

# Jordan

*Overview of*

**TOBACCO USE,  
TOBACCO CONTROL  
LEGISLATION,  
AND TAXATION**

World Bank Group  
Global Tobacco Control Program  
Country Brief

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# Jordan

## Overview of Tobacco Use, Tobacco Control Legislation, and Taxation

### A Country Brief

#### Executive summary

The prevalence of smoking is rather high in Jordan. The Global Adult Tobacco Survey (GATS) found that in 2011, 42.2% of people (55.9% of men and 23.7% of women) aged 15 and above in Jordan smoked tobacco. Among those who smoked tobacco, 35.2% smoked cigarettes, and 15.2% smoked water-pipe. Smoking cost the country 1 billion Jordanian dinars (JD) in 2012, including money spent on tobacco and smoking-related diseases, which amounted to approximately 5% of the gross domestic product.

Jordan adopted the National tobacco control strategy for 2017-2019, which is based on the implementation of the WHO's MPOWER strategy, a comprehensive set of tobacco control measures. The strategy seeks to decrease tobacco use by 30% by 2025.

While most consumed tobacco products in Jordan are manufactured within the country, consistent data on the production of cigarettes and other tobacco products is not available. According to the estimates based on the results of the household surveys, in 2003-2013, tobacco consumption in Jordan increased by 58%. In 2010-2013, estimated annual cigarette sales were about 8 billion cigarettes.

Till 2014, Jordan had mixed tobacco excise system with specific tax and ad valorem tax, which was changed to tier specific excise system. The main unified specific excise tax gradually increased from 0.42JD per pack in 2014 to 0.57JD in 2018, or by 36% in four years. The additional tiered specific excise tax has different rates depending on cigarette price. Tobacco excise revenue in Jordan increased from 312 million JD in 2012 to 554 million JD in 2016. So, the tobacco taxation policy was beneficial for government coffers. However, in 2019 the taxes on cigarettes were not increased.

In May 2019, the government imposed a 200% tax on electronic cigarettes, vapes, and their paraphernalia.

Tobacco price increase in 2010-2016 was rather moderate, and tobacco affordability almost did not change. Such a situation was partly caused by the pricing policy of the tobacco industry. In 2013, to encourage cigarette consumption within the country, the tobacco industry even decreased cigarette prices. In 2017 and 2018, tobacco price increase was substantial, the reduction in tobacco affordability was large enough, and this has the potential to cause a decrease in tobacco consumption.

The following recommendations can support the implementation of the National tobacco control strategy by means of both reducing the tobacco consumption and increasing the government revenue:

- Excise rates for cigarettes, water-pipe tobacco, and other tobacco products should be annually increased by at least 20% to ensure tobacco affordability reduction.
- Tobacco use surveillance and monitoring should be further strengthened in Jordan, including a regular collection and public presentation of information on sales of cigarettes and other tobacco products, their prices as well as other economic indicators.
- Effective policies to counteract tobacco smuggling and other kinds of illicit tobacco sales should be implemented in line with the provisions of the FCTC Protocol to Eliminate Illicit Trade in Tobacco Products, which is recommended to be ratified by the country.

## **Acknowledgments**

This country brief was prepared by a team from the World Bank Group Global Tobacco Control Program led by Patricio V. Marquez, including Konstantin Krasovsky, and Tatiana Andreeva.

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## Introduction

### *The Objective of the Country Brief*

This country brief presents an overview of current tobacco control legislation, tobacco use, and taxation policy in Jordan. Data and information were collected from various sources. The brief is intended to serve as the context for complementary assessments on different aspects of tobacco taxation in the country to be shared with government teams and other national and international stakeholders.

## Tobacco use in Jordan

### Cigarette smoking

Jordan is mentioned among the countries with high smoking prevalence and medium consumption (10-20 cigarettes per day per smoker) [1].

### Adults

As of the early 2000s [2], 48% of men and 10% of women in Jordan were reported to be cigarette smokers. STEP survey was conducted in Jordan in 2004 and in 2007. In 2004 [3], 25% of the participants (51% of men and 7% of women) were daily smokers. The highest prevalence (29%) was found among the respondents aged 35-44 years and graduates of secondary school (31%). The majority of smokers (59%) reported smoking 10-20 cigarettes per day. In 2007 [4], 29% (50% of men and 6% of women) were daily smokers and 9% (14% of men and 3% of women) were ex-smokers. The highest prevalence of smoking was found among the participants aged 25-34 years - 37% of all and 63% among men of this age group. Among women, the highest prevalence of smoking (7-8%) was revealed among those aged 35-64 years. Among all daily smokers, 97.5% reported smoking manufactured cigarettes and 2.8% - hand-rolled. Most smokers, both among men and women reported smoking 10-19 cigarettes a day.

A survey by the Ministry of Health found a 27% to 29% smoking rate in the Jordanian population, with an increase between 2007 and 2009 [5].

As documented in a survey conducted among adults in 2009-2010, the prevalence of both current and daily cigarette smoking was higher among men (71% and 64%) than women (21% and 10% respectively) and among older participants and those who had lower levels of education or had lower grades at school, as well as those who reported ever smoking cigars [6].

According to the Demographic and Health Survey (DHS), the prevalence of cigarette use among women in 2012 was 10.9% [7] and the prevalence of any smoking was 17.96% [8]. However, an analysis of four waves of DHS conducted in Jordan in 2002, 2007, 2009 and 2012 shows that no change in the prevalence of cigarette smoking was observed over this time span while the prevalence of smoking water-pipe had a clear upward trend [9].

There is evidence of a substantial socio-economic disparity in tobacco use in Jordan. According to Toukan [10], the prevalence of cigarette smoking was the highest among the poorest, with the highest rate (57%) being found among adult males with income of 100 to 250 Jordanian dinars per month as compared with the prevalence rate of 14% among adult males with income of 500 Jordanian dinars per month or more. Calculations show that the poorest 40% of adult males are 1.7 times more likely to smoke cigarettes than the richest 17% of adult males.

Among Jordanian women, those with better education less likely to smoke cigarettes. Household wealth, on the other hand, was associated with a higher prevalence of both forms of tobacco consumption, and especially water-pipe tobacco smoking [9].

The Global Adult Tobacco Survey (GATS) questionnaire was used to gather information about tobacco use in Jordan from July 2011 until September 2011 [11]. The survey found that 42.2% of individuals aged 15 and above in Jordan smoked tobacco. Among the total population, 32.2% were daily smokers and 6% were less than daily smokers. Among those who smoked tobacco, 35.2% smoked cigarettes, 15.2% smoked water-pipe (Argileh), and less than 2% smoked other types of tobacco such as pipes, cigars and/or hand-rolled cigarettes. Among men and women, the prevalence of tobacco smoking was 55.9% and 23.7% respectively. More men smoked cigarettes than water-pipe with a prevalence of 48.9% and 9.2% respectively. The prevalence of smoking cigarettes and water-pipe in women was 13.8% and 18.6% respectively. The overall prevalence of cigarette use only was 45.2% and the prevalence of water-pipe use only was 7.2%. Those who used both water pipe and cigarettes constituted 5.5%. According to the survey results, former smokers constituted only 2% of the sample. The survey also found that 27.4% of Jordanian current smokers tried to quit smoking during the past 12 months.

### *Health workers*

Studies among healthcare workers have documented extremely varying smoking rates; this was probably predetermined by the sample compositions. The measured prevalence was between 60% (82% among men and 47% among women) [12] and 39% (83.8% among male nurses, 94.6% among male physicians, 16.2% among female nurses and 5.4% among female physicians) [13]. Another study [14] documented the equally high prevalence of smoking among nurses (41.5%) and physicians (43.6%) while significantly more men than women smoked in this study as well.

### *College students*

A cross-sectional survey of 400 students at the Jordan University of Science and Technology in northern Jordan measured the prevalence of current smoking as 16.5% and the prevalence of former smoking as 10.0% [15]. Yet, another survey [16] at the same university revealed that the prevalence of smoking was 28.6% (50.2% among males and 6.5% among females). A survey at Al-Isra Private University [17] reported that 33% of students were smokers.

### *Adolescents*

According to the Global Youth Tobacco Survey conducted in Jordan in 1999, 2003, 2007 and 2009, the estimated prevalence of having ever smoked any form of tobacco among adolescents in Jordan was 18% in 1999, 13% in 2004, 16% in 2007 [18] and 26% in 2009 [19]. Prevalence of cigarette smoking was lower in some of the measurements in 2007-2009 than in 1999-2003. Compared to other Eastern-Mediterranean countries, Jordan is among the countries which showed the highest level of current cigarette smoking in initial surveys [20]. With both cigarettes and other tobacco use, the initial difference between boys and girls was observed to disappear in Jordan.

### *Water-pipe smoking*

Water-pipe smoking in Jordan is relatively common and is prevalent among both genders [5]. There is a threat that water-pipe tobacco smoking may undermine the progress made in curbing the cigarette epidemic [21].

## **Adults**

STEP survey conducted in 2004 [3] estimated that only 6% of participants (11% of men and 2% of women) were water-pipe smokers. Younger people were showing a higher prevalence of water-pipe smoking (7% 18-24 years; 8% 25-34 years), and participants with a graduate degree had the highest (9%) prevalence of water-pipe smoking. STEP survey conducted in 2007 [4] revealed 9% (15% of men and 3% of women) of water-pipe smokers. The highest prevalence was found among people aged 25-34 years (over 15%) and among those with a university diploma and above (22%). Most smokers (68% of men and 89% of women) reported smoking water-pipe at home.

As shown in a survey conducted among adults in 2009-2010 [22], more than half of the sample had previously used a water-pipe to smoke tobacco (52.84%), about a third smoked a water-pipe in the past 30 days (33.9%) and over one in five had a water-pipe in the past week. The prevalence of smoking water-pipe was higher among younger participants, those who previously used cigarettes, cigars or alcohol, whose siblings or friends had experience of smoking water-pipe, and who believed that smoking water-pipe is less harmful than smoking cigarettes.

In the survey based on the Global Adult Tobacco Survey (GATS) questionnaire conducted in 2011 [11], 9.2% of men and 18.6% of women smoked water-pipe. Most water-pipe smoking was done at home (87%), followed by coffee shops (12%), restaurants (0.9%), and bars and nightclubs (0.1%).

## **Students**

In a survey of university students [5], 36.8% of the participants were found to be water-pipe smokers; 61.9% of male students and 10.7% of female students were current smokers of water-pipe. Cigarettes and water-pipe were the preferred smoking methods among male students (42%). On the other hand, female students preferred water-pipe only (53%). Parental smoking status but not their educational level was associated with the students smoking status.

In a survey conducted among university students in 2008 [23], more than half (61.1%) had ever smoked tobacco from a water pipe, and use at least monthly was reported by 42.7%. Higher prevalence of use was found among men and students from families with higher incomes.

## **Youth**

Among youth, water-pipe smoking is on the rise as well [24]. According to the GYTS measurements, about 21% of Jordanian adolescents aged 13 to 15 currently smoke water-pipes, with higher prevalence rates among males (27%) than females (16%). Analysis of the 2009 Jordan Global Youth Tobacco Survey has revealed that those adolescents who had ever smoked water-pipe were more susceptible to cigarette smoking than those who never smoked water-pipe [25].

## **Tobacco control policies in Jordan**

Jordan ratified the FCTC in 2004. According to the WHO report on the global tobacco epidemic, 2017 [26], most tobacco control measures are implemented in Jordan at least to some extent. However, in a study which quantified the implementation of the MPOWER policies and assessed changes in 2011-2015 across the Eastern Mediterranean Region, Jordan was among countries with decreased scores [27].

Public Health Law No. 47 of 2008, Chapter 12, is the primary piece of tobacco control legislation in Jordan and addresses smoke-free places, tobacco advertising, and promotion, and tobacco packaging and labeling. It also provides penalties for violations of these provisions. Jordanian Standard 466/2012 implements the tobacco

packaging and labeling provision in the Public Health Law (Article 56). The Public Transport Law of 2008 and the Traffic Law of 2008 are separate pieces of legislation (i.e., not issued under the Public Health Law) and address smoking in public transport. The Control of Juvenile Conduct Law of 2006 is also separate legislation and prohibits the sale of tobacco to minors. The tobacco advertising and promotion provisions of the Public Health Law are largely self-implementing, except for the point of sale display, which is regulated by the Tobacco Products Display Regulation of 2013. The Ministry of Health has issued instructions to restaurant associations, the airport authority, and the general manager of the Amman mall regarding the implementation of the smoking ban in airports, restaurants, fast food restaurants, and the Amman mall [28].

## **Protect**

According to the WHO report on the global tobacco epidemic, 2017 [26], public places required to be completely smoke-free in Jordan include governmental, health-care and educational facilities, public transport. Still, universities, indoor offices, and workplaces, restaurants, cafes, pubs and bars are not required to be smoke-free.

Smoking is prohibited in hospitals, health centers, schools, cinemas, theatres, public libraries, museums, governmental and non-governmental public premises, means of transportation, arrivals and departures halls at airports, enclosed stadiums, lecture-halls and any other place deemed by the Minister as public. The law fails to list all indoor public places and workplaces, so smoking is restricted or completely unrestricted in some places. Further, the law authorizes the Minister of Health to allow designated smoking areas in public places. The Ministry of Health has allowed a phase-in of the smoking ban in restaurants. The current policy is that 50 percent of seats must be reserved for non-smokers. The Ministry has not yet allowed smoking rooms in other places [28].

The national law requires fines for smoking which are levied on both the smoker and the establishment. However, no funds are dedicated to enforcement and no investigation is required after a complaint is submitted. Weak implementation of smoking bans is documented in survey-based studies reporting high public support for establishing smoke-free public places [29].

Under the new rules, anyone caught smoking in a public place is liable for a prison sentence of up to three months and a fine equivalent to nearly \$300. Those responsible for the premises where people are caught smoking illegally could be fined up to \$4,500, or even imprisoned for six months. The introductions are not radically new: on paper, smoking has been banned in public places in Jordan since 2008. But poor enforcement, meager fines and a loose definition of 'public areas' meant that legislation had little effect in the past. Whether on a university campus, in a cafe or even in Parliament buildings - all of which are affected to some degree by the changes - it's generally considered acceptable to light up a cigarette indoors [30].

## **Offer**

Smoking cessation support is available only in some clinics but no toll-free telephone or other quitline is established [26]. Some medication, including NRT and varenicline, are legally sold in the pharmacy but the cost is only partially reimbursed by health insurance.

Studies document a high level of interest in quitting: the majority of smokers had a previous quit attempt (60%), more than half of the surveyed smokers considering quitting within the next year (57%), and 42% considering quitting in the next 30 days. Predictors of willingness to quit include heaviness of smoking, media exposure to anti-smoking message, medical education, previous quit attempts, and smoker's mental health [31].

Published studies on smoking cessation are mostly related to the assessment of needs rather than document the achievements [32]. Many Jordanian nurses and physicians are reported to not recognize the addictive aspect of smoking, and not to receive formal training in smoking cessation approaches to use with patients [14, 33] and not to provide primary prevention services [34]. However, this needs assessment process was complemented with the adoption of tobacco dependence treatment guidelines which are believed to be the first comprehensive Arabic-language guidelines [35].

### **Warn**

Although the law requires health warnings on all tobacco products, health warnings have been authorized for cigarette packs only. Therefore, other tobacco products do not carry health warnings. On cigarette packs, the authorized text-only health warning must occupy 40 percent of the front of the pack, placed lengthwise down the long edge of the pack. One of four authorized combined picture and text warnings must occupy 40 percent of the back of the pack, placed along the bottom edge. Misleading terms, descriptors, trademarks, and figurative and other signs are prohibited [28].

While previous four non-pictorial health warnings on tobacco packages used in Jordan since 2011 were considered insufficiently effective [36], the pictorial warning labels introduced in 2013 were evaluated as those provoking quit attempts [37].

According to the WHO report, conducted media campaigns were in line with the adopted requirements. Several studies by local researchers were devoted to the media coverage and its effects with conclusions that anti-tobacco messages need to be more salient, evocative and multi-faceted, tailored to subgroups, given detected variability in knowledge across smoking status and sociodemographic characteristics [38].

### **Enforce**

Almost all forms of tobacco advertising and promotion are prohibited in Jordan, including in traditional and electronic media. However, some forms of indirect promotion, such as retailer incentive programs, may escape the ban. Tobacco sponsorship is not restricted [28].

### **Current National tobacco control strategy**

In response to the alarming rates of smoking that are among the highest in the region, the Ministry of Health with support from the World Health Organization (WHO) and King Hussein Cancer Foundation and Center (KHCF/KHCC) recently completed the development and launch of a time-bound roadmap aimed at reversing the tobacco epidemic in Jordan. To discuss the roadmap, a national meeting engaging more than 100 stakeholders representing national organizations was held in 2016 under the patronage of HRH Princess Dina Mired, Director General of King Hussein Cancer Foundation. The roadmap underlines the importance of complete enforcement of protection from second-hand smoke, raising the prices of tobacco products, and wide-scale availability of tobacco dependence treatment services. *“No Health Ministry will be able to cope with the avalanche of smoking-related illnesses that are expected to double by 2020. We need to act fast and work together as a community to stamp out the deadly tobacco products that are stealing our children,”* said HRH, Princess Dina Mired<sup>1</sup>.

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<sup>1</sup> <https://www.globalbridges.org/news/blog/2015/12/22/jordan-launches-2016-18-tobacco-control-roadmap/#.WrEovfluZhF>

Princess Dina Mired was also elected president of the Union for International Cancer Control (UICC). She stated: *We still need to implement smoke-free public spaces, impose more taxes on cigarettes and protect our children from tobacco companies*<sup>2</sup>.

Recently Jordan's national tobacco control strategy for 2017-2019 was adopted, which is based on the implementation of the WHO's MPOWER strategy, a comprehensive set of tobacco control measures. The strategy seeks to decrease tobacco consumption by 30% by 2025 and was set in partnership with the WHO, the King Hussein Cancer Centre, and concerned civil society organizations<sup>3</sup>.

## **Tobacco production and consumption**

### **Tobacco growing**

According to the FAO database [39], in 1961-2002 tobacco growing was rather extensive in Jordan, with a maximum in 1983: production of unmanufactured tobacco was 6,017 tons and area harvested was 8,370 ha. However, in 2003, tobacco growing sharply declined and currently it almost disappeared in the country.

### **Tobacco production**

While most consumed tobacco products in Jordan are manufactured within the country, consistent data on the production of cigarettes and other tobacco products is not available.

According to the World Bank report [40], Jordan produced 4,100 million cigarettes in 1999, up from 3,800 million in 1993. According to the country FCTC reports<sup>4</sup>, 7.4 billion cigarettes were produced in 2010 and the production increased to 8.6 billion cigarettes in 2012, while 1.756 billion cigarettes were imported.

According to the official Annual Statistical Yearbooks<sup>5</sup>, tobacco import in Jordan in 2010-2016 ranged from 42 million JD (Jordanian dinars) to 63 million JD, while the tobacco export was slightly lower: between 24 million and 52 million JD.

In 1999, there were three major tobacco manufacturing companies: Jordan Tobacco & Cigarettes Co, Union Tobacco & Cigarette Industries Company (UTC) and International Tobacco Cigarettes Company (ITCC). Philip Morris Investments B. V. Jordan (PMJ) was established in 2011 as a result of the PMI acquisition of the operations of the International Tobacco Cigarettes Company (ITCC)<sup>6</sup>. In 2014, there were seven tobacco manufacturers in Jordan<sup>7</sup>.

### **Tobacco consumption**

According to published international estimates [1], the age-standardized smoking prevalence in Jordan slightly decreased in 1980-2012 and in 2012 it was 43.4% among men and 8.5% among women. The estimated cigarette consumption increased from 3.3 billion cigarettes in 1980 to 4.7 billion cigarettes in 1996-2006 and 5.6 billion cigarettes in 2012, while estimated mean daily cigarette consumption per smoker decreased 2-fold from 26.6 cigarettes in 1980 to 12.9 cigarettes per smoker in 2012.

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<sup>2</sup> <http://www.middleeasteye.net/in-depth/features/exclusive-qa-hrh-princess-dina-mired-jordan-cancer-hospital-shisha-leukaemia-smoking-1301636925>

<sup>3</sup> <http://www.jordantimes.com/news/local/firm-implementation%E2%80%99-anti-smoking-laws-pledged>

<sup>4</sup> <http://apps.who.int/fctc/implementation/database/parties/Jordan>

<sup>5</sup> <http://dosweb.dos.gov.jo/product-category/statistical-year-book/>

<sup>6</sup> <https://www.pmi.com/markets/jordan/en>

<sup>7</sup> <http://www.jordantimes.com/news/local/storeowners-manufacturers-trade-blame-over-cigarette-shortage>

According to the World Health Organization<sup>8</sup>, in 1980-1995, per capita annual cigarette consumption in Jordan decreased from 2028 to 1540, but due to population growth, the total consumption increased from 2,283 million to 3,835 million cigarettes.

The Department of Statistics conducted several household surveys on expenditures and incomes, which included questions on tobacco consumption<sup>9</sup>. The survey data are presented in Table 1 and were used for calculation of the average cigarette price.

**Table 1. Tobacco expenditure and consumption in Jordan: household surveys data**

	2002-2003	2006	2008	2010	2013
Average annual household member expenditure on tobacco and cigarettes (in JD)	34,8	47,1	60,3	78,9	94,8
Average annual tobacco consumption per household member (in cigarette packs)	52		55	62	66
Average Annual Current Income of household member (in JD)	900,5	1083,7	1350,5	1660,2	1857,2
No of household members	5003251	5418932	5836892	6027943	6247808
Total tobacco consumption (million cigarettes)	5203		6421	7475	8247
Total tobacco expenditure (in million JD)	174		352	481	602
<i>Average calculated price of a 20-cigarettes pack</i>	<i>0.7</i>		<i>1.1</i>	<i>1.3</i>	<i>1.4</i>

In 2003-2013, tobacco consumption in Jordan increased by 58% and average annual household member expenditure on tobacco and cigarettes increased by 172%, which was partly caused by the increase of the average cigarette price by 115%. Apparently, over recent years annual cigarette sales were about 8 billion cigarettes.

Cigarette expenditures by socioeconomic groups were estimated by Toukan [10]. The average poorest adult male cigarette smoker with an income of 100 to 250 Jordanian dinars per month spends approximately 25 times more on cigarettes than on health, approximately 10 times more on cigarettes than on education, approximately 2.5 times more on cigarettes than on housing, and approximately 1.5 times more on cigarettes than on food. Smoking cost the country 1 billion Jordanian dinars in 2012, including money spent on tobacco and smoking-related diseases, which amounted to approximately 5% of the gross domestic product.

## Cigarette prices

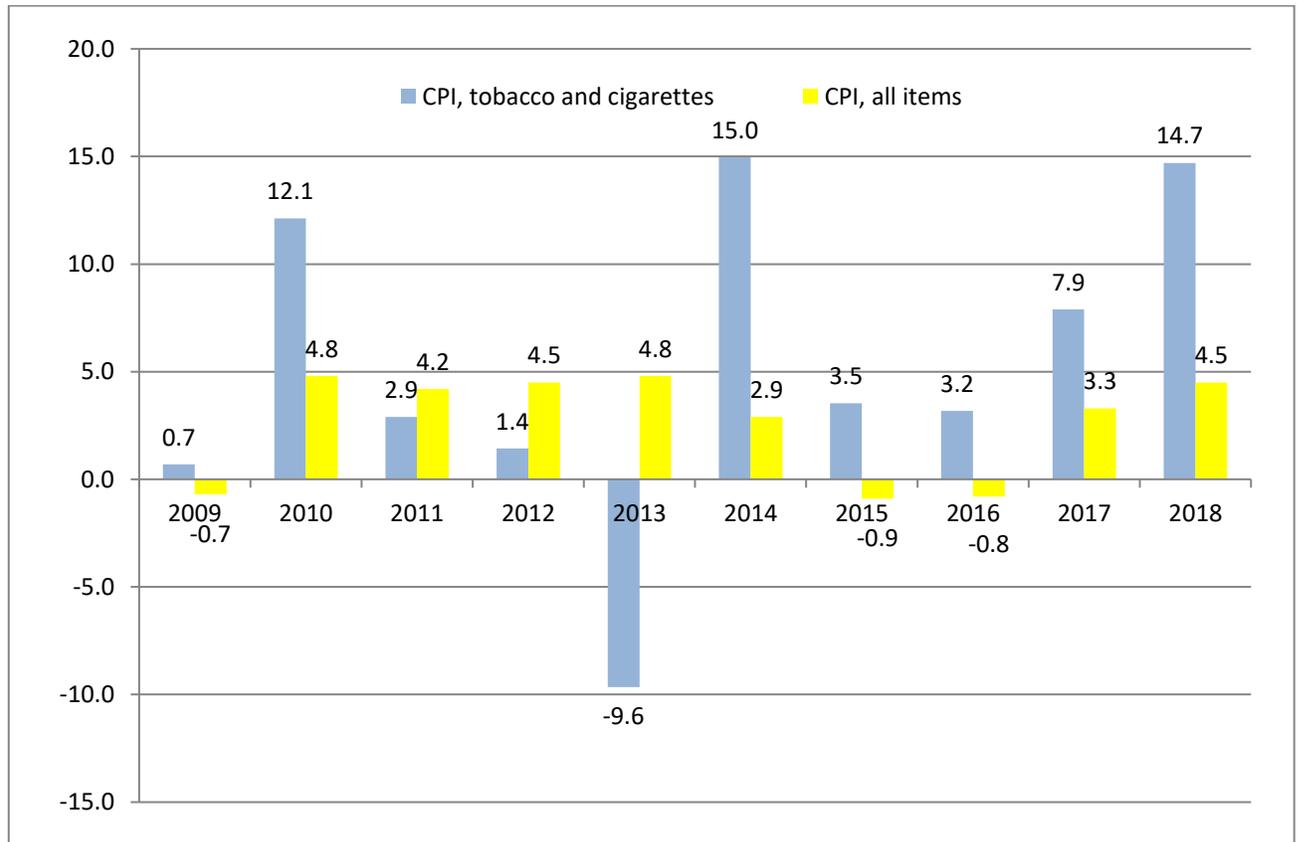
According to the WHO Global Tobacco Control reports [41], the price of the most popular cigarette brand in Jordan increased from 0.85 JD in 2008; 0.95 JD in 2010; 1.1 JD in 2012; 1.2 JD in 2014 to 1.4 JD in 2016 or by 65% in eight years. However, the most popular brand was also the cheapest brand in 2016, so the trend for average price differed. According to the survey, conducted in 2011 [11], the average reported price was 1.43JD. The survey also reported that the average number of packs of cigarettes smokers used was 7.98 packs per week.

<sup>8</sup> <https://www.who.int/tobacco/media/en/Jordan.pdf>

<sup>9</sup> [http://www.dos.gov.jo/dos\\_home\\_e/main/sdb\\_ec\\_e/household/index.htm](http://www.dos.gov.jo/dos_home_e/main/sdb_ec_e/household/index.htm)

According to the Department of Statistics database<sup>10</sup>, average tobacco and cigarette prices in 2010-2018 increased by 43%, while inflation over those eight years was 25%. However, the changes in cigarette prices were not consistent (Figure 1).

**Figure 1. Annual price changes (in %)**



Source: Department of Statistics <http://dosweb.dos.gov.jo/economic/price-indices/>.

The average prices of cigarettes decreased by almost 10% in 2013. In December 2012, tobacco manufacturers informed the Income and Sales Tax Department of their intention to reduce cigarette prices by at least 15%, referring to the intensified competition from smuggled tobacco products originating in Syria and other neighboring countries. They claimed that the government's policies aimed to repeatedly increase taxes on local cigarettes had not only deterred consumers from purchasing them but had also spurred smuggling of foreign cigarettes. Locally-made Marlboro price decreased by 22% from JD1.8 per pack to JD1.4 and Gauloises price went to JD1.1 from its previously set JD1.4<sup>11</sup>. Price of a pack of Winston dropped to 1.2 JD from 1.6 JD. Philip Morris International stated: "We were forced to decrease the prices of our cigarettes in Jordan to address the serious problem of illicit smuggled cigarettes," which assumedly accounted for 46 percent of all cigarettes sold in the country in 2012, costing the government about \$190m in lost taxes<sup>12</sup>.

The WHO economist Anne-Marie Perucic in response to a cigarette price reduction in Jordan said that "smuggling estimates provided by the tobacco industry are often exaggerated"<sup>13</sup>. "They want to keep this fear

<sup>10</sup> <http://dosweb.dos.gov.jo/product-category/statistical-year-book/>

<sup>11</sup> <http://www.jordan-business.net/features/cheaper-cigarettes>

<sup>12</sup> <https://www.aljazeera.com/indepth/features/2013/04/2013414101437602592.html>

<sup>13</sup> <https://www.aljazeera.com/indepth/features/2013/04/2013414101437602592.html>

within governments because it's not in their interest that taxes are increased." Nor is lowering tobacco prices an ideal means of combating illicit trade, she added. Effective ways of fighting smuggling include governmental actions such as strengthening customs capacity, increasing penalties and improving information exchanges with neighboring countries. In other countries, Perucic explained, the tobacco industry also decreased the price of certain products. "And then at some point, they would raise it again. They don't stay with the low price for a long time. It's usually a short-term strategy to increase their market share."

Very soon the opinion, expressed by Perucic, was confirmed. In 2014, cigarette prices were increased by 15%, and they returned to levels of 2012 (Figure 1). For example, the price of Marlboro was 1.8 JD [42] both in 2012 and 2014. The price of Marlboro increased to 2.0 JD in 2016, 2.3JD in 2018<sup>14</sup>, and 2.5 JD in 2019<sup>15</sup>.

In 2014-2018, the price of cigarettes increased by 52% while inflation over those five years was 9% (Figure 1).

### **Tobacco affordability**

The Guidelines for implementation of Article 6 of the WHO FCTC [43] recommend: "When establishing or increasing their national levels of taxation Parties should take into account – among other things – ... changes in household income, to make tobacco products less affordable over time in order to reduce consumption and prevalence". In the Guidelines, "affordability" means price relative to per capita income.

In the current analysis, a modified tobacco affordability index (TAI) [44] is used to estimate the changes in tobacco affordability in 2009–2018. TAI is calculated as the percentage annual change in nominal average income per capita divided by the tobacco price increase:  $TAI = (\text{income increase}/\text{consumer price index tobacco} - 1) * 100$ . A negative TAI value means that tobacco became less affordable, and tobacco consumption is expected to decrease. For the TAI calculations, we used the Department of Statistics data on general CPU and for tobacco products. As income proxy the World Bank indicator "Annual percentage growth rate of GDP per capita based on constant local currency"<sup>16</sup>. As the GDP change is expressed in constant (adjusted for the effects of price inflation) local currency, the price indicator is also expressed in real (inflation-adjusted) terms. In this case, the TAI is calculated as GDP annual change divided by the (inflation-adjusted) tobacco price increase minus 100:  $(\text{GDP growth} * \text{CPI\_all\_items} / \text{CPI\_tobacco} - 100)$ .

The estimates of the Tobacco Affordability Index are presented in Table 2.

**Table 2. Tobacco affordability in Jordan**

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
CPI, tobacco and cigarettes	100,7	112,1	102,9	101,4	90,4	115,0	103,5	103,2	107,9	114,7
CPI, all items	99,3	104,8	104,2	104,5	104,8	102,9	99,1	99,2	103,3	104,5
GDP annual growth	100,4	97,2	97,3	97,3	97,7	98,5	101,5	98,8	99,4	101,2 <sup>17</sup>
Tobacco Affordability Index	-1,0	-9,1	-1,5	0,2	13,3	-11,8	-2,8	-5,0	-4,8	-7,8

Tobacco affordability declined in most of the years. However, in 2011-2014 combined, tobacco affordability index was just -1.3, as cigarette prices were substantially reduced in 2013. In 2015-2018 combined, tobacco affordability index was -19.0, and tobacco consumption most probably declined over those years.

<sup>14</sup> <https://www.expatistan.com/price/cigarettes/amman>

<sup>15</sup> [https://www.numbeo.com/cost-of-living/country\\_result.jsp?country=Jordan](https://www.numbeo.com/cost-of-living/country_result.jsp?country=Jordan)

<sup>16</sup> <https://data.worldbank.org/indicator/NY.GDP.PCAP.KD.ZG?locations=JO>

<sup>17</sup> <https://www.ceicdata.com/en/indicator/jordan/gdp-per-capita>

## Tobacco smuggling

The Philip Morris estimates of illicit tobacco sales (46% of the cigarette market) were criticized by public health officials. Director of the Cancer Control Center Dr. Feras Hawari said<sup>18</sup>: *“The notion that there is extensive smuggling in Jordan is an insult to all parties that control the borders. Our borders are some of the most controlled in the world due to the political situation in all the surrounding countries.”* He also questioned the relationship between lowering prices and deterring smuggling, calling the notion “completely unfounded” and said that this claim *“has been traditionally used as an excuse by the tobacco industry and was proven wrong by the scientific community. The real reason is the intention to control not just the market in Jordan, but also in the region”*.

In the survey of 2011 [11], when asked about the place cigarettes were purchased, nearly all (99.9%) Jordanian smokers reported buying their cigarettes from a store. It is doubtful that stores sell 46% of illicit cigarettes.

## Tobacco taxation

Till 2014 Jordan had mixed tobacco excise system with specific tax and ad valorem tax. The ad valorem rate was 102% of the net-of-tax price pursuant to Regulation No. 8/2000. The general sales tax (16%) is also applied to tobacco products.

The main unified specific excise per pack of 20 cigarettes was 0.3JD in 2008 and in 2010 it was increased to 0.32JD. Then it was gradually increased to 0.42JD in 2014, 0.47JD in 2015; 0.482 JD in 2017 and 0.57JD in 2018<sup>19</sup> or by 0.15 JD per pack (by 36%) in four years.

In January 2014, the additional tiered specific excise tax was introduced (Regulation No 26 of 2014) instead of ad valorem tax [28]. It was set as 0.283JD per pack of cigarettes with a price below 0.9JD per pack of 20 cigarettes and 0.938 JD for packs with price above 2.4 JD. This tiered specific tax is actually similar to ad valorem excise with rates ranging from 31% for cheapest cigarettes to 39% for most expensive cigarettes. In 2017 and 2018, the tier excise rates were changed. In 2018 (Regulation No 3 of 2018<sup>20</sup>), the excise ranged from 0.545 JD for cigarettes with prices lower than 1.5JD per pack to 1.315 JD for cigarettes with a price higher than 3.25 JD per pack (this excise share in the final retail price constitutes from 36.6% to 40.5%). However, for cigarettes which had the same price in 2014-2018, this additional excise rate was almost not changed. For example, for cigarettes with price 1.5JD per pack, the additional excise rate was 0.545JD in both 2014 and 2018. Total excise for such cigarettes increased from 0.965 JD to 1.132 JD or by 17% in four years.

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<sup>18</sup> <http://www.jordan-business.net/features/cheaper-cigarettes>

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<http://www.istd.gov.jo/AttachedArabic/Legislations/%D9%86%D8%B8%D8%A7%D9%85%20%D8%B1%D9%82%D9%85%203%20%D9%84%D8%B3%D9%86%D8%A9%202018%20%D9%86%D8%B8%D8%A7%D9%85%20%D9%85%D8%B9%D8%AF%D9%84%20%D9%84%D9%86%D8%B8%D8%A7%D9%85%20%D8%A7%D9%84%D8%B6%D8%B1%D9%8A%D8%A8%D8%A9%20%D8%A7%D9%84%D8%AE%D8%A7%D8%B5%D8%A9.PDF>

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<http://www.istd.gov.jo/AttachedArabic/Legislations/%D9%86%D8%B8%D8%A7%D9%85%20%D8%B1%D9%82%D9%85%203%20%D9%84%D8%B3%D9%86%D8%A9%202018%20%D9%86%D8%B8%D8%A7%D9%85%20%D9%85%D8%B9%D8%AF%D9%84%20%D9%84%D9%86%D8%B8%D8%A7%D9%85%20%D8%A7%D9%84%D8%B6%D8%B1%D9%8A%D8%A8%D8%A9%20%D8%A7%D9%84%D8%AE%D8%A7%D8%B5%D8%A9.PDF>

According to the Minister of Finance Ezzeddine Kanakrieh<sup>21</sup>, in 2019, the sales tax on cigarettes was not increased. Kanakrieh explained that it was an effort to counter cigarette smuggling after the government prohibited the import of equipment used to illegally manufacture tobacco products.

Currently, the cigarette tax is a sum of the following: (1) main unified specific excise; (2) additional tiered specific excise; (3) general sales tax. Calculations of tax burden are presented in Table 3.

**Table 3. The tax burden for cigarettes in Jordan for a pack of 20 cigarettes, in fils (1 JD = 1000 fils)**

	2013	2014	2018
Net-of-tax price	500	500	500
Specific excise	320	420	570
Ad valorem excise (102%)	510		
Tiered specific excise		653	809
VAT, 16%	133	172	221
Total tax	963	1245	1600
Final retail price	1463	1745	2100

As we see, for cigarettes with net-of-tax price 0.5 JD per pack, the tax burden increased by 66%, and the resulting final retail price increased by 43%.

In 2010, the excise rate for other tobacco was increased from 2.5 JD to 3.3 JD per 1 kg. Excise rates for two types of the water-pipe tobacco were set in 2014 as 4.5 and 10 JD per 1 kg, for cigars as 150 JD per 1 kg and for smoking tobacco for pipes and RYO as 50JD per 1 kg [28].

In May 2019, the government imposed a 200% tax on electronic cigarettes, vapes, and their paraphernalia, as part of amendments to the Special Tax Law<sup>22</sup>.

### **Tobacco tax earmarking**

In 2007, additional specific excise (0.02JD per pack of 20 cigarettes) was levied in Jordan<sup>23</sup>, but later it was canceled. In a similar way, the parliament removed in April 2017 an article which stipulated levying a 0.05 JD tax on each tobacco packet and allocating the money for the Higher Council for Affairs of People with Disabilities<sup>24</sup>.

### **Tobacco tax revenue**

According to the WHO Global Tobacco Control reports [41, 42, 45], tobacco excise revenue in Jordan increased from 312 million JD in 2012 to 375 million JD in 2013 and 554 million JD in 2016. VAT tobacco revenue also increased from 67 million JD in 2013 and 120 million JD in 2016.

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<sup>21</sup> <https://en.royanews.tv/news/16361/No-sales-tax-increase-on-cigarettes-in-Jordan>

<sup>22</sup> <http://www.jordantimes.com/news/local/jfda-catches-dozens-tobacco-shops-illicit-e-cigarette-dealings>

<sup>23</sup>

<http://apps.who.int/fctc/implementation/database/sites/implementation/files/documents/reports/jordanrepenglish.pdf>

<sup>24</sup> <http://www.jordantimes.com/news/local/lower-house-endorses-draft-law-people-disabilities>

According to the official Annual Statistical Yearbooks<sup>25</sup>, the total amount of taxes on tobacco production increased from 345 million JD in 2008 and 440 million JD in 2011. In 2012-2015, it was rather stable – about 420 million JD a year, but then sharply declined to 326 million JD in 2016 and 269 million in 2017.

### Comparison of cigarette prices and taxes in Jordan and neighboring countries

The WHO Global Tobacco Report, 2017 [41] shows information on cigarette prices and taxes in Jordan and other countries of the WHO Eastern Mediterranean Region (EMRO) in 2016 [41] (Table 4).

**Table 4. Cigarette prices and taxes in Jordan and some neighboring countries in 2016, WHO report data [41]**

COUNTRY	Price of a 20-cigarette pack of the most sold brand			Taxes as a % of the price of the most sold brand						Net-of-tax part of the price, USD
	In reported currency	Currency reported	In US\$ at official exchange rates	Specific excise	Ad valorem excise	Total excise	Value added tax/sales tax	Total tax	Total tax, US\$	
Egypt	10	EGP	1,13	23,5%	50,0%	73,5%	0,0%	0,00%	73,5%	0,30
Iraq	1 000	IQD	0,85	0,00%	41,5%	41,5%	0,0%	10,4%	51,8%	0,41
<b>Jordan</b>	<b>1,40</b>	<b>JOD</b>	<b>1,97</b>	<b>67,3%</b>	<b>0,0%</b>	<b>67,3%</b>	<b>13,8%</b>	<b>0,0%</b>	<b>81,1%</b>	<b>0,37</b>
Lebanon	3 250	LBP	2,16	0,0%	30,9%	30,9%	9,0%	1,4%	41,4%	1,27
Saudi Arabia	12	SAR	3,20	16,7%	0,0%	16,7%	0,0%	16,7%	33,3%	2,13
West Bank and Gaza Strip	22	ILS	5,75	35,9%	33,3%	69,2%	13,0%	0,0%	82,2%	1,02

While Jordan had the second highest (after West Bank and Gaza Strip) total tax share in the cigarette price (81.08%), cigarette prices and taxes (in monetary terms) in Jordan are lower than in Lebanon, Saudi Arabia, West Bank and Gaza Strip.

We calculated the net-of-tax price of the most popular cigarette brand as follows: Price in USD \* (1 – Total tax share). The net-of-tax cigarette price in Jordan is similar to such price in Egypt and Iraq, but much lower than in Lebanon and Saudi Arabia.

### Discussion

The prevalence of daily cigarette smoking in Jordan is rather high: about 50% among men and 10% among women and no clear trends in 2000-2016 were observed. The prevalence of cigarette smoking is higher among the poor. Data on cigarette production and sales is not available, but household surveys-based estimates revealed that cigarette consumption in the country increased from 5 billion cigarettes in 2003 to 8 billion cigarettes in 2013.

Water-pipe smoking is clearly on the rise in Jordan, especially among women, young and well-educated people.

Smoking cost the country 1 billion Jordanian dinars in 2012, including money spent on tobacco and smoking-related diseases, which amounted to approximately 5% of the gross domestic product [10].

<sup>25</sup> [http://dosweb.dos.gov.jo/product-category/jordan-in-figuers\\_yearbook/page/1/](http://dosweb.dos.gov.jo/product-category/jordan-in-figuers_yearbook/page/1/)

In 2014-2018, the government increased cigarette excise rates and the tobacco excise revenue increased from 375 million JD in 2013 to 554 million JD in 2016. However, taking into account the actual changes in excise rates, the observed increase of revenue was mainly caused by the increase in tobacco sales, as the average annual excise growth was about 5% in 2014-2018.

Tobacco price increase in 2010-2016 was rather moderate: about 3% annually. In 2011-2014, tobacco affordability almost did not change (see Table 2). Such a situation was partly caused by the pricing policy of the tobacco industry which even decreased cigarette prices in 2013 to encourage cigarette consumption within the country. In 2017 and 2018, tobacco price increase was substantial, and tobacco affordability reduction was high enough, and it could probably cause a decrease in tobacco consumption.

The total price elasticity of cigarette demand in Jordan was estimated to be  $-0.6$  [46]. The price elasticity estimates suggest that significant increases in tobacco taxes are likely to be effective in reducing smoking in Jordan.

In March 2019, the trial on fake-brand cigarette case began in Jordan: 29 former officials and businessmen, including a former minister, called into question the jurisdiction of the country's state security court<sup>26</sup>. They are accused of organizing manufacturing and importing of fake brand cigarettes ring that cost the government an estimated \$200 million in lost fees and taxes. The case in question was revealed in July 2018<sup>27</sup> and involved the smuggling of equipment to produce and sell cigarettes, with several factories set up on farms around the capital, Amman, to manufacture fake versions of international brands popular in Jordan<sup>28</sup>. To counter illicit cigarette production, the government prohibited the import of equipment used to illegally manufacture tobacco products - with the exception of licensed manufacturers--and did not increase cigarette excise rates in 2019<sup>29</sup>.

## Conclusions and recommendations

Cigarette and water-pipe smoking prevalence in Jordan is very high and in 2003-2013 tobacco consumption in the country substantially increased. To reverse the tobacco epidemic, sustained efforts are needed to reduce the affordability of tobacco products and to implement other effective tobacco control policies.

While cigarette excise rates were increased in Jordan in 2014-2018, the increase was not sufficient to substantially decrease the tobacco consumption in the country as it is planned by the National tobacco control strategy. It is recommended:

- Cigarette excise rates (both main unified and additional tiered specific excises) should be annually increased by at least 20% to ensure tobacco affordability reduction.
- Excise rates for water-pipe and other tobacco products should also be annually increased by at least 20% to stop the epidemic of water-pipe smoking in the country.
- Tobacco use surveillance and monitoring should be further strengthened in Jordan, including a regular collection and public presentation of information on sales of cigarettes and other tobacco products, as well as their prices and other economic indicators.

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<sup>26</sup> <https://www.thenational.ae/world/mena/jordan-begins-trial-of-officials-in-fake-brand-cigarette-case-1.836595>

<sup>27</sup> <https://fanack.com/politics-and-corruption/corruption-jordan/>

<sup>28</sup> <https://www.aljazeera.com/news/2018/07/case-testing-jordan-government-stance-corruption-180722191243590.htm>

<sup>29</sup> <https://en.royanews.tv/news/16361/No-sales-tax-increase-on-cigarettes-in-Jordan>

- Effective policies to counteract tobacco smuggling and other kinds of illicit tobacco sales should be implemented in line with the provisions of the FCTC Protocol to Eliminate Illicit Trade in Tobacco Products, which is recommended to be ratified by the country.

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