (9.8, 11.2)	9.4 (8.7, 10.2)	–10.1+	26.5 (24.7, 28.3)	27.2 (25.3, 29.2)	2.8
Gender						
Male	17.2 (15.9, 18.5)	14.4 (13.2, 15.8)	–15.9+	27.2 (25.3, 29.2)	26.9 (24.7, 29.2)	–1.2
Female	4.1 (3.5, 4.8)	4.6 (3.9, 5.4)	12.6	23.9 (20.7, 27.4)	28.3 (24.8, 32.1)	18.6
Age (years)						
15–24	2.2 (1.4, 3.5)	1.4 (0.9, 2.3)	–36.7+	8.9 (5.8, 13.5)	7.4 (4.6, 11.7)	–16.8
25–44	8.6 (7.6, 9.7)	7.3 (6.3, 8.3)	–15.5+	18.7 (16.6, 21.0)	17.8 (15.7, 20.2)	–4.8
45–64	16.9 (15.4, 18.6)	16.5 (14.9, 18.2)	–2.6	37.6 (34.5, 40.8)	40.1 (36.6, 43.7)	6.8
65+	21.8 (19.0, 24.9)	18.6 (16.3, 21.1)	–14.8+	68.7 (62.9, 74.0)	68.4 (62.6, 73.7)	–0.5
Residence						
Urban	10.5 (9.6, 11.4)	9.7 (8.7, 10.7)	–8.1	25.4 (23.3, 27.6)	26.2 (23.9, 28.7)	3.1
Rural	10.5 (9.5, 11.7)	8.9 (8.0, 10.0)	–15.3+	29.3 (26.5, 32.2)	30.5 (27.6, 33.5)	4.1
Education Level						
Not Graduated	8.1 (6.7, 9.8)	6.4 (5.2, 7.9)	–21.0+	38.4 (32.0, 45.3)	39.2 (32.0, 47.0)	2.1
Primary	13.1 (11.9, 14.4)	12.8 (11.5, 14.2)	–2.2	29.1 (26.5, 31.8)	31.4 (28.5, 34.5)	8.0
Secondary	7.5 (6.0, 9.3)	5.8 (4.6, 7.2)	–22.4+	20.9 (16.9, 25.5)	18.9 (15.2, 23.3)	–9.5
High School	8.4 (7.0, 10.1)	7.5 (6.3, 9.0)	–10.4	17.7 (14.7, 21.2)	19.1 (16.3, 22.3)	8.0
University	13.3 (10.9, 16.1)	12.9 (10.8, 15.3)	–3.1	30.8 (25.5, 36.5)	33.8 (28.7, 39.4)	10.0
<sup>1</sup> Current non-smokers.						
<sup>2</sup> Also known as the quit ratio for daily smoking.						

+ p<0.05

Note: Relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008]\*100

**Table 10.8: Percentage of smokers  $\geq 15$  years old who made a quit attempt in the past 12 months, by selected demographic characteristics – GATS Turkey, 2008 and 2012.**

Demographic Characteristics	Made quit attempt		
	2008	2012	Relative change
	<i>Percentage (95% CI)</i>	<i>Percentage (95% CI)</i>	<i>Percentage (95% CI)</i>
Overall	44.8 (42.5, 47.0)	46.0 (43.5, 48.5)	2.8
Gender			
Male	44.1 (41.5, 46.6)	45.1 (42.3, 47.9)	2.4
Female	46.9 (42.6, 51.1)	48.8 (44.2, 53.4)	4.1
Age (years)			
15–24	52.3 (46.3, 58.3)	40.2 (33.5, 47.3)	–23.2+
25–44	42.7 (39.7, 45.7)	48.3 (45.0, 51.5)	13.1+
45–64	44.2 (40.1, 48.4)	44.8 (40.8, 48.9)	1.4
65+	40.6 (30.9, 51.0)	47.1 (37.3, 57.0)	16.0
Residence			
Urban	44.7 (41.9, 47.5)	46.5 (43.5, 49.6)	4.2
Rural	45.1 (41.6, 48.6)	44.3 (40.6, 48.0)	–1.8
Education Level			
Not Graduated	35.0 (27.2, 43.7)	44.1 (35.2, 53.4)	26.0
Primary	44.6 (41.1, 48.1)	46.9 (43.3, 50.6)	5.3
Secondary	44.9 (39.1, 50.8)	43.3 (38.6, 48.2)	–3.4
High School	48.0 (43.9, 52.1)	47.4 (42.6, 52.3)	–1.2
University	45.8 (38.9, 53.0)	46.0 (39.8, 52.4)	0.5

+ p&lt;0.05

Note: Relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008]\*100

**Table 10.9: Percentage of smokers<sup>1</sup> ≥15 years old who received health care provider assistance in the past 12 months, by selected demographic characteristics – GATS Turkey, 2008 and 2012.**

Demographic Characteristics	Health Care Provider Assistance				
	2008		2012		Relative change
	Asked by HCP if a smoker <sup>2</sup>	Advised to quit by HCP <sup>3</sup>	Asked by HCP if a smoker <sup>2</sup>	Advised to quit by HCP <sup>3</sup>	Asked by HCP if a smoker <sup>2</sup> Advised to quit by HCP <sup>3</sup>
Overall	49.0 (45.7, 52.3)	40.7 (37.6, 44.0)	51.4 (47.5, 55.3)	42.9 (39.1, 46.8)	4.9    5.3
Gender					
Male	49.1 (45.4, 52.9)	42.2 (38.5, 46.0)	49.1 (44.7, 53.6)	41.3 (36.9, 45.8)	0.0    -2.2
Female	48.8 (43.2, 54.3)	38.0 (32.8, 43.5)	56.3 (50.1, 62.3)	46.4 (40.2, 52.7)	15.4+    22.2+
Age (years)					
15–24	42.0 (33.9, 50.5)	33.3 (25.6, 42.1)	38.1 (28.3, 48.9)	33.3 (24.0, 44.0)	-9.3    -0.3
25–44	45.8 (41.5, 50.1)	36.0 (32.1, 40.0)	50.6 (45.3, 55.8)	40.0 (34.8, 45.5)	10.4    11.3
45–64	57.7 (51.8, 63.4)	51.5 (45.5, 57.4)	57.7 (50.8, 64.3)	50.5 (44.2, 56.8)	0.0    -1.9
65+	60.2 (46.4, 72.5)	59.5 (45.9, 71.9)	64.5 (49.7, 77.0)	63.1 (48.4, 75.7)	7.2    6.0
Residence					
Urban	50.6 (46.6, 54.5)	42.0 (38.2, 46.0)	52.8 (48.1, 57.5)	43.8 (39.3, 48.4)	4.4    4.1
Rural	44.0 (38.8, 49.3)	36.5 (31.5, 41.7)	45.7 (40.0, 51.6)	39.4 (33.9, 45.3)	4.1    8.1
Education Level					
Not–Graduated	50.4 (39.3, 61.5)	44.7 (33.4, 56.7)	50.0 (36.3, 63.6)	43.4 (30.7, 56.9)	-1.0    -3.1
Primary	48.1 (42.9, 53.3)	41.3 (36.3, 46.5)	52.0 (46.6, 57.5)	43.7 (38.3, 49.3)	8.2    5.9
Secondary	53.0 (45.1, 60.8)	42.4 (34.8, 50.4)	45.5 (36.5, 54.8)	37.7 (29.4, 46.8)	-14.1    -11.1
High School	46.6 (40.1, 53.2)	36.8 (31.3, 42.8)	50.1 (42.8, 57.4)	41.9 (35.1, 49.0)	7.6    13.7
University	51.4 (42.8, 59.9)	42.3 (34.2, 50.9)	59.8 (49.5, 69.3)	48.7 (38.5, 59.0)	16.3    15.1

<sup>1</sup> Includes current smokers and former smokers who have been abstinent for less than 12 months.<sup>2</sup> Among current smokers and former smokers who have been abstinent for less than 12 months, and who visited a HCP during the past 12 months.<sup>3</sup> Among current smokers and former smokers who have been abstinent for less than 12 months, who visited a HCP during the past 12 months and asked by HCP if a smoker.

+ p&lt;0.05

Note: Values for 2008 differ from 2008 Country Report in which this indicator was calculated only for those who were asked if they smoke; relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008]\*100

**Table 10.10: Percentage of smokers ≥15 years old who made a quit attempt in the past 12 months and used various cessation methods for their last quit attempt, by selected demographic characteristics – GATS Turkey, 2008 and 2012.**

Characteristic	Health Care Provider Assistance					
	2008			2012		
	Pharmacotherapy	Counseling/Advice	Pharmacotherapy	Counseling/Advice	Pharmacotherapy	Relative change Counseling/Advice
Overall	9.3 (7.7, 11.3)	1.8 (1.1, 3.1)	13.6 (11.3, 16.3)	8.0 (6.5, 9.8)	45.9+	335.5+
Gender						
Male	9.4 (7.4, 11.9)	1.7 (0.8, 3.4)	13.3 (10.8, 16.4)	7.5 (5.8, 9.6)	41.4+	341.6+
Female	9.1 (6.2, 13.2)	2.2 (1.1, 4.5)	14.5 (10.0, 20.4)	9.5 (6.6, 13.5)	59.1	324.5+
Age (years)						
15–24	9.8 (5.9, 15.8)	0.8 (0.2, 3.1)	10.2 (4.7, 20.8)	4.0 (1.3, 11.4)	4.4	415.4
25–44	9.2 (7.0, 11.9)	1.3 (0.7, 2.5)	13.6 (10.7, 17.1)	8.6 (6.6, 11.1)	48.0+	559.2+
45–64	9.9 (6.7, 14.4)	3.6 (1.6, 7.9)	16.4 (12.0, 22.0)	8.7 (5.8, 12.8)	65.6	140.8
65+	4.1 (1.1, 13.6)	4.8 (1.2, 17.1)	9.0 (2.9, 24.8)	10.5 (4.0, 24.6)	121.8	116.1
Residence						
Urban	10.4 (8.3, 12.9)	2.4 (1.4, 4.0)	14.4 (11.6, 17.8)	8.4 (6.6, 10.6)	38.8+	258.4+
Rural	6.4 (4.1, 10.0)	0.4 (0.1, 2.3)	10.8 (8.2, 14.2)	6.6 (4.7, 9.1)	68.1	1406
Education Level						
Not Graduated	1.8 (0.5, 6.6)	0.3 (0.0, 2.3)	13.0 (5.0, 30.0)	1.1 (0.1, 7.6)	607.2	241.7
Primary	8.6 (6.2, 11.8)	1.8 (0.7, 4.1)	16.4 (12.7, 20.9)	10.0 (7.3, 13.6)	89.6+	467.0+
Secondary	8.6 (4.9, 14.8)	0.9 (0.2, 3.7)	9.6 (6.1, 14.7)	5.8 (3.0, 11.1)	11.0	546.7
High School	12.2 (8.4, 17.5)	2.0 (1.0, 4.2)	13.3 (8.7, 19.8)	8.8 (5.8, 13.1)	9.1	329.5+
University	11.1 (6.4, 18.3)	4.4 (1.6, 11.4)	12.8 (7.7, 20.5)	6.9 (3.4, 13.7)	15.9	58.5

HCP = health care provider.

+ p&lt;0.05

Note: Values for 2008 differ from 2008 Country Report in which this indicator was calculated only for those who were asked if they smoke; relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008]\*100.

**Table 10.11: Percentage distribution of current smokers  $\geq 15$  years old by interest in quitting smoking and selected demographic characteristics – GATS Turkey, 2008 and 2012.**

Demographic Characteristics	2008										2012										Relative change			
	Planning Quit Within Next Month		Thinking About Quitting Within Next 12 Months		Will Quit Someday, But Not in the next 12 Months		Not Interested in Quitting		Planning Quit Within Next Month		Thinking About Quitting Within Next 12 Months		Will Quit Someday, But Not in the next 12 Months		Not Interested in Quitting		Planning Quit Within Next 12 Months		Thinking About Quitting Within Next 12 Months		Will Quit Someday, But Not in the next 12 Months		Not Interested in Quitting	
	9.9 (8.5, 11.6)	17.8 (16.1, 19.7)	17.6 (15.7, 19.8)	25.2 (22.9, 27.6)	42.4 (39.7, 45.2)	4.6 (3.4, 6.2)	12.9 (11.1, 14.9)	22.5 (20.3, 25.0)	19.7 (17.6, 22.0)	42.0 (39.2, 44.8)	2.8 (1.9, 4.2)	29.9+	26.4+	-21.7+	-1	-38.4+								
Overall	10.0 (8.3, 11.9)	18.4 (15.1, 22.2)	17.6 (15.7, 19.8)	25.9 (23.4, 28.6)	41.9 (39.0, 44.8)	4.5 (3.3, 6.2)	12.4 (10.5, 14.6)	22.4 (19.9, 25.1)	19.1 (16.7, 21.7)	43.0 (39.9, 46.2)	3.1 (2.1, 4.7)	24.1	26.8+	-26.5+	2.7	-30.8+								
Gender																								
Male	9.8 (7.5, 12.7)	18.4 (15.1, 22.2)	17.6 (15.7, 19.8)	23.0 (19.5, 26.9)	44.1 (39.4, 48.8)	4.8 (3.0, 7.7)	14.5 (11.4, 18.2)	23.1 (19.2, 27.5)	21.7 (17.9, 26.1)	38.8 (34.1, 43.8)	1.9 (1.0, 3.8)	48.1+	25.4	-5.3	-11.9	-60.2+								
Female																								
Age																								
15-24	11.0 (7.9, 15.2)	18.8 (14.4, 24.2)	17.6 (15.3, 20.1)	24.6 (19.6, 30.3)	41.4 (35.3, 47.7)	4.2 (2.0, 8.8)	12.9 (9.1, 17.9)	16.4 (11.8, 22.3)	17.3 (12.8, 22.9)	49.8 (42.9, 56.7)	3.6 (1.7, 7.3)	17	-13	-29.5+	20.4	-14.5								
25-44	8.8 (7.2, 10.6)	17.6 (15.3, 20.1)	18.0 (14.8, 21.7)	26.0 (23.2, 29.0)	43.0 (39.5, 46.5)	4.6 (3.3, 6.4)	12.9 (10.7, 15.5)	25.1 (22.2, 28.2)	19.6 (17.1, 22.5)	40.0 (36.3, 43.7)	2.4 (1.3, 4.3)	46.9+	42.6+	-24.6+	-7.1	-47.4+								
45-64	11.7 (8.9, 15.2)	18.0 (14.8, 21.7)	14.8 (8.2, 25.3)	24.4 (20.6, 28.6)	41.5 (37.3, 45.9)	4.4 (2.6, 7.3)	13.1 (10.6, 16.1)	21.4 (17.9, 25.4)	20.6 (16.9, 24.8)	41.4 (37.3, 45.8)	3.4 (2.0, 5.9)	12.4	19	-15.5	-0.2	-22.2								
65+	10.0 (5.7, 16.9)	14.8 (8.2, 25.3)	14.8 (8.2, 25.3)	20.6 (13.4, 30.4)	45.5 (35.1, 56.3)	9.0 (3.7, 20.5)	10.9 (6.6, 17.5)	19.3 (11.8, 30.0)	27.3 (18.4, 38.5)	40.7 (30.8, 51.5)	1.7 (0.5, 5.7)	9.1	30.3	32.7	-10.5	-81.3+								
Residence																								
Urban	9.2 (7.4, 11.3)	17.4 (15.3, 19.7)	17.4 (15.3, 19.7)	24.9 (22.0, 28.0)	43.4 (39.9, 47.0)	5.1 (3.6, 7.3)	12.8 (10.7, 15.3)	22.5 (19.7, 25.5)	19.6 (17.0, 22.4)	42.3 (38.9, 45.8)	2.8 (1.6, 4.6)	39.8+	29.5+	-21.4+	-2.5	-46.4+								
Rural	12.0 (9.7, 14.8)	19.1 (16.0, 22.5)	19.1 (16.0, 22.5)	26.0 (22.8, 29.5)	39.7 (36.3, 43.2)	3.2 (2.1, 4.7)	13.1 (10.8, 15.9)	22.6 (19.8, 25.8)	20.2 (17.3, 23.4)	40.9 (37.2, 44.6)	3.2 (2.0, 5.0)	9.2	18.7	-22.3+	2.9	-0.1								
Education																								
Not Graduated	11.4 (7.4, 17.3)	11.3 (7.1, 17.5)	11.3 (7.1, 17.5)	18.7 (13.1, 26.0)	53.3 (44.2, 62.3)	5.3 (2.5, 10.8)	11.0 (6.8, 17.5)	19.2 (12.5, 28.3)	15.3 (9.5, 23.6)	50.2 (39.5, 60.8)	4.3 (1.5, 11.6)	-3.1	69.8	-18.2	-5.9	-18.3								
Primary	9.8 (7.9, 12.2)	17.0 (14.4, 20.0)	17.0 (14.4, 20.0)	24.6 (21.5, 28.0)	43.5 (39.7, 47.3)	5.0 (3.4, 7.3)	14.2 (11.7, 17.2)	22.1 (19.0, 25.6)	19.9 (17.1, 23.0)	41.3 (37.1, 45.5)	2.5 (1.4, 4.5)	44.6+	30.0+	-19.4+	-5.1	-50.2+								
Secondary	10.8 (7.5, 15.2)	19.0 (14.9, 23.9)	19.0 (14.9, 23.9)	25.9 (20.8, 31.7)	39.7 (34.2, 45.6)	4.6 (2.5, 8.2)	10.9 (7.9, 14.6)	22.5 (17.8, 27.9)	21.1 (16.7, 26.3)	41.7 (36.3, 47.2)	3.9 (2.1, 7.2)	0.6	18.4	-18.6	4.9	-14.8								
High School	8.4 (5.8, 11.8)	19.9 (16.4, 23.9)	19.9 (16.4, 23.9)	25.3 (21.2, 30.0)	42.1 (37.1, 47.3)	4.3 (2.5, 7.4)	13.8 (10.7, 17.7)	21.2 (17.2, 25.9)	20.9 (17.1, 25.2)	41.1 (36.1, 46.2)	3.0 (1.5, 6.0)	65.0+	6.8	-17.6	-2.4	-30.1								
University or Higher	11.5 (7.8, 16.6)	20.1 (14.2, 27.5)	20.1 (14.2, 27.5)	32.1 (25.5, 39.4)	33.6 (27.1, 40.8)	2.8 (1.3, 5.9)	11.4 (8.1, 16.0)	28.0 (22.2, 34.7)	16.7 (12.6, 21.9)	42.8 (36.3, 49.6)	1.0 (0.3, 3.0)	-0.4	39.8	-47.9+	27.5	-64.6+								

+ p < 0.05

Note: Relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008]\*100

**Table 10.12: Percentage of adults ≥15 years old who work indoors and are exposed to tobacco smoke at work, by smoking status and selected demographic characteristics – GATS Turkey, 2008 and 2012.**

Demographic Characteristics	Adults Exposed to Tobacco Smoke at Work¹					
	2008		2012		Relative change	
	Overall	Non-smokers	Overall	Non-smokers	Overall	Non-smokers
Overall	Percentage (95% CI)		Percentage (95% CI)		Percentage (95% CI)	
	37.3 (34.4, 40.2)	31.1 (27.9, 34.5)	15.6 (13.7, 17.8)	12.3 (10.3, 14.7)	-58.0+	-60.3+
Gender						
Male	40.1 (36.9, 43.5)	35.0 (31.0, 39.2)	17.8 (15.5, 20.4)	14.0 (11.5, 16.9)	-55.6+	-60.0+
Female	28.1 (23.4, 33.4)	22.9 (18.1, 28.5)	9.6 (7.0, 13.0)	9.1 (6.2, 13.3)	-66.0+	-60.1+
Age (years)						
15–24	40.0 (33.1, 47.3)	32.3 (24.2, 41.6)	17.2 (12.2, 23.8)	13.5 (8.3, 21.1)	-56.9+	-58.3+
25–44	36.3 (33.1, 39.6)	30.7 (26.8, 34.8)	14.7 (12.6, 17.1)	11.0 (8.6, 13.9)	-59.4+	-64.1+
45–64	38.1 (33.2, 43.2)	31.1 (25.5, 37.3)	17.7 (13.9, 22.3)	15.5 (11.3, 20.8)	-53.4+	-50.3+
65+	30.6 (16.8, 49.1)	29.4 (14.6, 50.4)	9.3 (2.9, 25.6)	10.8 (2.6, 35.1)	-69.7+	-63.4+
Residence						
Urban	35.6 (32.3, 39.0)	29.4 (25.7, 33.4)	14.6 (12.5, 17.0)	11.4 (9.3, 13.9)	-59.0+	-61.4+
Rural	44.4 (39.3, 49.6)	37.6 (31.7, 43.9)	21.1 (16.8, 26.3)	17.4 (12.4, 23.9)	-52.4+	-53.8+
Education Level						
Not Graduated	36.6 (25.4, 49.4)	23.3 (14.6, 35.2)	35.5 (20.1, 54.6)	26.2 (11.1, 50.2)	-2.9	12.2
Primary	42.7 (38.3, 47.2)	36.6 (31.2, 42.4)	20.6 (16.8, 24.9)	16.9 (12.5, 22.4)	-51.8+	-54.0+
Secondary	40.4 (34.0, 47.3)	39.3 (30.3, 49.0)	18.3 (14.0, 23.4)	15.8 (10.9, 22.3)	-54.9+	-59.9+
High School	37.8 (32.7, 43.2)	28.6 (22.8, 35.2)	12.9 (9.8, 16.8)	10.4 (7.2, 14.8)	-65.9+	-63.6+
University	25.8 (21.5, 30.5)	23.6 (18.5, 29.6)	10.7 (8.3, 13.6)	8.6 (6.0, 12.1)	-58.6+	-63.6+

<sup>1</sup> In the past 30 days. Among those respondents who work outside of the home who usually work indoors.

+ p<0.05

Note: The values shown for 2008 differ from the values in the 2008 Country Report because they included people who had an enclosed area at work in 2008; relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008]\*100.

**Table 10.13: Percentage of adults ≥15 years old who are exposed to tobacco smoke at home at least monthly, by smoking status and selected demographic characteristics – GATS Turkey, 2008 and 2012.**

Demographic Characteristics	Adults Exposed to Tobacco Smoke at Home <sup>1</sup>					
	2008			2012		
	Overall	Non-smokers	Overall	Non-smokers	Overall	Non-smokers
	Percentage (95% CI)			Percentage (95% CI)		
Overall	56.3 (54.4, 58.2)	47.5 (45.3, 49.7)	38.3 (36.4, 40.2)	29.1 (27.1, 31.1)	-32.0+	-38.8+
Gender						
Male	56.1 (53.8, 58.4)	40.4 (37.2, 43.6)	39.2 (37.0, 41.6)	24.5 (22.0, 27.2)	-30.1+	-39.3+
Female	56.5 (54.3, 58.7)	51.7 (49.2, 54.1)	37.4 (35.1, 39.7)	32.0 (29.6, 34.5)	-33.8+	-38.1+
Age (years)						
15–24	66.9 (63.2, 70.3)	61.6 (57.4, 65.6)	44.1 (40.6, 47.6)	38.5 (34.7, 42.3)	-34.1+	-37.6+
25–44	57.6 (55.3, 59.9)	46.5 (43.7, 49.4)	41.2 (38.8, 43.6)	28.9 (26.3, 31.7)	-28.5+	-37.9+
45–64	51.6 (48.9, 54.3)	42.1 (39.0, 45.3)	33.5 (31.2, 36.0)	24.2 (21.7, 26.8)	-35.0+	-42.6+
65+	37.3 (33.7, 41.1)	33.5 (29.7, 37.5)	24.9 (21.9, 28.2)	20.9 (18.0, 24.2)	-33.2+	-37.4+
Residence						
Urban	55.0 (52.7, 57.4)	44.7 (42.0, 47.6)	38.6 (36.3, 41.0)	28.5 (26.0, 31.1)	-29.8+	-36.3+
Rural	59.2 (56.1, 62.3)	53.3 (49.8, 56.7)	37.5 (34.6, 40.4)	30.4 (27.4, 33.6)	-36.7+	-43.0+
Education Level						
Not Graduated	56.4 (52.8, 60.0)	51.4 (47.7, 55.2)	38.4 (34.9, 42.0)	33.2 (29.7, 37.0)	-32.0+	-35.4+
Primary	55.5 (53.0, 58.0)	44.7 (41.8, 47.6)	37.9 (35.5, 40.4)	26.9 (24.3, 29.7)	-31.7+	-39.8+
Secondary	61.3 (57.4, 65.0)	55.4 (50.6, 60.1)	40.4 (37.2, 43.8)	32.0 (28.6, 35.7)	-34.0+	-42.1+
High School	57.7 (54.4, 60.8)	45.4 (41.1, 49.7)	40.3 (37.0, 43.7)	29.0 (25.3, 33.0)	-30.1+	-36.2+
University	47.6 (43.3, 52.0)	38.7 (33.3, 44.4)	32.5 (28.7, 36.5)	24.0 (20.2, 28.4)	-31.9+	-37.8+

<sup>1</sup> Respondents who reported that smoking inside the home occurs daily, weekly, monthly, or less than monthly.

+ p&lt;0.05

Note: Relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008]\*100



**Table 10.14: Percentage of adults  $\geq 15$  years old who were exposed to tobacco smoke in public places in the past 30 days among those who visited those places, by selected demographic characteristics – GATS Turkey, 2008 and 2012.**

Characteristic	Adults Exposed to Tobacco Smoke <sup>1</sup> In...												relative change
	2008				2012								
	Government Buildings	Health Care Facilities	Restaurants	Public Transportation	Government Buildings	Health Care Facilities	Restaurants	Public Transportation	Government Buildings	Health Care Facilities	Restaurants	Public Transportation	
Overall	11.3 (9.7, 13.0)	6.0 (5.1, 7.0)	55.9 (53.4, 58.4)	16.5 (14.8, 18.2)	6.5 (5.5, 7.7)	3.8 (3.1, 4.7)	12.9 (11.3, 14.7)	10.4 (9.0, 12.0)	42.1+	-36.1+	-76.9+	-36.7+	
Gender													
Male	13.0 (11.2, 15.1)	6.6 (5.3, 8.2)	57.7 (54.8, 60.5)	18.7 (16.5, 21.1)	7.1 (5.8, 8.5)	3.8 (2.9, 5.0)	14.0 (11.9, 16.4)	10.7 (9.0, 12.7)	45.9+	-42.7+	-75.8+	-42.7+	
Female	7.8 (5.6, 10.7)	5.5 (4.5, 6.7)	52.3 (48.1, 56.5)	14.1 (12.3, 16.0)	5.7 (4.3, 7.6)	3.9 (3.0, 4.9)	11.3 (9.3, 13.7)	10.2 (8.6, 12.0)	-26.6+	-29.8+	-78.4+	-27.8+	
Age (years)													
15-24	13.2 (9.5, 18.2)	7.8 (5.4, 11.1)	57.4 (52.4, 62.3)	21.2 (18.3, 24.5)	8.0 (5.6, 11.3)	4.2 (2.7, 6.4)	16.2 (12.9, 20.2)	12.5 (10.0, 15.6)	-39.5+	-46.4+	-71.7+	-41.1+	
25-44	11.3 (9.4, 13.5)	6.6 (5.3, 8.1)	59.0 (55.6, 62.3)	16.0 (13.9, 18.3)	7.0 (5.5, 8.8)	4.5 (3.6, 5.6)	11.8 (10.1, 13.8)	11.3 (9.4, 13.5)	-38.4+	-31.8+	-79.9+	-29.2+	
45-64	9.6 (7.4, 12.3)	4.4 (3.2, 6.1)	50.3 (46.1, 54.5)	14.1 (12.0, 16.5)	5.3 (4.1, 6.9)	3.1 (2.2, 4.5)	11.8 (9.2, 14.9)	8.0 (6.4, 9.8)	-44.4+	-29.6+	-76.6+	-43.5+	
65+	11.5 (7.1, 18.0)	4.7 (3.1, 7.1)	32.7 (24.3, 42.4)	10.9 (8.2, 14.5)	3.3 (1.8, 6.1)	2.7 (1.7, 4.1)	10.2 (5.9, 17.1)	6.8 (4.9, 9.6)	-71.2+	-43.0+	-68.8+	-37.3+	
Residence													
Urban	11.8 (9.9, 14.1)	6.2 (5.1, 7.6)	58.4 (55.3, 61.4)	16.2 (14.2, 18.4)	6.0 (4.8, 7.5)	3.7 (2.8, 4.8)	13.5 (11.6, 15.7)	11.0 (9.3, 13.0)	-48.8+	-40.7+	-76.9+	-31.9+	
Rural	9.7 (7.9, 11.8)	5.4 (4.3, 6.6)	48.2 (44.3, 52.0)	17.3 (14.8, 20.1)	8.0 (6.3, 10.2)	4.2 (3.3, 5.4)	10.6 (8.5, 13.2)	8.6 (6.8, 10.9)	-16.8	-21.4	-77.9+	-50.2+	
Education Level													
Not Graduated	9.8 (6.5, 14.3)	4.7 (3.4, 6.4)	39.6 (30.1, 49.8)	15.9 (13.0, 19.3)	4.7 (2.7, 8.0)	4.4 (3.1, 6.1)	18.3 (11.0, 28.9)	8.1 (5.5, 11.8)	-51.7+	-6.0	-53.8+	-48.9+	
Primary	9.8 (7.8, 12.2)	4.7 (3.7, 6.1)	48.7 (44.5, 52.9)	13.7 (11.8, 15.9)	5.4 (4.1, 7.2)	2.9 (2.1, 4.0)	9.7 (7.5, 12.4)	9.1 (7.6, 10.9)	-44.2+	-37.7+	-80.1+	-33.6+	
Secondary	13.2 (9.2, 18.4)	8.5 (5.7, 12.4)	53.2 (47.8, 58.6)	18.3 (15.0, 22.1)	7.6 (5.5, 10.5)	4.4 (3.0, 6.3)	10.6 (8.0, 13.8)	10.9 (8.7, 13.6)	-42.2+	-48.2+	-80.1+	-40.3+	
High School	11.4 (8.2, 15.7)	6.7 (4.8, 9.3)	61.7 (57.5, 65.8)	18.5 (15.3, 22.1)	6.3 (4.4, 9.0)	3.8 (2.6, 5.6)	14.6 (12.0, 17.7)	12.8 (10.3, 15.9)	-44.7+	-43.0+	-76.3+	-30.6+	
University	12.9 (9.8, 16.9)	9.1 (6.3, 12.9)	66.2 (61.0, 71.1)	20.2 (16.0, 25.2)	7.8 (5.9, 10.2)	4.9 (3.3, 7.3)	15.5 (12.6, 18.9)	11.0 (8.3, 14.3)	-39.8+	-45.5+	-76.5+	-45.6+	

<sup>1</sup>In the past 30 days.

+ p<0.05

Note: Relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008]\*100



**Table 10.15: Percentage distribution of the sources of last purchase of cigarettes among manufactured cigarette smokers  $\geq 15$  years, by selected demographic characteristics – GATS Turkey, 2008 and 2012.**

Demographic Characteristics	Purchase of Cigarettes							
	2008				2012			
	Store or kiosk	Vending machine	Street vendor	Any other	Store or kiosk	Vending machine	Street vendor	Any other
	Percentage (95% CI)				Percentage (95% CI)			
Overall	92.8 (91.2, 94.2)	0.0	0.5 (0.3, 1.0)	6.6 (5.3, 8.2)	95.6 (93.7, 97.0)	0.2 (0.0, 1.3)	2.6 (1.6, 4.4)	1.5 (0.9, 2.6)
Gender								
Male	93.0 (91.1, 94.5)	0.0	0.6 (0.3, 1.3)	6.4 (5.0, 8.2)	95.1 (92.6, 96.7)	0.3 (0.1, 1.7)	2.8 (1.5, 5.1)	1.8 (1.0, 3.2)
Female	92.4 (89.2, 94.6)	0.0	0.2 (0.0, 0.9)	7.4 (5.2, 10.6)	97.4 (94.8, 98.7)	0.0	2.0 (1.0, 4.3)	0.6 (0.1, 2.9)
Age (years)								
15–24	90.7 (85.3, 94.2)	0.0	0.0	9.3 (5.8, 14.7)	94.2 (89.0, 97.1)	0.0	4.0 (1.9, 8.6)	1.7 (0.4, 6.6)
25+	93.3 (91.8, 94.6)	0.0	0.7 (0.3, 1.3)	6.0 (4.8, 7.5)	95.9 (94.1, 97.1)	0.3 (0.1, 1.5)	2.3 (1.4, 3.8)	1.5 (0.9, 2.5)
Residence								
Urban	91.8 (89.7, 93.5)	0.0	0.5 (0.2, 1.2)	7.7 (6.0, 9.8)	95.6 (93.1, 97.2)	0.3 (0.1, 1.6)	2.5 (1.3, 4.8)	1.6 (0.9, 3.1)
Rural	96.0 (93.9, 97.4)	0.0	0.5 (0.2, 1.2)	3.5 (2.2, 5.6)	95.7 (93.1, 97.4)	0.0	3.1 (1.7, 5.8)	1.1 (0.5, 2.4)

+ p&lt;0.05

Note: Relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008]\*100

**Table 10.16: Cigarette expenditures among manufactured cigarette smokers  $\geq 15$  years, by selected demographic characteristics – GATS Turkey, 2008 and 2012.**

Demographic Characteristics	2008*		2012		Relative change	
	Cigarette expenditure per month	Average cost of 20 manufactured cigarettes	Cigarette expenditure per month	Average cost of 20 manufactured cigarettes	Cigarette expenditure per month	Average cost of 20 manufactured cigarettes
Overall	98.3 (94.6, 102.1)	4.0 (3.9, 4.1)	146.1 (137.9, 154.3)	5.7 (5.6, 5.8)	48.6+	43.0+
Gender						
Male	107.9 (103.5, 112.3)	4.0 (3.9, 4.1)	157.6 (148.5, 166.6)	5.7 (5.6, 5.9)	46.0+	42.7+
Female	64.1 (58.4, 69.8)	3.8 (3.6, 3.9)	110.0 (99.3, 120.7)	5.6 (5.4, 5.7)	71.6+	47.9+
Age						
15–24	91.8 (82.6, 101.0)	4.1 (3.9, 4.3)	127.9 (115.6, 140.2)	5.7 (5.4, 6.0)	39.3+	37.8+
25–44	98.2 (93.1, 103.4)	4.1 (4.0, 4.2)	148.0 (136.7, 159.4)	5.7 (5.6, 5.8)	50.7+	39.7+
45–64	105.7 (99.2, 112.2)	3.8 (3.6, 3.9)	158.1 (145.6, 170.6)	5.7 (5.6, 5.9)	49.6+	52.1+
65+	80.9 (66.5, 95.3)	3.3 (3.1, 3.5)	114.5 (94.0, 135.1)	5.2 (4.9, 5.6)	41.6+	58.8+
Residence						
Urban	97.7 (93.1, 102.3)	4.1 (4.0, 4.2)	148.1 (137.8, 158.4)	5.8 (5.6, 5.9)	51.6+	41.7+
Rural	100.2 (94.4, 105.9)	3.8 (3.6, 3.9)	139.2 (131.4, 147.1)	5.5 (5.3, 5.6)	39.0+	45.6+
Education						
Not Graduated	89.3 (75.7, 102.9)	3.4 (3.2, 3.7)	109.9 (90.4, 129.5)	4.9 (4.4, 5.4)	23.1	41.9+
Primary	98.9 (93.2, 104.6)	3.8 (3.7, 3.9)	153.4 (140.8, 166.1)	5.5 (5.3, 5.6)	55.2+	44.2+
Secondary	91.5 (83.5, 99.4)	4.0 (3.8, 4.2)	141.8 (129.0, 154.6)	5.7 (5.5, 5.8)	55.1+	42.1+
High School	104.6 (96.6, 112.7)	4.3 (4.2, 4.5)	147.0 (136.1, 157.9)	5.9 (5.8, 6.1)	40.5+	37.8+
University or Higher	98.2 (87.7, 108.8)	4.4 (4.2, 4.7)	144.5 (118.7, 170.3)	6.2 (5.9, 6.4)	47.1+	39.3+

\*In adjusted constant 2012 Turkish lira

+ p &lt; 0.05

Note: Relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008] \* 100

**Table 10.17: Percentage of adults  $\geq 15$  years old who noticed anti-cigarette smoking information during the last 30 days in various places, by selected demographic characteristics – GATS Turkey, 2008 and 2012.**

	2008	2012	Relative change
Overall			
In newspapers or in magazines	46.3 (44.2, 48.5)	41.1 (38.8, 43.5)	-11.3+
On television or the radio	86.1 (84.8, 87.4)	92.0 (91.0, 93.0)	6.9+
On television	85.5 (84.1, 86.8)	91.4 (90.3, 92.3)	6.9+
On the radio	23.0 (21.2, 24.9)	25.2 (23.3, 27.2)	9.6
On billboards	36.0 (33.7, 38.3)	29.9 (27.7, 32.2)	-16.8+
Somewhere else	4.5 (3.8, 5.4)	2.6 (2.0, 3.3)	-43.2+
Any Location	88.8 (87.6, 90.0)	93.5 (92.5, 94.4)	5.3+
Male			
In newspapers or in magazines	53.7 (51.2, 56.2)	45.9 (43.1, 48.8)	-14.6+
On television or the radio	86.2 (84.5, 87.7)	92.3 (91.0, 93.4)	7.1+
On television	85.5 (83.9, 87.1)	91.6 (90.2, 92.8)	7.0+
On the radio	23.7 (21.5, 26.0)	26.8 (24.5, 29.2)	13.1+
On billboards	40.7 (37.9, 43.6)	32.4 (29.8, 35.2)	-20.3+
Somewhere else	5.3 (4.3, 6.4)	2.7 (1.9, 3.7)	-49.0+
Any Location	89.9 (88.4, 91.2)	94.1 (92.8, 95.2)	4.7+
Female			
In newspapers or in magazines	39.2 (36.8, 41.7)	36.5 (34.1, 38.9)	-7.0
On television or the radio	86.1 (84.5, 87.6)	91.8 (90.7, 92.8)	6.6+
On television	85.4 (83.7, 87.0)	91.2 (90.0, 92.2)	6.8+
On the radio	22.3 (20.3, 24.5)	23.7 (21.7, 25.9)	6.1
On billboards	31.4 (29.1, 33.8)	27.4 (25.2, 29.8)	-12.6+
Somewhere else	3.8 (3.1, 4.8)	2.5 (1.8, 3.4)	-35.5+
Any Location	87.8 (86.3, 89.2)	92.9 (91.8, 93.9)	5.8+

+ p&lt;0.05

Note: Relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008]\*100

**Table 10.17 (cont.): Percentage of adults  $\geq 15$  years old who noticed anti-cigarette smoking information during the last 30 days in various places, by selected demographic characteristics – GATS Turkey, 2008 and 2012.**

	2008	2012	Relative change
15–24			
In newspapers or in magazines	51.5 (47.8, 55.3)	42.8 (39.2, 46.6)	–16.9+
On television or the radio	87.0 (84.2, 89.3)	91.7 (89.4, 93.5)	5.4+
On television	85.8 (82.8, 88.4)	91.1 (88.8, 93.0)	6.2+
On the radio	24.4 (21.3, 27.8)	24.8 (21.6, 28.3)	1.5
On billboards	42.9 (39.0, 46.8)	32.1 (28.6, 35.9)	–25.1+
Somewhere else	6.2 (4.6, 8.3)	2.9 (2.0, 4.4)	–52.5+
Any Location	91.3 (89.2, 93.1)	93.7 (91.6, 95.3)	2.6+
25+			
In newspapers or in magazines	44.8 (42.7, 47.0)	40.6 (38.2, 43.0)	–9.4+
On television or the radio	85.9 (84.5, 87.2)	92.2 (91.2, 93.1)	7.3+
On television	85.4 (84.0, 86.7)	91.5 (90.4, 92.4)	7.1+
On the radio	22.6 (20.8, 24.5)	25.4 (23.5, 27.3)	12.2+
On billboards	34.0 (31.7, 36.3)	29.3 (27.2, 31.4)	–13.8+
Somewhere else	4.1 (3.4, 4.9)	2.5 (1.9, 3.2)	–39.0+
Any Location	88.1 (86.8, 89.3)	93.4 (92.5, 94.3)	6.0+
Urban			
In newspapers or in magazines	51.0 (48.1, 53.8)	44.9 (41.8, 48.0)	–11.9+
On television or the radio	86.9 (85.0, 88.5)	92.7 (91.4, 93.9)	6.7+
On television	86.1 (84.1, 87.8)	92.0 (90.6, 93.2)	6.9+
On the radio	25.5 (23.1, 28.1)	27.5 (25.1, 30.1)	7.8
On billboards	40.2 (37.2, 43.3)	33.8 (31.0, 36.8)	–15.9+
Somewhere else	5.4 (4.4, 6.6)	3.2 (2.4, 4.2)	–41.9+
Any Location	89.9 (88.2, 91.4)	94.2 (92.9, 95.3)	4.8+
Rural			
In newspapers or in magazines	35.7 (33.3, 38.3)	31.5 (28.8, 34.2)	–11.9+
On television or the radio	84.5 (82.8, 86.0)	90.3 (88.8, 91.7)	6.9+
On television	84.1 (82.4, 85.7)	89.8 (88.1, 91.2)	6.7+
On the radio	17.2 (15.3, 19.4)	19.3 (17.2, 21.7)	12.2
On billboards	26.1 (23.3, 29.1)	19.8 (17.6, 22.2)	–24.2+
Somewhere else	2.5 (1.9, 3.3)	1.1 (0.7, 1.7)	–55.9+
Any Location	86.4 (84.7, 87.9)	91.7 (90.3, 92.9)	6.2+

+  $p < 0.05$ 

Note: Relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008]\*100

**Table 10.18: Percentage of current smokers  $\geq 15$  years old who noticed health warnings on cigarette packages and considered quitting because of the warning label on cigarette packages during the last 30 days, by selected demographic characteristics – GATS Turkey, 2008 and 2012.**

Demographic Characteristics	Current smokers <sup>1</sup> who...					
	2008			2012		
	Noticed health warnings on cigarette package	Thought about quitting because of warning label	Noticed health warnings on cigarette package	Thought about quitting because of warning label	Noticed health warnings on cigarette package	Thought about quitting because of warning label
	Percentage (95% CI)			Percentage (95% CI)		
Overall	94.5 (93.0, 95.7)	46.3 (43.6, 49.1)	94.3 (92.7, 95.6)	53.0 (50.1, 55.9)	-0.2	14.4+
Gender						
Male	94.8 (93.1, 96.0)	46.4 (43.2, 49.5)	93.8 (91.9, 95.3)	51.6 (48.1, 55.0)	-1.0	11.2+
Female	93.6 (90.3, 95.9)	46.3 (41.8, 50.8)	95.8 (93.6, 97.3)	57.5 (52.9, 62.0)	2.3	24.3+
Age (years)						
15–24	93.8 (89.9, 96.3)	42.4 (36.0, 49.2)	90.2 (84.8, 93.8)	40.7 (33.7, 48.1)	-3.9	-4.1
25–44	95.0 (92.9, 96.5)	47.6 (44.1, 51.3)	95.4 (93.7, 96.7)	55.7 (51.9, 59.4)	0.4	16.9+
45–64	94.8 (92.6, 96.4)	46.9 (42.4, 51.5)	94.9 (92.6, 96.6)	55.5 (50.8, 60.1)	0.1	18.4+
65+	86.4 (77.1, 92.3)	42.1 (31.8, 53.1)	91.4 (83.8, 95.6)	50.9 (39.9, 61.9)	5.7	21.0
Residence						
Urban	94.9 (93.0, 96.3)	44.8 (41.5, 48.3)	95.0 (93.0, 96.5)	52.3 (48.7, 55.9)	0.1	16.7+
Rural	93.3 (91.1, 95.0)	50.5 (46.8, 54.3)	91.8 (88.8, 94.1)	55.4 (51.4, 59.3)	-1.5	9.6+
Education Level						
Not Graduated	79.7 (72.4, 85.5)	41.1 (33.6, 49.0)	89.4 (82.1, 93.9)	42.6 (33.0, 52.8)	12.1+	3.7
Primary	95.4 (93.4, 96.8)	51.9 (48.0, 55.7)	94.7 (92.3, 96.4)	57.2 (52.7, 61.5)	-0.7	10.2+
Secondary	97.0 (94.6, 98.4)	45.0 (39.3, 50.9)	94.0 (90.4, 96.4)	51.7 (45.7, 57.6)	-3.1+	14.9
High School	96.2 (93.1, 98.0)	42.8 (38.0, 47.8)	95.4 (92.5, 97.2)	52.5 (47.5, 57.5)	-0.8	22.6+
University	94.5 (88.5, 97.5)	36.9 (30.4, 44.0)	93.6 (88.6, 96.4)	48.7 (41.7, 55.9)	-1.0	32.0+

<sup>1</sup> Includes daily & occasional (less than daily) smokers.

+ p<0.05

Note: The values for 2008 differ from the values in the 2008 Country Report because the Country Report gave % of current manufactured cigarette smokers only; relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008]\*100.

**Table 10.19: Percentage of adults ≥15 years old who noticed cigarette marketing during the last 30 days in various places, by selected demographic characteristics – GATS Turkey, 2008 and 2012.**

Demographic Characteristics	Noticed advertisements in stores where cigarettes are sold			Noticed any advertisement, sponsorship, or promotion		
	2008	2012	Relative change	2008	2012	Relative change
		<i>Percentage (95% CI)</i>			<i>Percentage (95% CI)</i>	
Overall	2.7 (2.1, 3.5)	3.6 (2.7, 4.8)	32.4	13.3 (12.0, 14.6)	15.7 (13.7, 17.9)	18.3+
Gender						
Male	3.6 (2.6, 5.0)	3.9 (2.9, 5.3)	8.2	17.1 (15.3, 19.1)	18.5 (16.1, 21.0)	8.0
Female	1.8 (1.3, 2.5)	3.3 (2.3, 4.6)	78.5+	9.6 (8.4, 10.9)	13.0 (11.0, 15.2)	35.8+
Age (years)						
15–24	4.3 (2.7, 6.9)	3.5 (2.1, 5.6)	–19.6	20.4 (17.3, 23.8)	19.2 (15.7, 23.4)	–5.6
25+	2.2 (1.8, 2.8)	3.6 (2.8, 4.7)	61.6+	11.2 (10.1, 12.3)	14.7 (12.9, 16.6)	31.0+
Residence						
Urban	3.3 (2.4, 4.4)	4.1 (2.9, 5.8)	24.8	14.4 (12.7, 16.2)	16.5 (13.9, 19.4)	14.4
Rural	1.4 (1.1, 1.9)	2.3 (1.8, 3.0)	63.6+	10.7 (9.3, 12.2)	13.7 (11.8, 15.8)	28.3+
Education Level						
Not Graduated	0.7 (0.4, 1.4)	1.9 (1.1, 3.1)	159.7	6.4 (5.0, 8.2)	11.3 (8.6, 14.7)	77.4+
Primary	2.1 (1.5, 3.0)	3.4 (2.4, 4.8)	57.4	10.1 (8.8, 11.5)	12.9 (11.0, 15.2)	28.4+
Secondary	3.8 (2.2, 6.7)	4.0 (2.5, 6.5)	5.3	17.6 (14.5, 21.1)	19.2 (15.6, 23.3)	9.1
High School	3.9 (2.7, 5.6)	4.0 (2.6, 6.0)	2.2	18.3 (15.6, 21.2)	18.5 (15.6, 21.8)	1.2
University	4.6 (3.0, 6.8)	4.7 (3.4, 6.6)	3.6	22.3 (18.8, 26.3)	17.6 (14.7, 21.1)	–20.9+

+ p&lt;0.05

Note: Values for 2008 differ from 2008 Country Report because it includes G06F which was not asked in 2012. 2008 values were recalculated here to match 2012 Questionnaire. Relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008]\*100.

**Table 10.20: Percentage of adults  $\geq 15$  years who believe that smoking causes serious illness and that secondhand smoke causes serious illness, by selected demographic characteristics – GATS Turkey, 2008 and 2012.**

Demographic Characteristics	2008			2012			Relative change	
	Smoking causes serious illness	SHS causes serious illness	Smoking causes serious illness	Smoking causes serious illness	SHS causes serious illness	Smoking causes serious illness	SHS causes serious illness	SHS causes serious illness
Overall	97.2 (96.6, 97.7)	95.5 (94.9, 96.1)	96.2 (95.1, 97.0)	96.2 (95.3, 97.0)	96.2 (95.3, 97.0)	-1.1+	0.7	
Gender								
Male	97.8 (97.2, 98.2)	95.9 (95.1, 96.6)	96.0 (94.7, 96.9)	96.0 (95.0, 96.8)	96.0 (95.0, 96.8)	-1.8+	0.1	
Female	96.7 (95.7, 97.4)	95.1 (94.2, 95.8)	96.4 (95.2, 97.3)	96.4 (95.3, 97.3)	96.4 (95.3, 97.3)	-0.3	1.4+	
Age								
15-24	97.8 (96.7, 98.6)	95.9 (94.6, 97.0)	96.4 (94.8, 97.6)	96.9 (95.6, 97.9)	96.9 (95.6, 97.9)	-1.4+	1.0	
25-44	97.9 (97.2, 98.4)	95.8 (94.9, 96.6)	96.6 (95.2, 97.6)	96.3 (95.1, 97.3)	96.3 (95.1, 97.3)	-1.3+	0.5	
45-64	97.2 (96.3, 97.9)	96.3 (95.5, 97.1)	95.8 (94.5, 96.8)	96.2 (94.9, 97.1)	96.2 (94.9, 97.1)	-1.4+	-0.2	
65+	92.8 (90.5, 94.7)	90.5 (87.8, 92.6)	94.8 (92.9, 96.3)	94.2 (92.2, 95.6)	94.2 (92.2, 95.6)	2.1	4.0+	
Residence								
Urban	97.7 (97.0, 98.3)	96.3 (95.6, 97.0)	96.3 (94.9, 97.4)	96.4 (95.1, 97.3)	96.4 (95.1, 97.3)	-1.4+	0.0	
Rural	96.0 (95.0, 96.9)	93.6 (92.5, 94.5)	95.7 (94.5, 96.7)	95.8 (94.7, 96.7)	95.8 (94.7, 96.7)	-0.3	2.4+	
Education								
Not Graduated	91.8 (89.7, 93.6)	89.8 (87.8, 91.5)	95.0 (93.3, 96.3)	94.0 (92.2, 95.4)	94.0 (92.2, 95.4)	3.5+	4.7+	
Primary	98.1 (97.4, 98.6)	96.1 (95.2, 96.8)	96.1 (94.2, 97.4)	96.6 (94.9, 97.7)	96.6 (94.9, 97.7)	-2.0+	0.5	
Secondary	98.3 (97.1, 99.1)	97.0 (95.5, 98.0)	96.6 (95.0, 97.7)	96.3 (94.9, 97.3)	96.3 (94.9, 97.3)	-1.8+	-0.7	
High School	99.0 (98.4, 99.4)	97.6 (96.2, 98.4)	96.0 (93.9, 97.3)	96.4 (95.0, 97.4)	96.4 (95.0, 97.4)	-3.1+	-1.2	
University or Higher	97.9 (96.1, 98.9)	96.8 (95.0, 98.0)	97.2 (95.6, 98.2)	97.2 (95.8, 98.2)	97.2 (95.8, 98.2)	-0.8	0.4	

+ p &lt; 0.05

Note: Relative change (%) calculated by [(estimate of 2012 – estimate of 2008) / estimate of 2008]\*100





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**Phone:** 0312 565 61 01  
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**ISBN : 978-975-590-502-0**  
**Sağlık Bakanlığı Yayın No: 948**