Prevalence and prices of tobacco and nicotine products in Ukraine based on individual survey data

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Abstract

This policy note analyzes smoking prevalence and tobacco consumption patterns in Ukraine between 2018 and 2025, based on individual data from a nationally representative Omnibus survey conducted by the Kyiv International Institute of Sociology (KIIS). The study examines the effects of tax reforms (particularly since 2021) and the shock of Russia's full-scale invasion in 2022 on smoking dynamics, disaggregated by gender, age, region, education, income, and occupation.

Results show that after a decade-long decline in smoking prevalence (from about 25–28% in 2010 to 20% in 2017), the war triggered a temporary surge to 32% in May 2022, followed by a gradual decrease to 27% by late 2024 and a renewed increase to 31% in early 2025.

Men continue to smoke two to three times more often than women, yet female daily smoking rates — especially in frontline regions — have increased. Younger adults are shifting toward alternative products such as e-cigarettes and heated tobacco (HTPs), which together account for 15–20% of users. Daily smoking is most common among military personnel, manual workers, and the self-employed, while respondents with higher education tend to use cheaper substitutes, including roll-your-own (RYO) tobacco.

Price analysis reveals strong socioeconomic differentiation: higher-income and urban consumers pay more for premium cigarettes and HTPs, while lower-income groups rely on inexpensive RYO products. Half of smokers reported they would quit or reduce consumption if tobacco prices doubled or their income fell by half — indicating substantial price sensitivity and the effectiveness of fiscal measures.

The findings highlight the need to integrate taxation and affordability policies with targeted wartime health interventions, improved monitoring of novel nicotine products, and stronger enforcement against illicit trade.

Keywords: Tobacco, Smoking, HTP, Excise, Taxation, Tobacco, Smoking
JEL classification: H24, I18

[1] This report is prepared by experts from Kyiv School of Economics (KSE) University and KSE Institute.

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1. Introduction

Between 2018 and 2024, Ukraine intensified its tobacco control efforts. Excise taxes on cigarettes were raised annually, regulation of e-cigarette liquids was introduced, and the country began aligning its fiscal and regulatory framework with EU directives. These measures aimed to curb smoking prevalence by reducing affordability of traditional cigarettes and limiting the spread of novel products. At the same time, national surveys and NGO monitoring provided a growing body of evidence on tobacco consumption, making it possible to track progress and inform policy decisions.

This trajectory was abruptly disrupted by the shock of Russia's full-scale invasion in February 2022. The war created economic instability, displacement, stress, and severe disruptions to production and distribution chains. Enforcement of regulations has weakened, and illicit trade expanded, raising concerns that earlier public health gains could be undermined.

The Ukrainian tobacco market is dominated by international corporations: Philip Morris, British American Tobacco, JTI, Imperial Tobacco. Some of the well-known brands, as well as their own national brands, are produced by the Pryluky Tobacco Factory (BAT), the Lviv Tobacco Factory, etc.[2] Domestic factories are often key suppliers to the illicit cigarette market. For example, in 2022 the United Tobacco factory in Zhovti Vody (Dnipropetrovsk region) was shut down due to involvement in illegal production. According to Kantar (2025), the share of the illicit market in July 2025 was 15.4%. The main producers of illicit cigarettes were identified as the Vynnyky Tobacco Factory, Marshall Finest Tobacco/United Tobacco/VK Tobacco FZE, and Ukrainian Tobacco Production LLC.

The Russian war against Ukraine impacted production of tobacco products in Ukraine similar to other businesses — logistics disruptions, displacement of personnel, a sharp drop in legal cigarette production, and a surge in illicit trade. At the same time, most tobacco production facilities remained in Ukraine and gradually resumed operations. The only plant that suspended production was Philip Morris's factory in the Kharkiv region, with the company opening a new facility in the Lviv region in 2024. According to the State Statistics Service, in 2023, the volume of cigarette production in Ukraine was about 60 billion pieces. However, the legal tobacco market in Ukraine is experiencing a decline due to regulatory restrictions, excise policies, etc (Sheikh et al. 2025).

Against this background, the report examines how smoking prevalence and consumption trends evolved in Ukraine during a period of both strengthened control measures and unprecedented external shocks. It looks at changes following the January 2021 tax reform and after the invasion in 2022, assessing their impact on overall and daily smoking, shifts toward novel products, and regional disparities. The analysis also situates Ukraine's experience within the wider European context to guide the next stage of tobacco control policy.

[2] https://ukrstat.gov.ua

2. Data

The analysis is based on data collected through a nationally representative Omnibus survey conducted by the Kyiv International Institute of Sociology (KIIS) in May 2025, which included an extended module on smoking behavior commissioned by the research team. Of the 2,004 individuals surveyed, 1,973 provided responses regarding their smoking status, and 564 respondents reported currently smoking. The survey module was funded by the Vienna Institute for International Economic Studies (WIIW) and Bloomberg Philanthropies. The study focuses on cigarettes as the most common type of tobacco product with sufficient number of observations to warrant trustworthy estimates. However, the prevalence of other types of tobacco products is also reported for comparison.

The data come from the regular KIIS Omnibus survey, which ensures comparability with other statistics prepared by KIIS for the NGO *Zhyttia,* which is also based on the Omnibus survey. It allows tracking of smoking trends over time. The questionnaire for the survey presented in this report was developed in cooperation with KIIS to ensure the comparability as part of the goal of this survey.

For cross-country comparison, the Eurobarometer dataset is used as the most up-to-date source for EU countries. Some methodological differences should be noted: Eurobarometer surveys the population aged 15 and older, while the KIIS Omnibus covers respondents aged 18 and above. As a result, full alignment between the two datasets is not possible, but they remain broadly comparable for policy analysis.

3. European context

In 2020, tobacco use[3] in Ukraine was close to the global average — 25.9% compared to 22.3% (according to the World Development Indicators[4]). However, with the onset of the full-scale invasion, this figure began to rise, peaking at 32% in May 2022 (according to surveys conducted by KIIS for NGO "Zhyttia").

EU country figures on combustible tobacco use come from the latest 2023 Eurobarometer[5], which surveys individuals aged 15 and older, whereas Ukrainian data are based on the 2025 KIIS Omnibus survey covering those aged 18 and above. **Figure 1** benchmarks Ukraine against EU-27 smoking rates using the most recent comparable datasets. For cigarette smoking, Ukraine was at 22% in 2023 and 20% in 2025. This places Ukraine in the upper-middle range compared with EU member states and with the EU-27 average of 18%.

Use of e-cigarettes is lower overall but Ukraine again sits above the European baseline: 5% in Ukraine versus an EU-27 average of 3%. Ukraine's level is similar to Ireland and Lithuania, below the Baltic leaders but clearly higher than the many countries clustered at 1–2%. For

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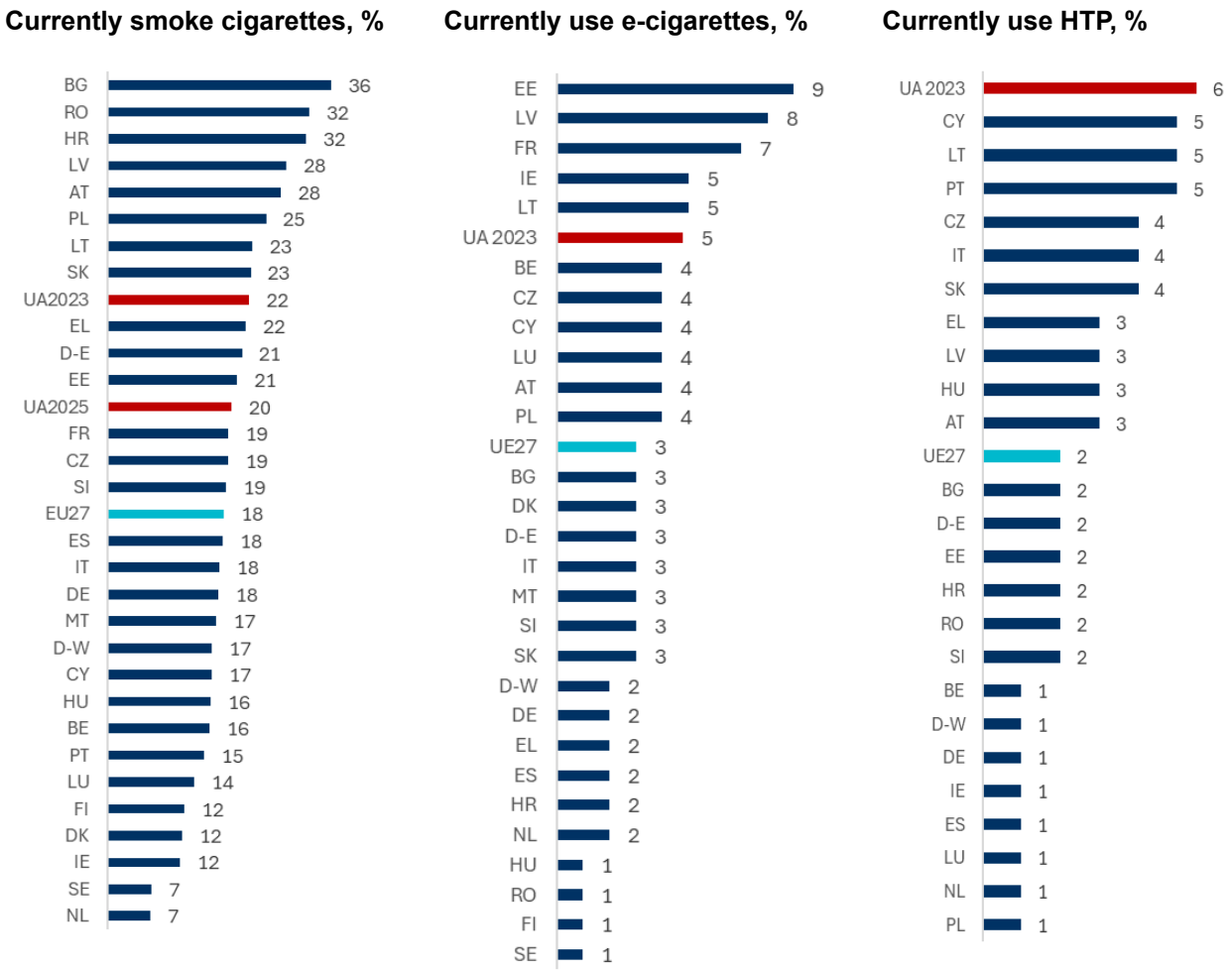
[3] The percentage of the population ages 15 years and over who currently use any tobacco product (smoked and/or smokeless tobacco) on a daily or non-daily basis. Tobacco products include cigarettes, pipes, cigars, cigarillos, waterpipes (hookah, shisha), bidis, kretek, heated tobacco products, and all forms of smokeless (oral and nasal) tobacco. Tobacco products exclude e-cigarettes (which do not contain tobacco), "e-cigars", "e-hookahs", JUUL and "e-pipes". The rates are age-standardized to the WHO Standard Population.

[4] https://data.worldbank.org/indicator/SH.PRV.SMOK?locations=UA

[5] https://europa.eu/eurobarometer/surveys/detail/2995

heated tobacco products (HTP), Ukraine stands out most: 6%, roughly three times the EU-27 average of 2%, and the highest rate in the comparison.

Figure 1 / Tobacco products prevalence in EU countries and Ukraine



Source: Special Eurobarometer SP539: Attitudes of Europeans towards tobacco and related products, KIIS (2023), own calculations based on KIIS data for 2025. UA2023 and UA2025 stand for 2023 and 2025 estimates for Ukraine respectively.

Another source of comparison is the Global Adult Tobacco Survey (GATS)[6]. The survey uses standardised methodology; however, a limitation is that data collection across countries takes place in different years, which complicates direct comparisons. In most European countries that participated in GATS, smoking prevalence ranged between 20% and 38% of adults. The gender gap is present everywhere but varies in scale: from relatively narrow (Poland) to very wide (Ukraine, Kazakhstan).

Data do not fully cover Europe: Western and Northern European countries (Germany, France, Italy, etc.) did not take part in GATS and rely on other surveys (EHIS[7], Eurobarometer).

[6] https://www.who.int/teams/noncommunicable-diseases/surveillance/data
[7] https://ec.europa.eu/eurostat/web/microdata/european-health-interview-survey

Highest smoking rates among the listed countries were found in Greece (2013), where nearly 4 out of 10 adults smoked (38.2%). Both male and female smoking rates were high: 51.2% of men and 25.7% of women. This is different from many Eastern European and Central Asian countries, where female smoking prevalence is significantly lower.

Table 1 / Smoking prevalence according to GATS

Country	GATS survey years	Latest available year	Overall (%)	Men (%)	Women (%)
Turkey	2008, 2012, 2016	2016	31.6	44.1	19.2
Ukraine	2010, 2017	2017	22.8	39.6	8.8
Kazakhstan	2014, 2019	2019	20.4	36.5	6.0
Greece	2013	2013	38.2	51.2	25.7
Romania	2011	2011	26.7	37.4	16.7
Poland	2009/2010	2009/10	30.5	39.4	21.0

Sources: Global Adult Tobacco Surveys 2011 — 2019.

Turkey (2016) reported smoking prevalence above 30%. In Turkey, the gender gap was large (44.1% of men vs. 19.2% of women), while in Poland women's smoking prevalence was relatively high (21%).

Ukraine (2017) and Romania (2011) showed mid-range levels of smoking prevalence (22–27%). In Ukraine, only 8.8% of women smoked compared to nearly 40% of men, while in Romania women's prevalence was higher at 16.7%. Kazakhstan (2019) reported lower overall prevalence (20.4%), but the gender gap was the widest: men smoked six times more often than women (36.5% vs. 6%).

4. Tobacco consumption prevalence and regulation changes

GATS surveys showed that from 2010 to 2017, there was a clear trend of decreasing smoking prevalence (WHO 2017):

- in 2010, about 25–28% of the adult population smoked,
- but in 2017 this figure was around 20% (with a decrease of nearly one-third among men and about one-quarter among women).

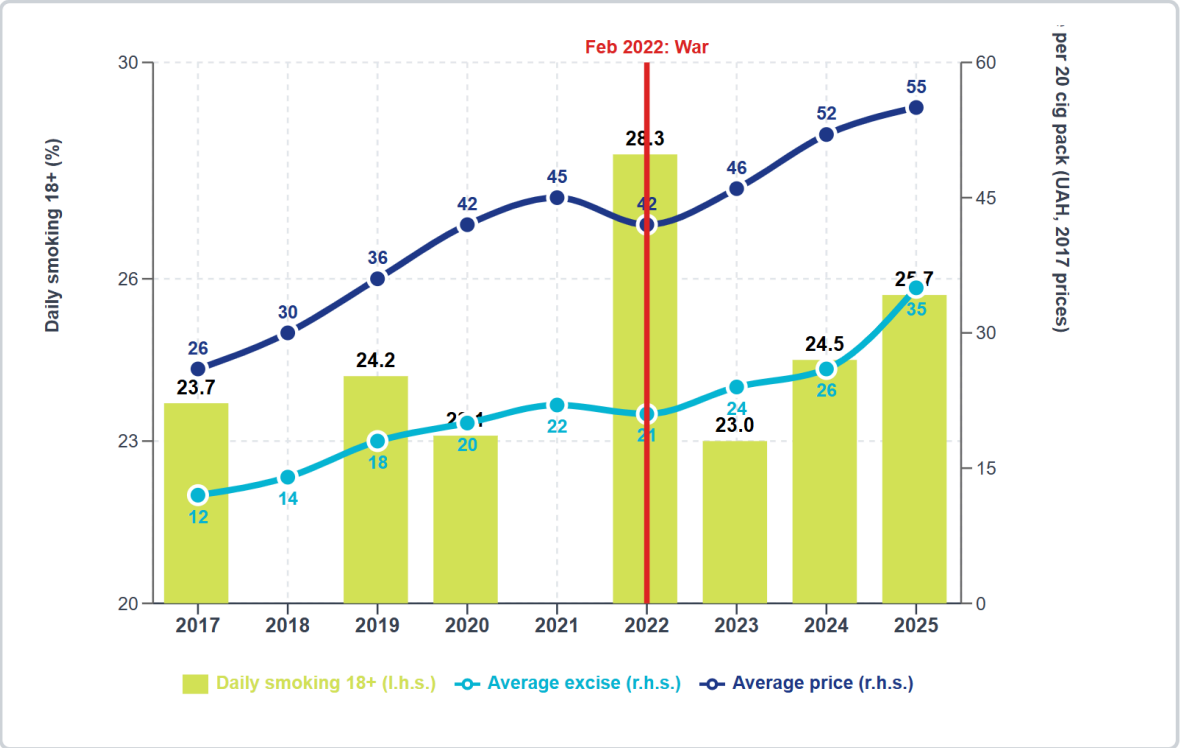
At the same time, a significant share of smokers tried to quit during the previous 12 months, but the success rate remained low. Reduced tobacco availability due to rising prices/taxes, advertising restrictions, and the ban on smoking in public places were recognized as key factors behind the decline in prevalence. During this period, smoking was primarily concentrated among men (over 40% in 2010 → ~35% in 2017). Women smoked much less frequently (a decline from ~9% to ~7%).

Introduction of new tobacco products and the war reversed this trend in Ukraine as Box 1 suggests. Adult daily smoking remained in the mid-20% range—23.7% in 2017 and 24.2% in 2019—before surging to 28.3% in early 2022 during the invasion. Rates then fell back to 24.5% in 2024 and 25.7 % in May 2025, remaining above pre-full-scale invasion levels. Data on prevalence are drawn from KIIS Omnibus surveys with around 2000 observations (including

the survey results presented in this report), and with a consistent methodology over time. The only major change was the shift from face-to-face interviews to computer-assisted telephone interviewing in 2020. Despite this adjustment, the results remain highly comparable across years.

BOX 1: Ukraine Tobacco Policy Timeline 2017-2025

Daily smoking rates, excise taxes, prices, and regulatory changes



Key Regulatory Changes and Excise Tax Development

Year	Event / Regulatory Change	Excise Growth	Minimum Excise Tax (MET)	HTP excise, per 1000	E-cig liquid excise, per liter
2018	7-year excise increase plan for 2018-2024 to reach min EU level, HTP introduced on the market	+30%	UAH 773.2	none	none
2019	Excise growth for cigarettes	+20%+9%	UAH 927.84-1011.35	none	none
2020	Sales of e-cigarettes to minors were banned	+20%	UAH 1213.61	none	none
2021	Excise on e-liquids introduced HTPs were taxed alongside cigarettes Russian full-scale invasion of Ukraine	+20%	UAH 1456.33	UAH 1456.33	UAH 3000
2022	HTP regulations: sales to minors banned, advertising prohibited, health warnings on packaging HTP use is banned in public places	+20%	UAH 1747.60	UAH 1747.60	UAH 3000
2023	Excise growth continues	+20%	UAH 2097.12	UAH 2097.12	UAH 10000 (martial law)
2024	Nicotine pouches/other oral nicotine become excisable	+20%	UAH 2516.54	UAH 2516.54	UAH 10000 (martial law)
2025	Tobacco excises linked to EUR, 2025-2028 glide path to reach min EU level Electronic excise stamp test	+~50%	EUR 78	EUR 70.4	EUR 300

Note: The significant increase in smoking prevalence in 2022 (from 23.1% in 2020 to 28.3%, a +22.5% increase) coincides with the Russian full-scale invasion of Ukraine in February 2022. Excise taxes and prices are shown in UAH at 2017 prices for comparability. Starting 2025, excises are linked to EUR with a glide path to reach minimum EU levels by 2028.

Source: Cigarette prices and inflation - State Statistics Service of Ukraine; Data on excises - Tax Code of Ukraine; Data on prevalence - KIIS omnibus surveys, data taken from February-May surveys each year.

Policy changes largely followed trends with a lag compared to market developments. On the one hand, starting in 2018, Ukraine implemented a multi-year excise escalator toward EU levels (+30% in 2018; +20% + 9% in 2019; +20% annually thereafter) on tobacco products: cigarettes, cigars and cigarillos containing tobacco, homogenized or reconstituted tobacco; tobacco extracts and essence and tobacco waste. It contributed to lower rates of daily sigarrete smoking (Box1), On the other hand, in 2021, e-liquids were taxed at UAH 3,000 per litre with excise stamps, and heated tobacco products (HTPs) were brought under the same tax structure as cigarettes. Before this, alternative products were taxed as “other tobacco products” and could legally be sold to minors. Comprehensive e-cigarette rules were introduced in 2021, followed by HTP regulations in 2022—including bans on sales to minors, advertising restrictions, health warnings, and smoke-free requirements. It means that e-cigarettes were available on the market without proper regulations for five years and HTP for three-four years before regulations were set in place.

The war disrupted enforcement and contributed to the temporary surge in smoking. Additionally, currency devaluation and high inflation eroded real prices and taxes, making tobacco more affordable. In 2025, excises were rebased to euros with a glide path to EU minimum levels by 2028 (€78/1,000 cigarettes; HTP €70; e-liquids €300/L), and an electronic excise stamp pilot was launched.

5. Current patterns of tobacco and nicotine products consumption

Table 2 presents summary statistics on tobacco and nicotine products consumption in the data. The sample includes 1,973 respondents with non-missing observations. Approximately 30.3%

of individuals reported consuming any tobacco or nicotine product, while 25.7% reported using it on a daily basis. Cigarette smoking is the most prevalent form of tobacco use, with 19.7% of respondents identified as cigarette smokers daily or less frequently.

By 2023, nearly half of the legal cigarette market (48.8%) consisted of mid- and premium-segment products, while economy brands accounted for about one-third (32.4%) (Jovanovikj et al 2024).

Table 2 / Summary statistics of tobacco and nicotine product consumption in Ukraine

Variable	Mean	Daily consumption
Consume any tobacco product	30,3%	25,7%
Smoke cigarette	19,7%	15,5%
Smoke HTP	4,8%	3,5%
Smoke electronic cigarette	4,6%	3,7%
Smoke hookah	1,9%	0,2%
Consume patches	0,3%	na
Smoke RYO	3,1%	na
Number of observations	1973	1973

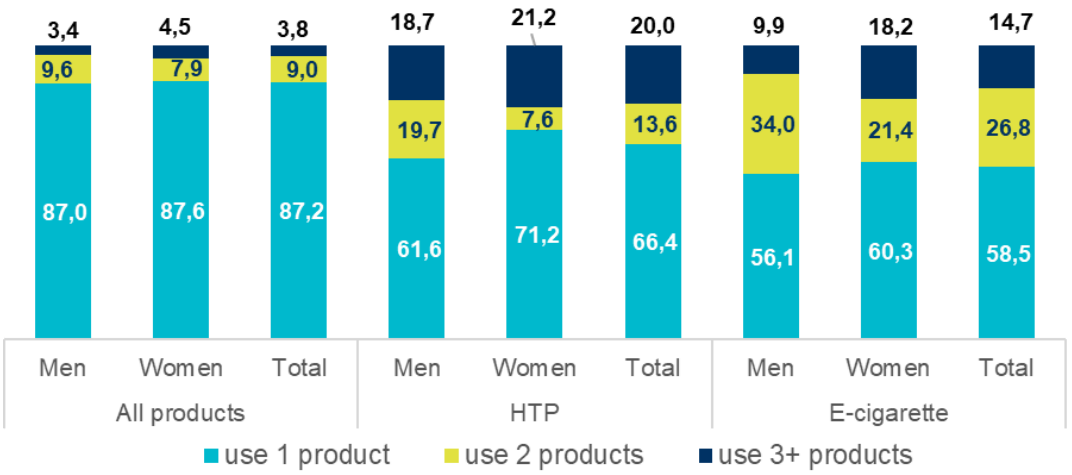
Source: Authors' calculations based on KIIS May 2025 Omnibus survey.

In line with global trends, the rising use of alternative tobacco products in Ukraine is threatening smoking cessation. Between March 2019 and February 2022 HTP sales rose 278% as cigarette sales declined (O'Dowd 2025). The nature of consumption is changing: less daily cigarette smoking, more use of electronic products, especially among young people (Levytska and Bonkovska 2024).

HTP and electronic cigarettes are less prevalent but significant: 4.8% reported using HTP and 4.6% reported using electronic cigarettes, with 3.5% and 3.7% respectively indicating daily use (**Table 2**). Other forms of tobacco and nicotine use are less widespread. Roll-your-own (RYO) tobacco is used by 3.1% of the sample, hookah use is reported by 1.9% of respondents, while nicotine patches are consumed by 0.3%. These figures highlight that while cigarette smoking remains the dominant form of tobacco consumption, alternative products such as HTP and e-cigarettes account for a non-negligible share of users.

Data show that the vast majority of users are single-product consumers (87.2% of all nicotine users, **Figure 2**), while poly-use (two or more products) is less common but still substantial (12.8%). This is notably lower compared to KIIS data from March 2025, where 21% of users reported using multiple products (KIIS 2025) perhaps indicating some variation in the sample. The most common product combinations include cigarettes with e-cigarettes or roll-your-own tobacco or HTP, as well as combination of e-cigarettes, HTP and hookah. Combining multiple products is much more common among users of HTPs and electronic cigarettes — 34.6% of HTP users and 41.5% of e-cigarette users consume more than one product. This indicates that users of novel nicotine products tend to diversify rather than reduce their tobacco and nicotine consumption.

Figure 2 / Multiple use of tobacco and nicotine products, % among smokers by gender



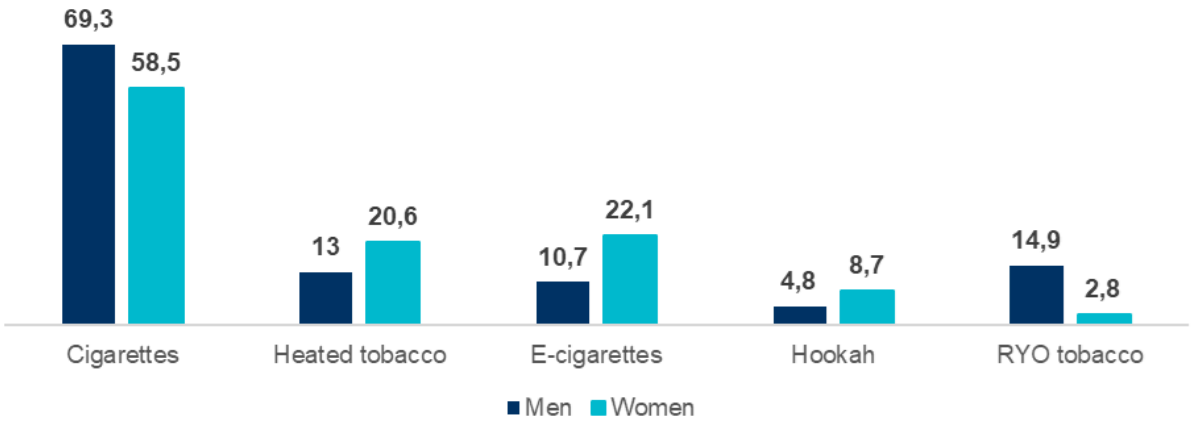
Source: Authors' calculations based on KIIS May 2025 Omnibus survey.

6. Smoking by socio-economic characteristics

Gender

The following analysis compared the prevalence of smoking in different socio-economic dimensions. Sex-stratified analysis indicated a significantly higher prevalence among men (40.9%) compared with women (21.6%). In particular, cigarette smoking was more frequent in men (69.3% of all users) than in women (58.5%), whereas heated tobacco (13.0% vs 20.6%), e-cigarette use (10.7% vs. 22.1%) and hookah (4.8% vs 8.7%) were more common among women (**Figure 3**). RYO tobacco use was markedly higher among men (14.9%) compared with women (2.8%).

Figure 3 / Tobacco and nicotine products prevalence, % among smokers by gender



Source: Authors' calculations based on KIIS May 2025 Omnibus survey.

The gender gap in Ukraine is always very noticeable: men smoke several times more often than women. Even with the overall decrease in smoking, the gap in overall smoking prevalence between men and women remains — that is, the male smoking rate is always significantly higher overall and in cigarette consumption. Gender differences can be due to social norms, cultural perceptions of smoking, roles in society, as well as economic or behavioral factors (KIIS 2024).

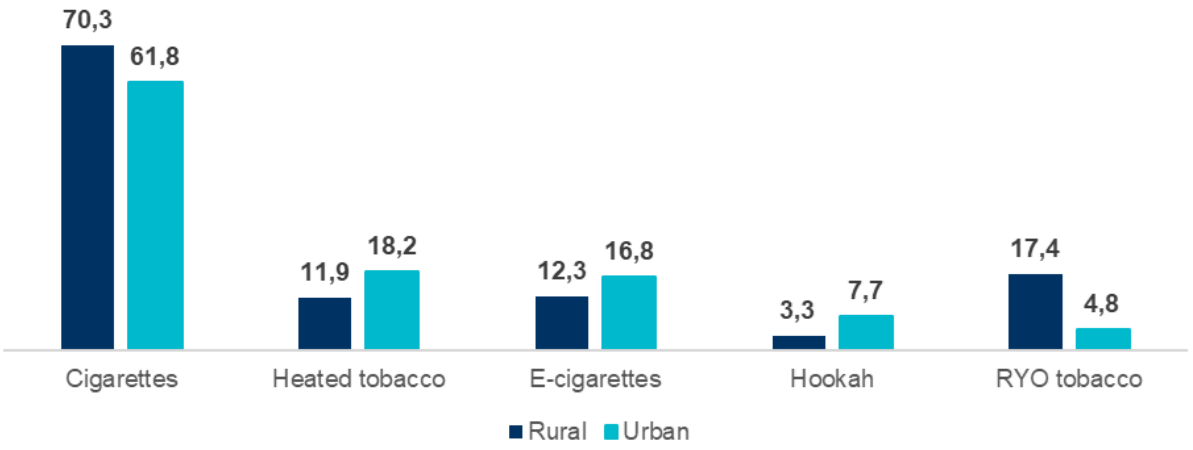
Age

Smoking prevalence generally declined with increasing age: 46.7% in 18–29 years, 32.8% in 30–44 years, 34.0% in 45–59 years, and 15.4% in ≥60 years (**Table 3**). On the one hand, research shows that older adults try to quit less often than younger smokers, but when they do, they are more likely to succeed (National Council for Mental Wellbeing 2019). On the other hand, smokers have lower life expectancy. The youngest group exhibited the highest use of heated tobacco (33.2%), e-cigarettes (32.1%), and hookah (18.3%). In contrast, RYO tobacco use peaked in the ≥60 years group (26.7%) despite their lowest overall smoking prevalence.

Urban and rural consumption

Regional differences were observed, with prevalence highest in the South (36.6%). Data from the East region should be taken with caution due to the overall lower number of observations (**Table 3**).

Figure 4 / Tobacco and nicotine products prevalence, % among smokers in urban/rural dimension



Source: Authors' calculations based on KIIS May 2025 Omnibus survey.

Urban residents had a slightly higher prevalence than rural residents (31.0% vs. 29.1%). Cigarette use predominated in rural areas (70.4% vs. 62.0%), whereas heated tobacco (18.2% vs. 12.1%) and e-cigarette use (16.8% vs. 12.3%) were more frequent in urban settings **(Figure 4)**. Across settlement types, smoking prevalence was lowest in towns with 20,000–99,999 inhabitants (24.4%), higher in villages (29.6%) and small towns (28.6%), and highest in cities with more than 100,000 residents (32.6%), indicating a U-shaped pattern between settlement size and smoking rates.

Table 3 / Prevalence of tobacco and nicotine products in demographic dimensions, %

Category	General smoking	Cigarettes	Heated tobacco	E-cigarettes	Hookah	RYO tobacco
Total population	30,3	65,1	16,0	15,2	6,3	10,2
Sex						
Men	40,9	69,3	13,0	10,7	4,8	14,9
Women	21,6	58,5	20,6	22,1	8,7	2,8
Age						
18-29	46,7	38,6	33,2	32,1	18,3	3,7
30-44	32,8	69,7	17,5	15,3	5,4	6,5
45-59	34,0	80,8	6,1	7,3	0	11,4
60+	15,4	69,9	2,3	1,2	0	26,7
Region						
West	28,4	58,9	20,0	18,1	5,6	9,0
Center	29,5	65,7	16,6	13,5	4,2	13,8
South	36,6	69,4	12,1	15,2	11,5	8,7
East	24,0	67,5	—	—	—	—
Urban or rural						
Rural	29,1	70,4	12,1	12,3	3,7	17,4
Urban	31,0	62,0	18,2	16,8	7,8	6,0
Type of settlement						
Village	29,6	67,7	10,2	13,1	1,6	18,7
Township/Small town	28,6	79,5	12,7	11,9	8,6	11,3
Town 20-99ths	24,4	66,3	15,2	12,7	5,9	12,3
City>100ths	32,6	60,4	20,3	17,5	8,8	4,4

Source: Authors' calculations based on KIIS May 2025 Omnibus survey.

Occupation

Daily smoking shows the clearest divides across occupational groups (**Table 4**), which is a critical indicator for tobacco control. On average, 26% of adults smoke every day, but this masks sharp differences. Military personnel and police report the highest daily cigarette use, with almost one in three smoking daily (31.9%). Manual workers and the self-employed also stand out, with 26–27% smoking every day, underscoring the entrenched role of cigarettes in these groups. Clerical workers follow closely with 21.9% daily use. By contrast, specialists/professionals and retirees show much lower daily prevalence — around 13% and 10% respectively — though retirees rely more on cheaper roll-your-own tobacco.

Among young people, the picture is different. Students smoke cigarettes daily at very low levels (3.3%), but this is offset by exceptionally high daily use of novel products: 31.7% report daily e-cigarette use, making vaping their dominant form of nicotine consumption. Entrepreneurs also have above-average daily use of HTPs (8.8%).

These findings indicate that daily cigarette smoking remains concentrated in traditional occupations such as the military, manual workers, and the self-employed, while daily use of novel products is increasingly concentrated among students and younger groups. Effective

policy will need to combine strong measures against daily combustible use with targeted regulation of daily vaping and heated-tobacco use among youth.

Data from the U.S. Department of Defense Health Related Behaviors Survey (HRBS) show that the military has traditionally had a higher prevalence of smoking than the civilian population (Meadows et al. 2021). For example, in 2011–2015, over 24% of military personnel smoked, compared to ~15% of civilians. The main factors contributing to this are stress, the "smoking in the military" culture, and the availability of cigarettes in units (Meadows et al. 2021). With the number of military personnel increasing to around 880,000 in early 2025, this expansion is likely to have a long-term impact on smoking prevalence in Ukraine[8].

Table 4 / Tobacco and nicotine products prevalence by occupation, %

	N	Any tobacco use	Cigarette smoker	HTP	E-cigarette user	RYO	Smokes daily	Daily cigarette smoker	Daily HTP user	Daily e-cigarette
Manual worker, agricultural worker	212	0.392***	0.305***	0.054	0.029	0.020	0.340***	0.265***	0.045	0.025
Clerical worker	154	0.361	0.262**	0.043	0.059	0.000**	0.322*	0.219**	0.043	0.059
Specialist/professional	427	0.273	0.153***	0.081***	0.040	0.013**	0.216**	0.128**	0.056***	0.026
Self-employed	98	0.385*	0.275**	0.045	0.089**	0.024	0.368***	0.237**	0.045	0.064
Entrepreneur, bus. owner, farmer	109	0.329	0.191	0.092**	0.048	0.026	0.279	0.102*	0.088***	0.048
Military, law enforcement	68	0.486***	0.389***	0.051	0.111***	0.059	0.390**	0.319***	0.037	0.042
Homemaker	119	0.359	0.244	0.030	0.045	0.061**	0.302	0.182	0.012*	0.043
Retired	677	0.181***	0.120***	0.005***	0.004***	0.053***	0.164***	0.100***	0.003***	0.003***
Student	44	0.459***	0.137	0.194***	0.326***	0.000	0.368**	0.033***	0.082**	0.317***
Unemployed	52	0.320	0.193	0.000*	0.026	0.035	0.201	0.185	0.000	0.010
Total	**1973**	**0.303**	**0.197**	**0.048**	**0.046**	**0.031**	**0.257**	**0.158**	**0.035**	**0.037**

* significant at 10%; ** significant at 5%; *** significant at 1% (based on t-test of means)
Source: Authors' calculations based on KIIS May 2025 Omnibus survey.

Education

Daily smoking shows a clear and consistent gradient by education level (**Table 5**). Adults with secondary education or less are the most affected: more than one in three smoke daily (34.8%), and nearly one in five are daily cigarette users (19.6%). This group also shows elevated daily use of e-cigarettes (7.8%) and roll-your-own tobacco (7.3%), suggesting a reliance on both traditional and cheaper alternatives.

Those with some tertiary or vocational education fall closer to the national average, with 26.0% smoking daily and 16.7% smoking cigarettes daily. Daily e-cigarette (3.4%) and heated-tobacco (4.0%) use are modest but non-negligible.

The lowest levels are found among those with higher education, where only 21.0% smoke daily and 13.7% smoke cigarettes daily. Daily use of e-cigarettes (2.1%) and roll-your-own (1.7%) is significantly lower compared to less-educated groups.

8 https://www.slovoidilo.ua/2025/01/15/novyna/bezpeka/zelenskyj-rozkryv-nynishnyu-chyselnist-ukrayinskoyi-armiyi#goog_rewarded

Daily smoking is most common among less-educated adults, while those with higher education smoke less and use fewer alternatives.

Table 5 / Tobacco and nicotine product prevalence in education dimensions, %

	Education			
	Secondary or less	Some /Short-cycle tertiary	Higher education	Total
Any tobacco use	0.409***	0.298	0.258***	0.303
Cigarette smoker	0.266***	0.195	0.168***	0.197
HTP user	0.051	0.045	0.049	0.048
E-cigarette user	0.089***	0.040	0.031***	0.046
RYO)	0.073***	0.024	0.017***	0.031
Daily smoking	0.348***	0.260	0.210***	0.257
Daily cigarette smoker	0.196**	0.167	0.137**	0.158
Daily HTP user	0.025	0.040	0.035	0.035
Daily e-cigarette user	0.078***	0.034	0.021***	0.037

* significant at 10%; ** significant at 5%; *** significant at 1% (based on t-test of means)
Source: Authors' calculations based on KIIS May 2025 Omnibus survey.

Income

Across the total population, smoking prevalence rose from 23.3% in the lowest income quartile (Q1) to 40.1% in the highest (**Table 6**).

Unexpectedly, higher income is associated with higher smoking overall, including higher cigarettes smoking, HTPs and e-cigarettes consumption. Cigarette smoking prevalence increased from 14,6% in Q1 to 24,1 in Q3. HTP product use increased from 1.2% in Q1 to 9,8 in Q4 and e-cigarettes consumption grew from 1.9% to 6.8%. RYO tobacco use showed the opposite pattern, falling from 6.0% in Q1 to 1.3% in Q4.

Among men, smoking prevalence was consistently high (37.5%–43.0%) with no clear income gradient for cigarette consumption, but with clear income gradient for HTP and e-cigarettes. In contrast, among women, prevalence rose steadily from 16.0% in Q1 to 37.8% in Q4 (**Figure 5**). Heated tobacco and e-cigarette use tended to increase with income in both sexes..

Table 6 / Tobacco and nicotine products prevalence in income quartiles, %

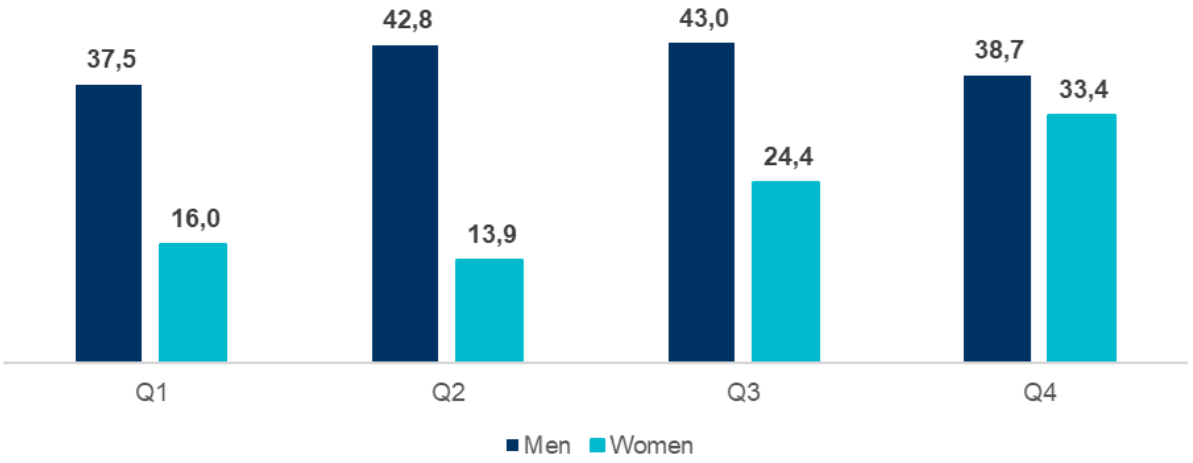
	All products	Cigarettes	Heated tobacco	E-cigarettes	RYO tobacco
4 quantiles of income					
Total	**0.302**	**0.193**	**0.051**	**0.047**	**0.031**
Q1	0.233***	0.146***	0.012***	0.019***	0.060***
Q2	0.253**	0.171	0.035	0.041	0.031
Q3	0.323	0.214	0.061	0.063*	0.017*
Q4	0.401***	0.241***	0.098***	0.068**	0.013**
4 quantiles of income men					
Total	**0.406**	**0.278**	**0.055**	**0.048**	**0.059**

Q1	0.401	0.239	0.014**	0.015*	0.168***
Q2	0.362	0.260	0.036	0.005***	0.073
Q3	0.426	0.311	0.070	0.071*	0.032**
Q4	0.414	0.280	0.074*	0.067*	0.020***
4 quantiles of income women					
Total	**0.217**	**0.123**	**0.048**	**0.047**	**0.007**
Q1	0.160***	0.106	0.011***	0.020***	0.012
Q2	0.195	0.124	0.035	0.061	0.008
Q3	0.216	0.114	0.051	0.055	0.002
Q4	0.378***	0.171*	0.142***	0.069	0.000

* significant at 10%; ** significant at 5%; *** significant at 1% ((based on means t-test of means)
Source: Authors' calculations based on KIIS May 2025 Omnibus survey.

Overall, higher income was linked to greater use of heated tobacco and e-cigarettes, and lower income to higher RYO tobacco use. Cigarette smoking remained common across all income groups, but product preferences varied substantially with socioeconomic status.

Figure 5 / Tobacco and nicotine products prevalence among men and women in 4 income quartiles



Source: Authors' calculations based on KIIS May 2025 Omnibus survey.

For the share of income spent on tobacco products, two indicators were measured. The first was what respondents reported as a share of their income they spend on tobacco and nicotine products. Median estimate of was at 10%. The second indicator was calculated based on the number of purchases and average sum of purchases reported. The median share based on latter methodology was 10.9%. As both indicators are close it shows that respondents are consistent in estimating their income spent on tobacco and nicotine products.

7. Prices

Unit value (cost per unit) comparisons are complicated by the small number of responses for certain products and the concentration of usage within specific groups. For example, heated tobacco products and e-cigarettes are more common among younger individuals and those with higher incomes, whereas RYO tobacco is more prevalent among older individuals.

Consequently, some groups have very few observations, limiting the reliability of comparisons across all categories.

Across the total sample, the unit value of tobacco products varied by product type, demographic group, and socioeconomic characteristics (**Table 7**). Women reported paying slightly more than men for cigarettes (UAH 5.23 vs. UAH 5.07) and heated tobacco (UAH 7.94 vs. UAH 6.27), while the price of RYO tobacco was inexpensive, providing **considerable savings** for users, who were mostly men.

By age, cigarette prices were relatively stable, except for a lower average among individuals aged 45–59 (UAH 4.54 per cigarette). For other tobacco products, the number of observations in certain age categories may be insufficient to support reliable comparisons.

Regional differences were observed, with the highest cigarette prices in the Center (UAH 5.62) and the lowest in the South (UAH 4.57). Urban residents paid more for heated tobacco (UAH 7.47) than rural residents (UAH 5.47), while cigarette prices were similar in both settings.

Income-related trends were evident for cigarettes, with the lowest prices in the first income quartile (Q1; UAH 4.27) and the highest in Q4 (UAH 5.65). Heated tobacco prices showed a similar upward pattern from Q1 (UAH 5.75) to Q4 (UAH 6.86).

Overall, the data suggest that product prices vary systematically by demographic and socioeconomic factors, with higher-income groups and urban residents tending to purchase more expensive tobacco products, particularly heated tobacco.

Table 7 / Unit value of tobacco product

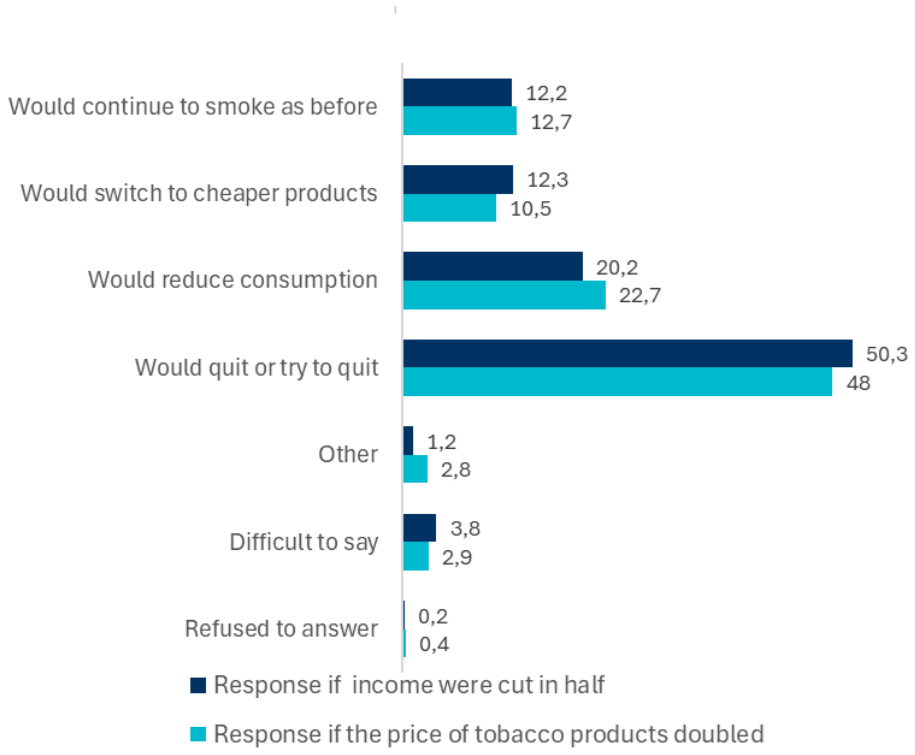
	Unit value			Number of observations		
Category	Cigarettes	HTP	RYO	Cigarettes	HTP	RYO
Sex						
Men	5.07	6.27	0.7	235	32	37
Women	5.23	7.94	*	115	29	4
Age						
18-29	5.5	6.13	*	39	22	4
30-44	5.49	7.75	*	114	27	5
45-59	4.54	6.88	0.75	126	10	14
60+	5.24	*	0.87	71	2	18
Region						
West	5.33	6.33	*	70	16	8
Center	5.62	8.74	0.75	149	27	21
South	4.57	6.1	0.44	107	12	10
East	4.67	*	*	24	6	2
Urban or rural						
Urban	5.12	7.47	1.36	262	51	21
Rural	5.08	5.47	0.52	88	10	20
4 quantiles of income						
Q1	4.27	*	0.74	52	1	19
Q2	4.57	*	*	50	6	8
Q3	5.1	6.12	*	82	17	4
Q4	5.65	6.86	*	101	26	5

* Insufficient number of observations for reliable analysis (less than 10 tobacco product users in a group)

Source: Authors' calculations based on KIIS May 2025 Omnibus survey.

Figure 6 shows that about half of smokers said they would quit or at least try to quit if their income were cut in half (50,3%) or if the price of tobacco products doubled (480%). Around one fifth would reduce consumption - 20,2% in the income-loss scenario and 22,7% if prices doubled. Only about one in eight would continue smoking as before, with 12,2% saying so in case of lower income and 12,7% in response to higher prices. A similar share would switch to cheaper products - 12,3% for income being cut in half and 10,5% for prices doubling respectively. For category other (1,2% and 2,8% respectively), one of the most popular answers was to grow their own tobacco. Overall, the dominant expected response in both scenarios is an intention to quit or cut back on smoking, with a slightly stronger tendency to reduce consumption when prices rise.

Figure 6 / Tobacco and nicotine products prevalence because of income, %



Source: Authors' calculations based on KIIS May 2025 Omnibus survey.

As for different demographic characteristics, the most common answer is to quit or try quitting, chosen by about 50% of all smokers, held across all demographic groups, showing that quitting is the response people mention most often when tobacco becomes less affordable.

Other reactions vary among different demographic groups. For instance, with price doubling, 15.6% of men say they would continue smoking as before compared with just 8.1% of women, while 28.4% of women would reduce consumption versus 19.1% of men, suggesting women are more responsive to affordability pressures.

Age differences are also clear. When income falls twice, 18–29-year-olds are much more likely to cut consumption (33.7%) and very unlikely to switch to cheaper products (3.4%). By contrast,

45–59-year-olds are more likely to switch to cheaper options (19.8%) than reduce consumption (15.6%).

Income plays a strong role in shaping reactions. Among the lowest-income smokers, 23.4% report they would switch to cheaper products, compared with just 7.8% among the highest-income group. Middle-income smokers tend to cut back on tobacco (28.2% in Q2, 20,4% in Q3 and Q4), while for higher-income smokers the share of those who plan to continue smoking as before increases (18.5%).

8. The impact of a full-scale invasion on tobacco consumption

Section 4 showed that with the start of the full scale invasion smoking rates increased. KIIS analysis in 2023 (based on representative Omnibus survey, around 2000 respondents overall both smokers and non-smokers) found that after the start of the full-scale war in Ukraine, 42.3% of smokers reported no change in their tobacco or nicotine consumption, 40.2% said they began using somewhat or significantly more, and 12.6% reported using less or significantly less.

In Ukraine, smoking patterns differ between oblasts located near the frontline (Donetsk, Dnipro, Kharkiv, Kherson, Mykolaiv, Sumy, and Zaporizhzhia) and the rest of the country as **Table 8** shows. Across the whole adult population, daily smoking is slightly more common in frontline-adjacent oblasts—27.1% compared with 25.1% elsewhere (overall 25.7%). The difference is more marked for daily cigarette smoking, which reaches 18.6% in the frontline areas versus 14.7% in other regions (overall 15.8%; t-test for mean difference is significant at the 5% level). By contrast, daily use of HTPs is lower close to the frontline: 2.2% compared with 4.0% elsewhere (overall 3.5%, significant at 5%). Daily use of e-cigarettes shows little variation — overall 3.7%.

Among men, daily smoking is slightly lower near the frontline (33.7% vs 36.0%), while daily cigarette smoking is a bit higher (23.3% vs 21.9%). Daily HTP use is clearly lower (2.1% vs 4.8%, 5% significance). For women, differences are stronger. Daily smoking is 20.9% in frontline areas versus 16.8% elsewhere (overall 17.9%). Daily cigarette smoking stands out at 14.2% in frontline oblasts compared with only 8.9% elsewhere (overall 10.4%, significant at 5%).

Overall, the data indicate that women living in frontline-adjacent oblasts smoke cigarettes daily at noticeably higher rates than women in other regions, while use of heated-tobacco products is consistently lower in these conflict-affected areas for both sexes. Daily e-cigarette use shows little regional difference.

Table 8 / Tobacco and nicotine products prevalence with the impact of a full-scale invasion, %

	Both sexes			Males			Females		
	Frontline-Adjacent Oblasts			Frontline-Adjacent Oblasts			Frontline-Adjacent Oblasts		
	Yes	No	Total	Yes	No	Total	Yes	No	Total
Smokes daily	0.271	0.251	0.257	0.337	0.360	0.352	0.209	0.168	0.179
Daily cigarette smoker	0.186**	0.147**	0.158	0.233	0.219	0.223	0.142**	0.089**	0.104

Daily HTP user	0.022**	0.040**	0.035	0.021**	0.048**	0.039	0.024	0.035	0.032
Daily e-cigarette user	0.034	0.038	0.037	0.032	0.030	0.030	0.037	0.044	0.042

* significant at 10%; ** significant at 5%; *** significant at 1% (based on t-test of means)
Source: Authors' calculations based on KIIS May 2025 Omnibus survey.

Table 9 shows smoking prevalence by Internally displaced persons (IDPs) status. IDPs have higher rates of tobacco use overall compared to non-IDPs (36.8% vs. 29.0%), as well as higher rates of daily use (29.6% vs. 25.0%), with statistically significant differences. IDPs also have higher prevalence of heated-tobacco use (7.7% vs. 4.3%) and e-cigarette use (7.1% vs. 4.1%).

Table 9 / Tobacco and nicotine products prevalence and IDP status

	IDP		Total
	No	**Yes**	
Any tobacco use	0.290***	0.368***	0.303
Cigarette smoker	0.194	0.212	0.197
Heated-tobacco user (HTP)	0.043***	0.077***	0.048
E-cigarette user	0.041**	0.071**	0.046
Roll-your-own user (RYO)	0.032	0.023	0.031
Smokes daily	0.250*	0.296*	0.257
Daily cigarette smoker	0.158	0.159	0.158
Daily HTP user	0.032	0.049	0.035
Daily e-cigarette user	0.033**	0.057**	0.037

* significant at 10%; ** significant at 5%; *** significant at 1%
(based on t-test of means)
Source: Authors' calculations based on KIIS May 2025 Omnibus survey.

Looking forward, evidence from other conflict-affected settings suggests that post-war tobacco control strategies should integrate mental health interventions. For example, a study from Georgia (Roberts et al., 2013) found strong associations between nicotine dependence, PTSD, and depression among civilians affected by conflict. This indicates that programmes addressing PTSD and depression may indirectly reduce nicotine dependence, and that joint approaches targeting both mental health and tobacco use could be particularly effective in post-war Ukraine.

9. Conclusions

Ukraine's experience between 2018 and 2025 highlights both the effectiveness and the vulnerability of tobacco control measures under conditions of major external shocks. Steady tax increases and regulatory tightening were successful in driving down smoking prevalence through 2021, supported by a predictable excise escalator, alignment with EU legislation, and the introduction of comprehensive rules for novel nicotine products. These measures improved the policy environment and reduced tobacco affordability, contributing to declining smoking rates.

The full-scale invasion in 2022 temporarily reversed these gains. Economic disruption, population displacement, weakened enforcement, and heightened stress drove a sudden surge in smoking prevalence, particularly daily cigarette use. Although prevalence fell again after the initial shock, rates remain above pre-war levels, suggesting a lasting behavioural shift. Levytska and Bonkovska (2024) underline the importance of maintaining active tobacco control and providing cessation support during wartime.

Social and behavioural patterns also shifted. The gender gap remains wide, yet female smoking rates have risen in conflict-affected regions. Military mobilization is another important factor, as armed forces personnel have the highest daily smoking rates, and their numbers expanded dramatically during the war.

Tobacco product use has diversified: younger populations, students and professionals are moving rapidly toward electronic and heated tobacco products, while daily cigarette smoking remains concentrated among older, less-educated, and lower-income groups, as well as manual workers and the self-employed.

Income affects product choice. Higher-income groups tend to use HTPs and e-cigarettes, while lower-income groups rely on cheaper roll-your-own or economy cigarettes. Price and income remain powerful deterrents as well: roughly half of smokers report they would quit try to quit and additionally around 20% would cut down if prices doubled, underscoring the effectiveness of fiscal policy as a public health instrument.

Future tobacco control strategies should focus on high-risk and vulnerable groups—including youth, military personnel, and women in frontline regions.

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