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TEPAV Tobacco Control Policy Research Team[1]

POLICY NOTE

WHY STUDY TURKEY'S TOBACCO CONTROL POLICIES?[2]

Like all consumer goods, tobacco has supply and demand aspects. Unlike many other consumer goods, it also has health and public policy dimensions. Tobacco is a particularly relevant research area considering its high rate of consumption prevalence and adverse effects on health when compared to other consumer goods.

In this note, five facts are shared in order to highlight the urgent necessity of studying tobacco control policies in Turkey.

These five facts are:

1. Tobacco use, as well as exposure to tobacco smoke, has adverse effects on health and is one of the leading causes of preventable deaths in Turkey.
2. Imperfect and asymmetric information about the outcomes of tobacco use makes it a public concern.
3. Turkey is one of the countries that has enacted the most comprehensive policies to curb smoking.
4. The demand for tobacco products has grown in Turkey despite the current measures in place.
5. Within-group differences in Turkey warrant additional tobacco control policies targeting relevant groups.

[1] This note was prepared by the TEPAV Tobacco Control Policy Research Team. Team members include Asena Caner, Sibel Güven, Ayşegül Taşöz Düşündere, Taylan Kurt, Egecan Alan Fay, and Bihter Erbaş.

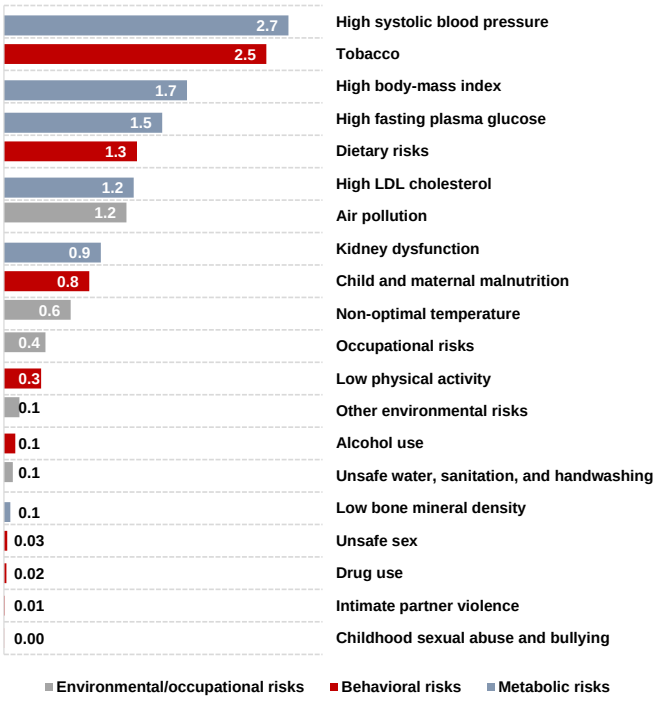
[2] This evaluation note reiterates findings and updates figures and statistics, when possible, from the report titled, "The Economics of Curbing Smoking in Turkey: A Scoping Review Supply, Demand, Health, and Public Policy Aspects." The report and note were funded with a grant from the Foundation for a Smoke-Free World, a U.S.-based nonprofit 501(c)(3) private foundation with a mission to end smoking during this generation. The Foundation accepts charitable gifts from PMI Global Services Inc. (PMI); under the Foundation's Bylaws and Pledge Agreement with PMI, the Foundation is independent from PMI and the tobacco industry. The contents, selection, and presentation of facts, as well as any opinions expressed are the sole responsibility of the authors and under no circumstances shall be regarded as reflecting the positions of the Foundation for a Smoke-Free World, Inc. and TEPAV.

Fact 1: Tobacco use, as well as exposure to tobacco smoke, has adverse effects on health and is one of the leading causes of preventable deaths in Turkey.

In 2019, nearly 9 million deaths were attributable to tobacco use globally, with 100 thousand deaths occurring in Turkey.[3] In recent decades, tobacco has been estimated to be the second most common risk factor associated with mortality in the world, including Turkey, considering all risk factors.[4]

Given all risk factors, outlined as behaviors or conditions that increase the likelihood of adverse health incidents, in 1990-2019, the death of 2.5 million people in Turkey is attributable to tobacco use (see Figure 1).

Figure 1 - Which risk factors cause most of the deaths in Turkey?, million deaths, estimates, cumulative 1990-2019



Source: Institute for Health Metrics and Evaluation (IHME), 'Global Burden of Disease Study 2019 (GBD 2019) Results', TEPAV calculations

As shown in the figure, risk factors are categorized into three groups: environmental /occupational risks, behavioral risks, and metabolic risks. Tobacco use has a much more severe impact compared to other behavioral risks, such as dietary risks, low physical activity, alcohol use, or drug use (see Figure 1).[5]

In addition to the direct health effects of tobacco use, there is the indirect health effect from being exposed to tobacco smoke. As a matter of fact, over 1.3 million deaths across the globe and 15 thousand deaths in Turkey were attributable to second-hand smoking in 2019. Accordingly, in 2019, it was estimated that 15 percent of all deaths in Turkey were the result of either first-hand or second-hand smoking.[6]

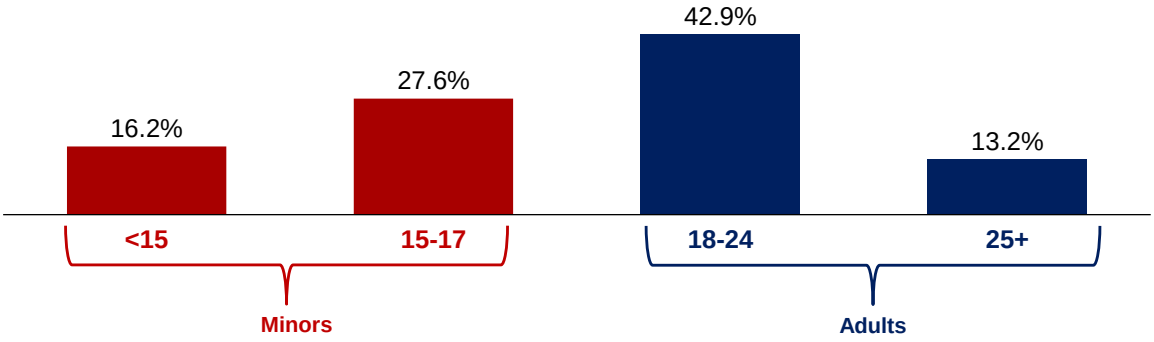
Governments on average bear roughly 61 percent of total health spending in the world.[7] In addition to the adverse health impacts of tobacco use, the economic burden is especially onerous in countries like Turkey, where the public sector bears 79 percent of health care costs.[8]

[3] Institute for Health Metrics and Evaluation (IHME), 'Global Burden of Disease Study 2019 (GBD 2019) Results', TEPAV calculations
[4] Ibid.
[5] Ibid.
[6] Ibid.
[7] Institute for Health Metrics and Evaluation (IHME), 'Financing Global Health Visualization', TEPAV calculations
[8] Ibid.

Fact 2: Imperfect and asymmetric information about the outcomes of tobacco use makes it a public concern.

Tobacco products contain the highly addictive psychoactive ingredient nicotine.[9] Because of the addictive qualities of nicotine, the decision to start smoking has prolonged implications, which most consumers are unaware of in the beginning. Moreover, the initial decision to smoke is often made by minors, who may not fully grasp the risks associated with tobacco use. For instance, in Turkey, although the minimum legal age for purchasing tobacco products is 18, it was estimated that 43.9 percent of adult tobacco users began daily use when they were younger than 18.[10] More alarmingly, 16.2 percent of current or past adult tobacco users stated that they began daily use before turning 15 (see Figure 2).[11]

Figure 2 - Starting age for daily tobacco use in Turkey, % of users, 2019



Source: TurkStat microdata, TEPAV calculations

The literature establishes a clear link between tobacco use and various detrimental health consequences; however, numerous after-effects of tobacco consumption may take years to become noticeable.[12] Accordingly, public authorities play an essential role in informing the public about the direct and indirect health consequences of tobacco consumption. In fact, the public sector is the implementing authority of most of the policies enacted to combat the tobacco pandemic, in addition to warning people about the dangers of tobacco. For instance, tobacco products are more heavily taxed than other goods in many countries due to the health-related negative internalities and externalities linked to tobacco consumption. Taxes collected on tobacco constitute a substantial amount. In 2020, Turkey collected 10.8 billion dollars in tobacco tax revenues, constituting 7.7 percent of Turkey's total tax revenues.[13]

[9] World Health Organization (WHO), "Tobacco"; Benowitz, "Pharmacology of Nicotine: Addiction, Smoking-Induced Disease, and Therapeutics."
[10] TurkStat, "Turkey Health Survey."
[11] Ibid.
[12] Ţurcanu, Obreja, and Şalaru, "Costs, Health Effects and Cost-Effectiveness of Tobacco Control Strategies in the Republic of Moldova"; U.S. National Cancer Institute and World Health Organization, "Monograph 21: The Economics of Tobacco and Tobacco Control."
[13] Petit and Nagy, 'Fiscal Policy: How to Design and Enforce Tobacco Excises?'; Gelir İdaresi Başkanlığı, 'Merkezi Yönetim Vergi Gelirleri Tahsilatı'; International Monetary Fund (IMF), 'International Financial Statistics Exchange Rates'; T.C. Tarım ve Orman Bakanlığı Tütün ve Alkol Dairesi Başkanlığı, 'Sigara Üretimi, İthalatı, İç Satışı ve İhracatı', TEPAV calculations

Fact 3: Turkey is one of the countries that has enacted the most comprehensive policies to curb smoking.

In Turkey, where the history of tobacco use dates back to the 16th century, tobacco policies began with regulations regarding the production of tobacco and tobacco products.[14] Health-related aspects of tobacco products were beginning to be addressed in the 1990s.[15]

Global efforts to restrain the tobacco pandemic started to be discussed after the late 1970s.[16] Subsequently, the World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC) became a legally binding international instrument in 2005. Currently, 182 countries, including Turkey, have ratified the FCTC treaty.[17] Within the context of Turkish tobacco control policies, during the 2000s, efforts put towards reducing the prevalence of tobacco use were strengthened with the incorporation of the FCTC into Turkish legislation (see Table 1).

Furthermore, the WHO declared six main policy areas, dubbed by its abbreviation MPOWER, as key summary indicators for tobacco control policies.[18] Above all, only two countries have adopted all MPOWER related measures at the highest level.[19] Turkey is a prime example, since it was the first country to adopt all the MPOWER measures with full compliance. To exemplify, to raise tobacco retail prices in order to deter initiation and encourage cessation, the WHO has suggested that tobacco taxes be at least 70 percent of the retail price.[20] While the global median total tax burden on tobacco products was 63 percent, the total tax burden on retail cigarette prices in Turkey was calculated at a much higher rate of 81 percent.[21]

Yet, more work needs to be done on implementation, enforcement, and compliance of regulations in Turkey. For instance, although laws are enacted to protect individuals from tobacco smoke in public places, 28.0 percent of adults in Turkey stated that they were exposed to tobacco smoke inside a cafe, a coffee shop, or a tea house, despite this going against legislation.[22]

[14] Ozcebe et al., 'The Perspectives of Politicians on Tobacco Control in Turkey'; Yurtoğlu, 'Türkiye Cumhuriyeti'nde Tütün Tekeli ve Sigara Fabrikalarının Tarihsel Gelişimi (1923-1950)'.
[15] Bilir et al., 'Tobacco Control in Turkey'; T.C. Resmi Gazete, 4207 Sayılı 26.11.1996 Tarihli Tütün Ürünlerinin Zararlarının Önlenmesi ve Kontrolü Hakkında Kanun.
[16] World Health Organization (WHO), "History of the WHO Framework Convention on Tobacco Control."
[17] United Nations Treaty Collection, "4. WHO Framework Convention on Tobacco Control."
[18] MPOWER's individual sections are (M) Monitoring tobacco use and prevention policies, (P) Protecting people from tobacco smoke, (O) Offering help to quit tobacco use, (W) Warning about the dangers of tobacco, (E) Enforcing bans on tobacco advertising, promotion and sponsorship, and (R) Raising taxes on tobacco.
[19] World Health Organization (WHO), "WHO Report on the Global Tobacco Epidemic, 2019: Offer Help to Quit Tobacco Use."
[20] World Health Organization (WHO), "WHO Technical Manual on Tobacco Tax Administration."
[21] World Health Organization, *Global Progress Report on Implementation of the WHO Framework Convention on Tobacco Control 2018*; T.C. Resmi Gazete, 24/12/2020 Tarihli ve 3328 Sayılı Cumhurbaşkanı Kararı; TurkStat, 'Consumer Price Index Statistics', TEPAV calculations
[22] Centers for Disease Control and Prevention (CDC), 'Global Tobacco Surveillance System Data (GTSSData) Adults (GATS) Turkey 2016', TEPAV calculations

Table 1 - Turkey's policy progress timeline within MPOWER measures, 2007-2018

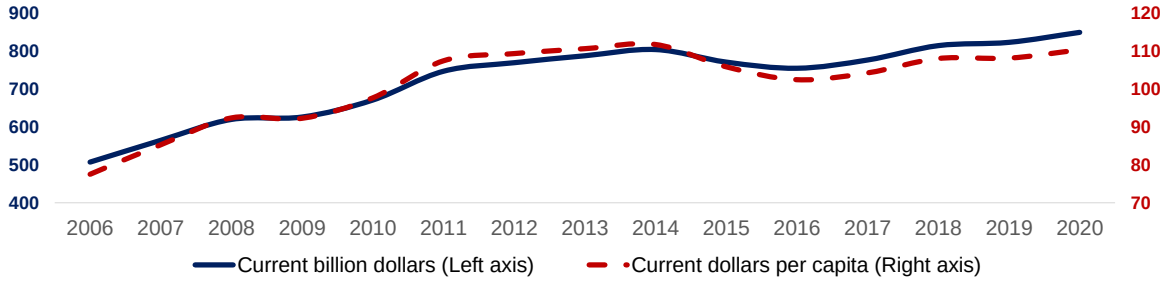
	Monitoring tobacco use and prevention policies	Protecting people from tobacco smoke	Offering help to quit tobacco use	Warning about the dangers of tobacco	Enforcing bans on tobacco advertising, promotion and sponsorship	Raising taxes on tobacco
	M	P	O	W	E	R
Minumum policy coverage score	1	1	1	1	1	1
Maximum policy coverage score	4	5	5	5	5	5
2007	4	2	3	3	2	*
2008	4	5	3	3	4	4
2010	4	5	5	4	4	5
2012	4	5	5	5	5	5
2014	4	5	5	5	5	5
2016	4	5	5	5	5	5
2018	4	5	5	5	5	5

Source: The Global Health Observatory[23], TEPAV visualizations
Note: The shade of color turns from pink to yellow, from yellow to green tones as the respective value increases within the individual column. * No data available.

Fact 4: The demand for tobacco has grown in Turkey despite the current measures in place.

The global tobacco industry grew, on average, by 2 percent annually during the last five years and reached up to 850 billion dollars in 2020.[24] [25] As shown in Figure 3, the industry continues to grow in both total and per capita sales. Notably, the global per capita retail sales volume of 110 dollars today is much higher than the 78 dollars of 2006.[26]

Figure 3 - Retail sales volume of the tobacco industry in the world, 2006-2020



Source: Euromonitor International Passport Statistics, TEPAV calculations

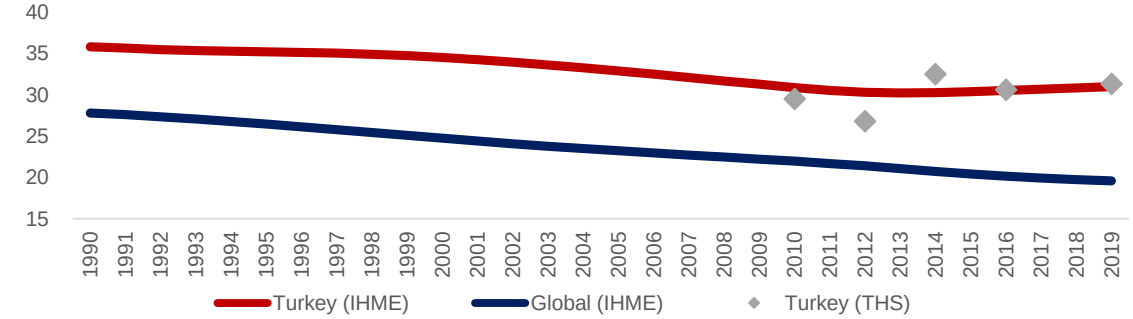
With a total sales volume of 10.6 billion dollars, the tobacco industry's retail sales per capita in Turkey at 128 dollars is higher than the global average of 110 dollars in 2020.[27] Similarly, the prevalence rate for daily and occasional adult smokers in Turkey was estimated to be 31.0 percent compared to the global 19.6 percent (see Figure 4).[28]

The tobacco consumption prevalence rate in Turkey is higher than the global average; moreover, it does not seem to be decreasing over time. Although the estimated rates differ, the general trends regarding tobacco use are similar enough across data sources, so that it can be concluded that there is no significant decreasing trend, especially over the last five years (see Figure 4 and Table 2).

[23] The Global Health Observatory, "Tobacco Control: MPOWER."
[24] Even though there is no universally agreed-upon definition of "tobacco industry," the tobacco industry includes both "conventional tobacco products" and "alternative products" in this study.
[25] Euromonitor International, "Passport Statistics."
[26] Ibid.
[27] Ibid.
[28] Institute for Health Metrics and Evaluation (IHME), "Global Burden of Disease Study 2019 (GBD 2019) Smoking Tobacco Use Prevalence 1990- 2019."

In particular, Turkey has the second-highest smoking rate among OECD countries, with an estimated 18 million adult daily smokers and 28.0 percent of individuals over the age of 15 declaring themselves to be daily smokers.[29]

Figure 4 - Prevalence of daily and occasional tobacco smoking among adults in Turkey and the world, %, 1990-2019



Source: IHME, TurkStat, TEPAV calculations

Note: THS is the abbreviation for Turkey Health Survey. IHME data are age-standardized rates assuming that the respective population had a standard age structure over the years.

Table 2 - Prevalence of tobacco smoking among adults in Turkey according to different data sources, %, 1988-2019

Years	Literature	GATS (daily)	STEPS (daily)	THS (daily)	THS (daily + occasional)	IHME (daily + occasional)
1988[30]	43.6*					
1993[31]	33.6* **					35.4
2003[32]	33.8**					33.6
2008		27.4				31.7
2010				25.4	29.5	30.9
2012		23.8		23.2	26.8	30.3
2014				27.3	32.5	30.3
2016		29.6		26.5	30.6	30.5
2017[33]			29.2			30.7
2019				28.0	31.3	31.0

Source: CDC GATS micro data[34], IHME[35], Republic of Turkey Ministry of Health, TurkStat[36], WHO, TEPAV calculations

Note: THS is the abbreviation for Turkey Health Survey. * The quoted source does not specify whether the rate is for daily smokers or daily and occasional smokers altogether. ** In 1993 and 2003, the statistics are for adults older than 18 years old; in the rest of the years, the statistics are for adults older than 15. *** Age-standardized rate is provided.

[29] OECD, "Non-Medical Determinants of Health: Tobacco Consumption"; TurkStat, "Turkey Health Survey."
[30] T.C. Sağlık Bakanlığı, "Tobacco Use in Turkey"; Bilir et al., "Tobacco Control in Turkey"; NPAmatem Bağımlılık Merkezi, "Tütün Bağımlılığı."
[31] T.C. Sağlık Bakanlığı, "Health Services Utilization Survey in Turkey"; Bilir et al., "Tobacco Control in Turkey."
[32] T.C. Sağlık Bakanlığı, "National Burden of Diseases Study"; Bilir et al., "Tobacco Control in Turkey."
[33] World Health Organization (WHO), "STEPwise Approach to Noncommunicable Disease Risk Factor Surveillance."
[34] Centers for Disease Control and Prevention (CDC), "Global Tobacco Surveillance System Data (GTSSData) Global Adult Tobacco Survey (GATS) Turkey National Micro Data 2008"; Centers for Disease Control and Prevention (CDC), "Global Tobacco Surveillance System Data (GTSSData) Global Adult Tobacco Survey (GATS) Turkey National Micro Data 2012"; Centers for Disease Control and Prevention (CDC), "Global Tobacco Surveillance System Data (GTSSData) Global Adult Tobacco Survey (GATS) Turkey National Micro Data 2016."
[35] Institute for Health Metrics and Evaluation (IHME), "Global Burden of Disease Study 2019 (GBD 2019) Smoking Tobacco Use Prevalence 1990- 2019."
[36] TurkStat, "Turkey Health Survey."

Fact 5: Within-group differences in Turkey warrant additional tobacco control policies targeting relevant groups.

Investigating the demographic breakdown of smokers in Turkey reveals that there are significant differences across demographic groups. Some of the findings are as follows:

1. The share of students aged 13-15 who use any type of tobacco product seems to have alarmingly increased over time (see Figure 5). If new policy interventions do not specifically target this group, then this trend weakens the possibility of a decrease in tobacco consumption in the future.

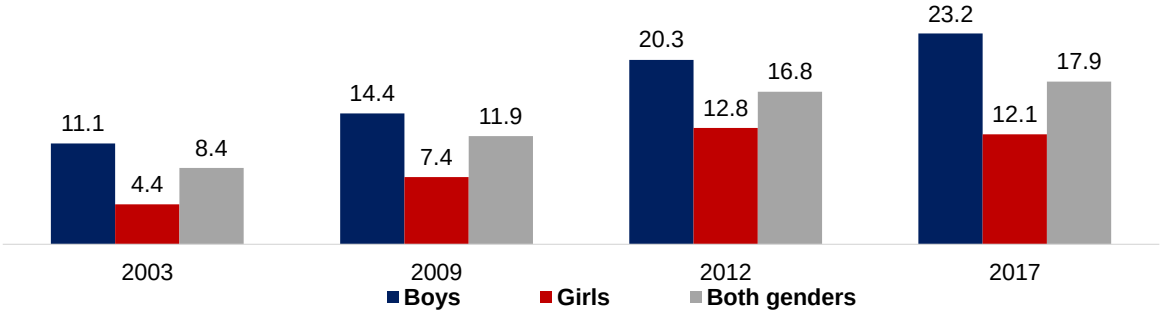
2. Over time, there has been a slight change in the smoking rate for men, but a significant increase for women (see Figure 6).

3. The level of education is positively correlated to smoking prevalence (see Figure 7).

4. Although the shares of current smokers among both men and women vary across categories, the daily smoking rate increases with education only for women; no clear pattern exists for men (see Figure 8).

Based on these findings, it is clear that in order to end smoking, there must be more effective policies that target specific demographic groups. These groups include those with higher and/or increasing rates of smoking prevalence.

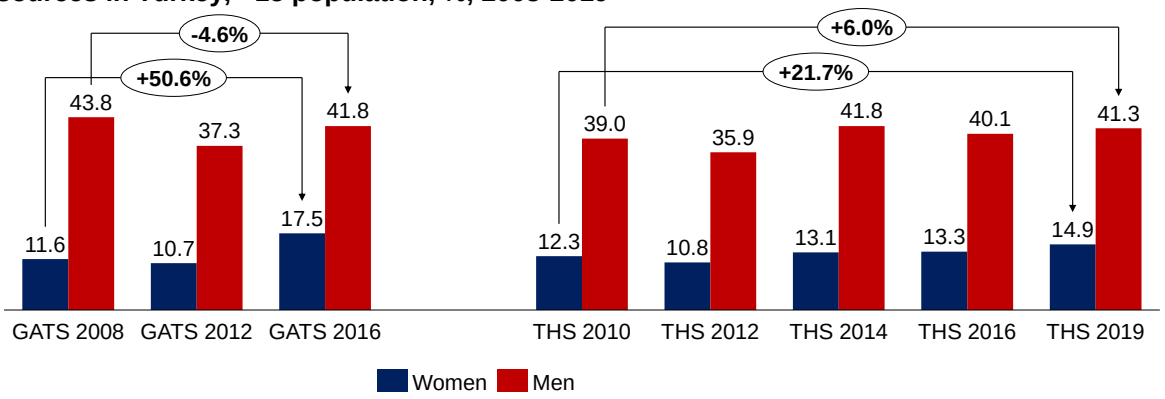
Figure 5 - Share of students in Turkey aged 13-15 who use any tobacco product, %, 2003-2017



Source: CDC GYTS Fact Sheets[37], TEPAV calculations

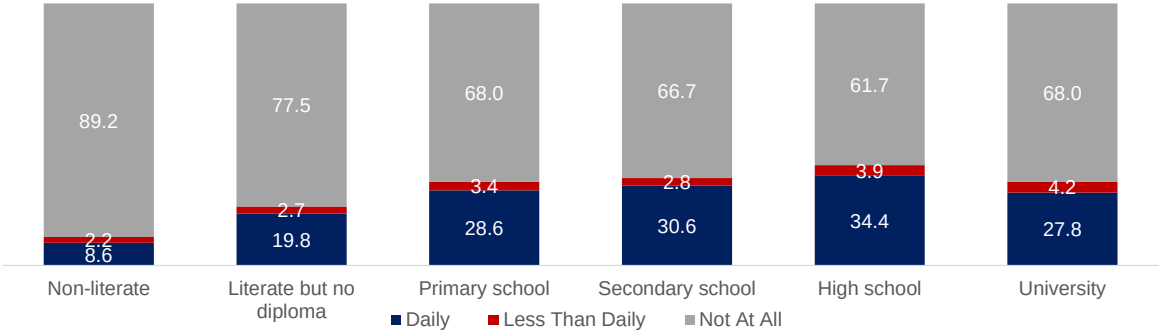
[37] Centers for Disease Control and Prevention (CDC), "Global Tobacco Surveillance System Data (GTSSData) Global Youth Tobacco Survey (GYTS) Turkey (Ages 13-15) Fact Sheet 2003"; Centers for Disease Control and Prevention (CDC), "Global Tobacco Surveillance System Data (GTSSData) Global Youth Tobacco Survey (GYTS) Turkey (Ages 13-15) Fact Sheet 2009"; Centers for Disease Control and Prevention (CDC), "Global Tobacco Surveillance System Data (GTSSData) Global Youth Tobacco Survey (GYTS) Turkey (Ages 13-15) Fact Sheet 2012"; Centers for Disease Control and Prevention (CDC), "Global Tobacco Surveillance System Data (GTSSData) Global Youth Tobacco Survey (GYTS) Turkey (Ages 13-15) Fact Sheet 2017"; Centers for Disease Control and Prevention (CDC), "Global Tobacco Surveillance System Data (GTSSData) Global Youth Tobacco Survey (GYTS) Turkey (Ages 13-15) Fact Sheet 2005."

Figure 6 - Daily smoking prevalence rates by gender throughout years, from different data sources in Turkey, +15 population, %, 2008-2019



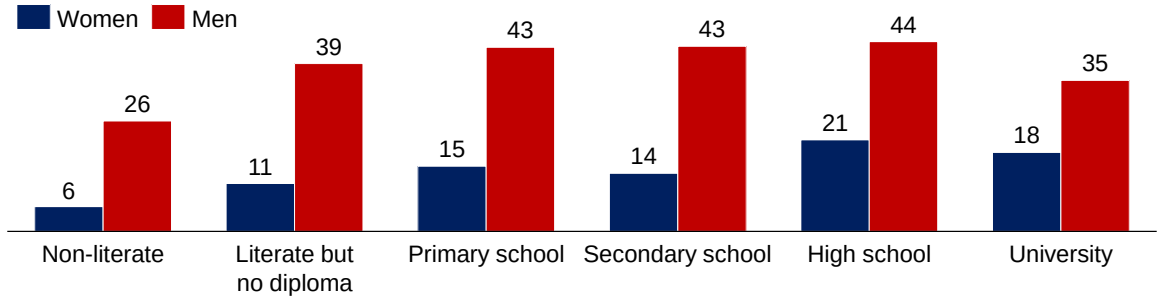
Source: CDC GATS micro data, TurkStat Turkey Health Survey, TEPAV calculations
Note: The individual change rate between years is shown within arrows.

Figure 7 - Tobacco usage according to the level of education in Turkey, +15 population, %, 2019



Source: TurkStat micro data, TEPAV calculations

Figure 8 - Daily tobacco usage prevalence rates according to the level of education and gender in Turkey, +15 population, %, 2019



Source: TurkStat micro data, TEPAV calculations

Conclusion

Tobacco consumption behavior and tobacco control policies of countries are shaped by their supply, demand, health, and public policy dimensions. TEPAV Tobacco Control Policy Research Team evaluated Turkey's tobacco control policies and the tools employed, considering all four dimensions in order to provide an enhanced understanding of the current challenges and gaps in the research carried out to date and policy design.

This note summarizes the key findings which point out the need for further tobacco control policy studies in Turkey. Overall, our findings indicate that the universally accepted tobacco control policies, such as the measures recommended in MPOWER, may be necessary, but they are not sufficient. Country-specific control policies that target specific groups must be considered in reducing smoking prevalence in Turkey.

Furthermore, considering that Turkey is the first country to have adopted all the MPOWER measures at the highest level, more research on the economics of curbing smoking in Turkey is needed to investigate the problems regarding compliance with, implementation, and enforcement of adopted rules and regulations.

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