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BANGLADESH

ECONOMIC REPORT

PREPARED BY
CSF Global

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1. Overview of the tobacco market

Bangladesh has a large and thriving tobacco market, fueled by the country's fast-growing economy. Per capita income is steadily rising, making high-value goods affordable, including tobacco products. In spite of policy measures against smoking, the total number of smokers has not significantly declined in the last 10 years. Approximately 46% of adult males and 25.2% of adult females in Bangladesh use tobacco (GATS, 2017b), and tobacco cultivation grew in the country by 51% between 2009 and 2019 (Yearbooks of Agricultural Statistics, BBS, 2012, 2013, 2015, 2017, and 2019).

On the production side, both cigarette and bidi production increased between 2007 and 2012. On average more than 80 billion sticks of cigarettes were produced annually between 2011 and 2017 by three producers. Bidi production is not as concentrated as cigarette production, with the top four bidi firms owning just under 50% of its market share (Euromonitor, 2018). However, employment in the tobacco industry remains low: 5,893 people were employed in the cigarette manufacturing sector in FY 2005-2006, and the tobacco farming sector employed only about 0.03% of the total agricultural labor force (BBS, 2007). Tobacco firms in Bangladesh range from small raw tobacco producers that sell dry tobacco leaves to large multinational companies like the British American Tobacco Company Bangladesh (BATB).

Cigarettes are usually segregated into various price categories such as low, medium, high and premium brands. The prices of the cheapest cigarette brands and prices of premium brands increased significantly between 2010 and 2016[1]. The tobacco industry pays the highest taxes in Bangladesh, so it has a strong influence on the government as well as on policymakers, and as sales of cigarettes rose so did the tax revenues from them.

Tobacco companies offer tobacco farmers credit and farming supplies and pay them dependable, set prices for their crops. This makes tobacco farmers believe tobacco farming to be profitable without taking into consideration its associated health costs, unpaid family labor and environmental costs. At the same time, tobacco farming risks food insecurity, as land is being devoted to tobacco production instead of food crop production.

With regards to tobacco use, both smoked and smokeless tobacco are popular in the country. Consumers vary in terms of age, income, and socioeconomic status. There has been a decline in the use of some form of tobacco by the overall population, in both urban and rural areas, between 2009 and 2017 (GATS, 2017b). People who lived in cities smoked cigarettes at a higher rate than people who lived in rural areas. In general, men accounted for a larger proportion of tobacco users than women, especially for smoked tobacco. People in rural areas, people with no formal education, people in the lowest socioeconomic category and women used smokeless tobacco more than others. Students and professionals used both combustible and non-combustible tobacco products, but favored the most expensive brands.

A host of initiatives have been adopted over the years to curb tobacco use. Bangladesh was the first country to ratify the WHO's FCTC in 2003. A WHO-sponsored study in 2004 was conducted to study the public health burden of tobacco-related diseases. It found that the cost of treating tobacco-related diseases outweighed the gains from tax revenue. Not only are the risk ratios (RR) of tobacco-related diseases much higher for tobacco users than non-users in Bangladesh, but total tobacco-attributable health care costs more than doubled between 2004 and 2018 (Faruque et al., 2019). In 2005 the People's Republic of Bangladesh passed the Smoking and Tobacco Products Use (Control) Act, later amending this law to make it mandatory for tobacco packaging to have both written and pictorial warning labels, and to restrict smoking in public places. The

[1] http://www.who.int/tobacco/economics/bangladesh.pdf

government also banned tobacco advertising of any kind.

The Bangladesh Cancer Society (BCS) was one of the pioneers of the anti-tobacco campaign, which started in the late 1970s. The BCS, Bangladesh Anti-Tobacco Alliance (BATA), government organizations, and non-government organizations (NGOs) conducted anti-tobacco mass-media campaigns for decades, so anti-tobacco awareness grew over time in both tobacco users and non-users. More than 95% of the public today (ITC Project, 2014) are aware of the harms of tobacco in Bangladesh.

The National Tobacco Control Cell (NTCC) of Bangladesh, an anti-tobacco advocacy platform under the Ministry of Health and Family Welfare, along with national and international NGOs and organizations, have been actively involved in raising awareness, arranging workshops, and providing training to officials so they will implement tobacco control laws in Bangladesh. Despite the commitment by the Prime Minister of the People's Republic of Bangladesh to make Bangladesh tobacco-free by 2041, the Bangladesh government has also been a part of the expansion of the tobacco industry in many instances. The government's role in this expansion can be highlighted through the presence of government officials at the deal-signing ceremony of Japan Tobacco's acquisition of Akij Group (Assunta, 2019), the Bangladesh government's stake in BATB, and the presence of a government delegate representative on the BATB decision-making board (BATB, 2019).

Along with efforts to control tobacco use, illicit trade in the tobacco sector has also garnered much attention. Bangladesh is strategically situated between India and Myanmar, both of which are hotspots of illicit trade. These three countries have many common bazaars, where residents of all sides can travel back and forth for shopping during a particular time on fixed days of the week. Cross-border trade is always dominated by a significant volume of illicit trade in all goods. These countries' respective borders and the Hazrat Shahjalal International Airport at Dhaka are some of the most prominent illicit tobacco trade routes in Bangladesh (Kabir, 2010).

2. Demand for tobacco

Key Findings:

- 43.3% and 35.3% of the population used some form of tobacco in 2009 and 2017, respectively, most of whom were men and belonging to the rural population in both years.
- Adults with no formal education and those belonging to the lowest socioeconomic group smoked cigarettes and bidis the most.
- In general, a positive relationship between age and tobacco use, and a negative relationship between income and tobacco use, was observed.
- Over 90% of people under 15 started smoking before the ages of 12-13.
- Most consumers switched to the low price tier category of smoked tobacco, citing price as the dominant reason.
- 5.1% of smokers and 3.1% of smokeless tobacco users actually quit in 2009.

2.1. Overview of different types of tobacco products and their prices in Bangladesh

In Bangladesh, cigarettes and bidis are the two main combustible tobacco products. Smokeless tobacco products are popular among women, and e-cigarettes are a relatively new phenomenon and popular among the youth. Cigarettes are stratified by quality and price into low, medium, high, and premium categories. The prices of both the cheapest cigarette brands and the premium brands increased significantly between 2010 and 2016. ITC survey results corroborated these results (Nargis et al., 2016 and ITC project, 2014).[2] In the case of bidis, there are two types of bidis available in the market: filtered and non-filtered. On average, prices of both cigarettes and bidis have increased. Table 2.1.1 and Figure 2.1.1 below summarize the changes in cigarette prices and bidi prices over the years, respectively.

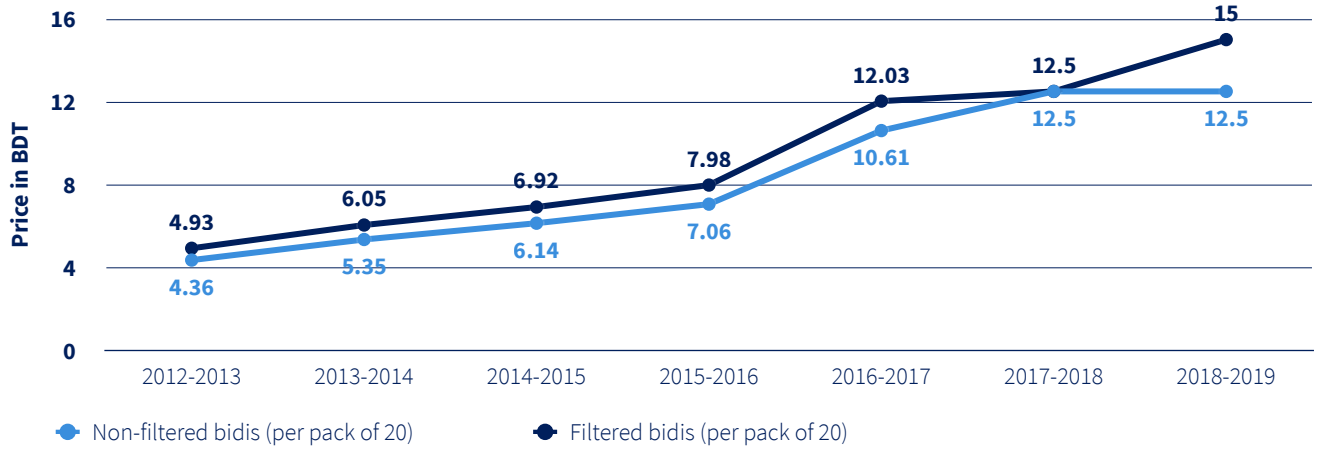
Table 30 (Table 2.1.1): Cigarette prices (BDT per pack of 20 cigarettes), 2008-2016

Year	2008	2010	2012	2014	2016
Most-sold brands	25.9	33	50	70	100
Premium brand	-	104		190	220
Cheapest brand	-	14.6	28	30	50
ITC reports	**2009**	**2010**	**2011-12**	**2014-15**	
Nominal average price	31.2	39.4	55.4	-	-
Real average price	40.6	47.0	57.8	-	-
Low-priced cigarette brands	20	20	24	31	-
Medium-price cigarette brands	40	43	53	53	-
High-priced cigarette brands	89	90	100	119	-
Premium cigarette brands	153	156	185	205	-

Source: Nargis et al., 2016, ITC project, 2014.

[2] http://www.who.int/tobacco/economics/bangladesh.pdf

Figure 1 (2.1.1): Bidi prices (BDT per pack of 20 sticks) over the years, 2012-2018



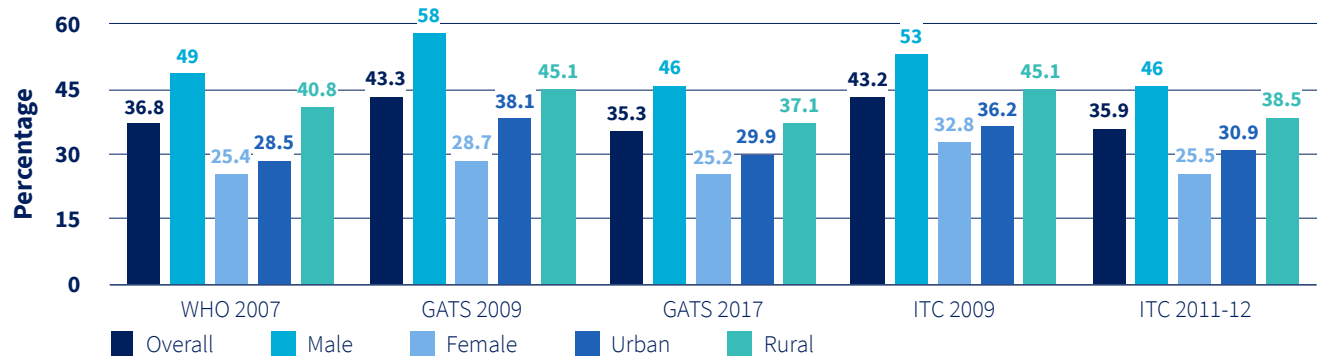
Source: Marquez, Krasovsky & Andreeva (2019)

2.2. Prevalence of tobacco use by consumer characteristics

Tobacco users' characteristics help shed light on its prevalence. A decrease in smoking rates in both men and women, and in both rural and urban areas, were observed (Figure 2.2.1), and smoking prevalence rates declined 7.9% points between 2009 and 2017 (GATS, 2009; 2017b). This change in smoking prevalence rates was similar to the 7.3% point decline in the overall use of tobacco products, as per ITC surveys (Nargis et al., 2015).

It is interesting to observe that tobacco use increases with age (Figure 2.2.2). The only exception is the oldest age category in the GATS 2009 survey, where prevalence dropped. Furthermore, more educated people do not use tobacco as much as less educated people (GATS, 2009) (Figure 2.2.3). It is also evident that prevalence rates vary significantly by occupation: farmers use tobacco the most, and homemakers use it the least. More male than female students smoked manufactured cigarettes (35-50%) (Figure 2.2.4). The relationship between tobacco use and income can be seen in Figure 2.2.6: tobacco use goes up as income goes down, and the highest prevalence rates occur in the lowest income categories, no matter what is happening in overall trends.

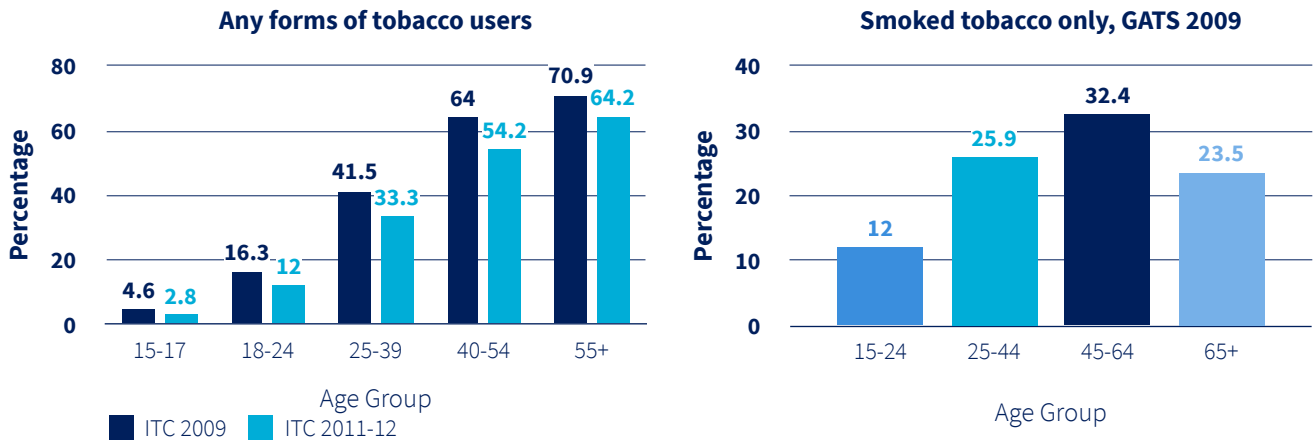
Figure 2 (2.2.1): Prevalence of tobacco use by gender and geographic location, 2007-2017[3]



Sources: GATS 2009 report, GATS 2009 and 2017 comparison, GATS 2017 fact sheet, WHO 2004 report

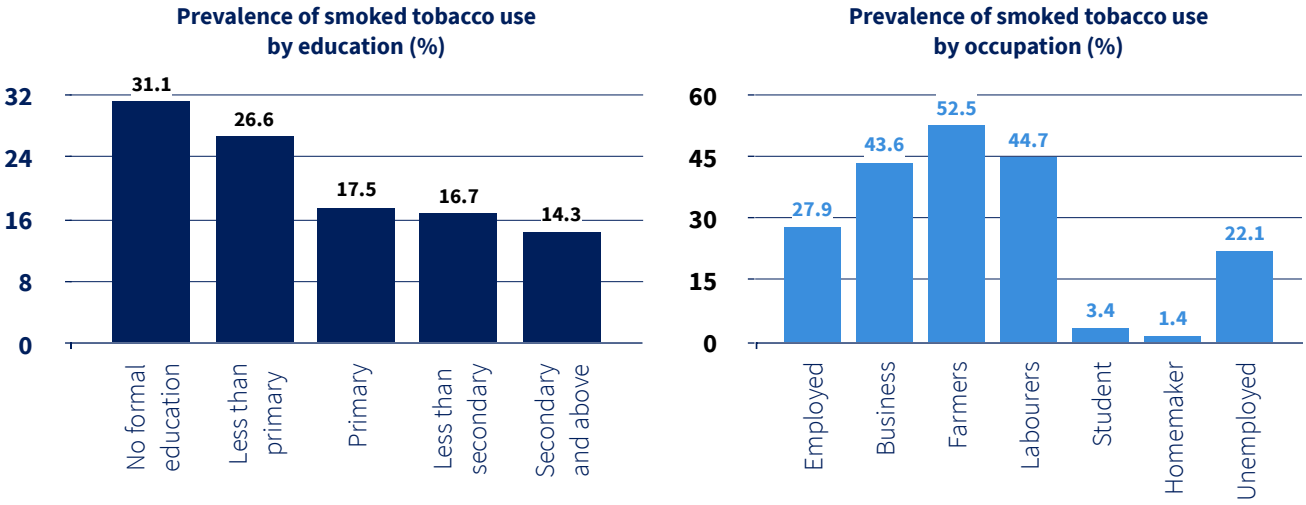
[3] Table 56 (1) of the appendix provides detailed information.

Figure 3 (2.2.2): Prevalence of any form of tobacco use by age groups, 2009-2011



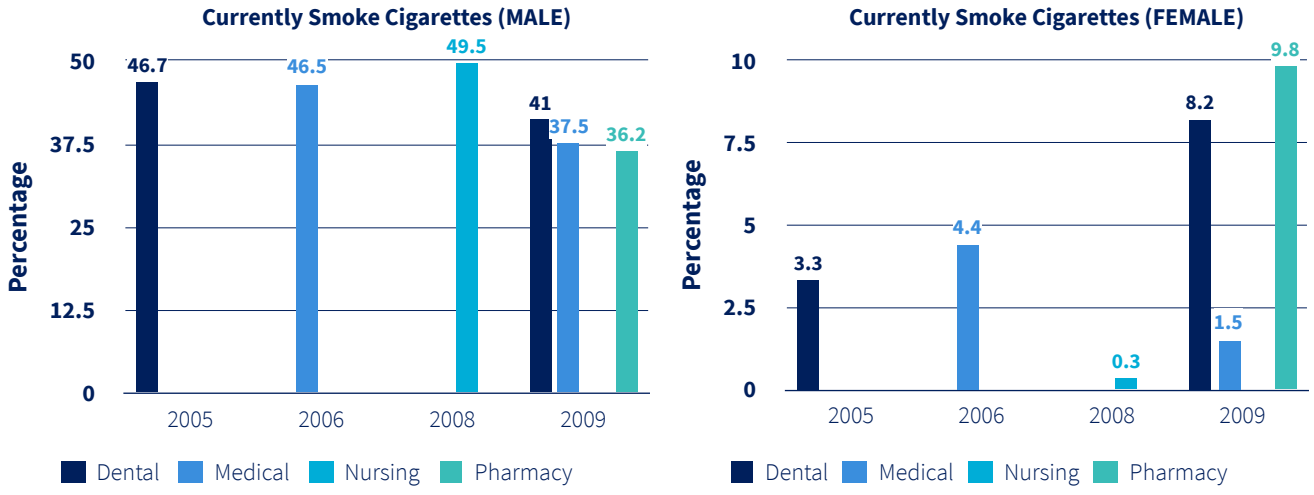
Source: Prevalence and patterns of tobacco use, GATS 2009 report.

Figure 4 (2.2.3): Smoking prevalence by education and occupation, 2009



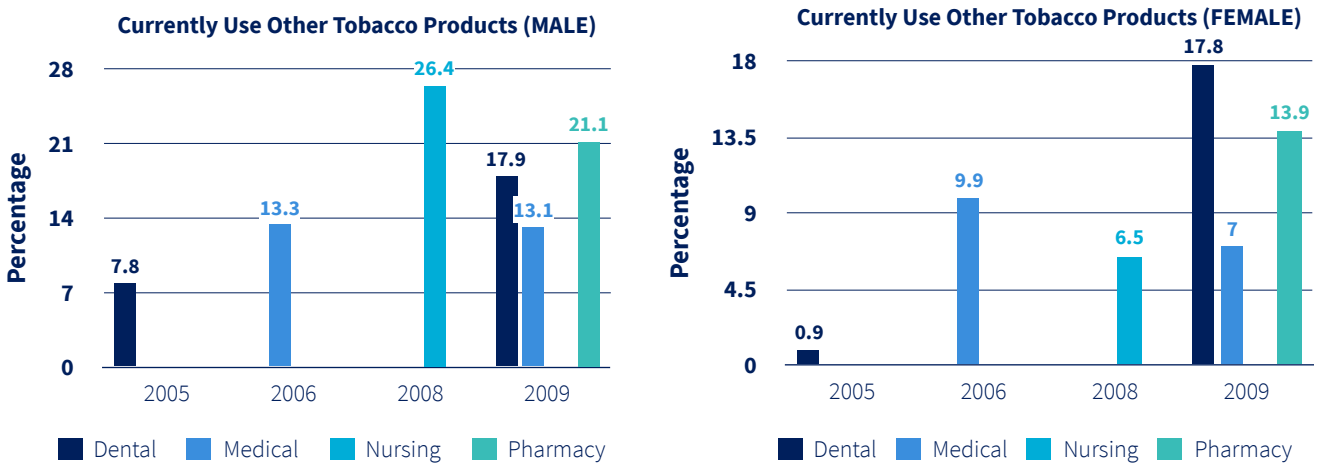
Source: GATS 2009 report

Figure 5 (2.2.4): Prevalence of cigarette smoking among health professions students, 2005-2009



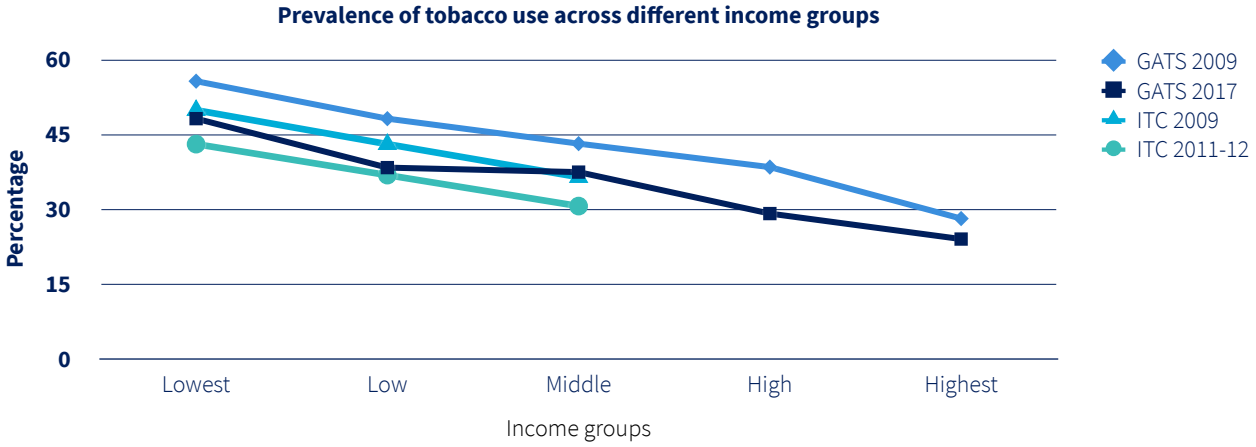
Source: Huque, Zaman, Huq & Sinha (2017)

Figure 6 (2.2.5): Prevalence of other tobacco use among health professions students, 2005-2009



Source: Huque, Zaman, Huq & Sinha (2017)

Figure 7 (2.2.6): Prevalence of tobacco use across different income groups, 2009-2017



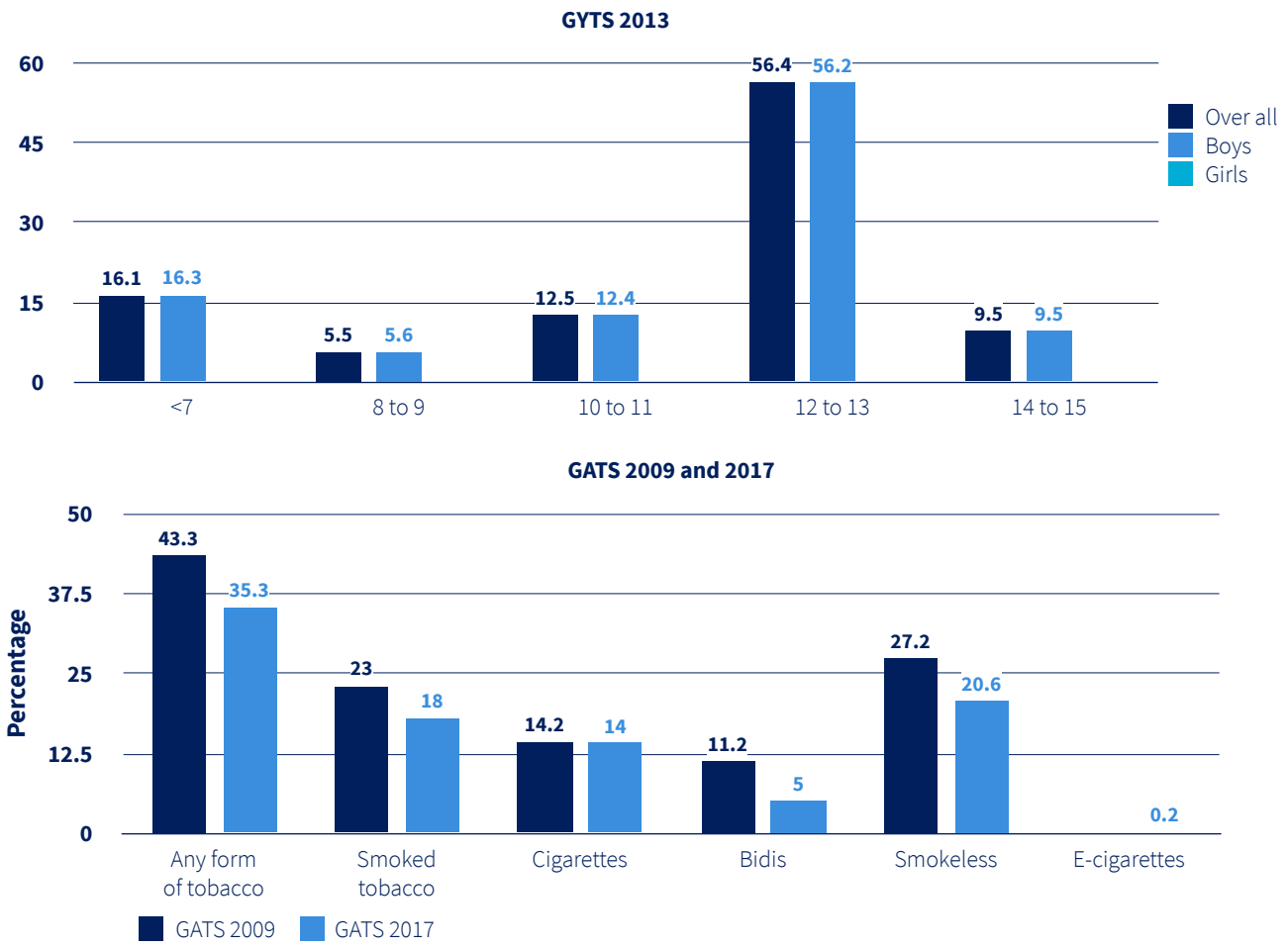
Sources: GATS (2009, 2017)

3.2.3. Prevalence of tobacco use (over time) by type of tobacco products

In Bangladesh, cigarettes and bidis are the two main types of smoked tobacco. Overall smoking prevalence declined by 5 percentage points between 2009 and 2017, even though the rate of cigarette smoking remained the same (Figure 2.3.1), so this decline was entirely due to a reduction in bidi smoking. Over the years, both smoked and smokeless tobacco prevalence decreased.

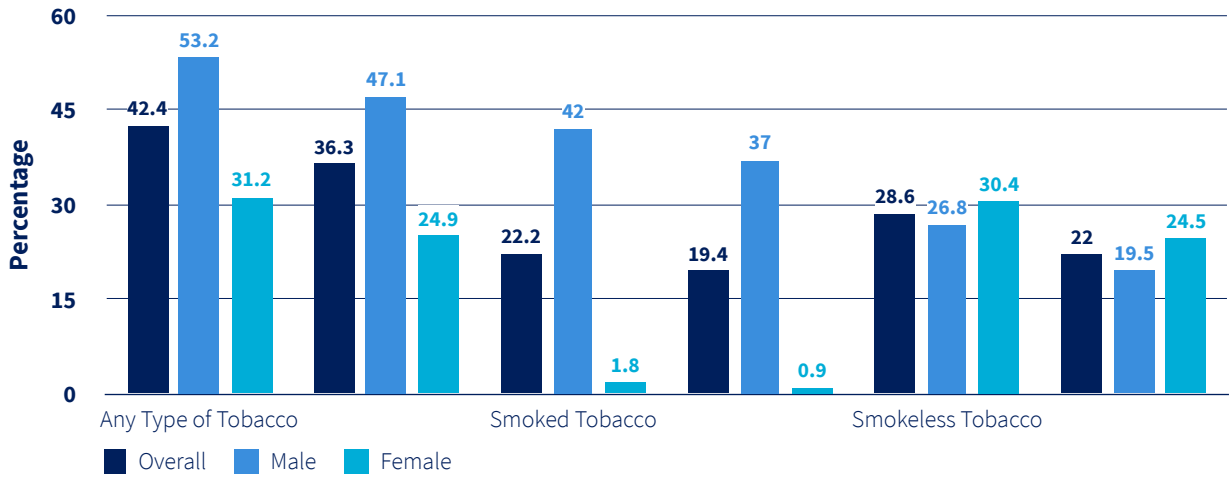
The overall prevalence rate for current smokers declined, for overall smokers as well as both male and female smokers, between 2009 and 2017 (GATS, 2017b). A similar pattern can be observed for smokeless tobacco, with overall use rates falling from 27.2% in 2009 to 20.6% in 2017 (GATS, 2017a).

Figure 8 (2.3.1): Prevalence of different types of tobacco users, 2009-2017[4]



Sources: GATS 2009 report, GATS 2009 and 2017 comparison, GATS 2017 fact sheet

Figure 9 (2.3.2): Prevalence rates from Wave 1 (2009) to Wave 3 (2012) of the ITC Bangladesh Survey by gender.[5]

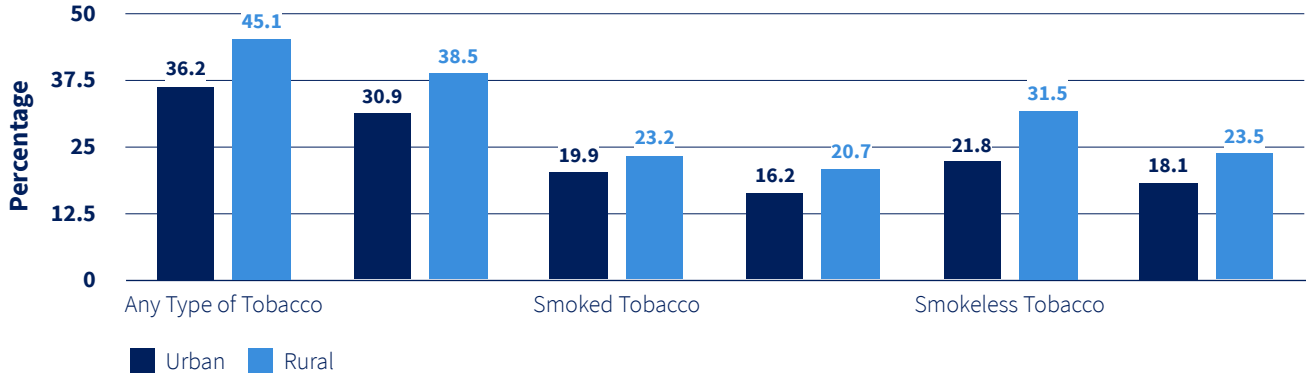


Source: Prevalence and Patterns of Tobacco Use in Bangladesh from 2009 to 2012: Evidence from International Tobacco Control (ITC) Study (Nargis et al., 2015)

[4] Table 57 (2) of the appendix provides detailed information.

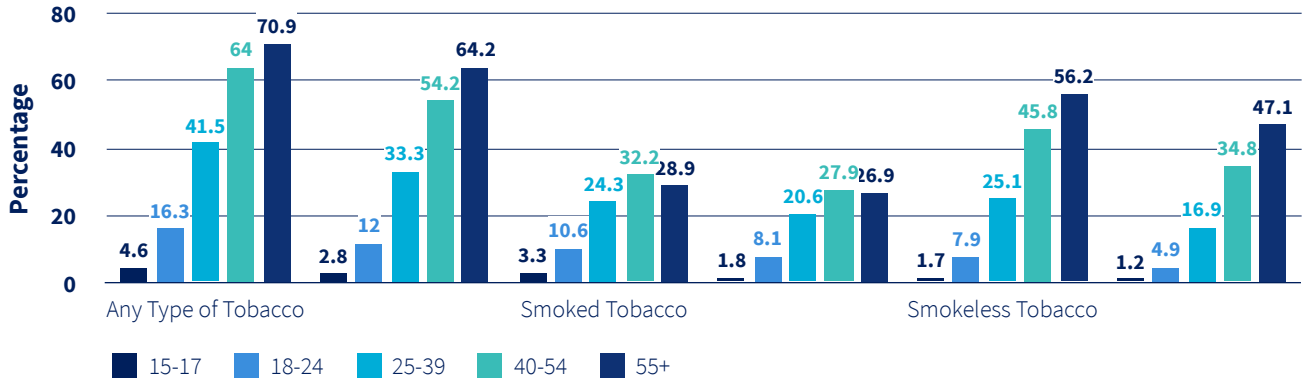
[5] Table 58 (3) of the appendix provides detailed information.

Figure 10 (2.3.3): Prevalence rates from Wave 1 (2009) to Wave 3 (2012) of the ITC Bangladesh Survey by residence.[6]



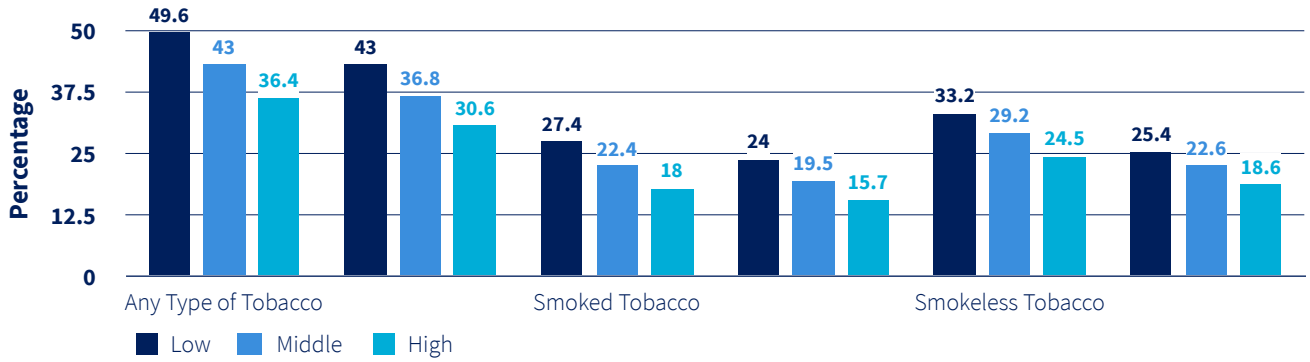
Source: Prevalence and Patterns of Tobacco Use in Bangladesh from 2009 to 2012: Evidence from International Tobacco Control (ITC) Study (Nargis et al., 2015).

Figure 11 (2.3.4): Prevalence rates from Wave 1 (2009) to Wave 3 (2012) of the ITC Bangladesh Survey by age group.[7]



Source: Prevalence and Patterns of Tobacco Use in Bangladesh from 2009 to 2012: Evidence from International Tobacco Control (ITC) Study (Nargis et al., 2015)

Figure 12 (2.3.5): Prevalence rates from Wave 1 (2009) to Wave 3 (2012) of the ITC Bangladesh Survey by socioeconomic status.[8]



Source: Prevalence and Patterns of Tobacco Use in Bangladesh from 2009 to 2012: Evidence from International Tobacco Control (ITC) Study (Nargis et al., 2015)

[6] Table 58 (3) of the appendix provides detailed information.

[7] Table 58 (3) of the appendix provides detailed information.

[8] Table 58 (3) of the appendix provides detailed information.

There was a decline in overall tobacco use between 2009 and 2012. Declines in smokeless tobacco use were higher than declines in combustible cigarette smoking during this time. In both waves of the survey, more men, older people, and people with low incomes used tobacco in any category. Cigarette smoking increased between 2009 and 2012, while bidi smoking remained stable. The prevalence of smoking both cigarettes and bidis went down significantly. The use of smokeless tobacco, either by itself or combined with combustible tobacco smoking, went down between 2009 to 2012 (Nargis et al., 2015).

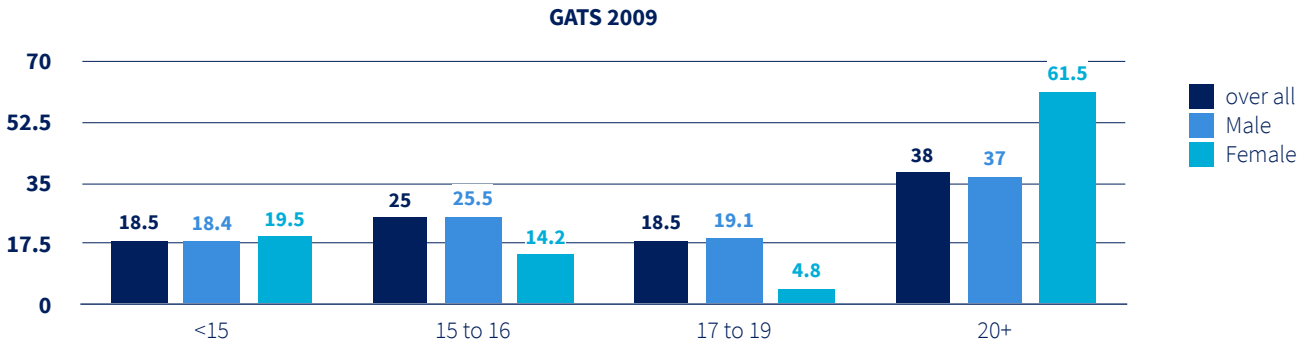
2.4. Distribution of tobacco use by age of initiation, frequency of use, switching & quitting

2.4.1. Age of initiation

Bangladeshis start smoking combustible tobacco at around 20 years of age and using smokeless tobacco products at around 30 years of age, on average (WHO, 2004). The overall mean age of daily smoking initiation was 18.5 years, and the mean age of daily smoking initiation was lower for men than women. Among those who started smoking before age 15, 16.1% did so before the age of 7, 21.6% started before age 10, and 56.4% started smoking at age 12–13 (Figure 2.4.1.1). On average, urban respondents started smoking earlier than their rural counterparts.

Tobacco users cited several reasons for why they started smoking and continued to smoke, some of the most prominent being peer pressure, imitation, "no reason", relieving tension, addiction, "feeling better", frustration and to decrease hunger (Uddin, Rahman & Hussain, 2009; Khan & Mahmood, 2016). Psychological distress, irrespective of its severity, was associated with at least twice the prevalence of tobacco smoking in rural Bangladesh among women but not among men (Islam & Walton, 2019).

Figure 13 (2.4.1.1): Age of smoking initiation 2009-2013

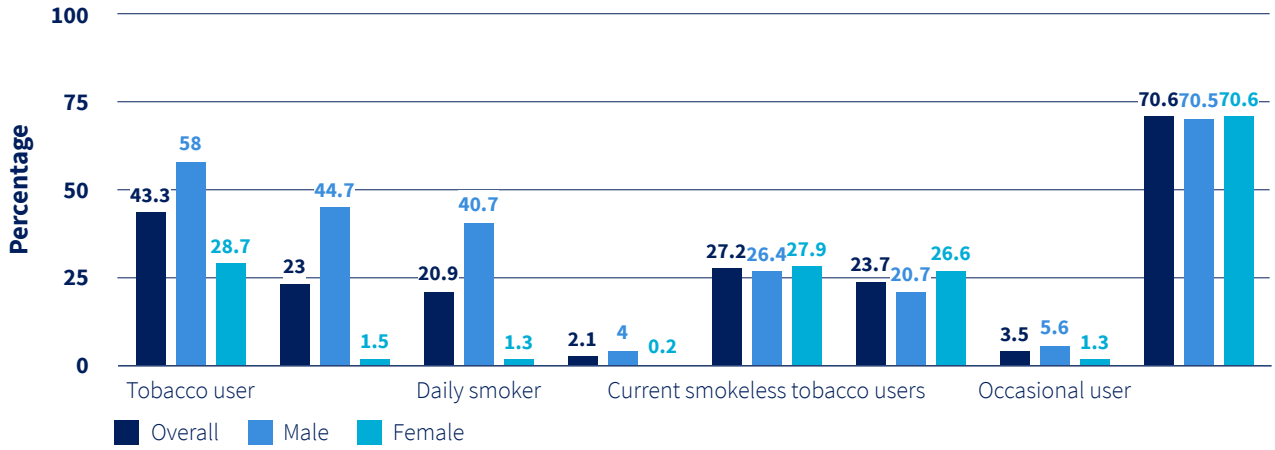


Sources: GYTS 2013 report, GATS 2009 report

2.4.2. Frequency of use

In 2009, 20.9% of current smokers used combustible tobacco daily and 2.1% used it occasionally. Men smoked more than women. The proportion of non-smokers in the adult population was high. Among the never daily smokers, 71.0% were never smokers. More women were never smokers than men (Figure 2.4.2.1). In 2009, 23.7% of current users of smokeless tobacco used it daily and 3.5% used it occasionally. Women had a higher daily use prevalence than men.

Figure 14 (2.4.2.1): Shares of current tobacco users, daily users, occasional users, and never users, 2009

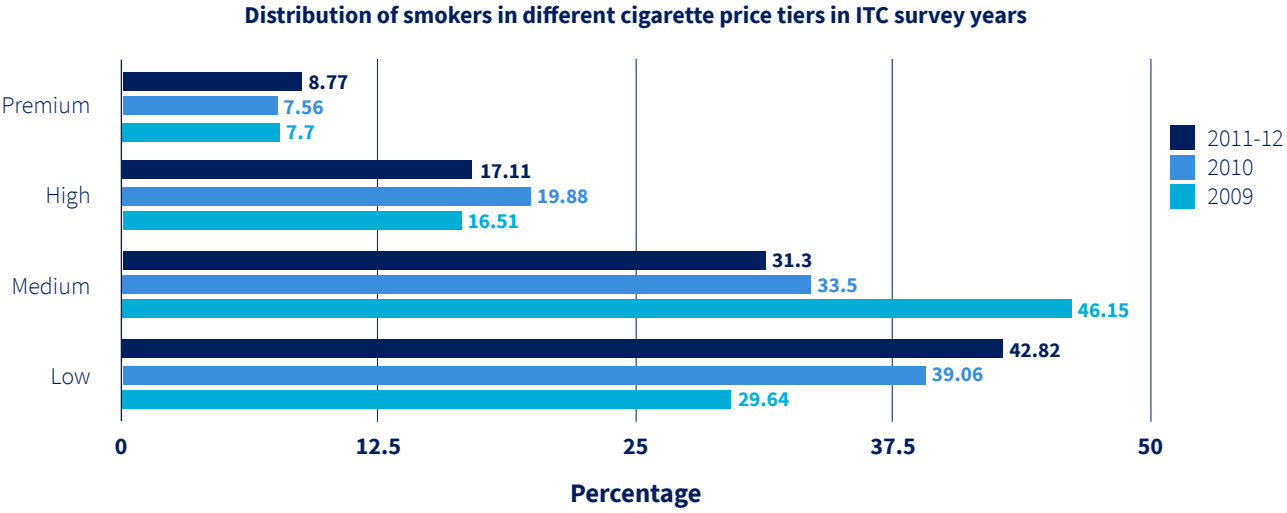


Source: GATS 2009 report

3.2.4.3. Switching behavior

Smokers tend to move up and down price tiers in the cigarette market. The percentage of smokers who were in the lowest price tier rose from 2009 to 2011, while the opposite happened to smokers in the medium price tier for the same time period (Figure 2.4.3.1). The top two price tiers did not have any major shifts during this time. (Huq, Nargis, Lkhagvasuren, Hussain & Fong, 2019).

Figure 15 (2.4.3.1): Distribution of smokers in different cigarette price tiers in ITC survey years, 2009-2011.



Source: Huq, Nargis, Lkhagvasuren, Hussain & Fong (2019)

A transition matrix[9] analysis revealed that smokers in the lowest price tier were the least mobile, and their numbers actually increased during the three-year period (Huq et al., 2019). Mobility was much higher in the medium and high categories. Among those who migrated, the tendency to trade down was much higher than to trade up. For example, 27.27% of people who smoked medium-priced cigarettes in Wave 1 switched to a low-priced brand in Wave 2. No smoker reported quitting, even if a change in their income made a down-trade necessary. Generally, when incomes went up, the type of cigarettes purchased by smokers did as well. A

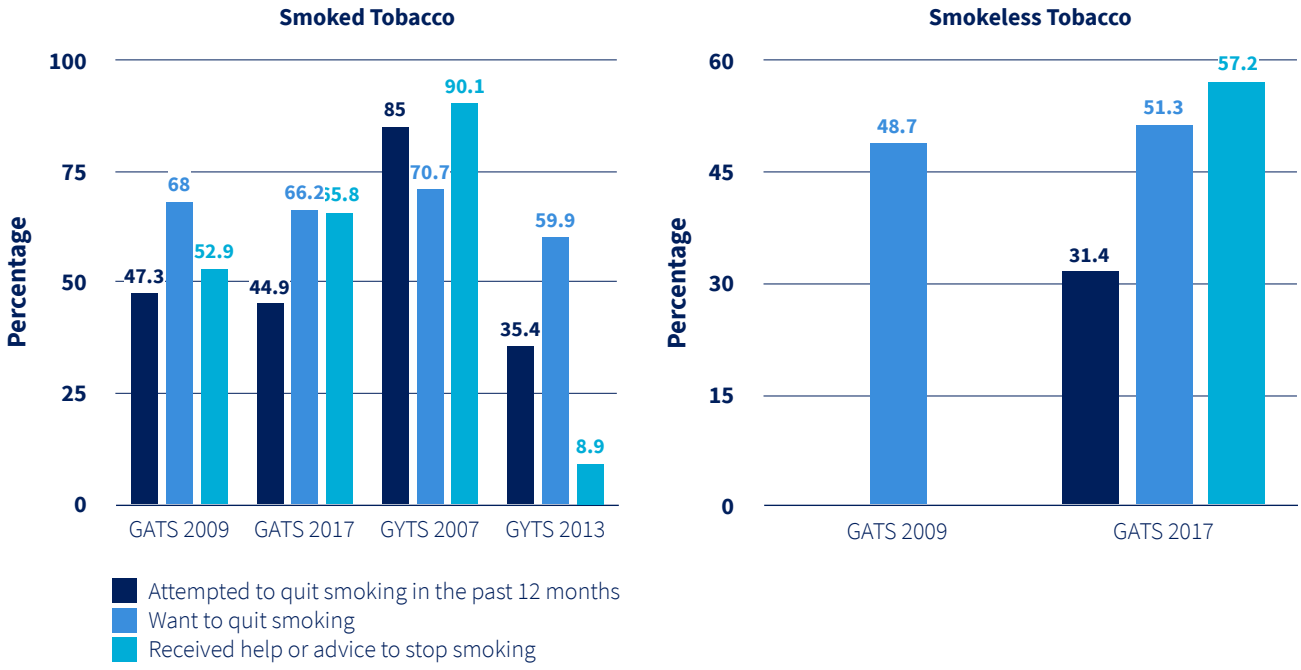
[9] The transition matrix is presented as Table 59 (4) in the appendix.

significant 91.4% proportion of smokers who switched from exclusive cigarette smoking to exclusive bidi smoking reported that the cheaper price of bidis was the reason they did this. The same reason was reported by the 35.9% of exclusive cigarette smokers who switched to smoking both cigarettes and bidis (Nargis et al., 2011).

2.4.4. Quitting behavior

The shares of smokers who attempted to quit in the past 12 months and smokers who wanted to quit smoking both declined between 2009 and 2017 (Figure 2.4.4.1). Almost 52.9% of all smokers had been told to quit smoking by health care professionals (GATS, 2009). Smokeless tobacco users showed less willingness to quit.

Figure 16 (2.4.4.1): Percentage of smokers who made a quit attempt and received help, 2009-2017



Sources: GATS 2009 and 2017 comparison fact sheet, GYTS 2007 and 2013 reports

Seventy percent of Bangladeshi smokers agreed or strongly agreed that they enjoyed smoking too much to give it up (ITC Project, 2010). Thirty-six percent had tried to quit smoking, but only 10% said they planned to quit within the next six months, and this figure was only 5% among bidi smokers. For those who were planning to quit, personal health concerns ranked first among their reasons.

The leading behavioral characteristics Bangladeshi smokers associated with wanting to quit included smoking fewer cigarettes per day, having tried to quit before, receiving advice to quit from a doctor, worries about health, knowledge of the harmful effects of secondhand smoke, and the growing number of indoor areas where smoking was banned (Driezen, Abdullah, Quah, Nargis & Fong, 2016).

In general, men and urban residents had a higher number of quit attempts than their respective counterparts, even though women used counseling more than men (Table 2.4.4.1).

Table 31 (2.4.4.1): Percentage of smokers ≥15 years old who attempted to quit smoking in the past 12 months, by cessation methods used and selected demographic characteristics, 2009

Demographic Characteristics		Made Quit Attempt	Use of Cessation Method	
			Counseling/Advice	Other
Overall		**47.3**	**14.9**	**14.5**
Gender	Male	47.8	14.7	14.4
	Female	31.5	25.9	18.7
Age (Years)	15-24	44.3	4.3	5.0
	25-44	48.0	12.5	15.7
	45-65	47.5	20.2	17.1
	65+	48.2	32.7	16.0
Residence	Urban	53.4	11.8	17.8
	Rural	45.3	16.1	13.3
Education Level	No Formal Education	45.9	19.1	18.9
	Less than Primary	43.7	9.2	12.4
	Primary	47.3	8.4	10.9
	Less than Secondary	51.8	14.4	11.2
	Secondary and above	54.2	12.4	7.5
Wealth Index	Lowest	41.8	14.0	19.6
	Low	44.8	11.9	11.4
	Middle	46.4	17.5	11.8
	High	54.9	18.0	14.1
	Highest	54.1	12.1	18.1
Occupation	Employed	62.1	14.2	10.6
	Business	52.0	14.4	12.7
	Farmers	49.0	20.6	13.9
	Laborers	42.2	10.9	18.4
	Student	28.4	0.0	10.8
	Homemaker	25.7	24.9	25.3
	Unemployed	54.4	16.0	4.8

Source: Global Adult Tobacco Survey Bangladesh Report, 2009 (GATS, 2009)

Among smokers, 52.9% of them reported that they had received advice to quit smoking by health care professionals (GATS, 2009). Female smokers received advice to quit from health care professionals slightly more than their male counterparts (61.6% vs. 52.7%, respectively). People between the ages of 45-64 (67.3%) received the highest amount of advice on quitting smoking while younger smokers age 15-24 years (24.9%) received the lowest. Urban smokers (54.3%) received more advice on quitting versus their rural counterparts (49.0%), as did employed people (over 50%) over unemployed people (42.2%).

The only socioeconomic indicator that was associated with successfully quitting smoking was negative employment status (Nargis et al., 2019). Household income/wealth, education, and rural-urban residence did not make a difference (Table 2.4.4.2). These findings imply that not being able to afford tobacco was the main element associated with quitting. Overall, 3.6% of smokers and smokeless tobacco users in Bangladesh, both daily and occasional, quit using tobacco altogether (Nargis et al., 2019).

Table 32 (2.4.4.2): Pooled adjusted odds ratios for quit rates by employment status and survey type, 2009

Employment Status	Survey	Quit Smoking in the last 12 months	Quit Smoking for at least 1 month in the last 12 months	Quit Smoking for at least 3 months in the last 12 months	Quit Smoking for at least 6 months in the last 12 months	Quit both smoking and smokeless tobacco in the last 12 months	Quit Attempts in the last 12 months
Employed vs Not Employed	**GATS (2009)**	0.73	0.75	0.77	0.71	0.85	0.93
	ITC (2009)	0.86	0.83	0.79	0.80	0.67	1.12
	Pooled	0.82	0.80	0.78	0.75	0.75	1.01

Source: Nargis et al. (2019)

2.5. Consumer knowledge and awareness about different forms of tobacco use

Government, international agencies, and NGOs are trying to inform people about the harmful effects of tobacco using warning labels on tobacco packages, the mass media, and awareness programs. Generally, more adults noticed anti-smoking information, especially on television and on the radio, in 2017 versus 2009 (GATS, 2009; 2017b). Current smokers are more aware of anti-smoking information than non-smokers, whereas smokeless tobacco users are significantly less exposed to such campaigns. Men, urban residents, people with higher incomes, and people between the ages of 15 and 24 noticed anti-smoking information more than their counterparts (Table 2.5.2).

When it comes to promotional activities associated with cigarettes, just like anti-smoking information, men in Bangladesh were more likely to notice cigarette advertising, sponsorship, or promotion than women. However, among women, awareness of tobacco advertising was higher in the 15-24 age group than their older counterparts. Awareness of bidi and smokeless tobacco marketing was significantly higher than the awareness of cigarette marketing among women, and the figures were stable across age groups (Center for Disease Control and Prevention, 2010).

Table 33 (2.5.1): Percentage of adults who noticed anti-smoking information during the last 30 days, 2009-2017

			Adults who noticed anti-tobacco information at any location	Adults who noticed tobacco information on the television or radio
GATS 2009	Smoking tobacco	Overall	49.8	40.5
		Current smokers	52.1	42.7
		Non-smokers	49.1	39.9
	Smokless tobacco	Overall	-	-
		Current smokers	-	-
		Non-smokers	-	-

GATS 2017	Smoking tobacco	Overall	55.9	46.2
		Current smokers	59.9	48.8
		Non-smokers	55	45.7
	Smokeless tobacco	Overall	31.5	23.9
		Current smokers	31.9	24
		Non-smokers	31.4	23.8

Sources: GATS 2009 report and GATS 2017 fact sheet

Table 34 (2.5.2): Percentage of adults who noticed anti-smoking information during the last 30 days by selected demographic characteristics, 2009

		Adults who noticed anti-tobacco information at any location	Adults who noticed tobacco information on the television or radio
Overall		**49.8**	**40.5**
Gender	Male	56.5	45.1
	Female	43.2	36
Age	15-24	58.7	48.3
	≥25	46.1	37.3
Residence	Urban	57	45.4
	Rural	47.3	38.8
Wealth Index	Lowest	30.8	23.7
	Low	39.9	31.3
	Middle	52.5	42.5
	High	60.8	52.9
	Highest	68.4	54.5

Source: GATS 2009 report

2.6. Public perception about different forms of tobacco use

Adults were more aware of the harmful effects of tobacco use in 2017 than they were in 2009 (Table 3.2.6.1). Women were less aware of the harmful effects of tobacco use compared to men; however, their beliefs are changing faster than men's beliefs.

Table 35 (2.6.1): Percentage of adults who believe that smoking tobacco and smokeless tobacco can cause diseases, 2009-2017

		Stroke		Heart attack		Lung cancer		Mouth cancer	Oral cancer	Secondhand smoke causing illness	
		GATS 2009	GATS 2017	GATS 2009	GATS 2017	GATS 2009	GATS 2017	GATS 2009	GATS 2017	GATS 2009	GATS 2017
Smoking tobacco	Overall	81.6	88.9	85.9	89.5	91.5	94.8	-	-	93.4	93.1
	Male	87.2	92.5	90.2	92.1	94.2	95.3	-	-	97	95.7

	Female	76	85.4	81.6	86.9	88.9	94.3	-	-	89.9	90.7
Smokeless tobacco	Overall	73.5	82	75.7	82.5	-	-	83	91	-	-
	Male	81.6	86.2	81.6	86	-	-	86.7	91.6	-	-
	Female	65.4	78	65.4	79.2	-	-	79.4	90.5	-	-

Source: GATS 2009 and 2017 comparison fact sheet

Most people in Bangladesh were less aware that tobacco consumption could cause strokes compared with other types of diseases (GATS, 2009) (Table 2.6.2). Young participants and male participants had the highest perception of tobacco harms, and residents of rural areas and people with less education had the least. Students had the highest negative perceptions of tobacco use and unemployed individuals had the most positive perceptions. Among different types of tobacco users, current smokers and non-smokers had similar perceptions of tobacco harmfulness, but current smokers were more aware than current non-smokers of the risk of strokes, heart attacks, and lung cancer (Figure 2.6.1).

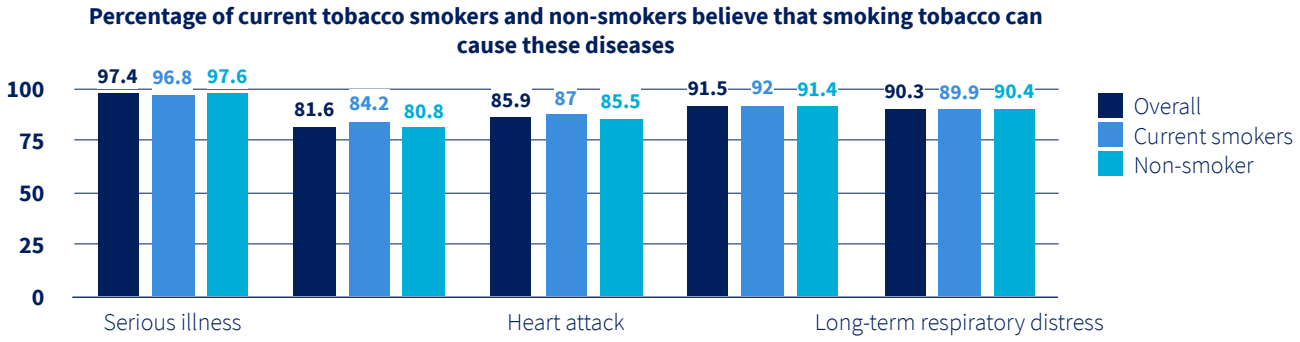
Table 36 (2.6.2): Percentage of adults who believe that smoking tobacco can cause diseases, 2009

		Serious illness	Stroke	Heart attack	Lung cancer	Long-term respiratory distress
	Overall	**97.4**	**81.6**	**85.9**	**91.5**	**90.3**
Gender	Male	97.6	87.2	90.2	94.2	81.8
	Female	97.2	76	81.6	88.9	88.8
Age	15-24	98	83.8	88.3	93.8	91.4
	25-44	98.2	82.7	86.8	92.5	91
	45-64	96.3	79.8	84.6	89.9	90.2
	65+	92.7	69.6	72.7	79.4	80.9
Residence	Urban	97.5	86.3	90.3	94.6	92
	Rural	97.3	79.9	84.3	90.4	89.7
Education	No formal education	95.5	73.9	78.3	85.8	84.5
	< Primary	97.9	79.6	83.7	91.2	90.1
	Primary	98.9	82.3	86.2	92.3	91.8
	< Secondary	98.9	88.2	93.1	96.7	94.6
	Secondary/above	98.4	92.3	96.4	97.9	96.8
Wealth	Lowest	95.9	72.7	77.7	85.9	84.7
	Low	97.2	79.3	82.9	89.8	89.4
	Middle	97.7	83.3	86.9	92.5	91
	High	98.3	86.2	90.9	94.8	93.4
	Highest	97.6	86.9	81.8	94.9	93
Occupation	Employed	97.8	89.6	93.4	96.8	92.2
	Business	98.5	91.6	95	97	94.7
	Farmers	97.4	87.6	90.2	94.9	93.1
	Laborers	96.9	78.7	81.6	89.8	88.9

Student	98.4	92.1	95.3	97	94.5
Homemaker	97.6	75.8	82.5	89.5	89
Unemployed	96.8	79	78.4	81.4	83

Source: GATS 2009 report

Figure 17 (2.6.1): Percentage of current tobacco smokers and non-smokers who believe that smoking tobacco can cause diseases, 2009



Source: GATS 2009 report

Overall, respondents thought smokeless tobacco could cause serious illnesses (GATS, 2009) (Table 2.6.3) and people who don't use smokeless tobacco thought it was more harmful than users (Figure 2.6.2). This perception, again, was highest in young participants and male participants, and lowest among rural dwellers and people with less education. Employed individuals had the highest negative perceptions of smokeless tobacco use and homemakers had the lowest.

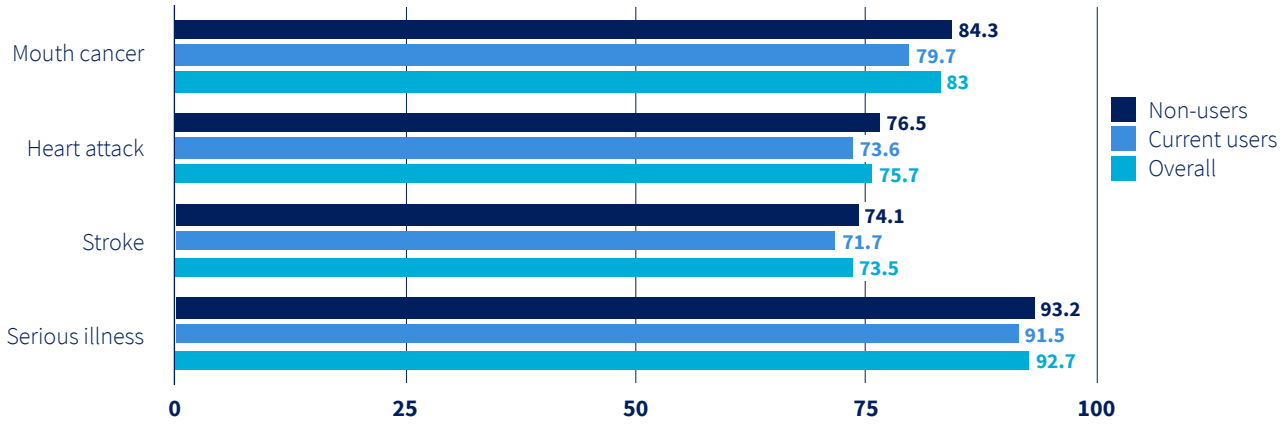
Table 37 (2.6.3): Percentage of adults who believe that using smokeless tobacco can cause diseases, 2009

		Serious illness	Stroke	Heart attack	Mouth cancer
	Overall	**92.7**	**73.5**	**75.7**	**83**
Gender	Male	92.6	81.6	82.7	86.7
	Female	92.9	65.4	68.9	79.4
Age	15-24	92.9	73.5	74.9	83
	25-44	93.6	74.5	77.4	84.5
	45-64	92.5	73.5	76.5	82.5
	65+	87.1	66.3	65.9	75.6
Residence	Urban	94.9	77.7	78.7	87.3
	Rural	92	72	74.7	81.5
Education	No formal education	89.5	67.5	69.8	78.1
	Less than primary	93	71.4	73.3	83
	Primary	93.1	75.1	78.1	82.5
	Less than secondary	94.8	77	79.1	86.1
	Secondary and above	97.2	84.6	86.9	91.9

Wealth	Lowest	88.7	65.3	69.9	75.7
	Low	91.3	70.9	71.8	81.4
	Middle	93.6	73.9	75.6	84.2
	High	95.2	79.5	81.9	86.4
	Highest	95.3	78	80.1	88.1
Occupation	Employed	97.3	84	86.6	91.4
	Business	94.5	86.2	87.2	89.5
	Farmers	91.2	81.3	82.7	85.9
	Laborers	90.4	72.3	72.9	81.4
	Student	94	78.8	79.6	85.3
	Homemaker	93.6	66	70.4	80.4
	Unemployed	88.5	73.4	72.3	77.5

Source: GATS 2009 report

Figure 18 (2.6.2): Percentage of current smokeless tobacco users and non-users who believe that consuming smokeless tobacco can cause diseases, 2009



Source: GATS 2009 report.

The majority of smokers in Bangladesh (95%) had a very negative perception about smoking. This was the highest percentage of negative perceptions across all 19 ITC countries (ITC Project, 2010). Most people in Bangladesh think that society disapproves of smoking, and 96% believe that smoking is addictive. Eighty-eight percent of current Bangladeshi smokers regretted their decision to start smoking. Almost all smokers believed that the government should take more action on tobacco control to eliminate the harm caused by smoking.

2.7. Comparison of the perceptions of the harmfulness of different tobacco products

Sixty-seven percent of cigarette-only smokers and 63% of those who consumed both cigarettes and bidis believed that smoking bidis is more harmful to health than smoking cigarettes. That figure is only 37% among people who only smoke bidis. Twenty-three percent of all types of smokers had used some type of smokeless

tobacco product in the last six months, 89% of them daily. Although 96% of smokers believed that smokeless tobacco was addictive, 91% of smokeless tobacco users thought it was “neither good nor bad” (ITC Project, 2010).

Thirty percent of smokers believed smokeless tobacco was less harmful than smoking cigarettes, 53% believed that there was no difference in harm between smokeless tobacco and cigarettes, and only 17% believed cigarettes to be less harmful than smokeless tobacco (ITC Project, 2010). More than half (58%) of smokers thought that “light” cigarettes were less harmful than regular cigarettes, although there is no evidence to support this, and 82% believed that light cigarettes were smoother on your throat and chest than regular strength cigarettes (ITC, 2010).

3. The supply side of tobacco

Key Findings:

- Cigarette production increased from 23.5 billion sticks to 82.1 billion sticks between 2007 and 2012, falling slightly in 2013-2014, but average annual production remained more than 80 billion sticks between 2011 and 2017.
- Bidi production also increased from 35.3 billion to 72.8 billion sticks between 2007 and 2012, but decreased to about 45 billion sticks 2012-13 and stayed there until 2017.
- Tobacco cultivation increased between FY 2010-11 and FY 2016-17, but dropped in 2018-19.
- In 2018, Japan Tobacco International (JTI) acquired local company Akij Group for USD 1.47 billion.[10]
- The social benefit for tobacco farming stands at a negative value per bigha.[11]
- Exports and imports of unmanufactured tobacco have declined (27,929 tons in 2014 to 7,565 tons in 2018 for exports, and 1,890 tons in 2014 to 957 tons in 2018 for imports).
- Bangladesh's illicit cigarette trade has been estimated at 2% of total cigarettes sold in the market.

As the eighth-largest cigarette-consuming country in the world, Bangladesh has a current retail volume of 91.6 billion sticks of cigarettes per year (Euromonitor, 2019).

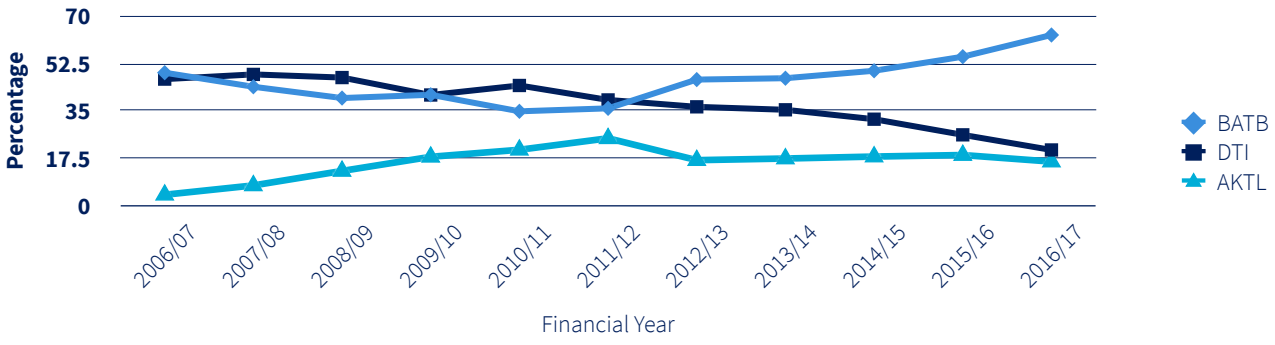
Cigarettes produced the largest share of gross output (76%) and fixed assets (87%) in tobacco, but labor-intensive bidis represented 80% of total tobacco-related employment of all tobacco products in 2001-02[12]. Bidis are manufactured by a large number of small and medium enterprises that account for 70% of the total number of tobacco manufacturing establishments (Kabir, 2010).

3.1. Tobacco market structure

3.1.1. Market share

The market shares of the leading tobacco companies in Bangladesh are illustrated in Figure 3.1.1.1. In FY 2016/17, BATB secured a record high share of 62.94% of the tobacco market.

Figure 19 (3.1.1.1): Cigarette company market shares over the years



Source: National Board of Revenue (2018)

[10] https://www.thedailystar.net/business/news/japan-tobacco-closes-147b-acquisition-akij-venture-1667071

[11] Table 63 (8) of the appendix provides further details.

[12] Table 60 (5) of the appendix provides further details.

Each cigarette manufacturer sells multiple brands of cigarettes catering to different segments of the market, each of which has a different price. The Bangladesh market can be divided into premium, high, medium and low segments.

BATB has dominated the market and continues to do so in the premium, high and medium segments. Even though it did not participate in the low segment in FY 2006-07, from FY 2009-10 onwards, BATB gradually gained market shares in this segment and eventually took the lead over DTI and AKTL (Table 3.1.1.1) (National Board of Revenue, 2018 as cited in Ahmed et al., 2019).

Table 38 (3.1.1.1): Segment-wise market shares of the three leading cigarette companies, 2018

FY	Premium segment market share (%)			High segment market share (%)			Medium segment market share (%)			Low segment market share (%)		
	BATB	DTI	AKTL	BATB	DTI	AKTL	BATB	DTI	AKTL	BATB	DTI	AKTL
2006-07	100	0	0	91.85	8.15	0	54.12	45.88	0	0	83.51	16.49
2007-08	98.97	1.03	0	87.44	12.56	0	61.38	38.62	0	3.18	78.32	18.5
2008-09	99.32	0.68	0	92.91	7.09	0	59.58	40.02	0.4	0.61	70.35	29.04
2009-10	99.41	0.59	0	96.86	3.14	0	60.60	38.99	0.41	7.43	57.13	35.44
2010-11	99.42	0.58	0	96.99	3.01	0	51.89	45.67	2.44	9.37	55.41	35.22
2011-12	98.47	1.53	0	98.37	1.63	0	45.38	49.57	5.05	15.47	44.9	39.63
2012-13	98.16	1.84	0	99.19	0.81	0	57.64	41.18	1.18	26.45	45.69	27.86
2013-14	97.98	2.02	0	99.48	0.52	0	58.21	41.37	0.42	30.30	42.1	27.61
2014-15	96.54	3.46	0	99.27	0.73	0	58.79	41.09	0.12	37.77	36.33	25.90

Source: National Board of Revenue (2018) as cited in Ahmed et al. (2019)

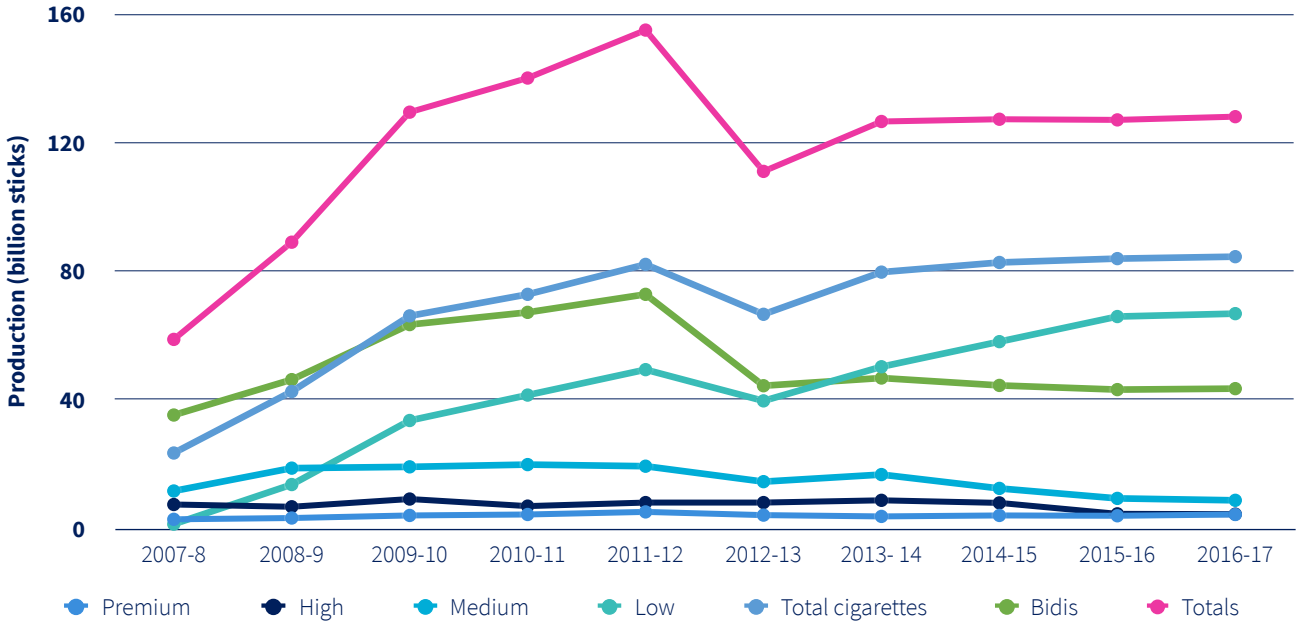
In August of 2018, Japan Tobacco International, one of the largest global manufacturers of cigarettes, signed an agreement to acquire DTI of Bangladesh. How this acquisition will change the dynamics of the market remains to be seen. As mentioned earlier, unlike the market for cigarettes, the market for bidis is far less concentrated. Moreover, official information and independent estimates of the major producers and their respective market shares are unavailable.

3.1.2. Production

In Bangladesh, total production of cigarettes and bidis increased significantly between 2007-08 and 2016-17. Cigarette production increased from 23.5 billion sticks in 2007 to 82.1 billion sticks in 2012 (Figure 3.1.2.1). Production slightly declined in 2012-2013, but average annual production was more than 80 billion (Ahmed et al., 2019).

Interestingly, the growth of the lowest cigarette price tier increased almost 50 times between 2007 and 2017, but the production of medium- and high-priced tiers has decreased drastically since 2013-14. The production of bidis also increased substantially between 2007 and 2012 (Ahmed et al., 2019).

Figure 20 (3.1.2.1): Cigarette and bidi production (billion sticks) in Bangladesh, 2007-2016[13]



Source: Ahmed et al., 2019 and Marquez, Krasovsky & Andreeva, 2019

3.1.3 Employment

The tobacco industry also generates employment, however its volume is not significant compared to other sectors of the Bangladeshi economy. In 2005-2006, only 5,893 people were employed in cigarette manufacturing and 115,500 people were employed in tobacco farming. There was a total of 9,624 bidi manufacturers, the majority of which (96%) were household-based and not officially counted according to the 2001/03 Economic Census (BBS, 2007).

Bidi workers only accounted for 0.1% of the total Bangladeshi workforce, mostly part-time workers (Rasheed & Sinha, 2012). Bidi workers usually get paid the lowest of any wages in the country (0.90 [USD 1.1] for male workers and BDT 0.64 [USD 0.8] for female workers) (BBS, 2011). It has also been reported that almost 13% of all working children in the bidi-rolling industry were below the age 9. Among the children aged 5-15, 40% had never attended school in their lives because they worked an average of 11-12 hours per day making bidis (Efroymson, D., & FitzGerald, S., 2003).

3.2. Tobacco farming

Tobacco farming is increasing in Bangladesh. Tobacco farmers experienced greater input support, better price stability, and the guaranteed sale of their product compared with traditional crops (Hasan, 2019). The most important factors in choosing tobacco farming were cash earnings, high profits, guaranteed product sales to the tobacco companies, market facilities, and the opportunity to secure loans easily (Ali et al., 2015).

Tobacco farming appears to be profitable to farmers; however, these farmers need to take other costs into

[13] Table 61 (6) of the appendix provides detailed information.

account, such as unpaid family labor, the health hazards of tobacco handling, and the environmental damage to soil, water and forest resources imposed by tobacco cultivation (Hossain & Rahman, 2013). While tobacco is improving economic conditions, it is also replacing food crops and causing adverse effects on human health and the environment.

In general, tobacco cultivation has increased and the land under tobacco cultivation has decreased. This inverse relationship can be explained by technological improvements and the use of high-yield tobacco varieties, which raise per-acre production. Prices for almost all varieties and grades of raw tobacco have increased between 2016 and 2018[14].

Table 39 (3.2.1): Unmanufactured tobacco production in Bangladesh, 2009-2019

	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Area of land (thousand acres)	94	121	126	120	124	127	115	113	105	94
Production of raw tobacco (thousand metric tons)	54	79	85	79	85	94	88	91	89	82
Per acre yield (kg)	574	656	674	663	685	740	763	763	847	876

Sources: Yearbook of Agricultural Statistics 2012, Yearbook of Agricultural Statistics 2013, Yearbook of Agricultural Statistics 2015, Yearbook of Agricultural Statistics 2017, Yearbook of Agricultural Statistics 2019

There are two types of tobacco farmers in Bangladesh: contract farmers and independent farmers. Contract farmers receive extensive services such as access to capital and guaranteed product sales from tobacco companies, but independent farmers have the freedom to sell their tobacco leaf to any tobacco firm for the price they choose.

Children worked an average of 36.87 hours per week on tobacco farms, with the highest number of hours spent by the children of contract tobacco farmers (43.40 hours) and the lowest by the children of former tobacco farmers (10.13 hours).

Table 40 (3.2.2): Demographic characteristics of tobacco farmers, 2019[15]

Type		Maximum Education	Household Size	Main Occupation
Current Tobacco Farmers	Overall	9.18	4.70	Farmer (79.24%)
	Contract Farmers	9.40	5.22	Farmer (75.25%)
	Independent Farmers	9.07	4.47	Farmer (81.51%)
Former Tobacco Farmers		9.46	4.62	Farmer (72.31%)
Never Tobacco Farmers		8.97	4.81	Farmer (75.95%)

Source: BER (2019)

[14] Table 62 (7) of the appendix provides detailed information.

[15] Based on samples collected from 625 current tobacco farmers, 327 former tobacco farmers, and 597 farmers who never grew tobacco.

Table 41 (3.2.3): Average family child labor employed and cost of labor for cultivation per household by type of farmer

Category of Farmers		No. of Obs	Family Hour	Hired Hour	Total Days	Wage Rate	Total Labor Cost
Current Tobacco Farmers	- Overall	465	36.87	0.00	4.61	461.7957	2128.23
	- Contract Farmers	159	43.40	0.00	5.42	586.523	3181.61
	- Independent Farmers	302	33.92	0.00	4.24	410.73	1741.52
Former Tobacco Farmers		223	10.13	0.00	1.27	318.934	403.69
Never Tobacco Farmers		476	26.68	0.00	3.33	431.598	1439.16

Source: BER (2019)

3.3. Tobacco farming and alternative crops

On average, growing tobacco cost about 119% more than growing rabi crops (Molla, 2015). The high cost of tobacco cultivation is an outcome of high input costs that usually result from using hired labor and high health costs due to sick days, lost income, and hospital costs, among others (BER, 2019). Health costs were significantly higher for both current and former tobacco farmers. In terms of the effects of tobacco farming on the environment, the total environmental cost of tobacco production was estimated at BDT 26,125.60 per bigha[16] of land. The direct profit from tobacco cultivation is BDT 21,214 per year. Once the family labor costs, health costs and environmental costs are factored in, Bangladeshi society is losing BDT 22,156 per bigha from tobacco cultivation (BER, 2019)[17].

Table 42 (3.3.1): Comparative analysis of labor costs, health costs, and environmental costs of tobacco and alternative crop production in Bangladesh, 2019

	Category of Farmers				
	Current Tobacco Farmers			Former Tobacco Farmers	Never Tobacco Farmers
	Overall	Contract Farmers	Independent Farmers		
Total Labor Costs (BDT)	1,36, 012	2,40,270	1,01,126	47,319	65, 930
Total Health Costs (BDT)	2,338.42	1,727.88	2,613.90	3,151.57	2,105.45
Total Environmental Costs/Bigha (BDT)	26,125.60				

Source: Economic Cost of Tobacco Cultivation in Bangladesh (BER, 2019). Note: Since some of the social costs will be incurred in the future, a discount rate is required to estimate the present value of the future costs. A larger discount means more weight on the present than the future. In the literature 3% and 5% are usually used. We used 5% to make sure that our results do not over-estimate the social costs. Therefore, the current study provides a conservative estimate.

[16] 1 bigha = 0.4 acres

[17] Table 63 (8) of the appendix provides detailed information.

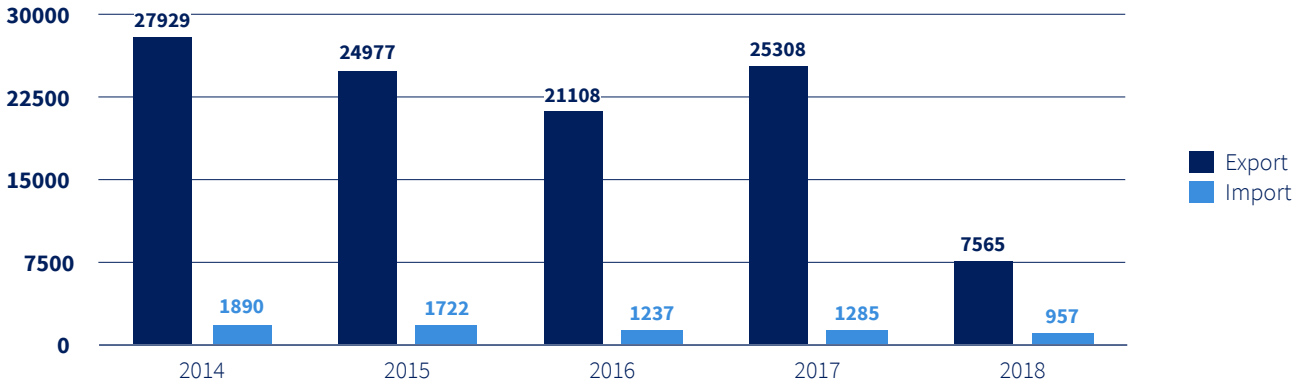
3.4. Exports and Imports by type of products and volume/value

Unmanufactured tobacco is both imported and exported in Bangladesh. Manufactured cigarettes are also traded, but in much smaller quantities. Since FY 2010-11, exports have been declining. The only exception is the year 2017, when exports suddenly jumped before taking a huge dip in 2018. Imports of tobacco remained low compared to the level of exports (Ahmed et al., 2019).

Bangladesh is a net importer of cigarettes and a net exporter of unmanufactured tobacco (Figure 3.3.4.2). The value of unmanufactured tobacco exports has increased considerably over the years, but the value of imported unmanufactured tobacco products has decreased.

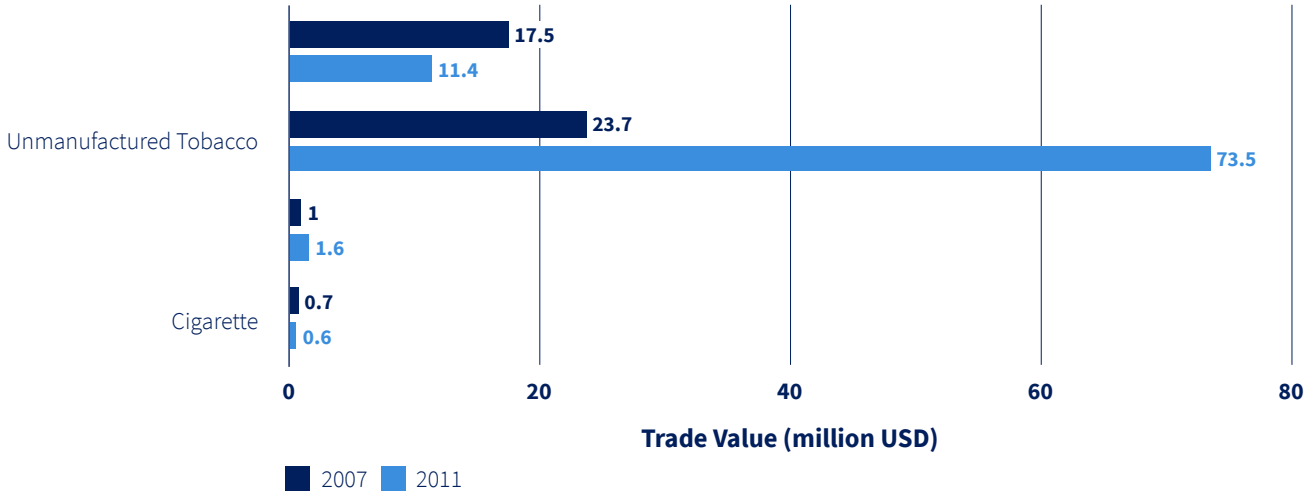
The Netherlands had the highest share of total exports to Bangladesh in 2007, while India held the highest share of imports with Bangladesh for the same year (WHO, 2007) (Figure 3.4.3). Malaysia had the highest (41.4%) share of total cigarette exports and Singapore had the highest (72.8%) share of total cigarette imports in 2011, while Belgium exported the highest share of unmanufactured tobacco in 2011 (18.4%) and Brazil imported the largest share of Bangladesh's unmanufactured tobacco (50.6%) (Figure 3.4.4).

Figure 21 (3.4.1): Exports and imports of unmanufactured tobacco (tons), 2014-2018



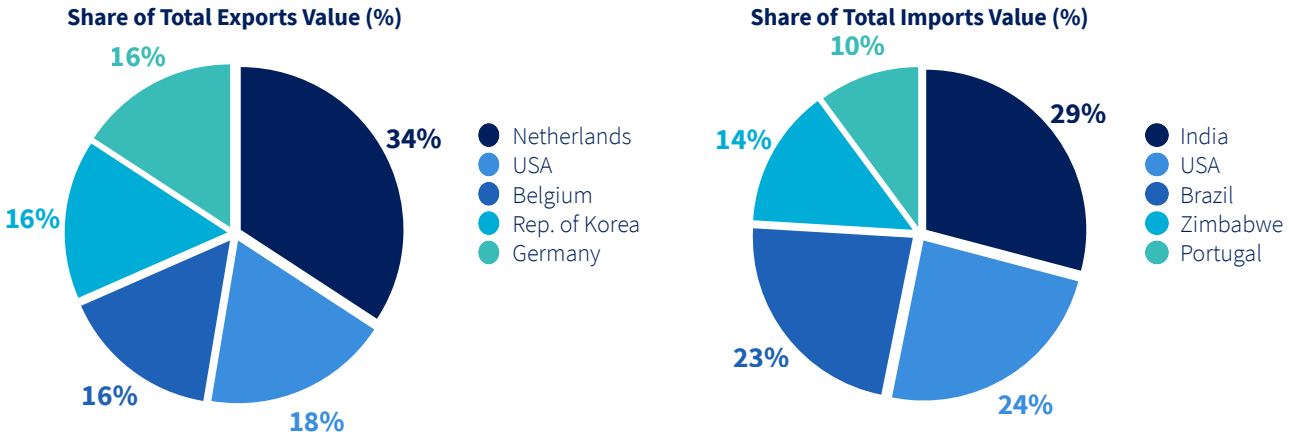
Source: National Board of Revenue (2018) as cited in Ahmed et al. (2019)

Figure 22 (3.4.2): Trade flow of cigarettes and unmanufactured tobacco products in Bangladesh, 2007 and 2011



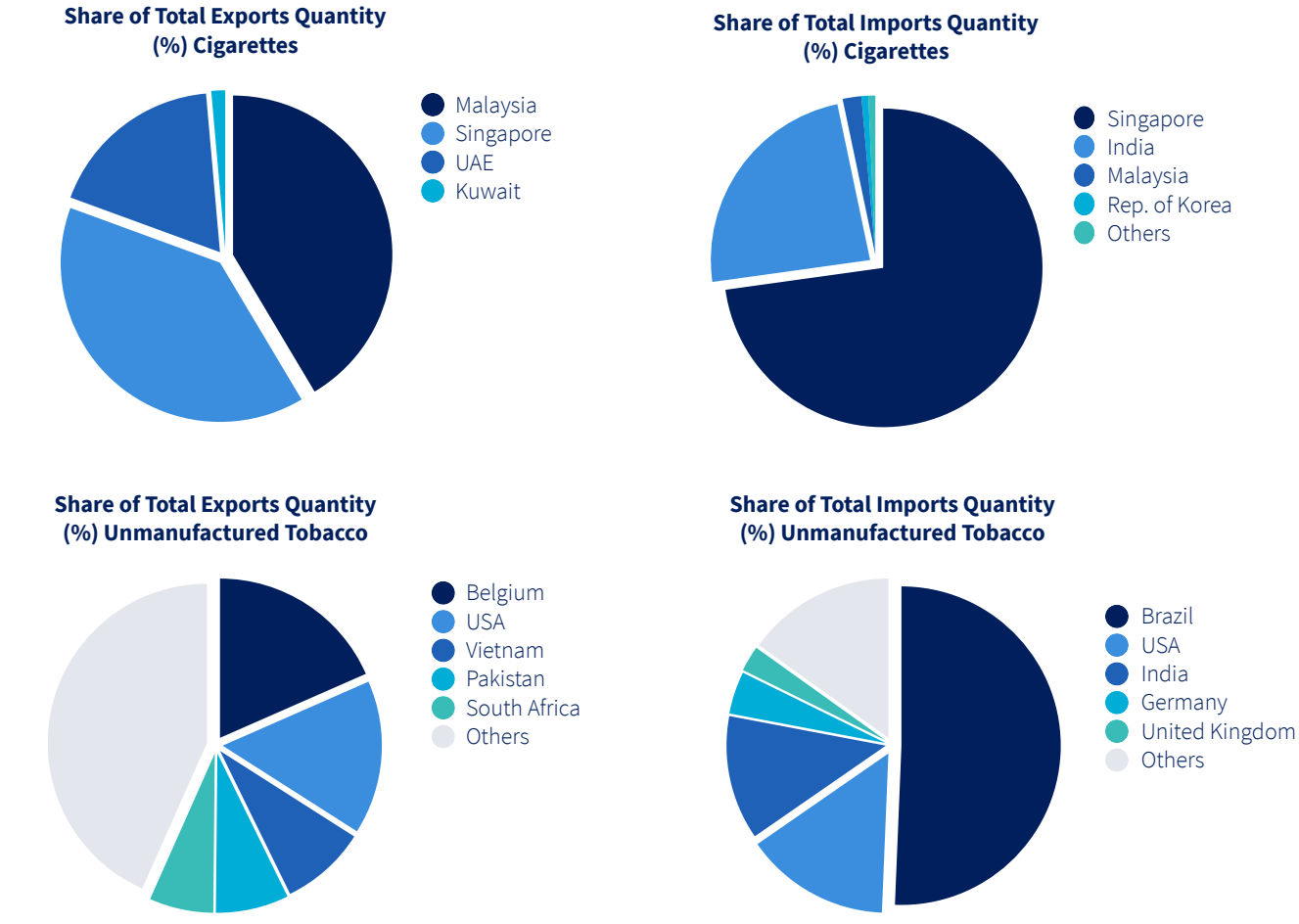
Source: WHO Calculations based on UN Comtrade data, 2007

Figure 23 (3.4.3): Main trade partners of Bangladesh, all tobacco products, 2007



Source: WHO Calculations based on UN Comtrade data, 2007

Figure 24 (3.4.4): Main trade partners of Bangladesh, cigarettes and unmanufactured tobacco, 2011



Source: WHO Calculations based on UN Comtrade data, 2011.

3.5. Illicit trade

Bangladesh's illicit cigarette trade incidence is roughly 2% of total cigarettes sold in the market (World Bank Group, 2019). About 92% of this illicit trade is in cigarettes that escape the tax net. The remaining 8% of contraband cigarettes are divided between smuggling and counterfeit products. The country loses about $100 million USD in revenue from the illicit cigarette trade annually, almost 4% of total tobacco revenues.

In Bangladesh, the National Board of Revenue (NBR) does not collect data on the illicit trade in cigarettes, but the tobacco industry makes annual estimates of illicit trade volume based on field surveys of retail market outlets. The total number of cigarettes traded illicitly was estimated to be 1.5 billion sticks in FY 2016/17, which accounted for about 1.8% of the total cigarette market for that year. Although this looks insignificant, in FY 2014/15 that figure was only 0.6% (Ahmed et al., 2019).

Bidi smuggling is negligible because bidi production in Bangladesh is quite cheap; however, the bidi industry poses a different kind of challenge (Brown et al., 2017). Bidis are produced by small companies or private households, many of which are not registered with the government, making it very difficult to assess their tax compliance. The northern districts of Bangladesh are considered to be where most of the illicit trade that evades taxes occurs (World Bank Group, 2019).

The illicit trade of cigarettes can be driven by the tobacco companies as well. There is evidence that BATB had exerted substantial control over the overflows of contraband cigarettes, and presented these overflows as evidence to the government of the need to reverse increased excise taxes (Collin et al., 2004).

4. Health consequences of tobacco use

4.1. Overview of the health burden due to tobacco use

Key Findings:

- In 2018, almost 7 million adult deaths (30 and older) and 435,000 child deaths (15 and below) were from tobacco-related diseases.
- Tobacco users are estimated to have a 109% higher risk of having tobacco-related cancers.
- Total tobacco-attributable health costs more than doubled between 2004 and 2018, from BDT 135.8 billion in 2004 to BDT 305.6 billion in 2018.
- Tobacco users across all socioeconomic groups spent about 4.5% of their total monthly household expenditures on tobacco.

4.1.1. Prevalence of tobacco-attributable diseases

Over the last two decades a great deal of research, including several surveys by the World Health Organization (WHO), has been conducted to understand the different aspects of tobacco consumer behavior. Similar to WHO, the American Cancer Society, however with a different sample, also conducted a survey to gather information on the economic costs of tobacco-related illnesses in Bangladesh in 2018.

The prevalence of tobacco-attributable disease is high in Bangladesh. Tobacco use accounts for 85% of the tobacco-related disease burden in adults from ischemic heart disease, stroke, and COPD, and 9% of the tobacco-related disease burden for cancer (lung cancer, laryngeal cancer, and oral cancer). The risk ratios (RR) of tobacco-related diseases are considerably higher for tobacco users than non-users (Faruque et al., 2019) (Table 4.1.1.1).

Table 43 (4.1.1.1): Relative risk (RR) and population attributable risk (PAR) of tobacco-related diseases

	WHO 2007 (People 15 years and older)				Faruque et al. (2019)			
Diseases	**Smoking tobacco**		**Smokeless tobacco**		**People 30 years and older (any form of tobacco users)**		**Children younger than 15 (secondhand exposure to smoke)**	
	RR	PAR%	RR	PAR%	RR	PAR%	RR	PAR%
Ischemic heart disease	1.5	21.4	2	25.3	1.35	15	-	-
Stroke	1.2	10.7	2.2	29.1	1.28	13	-	-
Buerger's disease	28.1	93.4	1.4	10.4	-	-	-	-
Oral cancer	4.8	66.3	2.5	30.5	2.09	36	-	-
Lung cancer	5.3	69.8	1.4	11.3			-	-
Laryngeal cancer	10	82.7	1.4	9.9			-	-
COPD	3	52.5	1.8	18.5	2.95	50	-	-
Pulmonary tuberculosis	2.2	38.7	1.4	11.1	2.14	37	-	-
All	2	36.6	1.6	16.4	1.57	22	-	-
Boys	-	-	-	-	-	-	1.66	24
Girls	-	-	-	-	-	-	1.1	5
Both	-	-	-	-	-	-	1.34	14

Sources: Impact of tobacco related illness in Bangladesh (WHO, 2005a) and Faruque et al., 2019

Exposure to secondhand smoke at home increased the risk of disease by 34 percent (RR 1.34) among children under age 15 (Faruque et al., 2019). This risk was much greater among boys (66%) than among girls (10%).

Based on two studies conducted by the WHO in 2004 and 2018, the prevalence of tobacco-related illnesses among adults 30 and older remained unchanged (Faruque et al., 2019). A 2007 WHO study predicted 2.9 million cases of tobacco-related illnesses in the population, but Faruque et al. (2019) estimated more than 7 million cases. Population growth can explain how the number of cases of tobacco-related illnesses more than doubled between 2004 and 2018.

Table 44 (4.1.1.2): Population level prevalence of tobacco-related illnesses, 2004-2018

Diseases	Total No. of cases		No. of cases attributable to tobacco usage	
	2004	2018	2004	2018
Ischemic heart disease	735,856	3,675,087	139,813	558,836
Stroke/TIA[1]	567,661	1,643,969	107,856	208,193
Buerger's Disease	28,033	-	-	-
Oral cancer	49,057	66,969	39,246	41,517
Lung cancer	149,985 (M) 45,622 (F)	157,669	106,470 (M) 6,856 (F)	65,613
Laryngeal cancer	71,413	142,565	51,417	30,016
COPD[1]	967,126	1,096,346	595,053	546,609
Pulmonary tuberculosis	322,375	234,941	151,499	86,319
Total	2,937,101	7,017,546	1,226,251	1,537,103

Sources: WHO (2007); Faruque et al. (2019). Note: [1]TIA indicates transient ischemic attack and COPD indicates Chronic Obstructive Pulmonary Disease

4.1.2. Mortality and morbidity

An estimated 17% of all deaths (94,871) were caused by tobacco-related illnesses in 2019, 18.4% of which (17,445) were attributed to secondhand smoke (IHME, 2019). Another estimate suggests mortality to be 100,961 (Faruque et al. 2019) with 24,757 deaths attributable to secondhand smoke, totaling 125,718 deaths from tobacco-related diseases in 2018. The death toll from tobacco use has been rising over the years.

On average, people with tobacco-related illnesses lose 17 years of life, some of which are working years (Lopez et al., 2002). Using the EuroQol method, another study (WHO, 2007) estimated that the total number of disabilities attributable to tobacco use was 382,949 and that people with any of eight tobacco-related illnesses were impaired about 32%.

Table 45 (4.1.2.1): Disability and deaths due to tobacco-related illnesses in Bangladesh, 2019

Disease type	Deaths	Death Attributable to tobacco	DALYs	DALYs attributable to tobacco
Ischemic heart disease	121977	30846	2892395	848918
Stroke	136059	24595	3044725	636239
Oral cancer	3548	3481	93393	91238
Lung/tracheal cancer	7824	5857	186681	134316

COPD	47354	30092	1167246	701143
Total deaths and disabilities due to five illnesses	**316762**	**94871**	**7384439**	**2411854**
Percentage of all deaths	58	17		

Source: IHME Global Burden of Disease (2019)

It is estimated that consumption of both smoked and smokeless tobacco products kills 161,253 people each year in Bangladesh, which is about 19% of annual total deaths (WHO Factsheet, 2018). Cardiovascular diseases are the leading cause of tobacco-related deaths, followed by chronic respiratory diseases and cancer. Moreover, 66,749 (almost 24%) of cardiovascular deaths each year are due to tobacco consumption. In 2010, smokeless tobacco was associated with 13,329 deaths and 320,000 Disability Adjusted Life Years (DALYs) lost from cancers of the mouth, pharynx, and esophagus plus ischemic heart disease (Siddiqi et al., 2015).

4.2. Inequality in health burden

Tobacco-related diseases among people 30 years or older were led by ischemic heart disease followed by strokes (Faruque et al., 2019). The majority of these patients were men, heads of households, residents of rural areas, employed, between the ages of 50 and 59, and with either no formal education or less than a secondary education.

In Bangladesh tobacco users in all socioeconomic groups spent about 4.5% of their total monthly household expenditures on tobacco consumption, but this percentage rose to 5.1% for households with a member suffering from a tobacco-related illness (WHO, 2007). Results also show that, on average, households reporting tobacco-related illnesses spent as much on health care as they did on tobacco. By eliminating tobacco use, such households could recover about 10% of their yearly expenses. The study also highlighted that health care represented a larger part of the budget of poorer households, even though they had less access to health care and sought it the least, while wealthier people sought it the most.

Table 46 (4.2.1): Household expenditure on tobacco and tobacco-related illnesses by wealth quartile, 2007

	Wealth quartile				
	1st	**2nd**	**3rd**	**4th**	**All**
Percent of monthly household expenditure on tobacco by households with tobacco-related illnesses	4.2	3.8	5.8	6.7	5.1
Percent of monthly household expenditure on tobacco by all households	4.5	4.0	4.4	5.3	4.5
Percent of monthly household expenditure on health care for tobacco-related illnesses	16.2	13.6	12.6	11.7	13.5

Source: WHO (2007). Notes: Household wealth is represented by a wealth index measured by a weighted sum of several indicators. Such as, sources of drinking water, type of housing materials, sanitation, access to electricity and communication, possession of electrical devices, telephone, and so forth.

It is estimated that, after controlling for household expenses and a range of sociodemographic factors, households that used any type of tobacco products consumed significantly lower amounts nutritional food such as dairy products and fat than households that did not use tobacco but consumed significantly higher

amounts of cereal grains and sugar (Virk-Baker, Husain & Parascandola, 2019).

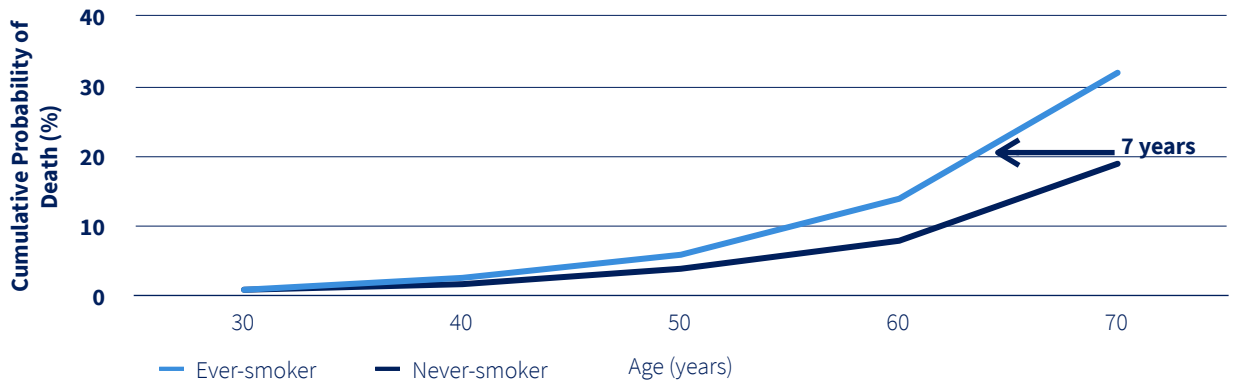
Shifting household expenses from tobacco to food could save the lives of 350 children under age five daily and improve the health of about 10.5 million currently malnourished people in Bangladesh. The extra income could be spent on education, which could lift people out of poverty. The poorest households in Bangladesh spend almost 10 times more on tobacco than education (WHO, 2004).

It has also been estimated by the WHO that on average tobacco contributed to 24% of the deaths in men and 12% of the deaths in women age 30 or older every year (WHO, 2012). Similarly, cigarette/bidi or hookah smoking was significantly associated with an increased risk of death from all causes, cancer, and ischemic heart disease among the participants of the Health Effects of Arsenic Longitudinal Study (HEALS) in Araihajar, Bangladesh (Wu et al., 2013). The risk of death from these diseases increased as the age of initiation of smoking went down. Five years after quitting smoking, the risk of heart disease was the same for former smokers and never smokers, but cancer mortality was not affected.

Alam, et al (2013) found that people in Bangladesh who started smoking before age 25 had greater odds of dying than never smokers or people who started smoking after the age of 25. Results also showed that heavy smokers (who consumed from 20 to 50 cigarettes or bidis a day) had much higher odds of dying than never-smokers, light smokers (10 to 19 cigarettes or bidis per day), or those who smoked nine or fewer cigarettes or bidis per day.

The probability of dying between the ages of 25 and 69 years was much higher for ever-smokers than for never-smokers (Figure 4.2.1). It was estimated that 32% of 25-year-old male, Bangladeshi ever-smokers would die before the age of 70 years, versus only 19% of male, 25-year-old never-smokers. These findings indicate that the average 25-year-old Bangladeshi male smoker currently loses an average of seven years of life because of smoking (Alam et al., 2013).

Figure 25 (4.2.1): Cumulative probability of dying between the ages of 25 and 69 years among male ever-smokers and never-smokers in Bangladesh, at 2010 death rates



Source: Alam et al. (2013)

4.3. Health care services and costs

The economic burden of tobacco-related illnesses and deaths accounts for 6.7% of Bangladesh's total health expenditures and costs a staggering BDT 305.6 billion (USD 3.6 billion) per year, or 1.4% of Bangladesh's GDP in 2017-2018 (Goodchild, Nargis & d'Espaignet, 2017). From 2004 to 2018, total tobacco-attributable health care costs more than doubled between 2004 and 2018 (Faruque et al., 2019) (Table 4.4.1).

Table 47 (4.4.1): Comparison of the tobacco-attributable cost estimates for Bangladesh between 2004 and 2018 (in billion BDT, 2018 prices)

Components of the costs of tobacco-attributable illnesses	Tobacco use		Secondhand smoke exposure		Total tobacco-attributable cost	
	2004	2018	2004	2018	2004	2018
Direct cost	54.9	82	-	1.9		83.9
Private health expenditure	37.3	62	-	1.5		63.5
Public health expenditure	17.6	20	-	0.4		20.4
Indirect cost	65.4	182.4	-	39.3		221.7
Cost of morbidity	32.3	132.9	-	0		132.9
Cost of mortality	33	49.4	-	39.3		88.7
Total direct and indirect costs	120.3	264.4	15.5	41.3	135.8	305.6

Source: Faruque et al. (2019). Note: The components of the costs of tobacco-attributable illnesses in 2004 were adjusted for inflation to express in 2018 constant prices using the consumer price index available from the World Economic Database of the International Monetary Fund (International Monetary Fund, 2018).

The total economic costs of smoking were 3% of the GDP that year (WHO, 2007). Direct costs accounted for 46% and indirect costs accounted for 54%. In contrast, direct costs only accounted for 31% and indirect costs accounted for the rest in 2018. The majority of these direct costs came from private health expenditures in both studies, but public health contributions decreased private health expenditures in 2018. The cost of caring for smoking-related illnesses was higher in 2018 than in 2004.

5. Policy measures related to tobacco use, production and trade

Key Findings:

- On average a 71% tax with a 1% health development surcharge in excise tax rates is imposed on tobacco products.
- Smoking in many public places, promotion/advertisement of tobacco products and sale of tobacco to minors are banned, with weak enforcement and compliance.
- Written health warnings must cover at least 30% and pictorial warning labels must cover 50% of both sides of cigarette packs.
- No toll-free telephone quit line/help line with a live person available to discuss smoking cessation in Bangladesh.

5.1. Policy measures

The key tobacco demand and supply policies are listed in Table 5.1.1, and the Tobacco Cultivation Laws, most of which were passed in 2017, are outlined in Table 5.1.2.

Table 48 (5.1.1) Tobacco control policies in Bangladesh

Policy Year	
2005	Tobacco control law - Smoking banned in educational, health care and public transports Ban on tobacco advertising, promotion and sponsorship and automatic vending machines
	Text warning labels to be on 30% of the front and back of cigarette packages
2006	Pictorial warning labels cover 30% of both sides of pack
	Cigarette price slabs raised, increasing the supplementary duty (SD) in the upper three tiers
2007	National strategic plan of action for tobacco control adopted
	Cigarette slabs for SD raised though tax remained unchanged
	SD on bidi raised to 20% from 17.5%
	Cigarette price slabs of SD raised (tax unchanged)
	Smokeless tobacco products brought under purview of taxation
	15% VAT on zarda and gul
2009	Cigarette price slabs for SD raised (tax unchanged)
	SD of 10% imposed on zarda and gul
2010	Cigarette price slabs for SD raised
	SD on non-filtered bidi raised from 20 to 25%
	SD on chewing tobacco raised to 20%
	10% export duty on raw tobacco imposed
	Cigarettes, bidi, zarda and gul required to pay corporate taxes

2011	Cigarette price slabs for SD raised
	Tobacco Tax Policy Cell formed at National Board of Revenue
	Export duty on raw tobacco decreased from 10% to 5%
2012	Cigarette price slabs for SD raised
	SD on chewing tobacco raised to 30%
	Gul, zarda and khoinee considered as tobacco products
	Fine of taka 100,000 for airing tobacco advertisements
2013	Further amendments: Cigarette price slabs for SD raised
	Tariff value and price of bidi raised (tax unchanged)
	Smokeless tobacco has been brought under the definition of "tobacco"
	Restaurants and indoor workplaces included among the public places that are completely smoke free
	The government mandated to formulate policies to discourage tobacco cultivation
2015	Total ban on smoking to include all public places. Fine raised from taka 50 to taka 300, and taka 500 for management of public places for failing to implement law
	Anti-tobacco messages required if tobacco use in shown in a movie
	Ban on point-of-sale advertising
	Ban on use of descriptors
	Ban on sales of tobacco to minors
	Smokeless tobacco is announced as a part of the definition of tobacco
	Restriction on CSR activities by tobacco industry
	1% health development surcharge included in the excise rates
	Customs duty on artificial filament tow used to produce filter tips for cigarettes increased from 5% to 25%.
2016	Pictorial health warning on all tobacco packages (covering cigarettes, bidis, smokeless tobacco products and other tobacco products) covering at least 50% of the package surface area
	Misleading descriptions such as "light", "mild" and "low tar" can no longer be used.
2017	2.5% surcharge on incomes from tobacco products imposed
	20% SD on domestic production of bidi and Cigarette papers
	10% duty applied to e-cigarettes and to their refill packs
	Two separate Harmonized System Codes for these two items (e-cigarettes and their refill packs) was proposed
	Imposing 25% customs duty on both items proposed
	Imposing 100% Supplementary Duty on these products was proposed
	NTCC taken initiative to conduct mobile courts in all 64 districts

Source: (1) WHO (FCTC): Bangladesh- national tobacco law amended 2013. (WHO, 2013b) (2) GATS- comparison fact sheet Bangladesh 2009 and 2017 (GATS, 2017b) (3) Timeline of Tobacco control policies and ITC surveys (BD) (ITC Project, 2020) (4) A decade of cigarette taxation in Bangladesh: lessons learnt for tobacco control. (Nargis, Hussain, Goodchild, Quah & Fong, 2019) (5) Bangladesh: Overview of Tobacco Use, Tobacco Control Legislation, and Taxation (Marquez, Krasovsky, & Andreeva) (6) National tobacco control cell. (https://ntcc.gov.bd/)

Table 49 (5.1.2): Tobacco control laws on cultivation

National tobacco control policy, 2016	To formulate rules and encourage the tobacco farmers to produce other cash crops on the land where tobacco is being cultivated.
	To stop sanctioning license for any industry which will produce tobacco products
Tobacco cultivation rules 2017	To cut tobacco from the list of cash crops
	To give strict rules farmers or landlords. For example: not to allow tobacco production on any farm where food crops are grown
	To stop the tobacco companies from providing farmers with fertilizers, pesticides etc., or from providing any other facilities to cultivate tobacco
	The tobacco industry cannot be engaged in any CSR activities that encourages the farmers to cultivate tobacco
	Tobacco farmers will not get any help from the government in case of any other food and cash crops
	No one can cultivate tobacco on land taken as a lease from government
	To determine a fixed amount of tobacco that a farmer can produce

Sources: (1) Tobacco cultivation rules, 2017 (MHFW, 2017) (2) National tobacco control policy, 2016 (MHFW, 2016)

Along with the policies listed above, there have also been some changes in policies regarding exporting unmanufactured tobacco over the years. Earlier in 2003, the government introduced a new 10% cash incentive policy. As a result, the share of tobacco exports increased from 2.5% in 2000 to close to 34% in 2009. However, in 2008 the government withdrew the export cash incentive after extreme criticism from anti-tobacco activists. In FY 2010-11, the government created a reverse policy and imposed a 10% duty on tobacco leaf exports to discourage tobacco cultivation.

5.2. State of policy implementation

5.2.1. Progress with policy implementation

As mentioned earlier, a host of measures such as bans on smoking in public places and adding warning messages and advertisements to tobacco product packages about the harm caused by tobacco consumption have been introduced by the government of Bangladesh to regulate the consumption and sales of tobacco.

Smoking Bans in Public Places

The complete ban of smoking in educational institutions, health care facilities, and public transport facilities was covered in the Tobacco Control Act (TCA) of 2005; but these bans have only been partially enforced. There are designated smoking areas in universities, government facilities, indoor offices, restaurants, pubs, and bars. Designated smoking areas, if they are inside a building, are ineffective. As a result of this weakness in policy execution, the 2008 WHO report marked Bangladesh 0 on a scale of 10 for the implementation of smoke-free policies (see Table 5.2.1.1).

Table 50 (5.2.1.1): Places with complete smoking bans

Areas	Regulation of smoke-free environments
Health care facilities	Yes
Educational facilities except universities	Yes
Universities	No
Government facilities	No
Indoor offices	No
Restaurants	No
Pubs and bars	No
Other indoor workplaces	No
Overall enforcement of regulation on smoke-free environments	0

Source: WHO (2008)

In 2010, the second wave of the ITC survey reported that, although 80% of smokers and 81% of non-smokers were aware of the fact that smoking was banned on public transport, one-third of both smokers and non-smokers had witnessed people smoking on public transport vehicles in the last six months (ITC Project, 2011). Additionally, 64% of the people surveyed reported that they saw people smoking inside their workplace. This figure was the second highest in all 16 ITC countries.

In Wave 2 of the ITC Survey, 63% of smokers reported that "there are no rules or restriction on smoking in restaurants and teas stalls." As high as 90% of smokers noticed people smoking during their last visit to a restaurant. Though this figure is less than the Wave 1 findings in 2009, it was the highest among the 18 ITC countries surveyed in 2010. Since 2009, support for a complete smoking ban in restaurants has decreased significantly among Bangladeshi smokers (ITC Project, 2011).

After smoking was banned in public places, almost a third of the population reported that this law encouraged them to quit smoking, and a quarter reported that they cut down the amount they smoked (ITC Project, 2011). Secondhand smoke exposure in the workplace decreased from 63.0% in 2009 to 42.7% in 2017, but was still 45.0% in public places (GATS, 2017b).

Warning Labels and Advertisements

Any advertisement of tobacco is completely banned on national TV, national radio, magazines, newspapers, points of sale, billboards, and the Internet, with the penalty of a fine. The point-of-sale ban is enforced the least well, according to the 2019 WHO report.

Table 51 (5.2.1.2): Bans on tobacco advertising

Bans on direct tobacco advertising	WHO (2008)		WHO (2013a)		WHO (2019)	
	Followed	Compliance	Followed	Compliance	Followed	Compliance
National TV and radio	Yes		yes		yes	10
International TV and radio	No		yes		Yes[1]	
Local magazines and newspapers	Yes		yes		yes	10
International magazines and newspapers	No		No		Yes[1]	
Billboards and outdoor advertising	Yes		No		yes	8
Advertising at the point of sale	No		No		yes	3
Internet	No		No		yes	
Other direct bans					yes	
Compliance score of direct bans		5		10		7
The law requires fines for violations of direct advertising bans.					yes	
Bans on Tobacco promotion and sponsorship						
Free distribution	Yes		Yes		yes	6
Promotional discounts	No		No		yes	5
Non-tobacco products identified with tobacco brand names.	Yes		No		no	
Brand names of non-tobacco products used for tobacco products.	No		No		no	
Appearance of tobacco products in TV and/or films (product replacement).	No		No		no	
Appearance of tobacco products in TV and/or films.	No		No		no	
Prescribed anti-tobacco advertisements required to be presented before, during or after the broad casting or showing of any visual entertainment media product that depicts tobacco products, use or images.					yes	
Complete ban on sponsorship.		5	No	5	yes	7
Ban on sponsorship contributions (financial or other support).					no	
Ban on publicizing sponsorship or other support.					yes	
ban on corporate social responsibility activities (CSR).			No		no	
Tobacco companies/the tobacco industry publicizing their CSR activities.			No		yes	
Entities other than tobacco companies/the tobacco industry publicizing their CSR activities of the tobacco companies.			No		no	

Tobacco companies funding or making contributions (including in-kind contributions) to smoking prevention media campaigns, including those directed at youth.			No		no	
Law explicitly bans tobacco products display at the point of sale.			No		no	
Other indirect bans.					yes	
Compliance score of the indirect bans.						5
Law requiring fines for violations of indirect advertising bans.					yes	
Law completely banning tobacco vending machines.					yes	
Law banning internet sales of tobacco products.					no	

Source: WHO report on the global tobacco epidemic, 2008, 2013a, 2019. Note: 1. The law does not explicitly address cross-border adverting. However given advertising is banned on TV, radio, magazines and newspapers, it is interpreted that both international and domestic levels are covered by them.

There is a ban on the free distribution of tobacco products and promotional discounts on tobacco products that is maintained by the national government, though compliance is poor. There should have been a ban on the appearance of tobacco brands/products in films, non-tobacco products identified with tobacco brand names, and sponsorship contributions, etc., which have yet to be implemented (WHO, 2019). There is a law that requires fines for violating indirect advertising bans and that completely bans tobacco vending machines, but no law currently exists that bans tobacco product displays at points-of-sale or Internet sales of tobacco products (WHO, 2019).

The percentage of adults who noticed anti-cigarette smoking information during the last 30 days in any media/location increased significantly between 2009 and 2017 (GATS, 2017b). While the exposure to any cigarette advertisement, promotion, or sponsorship in the past 30 days decreased significantly, it increased significantly for bidis and for smokeless tobacco. This may be because there are no restrictions on the sale of bidis and smokeless tobacco.

The Ministry of Health and Family Welfare published GHWs in prominent Bangladeshi newspapers in 2015 and 2016 as part of an anti-tobacco advertising campaign. A vast majority of tobacco users who noticed Graphic Health Warnings (GHWs) in anti-tobacco advertisements in newspapers thought of quitting smoking (WHO, 2017a).

Table 5.2.1.3 contains the Article 11 Guidelines provided by the FCTC regarding health warnings on tobacco packages. It also illustrates which of the guidelines were met in 2011.

Table 52 (5.2.1.3): FCTC guidelines on health warnings on tobacco packages and their implementation

Guideline	Followed	WHO (2008)	WHO (2011)
Labels should appear on both front and back	Yes	Yes	
Labels should be at the top of the package	No		Yes
Labels should be as large as possible (at least 50% of the package)	No	No	No

Labels should include full color pictures	No	No	No
Labels should rotate multiple messages	Yes	Yes	Yes
Labels should include range of warnings and messages	Yes		Yes
Labels should include information on harm of tobacco	Yes	Yes	Yes
Labels should provide advice about cessation	No		No
Labels should list constituents without numbers	No		No
Warnings written in principal language of country		Yes	Yes

Sources: (1) ITC Bangladesh Report on Tobacco Warning Labels. (ITC Project, 2011). (2) WHO reports on the global tobacco epidemic 2008 (WHO, 2008) and 2011 (WHO, 2011)

A significant proportion of cigarette smokers (68% in 2009 and 65% in 2010) and 33% of bidi smokers reported that they saw the warnings on cigarette packages and learned about the dangers of smoking from them (ITC Project, 2011) whereas, a report published by the WBB Trust (Islam, 2009), suggested that 92.2% of smokers claimed that they saw the warning labels on cigarette and bidi packets, but 74.4% said the warnings did not have any impact on them. The share of people who thought of quitting after seeing the warning labels on tobacco products packages rose from 67.1% to 78.9%, and from 37.9% to 70.1%, for cigarette and bidi smokers respectively. This figure also increased from 5.8% to 41.1% for smokeless tobacco users from 2009 to 2017 (GATS, 2017b).

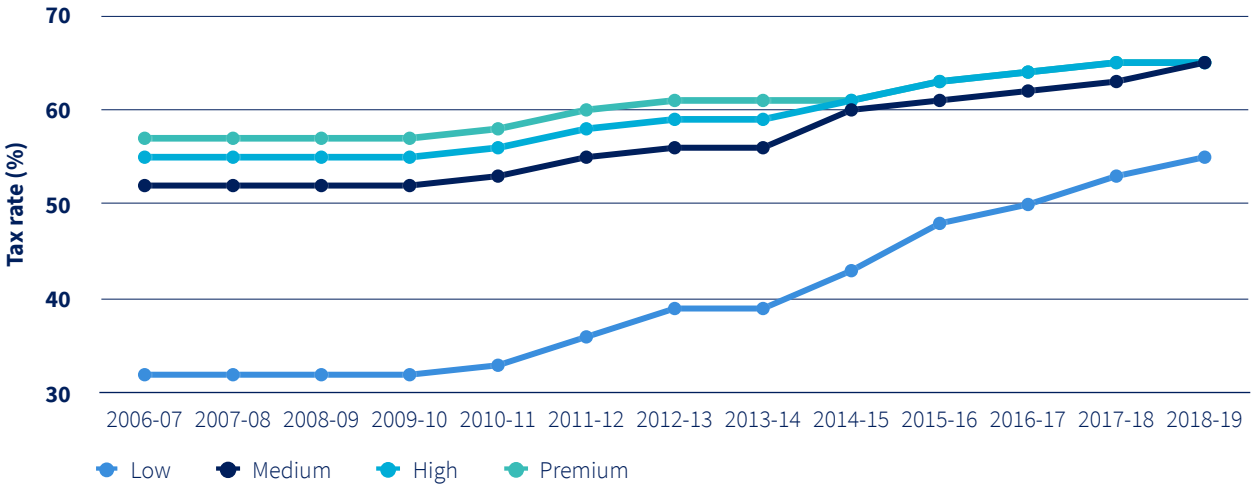
A majority of smokers age 13-15 noticed health warnings on tobacco products, but only 11.1% of them thought about quitting (GYTS, 2013). Levels of knowledge about the harmful effects of smoking were consistently lower in Wave 2 of the ITC survey than in Wave 1 in less educated tobacco consumers.

The packaging guidelines enacted in 2005 stated that "Labels should be at the top of the package, Labels should be as large as possible (at least 30% of the package) and Labels should include full color pictures," but these guidelines had not been fully implemented in 2011 (ITC Report, 2011). In 2016, the law was updated and required that one of the nine graphic health warnings be shown on the top 50% of the main side of all packages of bidis, cigarettes, and smokeless tobacco, which was finally enforced in September of 2017.

Taxation

The National Board of Revenue (NBR) administers tax policies and sets the recommended retail price for each cigarette brand based on the cost of its production, which is supplied by the manufacturers. There are four different price tiers: low, medium, high, and premium. Tiered (ad valorem) excise duties, known as Supplementary Duties, are imposed as a percentage of the retail price, and get higher as prices get higher. In order to protect domestic producers and consumers of low-priced cigarettes, a significant difference exists between the tax rate of such brands versus high-priced and premium ones. There is also a value-added tax (VAT) of 15% on the retail price of cigarettes. A 1% health development surcharge has been included in excise tax rates since 2015.

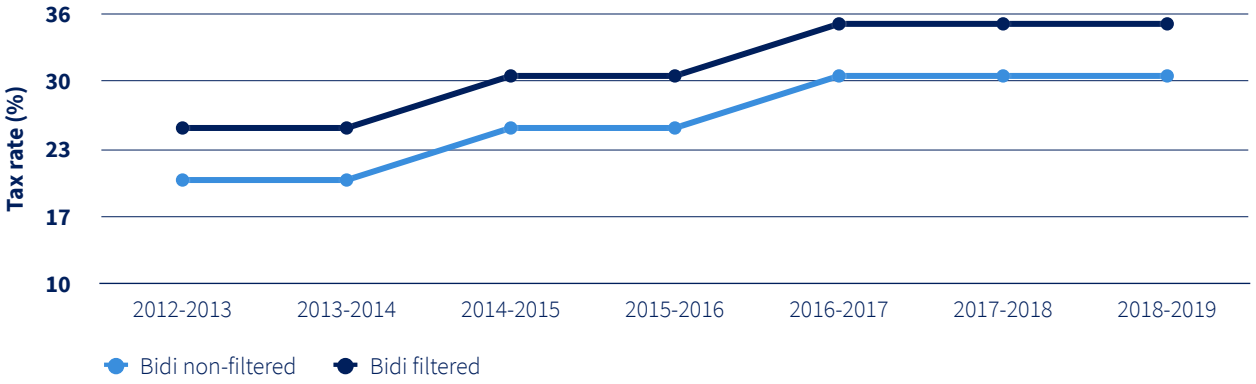
Figure 26 (5.2.1.1): Tax rates of cigarettes over the years[18]



Sources: (1) The tobacco industry uses pricing to undermine tobacco tax policy: Evidence from Bangladesh (Nargis et al., 2018a) (2) Bangladesh: Overview of Tobacco Use, Tobacco Control Legislation, and Taxation (Marquez, Krasovsky & Andreeva, 2019) (3) A decade of cigarette taxation in Bangladesh: lessons learnt for tobacco control. (Nargis et al., 2019) (4) WHO country profile: Bangladesh (5) Tobacco Price and Taxation Policies in Bangladesh: Evidence of Effectiveness and Implications for Action (ITC Project, 2014).

The retail price of bidis is fixed by the manufacturers and the tax is a pre-determined tariff value per pack (approximately half the actual retail price). The VAT is levied on the tariff value plus the excise tax. The excise tax rates are different for filtered and non-filtered bidis (Marquez, Krasovsky & Andreeva, 2019).

Figure 27 (5.2.1.2): Tax rates of bidis over the years[19]



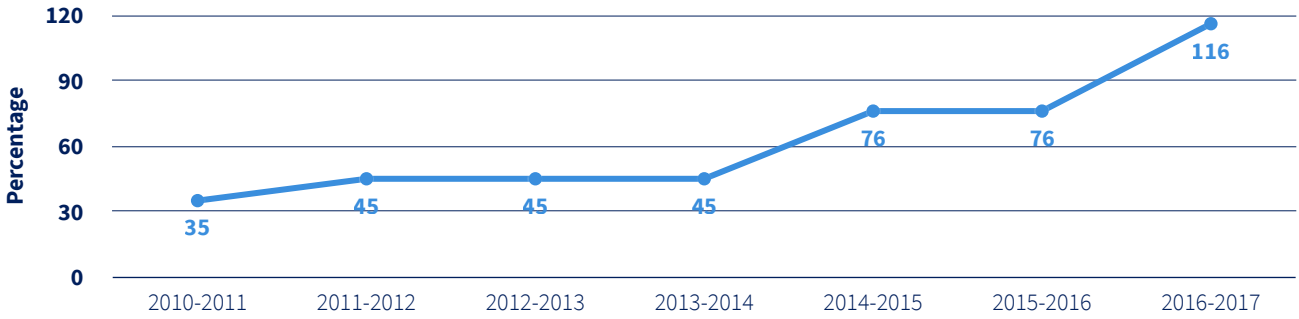
Source: Bangladesh: Overview of Tobacco Use, Tobacco Control Legislation, and Taxation. (Marquez, Krasovsky & Andreeva, 2019).

In the case of smokeless tobacco, the excise tax rate is fixed at a percentage of the ex-factory price. As of July 2018, the prices of zarda (chewing tobacco flavored with aromatic spices) and gul (powdered tobacco mixed with tendu leaf ash) were fixed at Taka 25 per 10 grams. Before that, excise tax rates somewhat consistently rose from 10% in 2009 to 100% in 2016 (John et al., 2018). The tax rate of smokeless tobacco includes a 15% VAT and, since 2014, a 1% health development surcharge similar to the one for cigarettes.

[18] Table 65 (10) of the appendix provides detailed information.

[19] Table 66 (11) of the appendix provides detailed information.

Figure 28 (5.2.1.3): Tax rates of smokeless tobacco over the years[20]



Source: Smokeless tobacco and public health in Bangladesh: Review (Huque, Zaman, Huq & Sinha, 2017)

A tax of 10% was imposed on e-cigarettes and their refill packs in 2017. Later in the same year, the Minister of Finance proposed two separate Harmonized System Codes for these two items and also suggested a 25% custom duty on both products. Both of these suggestions were adopted and a 100% Supplementary Duty on these products was also passed.[21] The tobacco company pays a tax rate of 45% of the profit.

A surcharge of 2.5% was imposed on incomes from tobacco products in 2017, including cigarettes, bidis, and smokeless tobacco.[22] A Supplementary Duty of 20% is imposed on the domestic production of cigarette and bidi papers.[23]

Impact of taxation

Due to a marginal increase in tax rates for both cigarettes and bidis, coupled with income growth that persistently surpassed the growth rate of cigarette prices, demand for tobacco products did not decrease by a noticeable amount between 2009 and 2012. Although the consumption of bidis dropped during that time, this reflected a switch from bidis to cigarettes. In 2012, only 39% of cigarette smokers and 47% of bidi smokers reported that they were thinking of quitting smoking as a result of price increases, but significant price gaps between the low and premium tiers allowed smokers to simply switch to cheaper brands if prices became too high (ITC Project, 2014).

Based on data from Waves 1-4 of the ITC Bangladesh Survey, real prices of both cigarettes and smokeless tobacco increased over the years, while real prices of bidis decreased (Nargis, et al, 2018b). The impact of this trend in real prices appeared to be consistent with downward trends in the use of smokeless tobacco in Bangladesh between 2009 and 2012, while the opposite picture emerged for cigarettes.

An affordability index, RIP (Relative Income Price) – the formula for which is 100*price per unit/per capita annual household income – reveals that most tobacco products have become more affordable over the years (Nargis, et al, 2018b)[24].

[20] Table 67 (12) of the appendix provides detailed information.

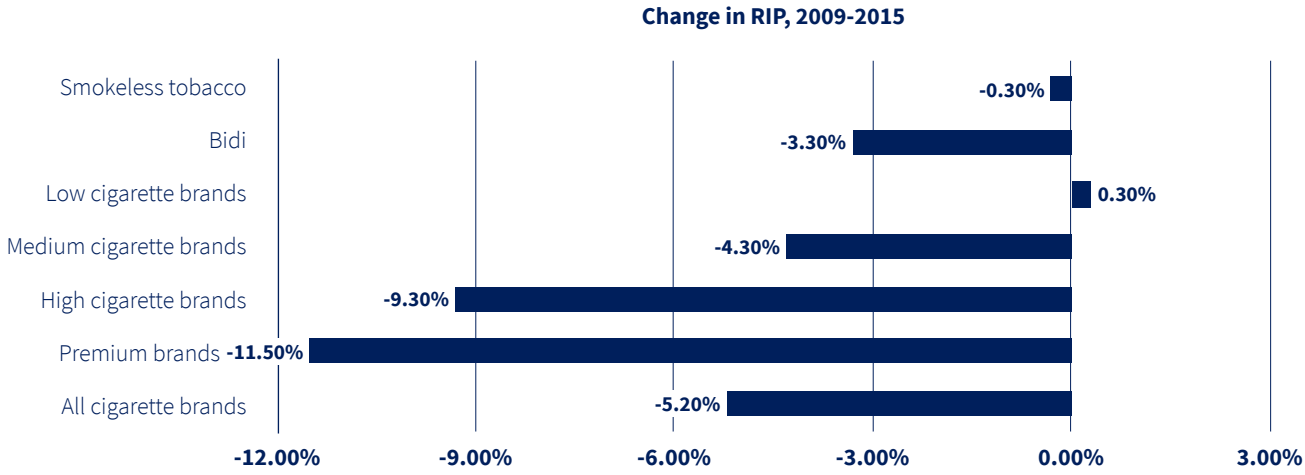
[21] http://print.thefinancialexpress-bd.com/2017/07/02/176701

[22] http://www.dhakatribune.com/business/economy/2017/06/01/govt-impose-surcharge-tobacco/

[23] http://print.thefinancialexpress-bd.com/2015/06/05/95425

[24] A low RIP means a product is more affordable.

Figure 29 (5.2.1.4): Change in relative income price (2009-2015)



Source: Nargis et al., 2016

In many cases, increasing the price of cigarettes with the help of taxes has had an insignificant effect on tobacco consumption patterns (Carmen, Fuchs, and Genoni, 2018). An extremely small section of tobacco users actually quit tobacco use due to price rises between Waves 1 and 2 of the ITC surveys (Nargis et el., 2011).

Ngo, Fong, Craig & Shang (2019) further explored the impact of the tiered ad valorem tax structure by gender differences. The study found female smokers to be more responsive to average price increases than their male counterparts. Among men, lower cigarette consumption was associated with higher ad valorem shares in excise taxes.

Higher taxes on smokeless tobacco reduced smokeless tobacco use (Nargis, N., Hussain, A., & Fong, G., 2014), but higher taxes on cigarettes prompted cigarette smokers to turn to cheaper smokeless tobacco. An important policy implication of this finding is that the prices of cigarettes and smokeless tobacco products should be increased at the same time if the point of raising taxes is to reduce tobacco use.

Problems of the taxation system

The ad valorem method gives the industry the option to control taxes by keeping prices low (Smith, Savell, & Gilmore, 2013). Companies can position their brands in the gaps between price tiers and pay lower taxes, because the rule against selling beyond the maximum price in a price tier is not currently being enforced (ITC Project, 2011).

Smokeless tobacco product manufacturers evade taxes on a large scale in Bangladesh (Barkat et al., 2012) because they are based in households and not registered with the government.

Tiered structures encourage smoking because they give smokers more choices if they face income shocks (Van Walbeek & Paraje, 2019). They can simply down-trade to a lower price tier if prices increase, so higher taxation results in public health downturns.

The WHO recommends raising prices on all tobacco products 5% annually in real terms, which leads to a reduction in tobacco consumption and generates significant increases in revenue. Several sets of researchers found evidence that these were sound recommendations (Guindon, Perucic, & Boisclair [2003]; Ali, Rahman, & Rahman [2003]).

Tax Revenues

Revenue collected from tobacco in Bangladesh increased 134% between 2012 and 2017 (WHO, 2019) (Table 5.2.1.4). This is attributable to both increases in the tax rates as well as increases in the sales volume of cigarettes.

Table 53 (5.2.1.4): Tobacco tax revenue, billion BDT

	2011-12	2013-14	2014-15	2015-16	2016-17	2017-18
Excise	74.5	97		130		173.48
VAT	20	26		33		46.29
Total Revenue	94.5	123	145	163	193	219.77

Source: Bangladesh Overview of Tobacco Use, Tobacco Control Legislation, and Taxation (Marquez, Krasovsky & Andreeva, 2019) and WHO (2018)

The main share of tobacco revenue comes from cigarette taxes. Bidi consumption was 35-40% of total tobacco consumption, but its tax earnings were less than 2% of total tobacco revenue in 2016 and 3% in 2017 in Bangladesh (Ahmed et al., 2019). In 2014-15, the total expenditure on smokeless tobacco products was BDT 16.50 billion in Bangladesh; however, the government earned only 143.6 million BDT tax from the smokeless tobacco sector.[25]

The price of tobacco in Bangladesh is one of the lowest in the world, and because the country uses an ad valorem tax method that has a low tax base, tobacco revenues are lower than they could be. The ad valorem system also allows a great deal of tax evasion (Barkat et al., 2012), so modernizing and harmonizing the tax structures in Bangladesh would go a long way towards enhancing tax revenues (Mansur, A., Yunus, M., & Nandi, B., 2011).

Smoking help centers/call centers/cessation services

There is no toll-free telephone quit line/help line with a live person available to discuss smoking cessation in Bangladesh; but there have been sporadic efforts by the government to train people to help smokers quit (WHO, 2019). An event called 'Training of Trainers', arranged by NIPSOM and supported by the WHO and the European Respiratory Society (ERS) in 2017, produced a group of master trainers to educate healthcare service providers on how to support people who want to quit using tobacco (ARK Foundation BD, 2019). Currently, tobacco cessation services are available at only a few government centers, and these services are limited in scope.

In 2019, the government ran a six-month pilot tobacco cessation program at 29 public facilities in four districts. In this program, Tuberculosis and Leprosy Control Assistants were able to identify and support 23% of these districts' TB patients, and 40% of male TB patients quit smoking between May and July of 2019 (ARK Foundation BD, 2019).

Nicotine replacement therapy (NRT) is not legal in Bangladesh and NRT medications are not on the list of the country's essential drugs. Bupropion (e.g., Zyban, Welbutrin) and varenicline are legally sold by prescription, but their cost is not covered by Bangladesh's national/federal health insurance or the national health service (WHO, 2019).

[25] http://print.thefinancialexpress-bd.com/2015/08/14/103951

Table 54 (5.2.1.5): Alternative methods of smoking cessation available in Bangladesh

Is there any a toll-free telephone quit line/help line with a live person available to discuss cessation with callers in Bangladesh?		No
Nicotine replacement therapy (NRT, e.g. patch, gum, lozenge, spray or inhaler)	Is this product legally sold in the country?	No
	Where and how can this product be legally purchased in your country?	
	Does the national/federal health insurance or the national health services cover the cost of this product?	
	Is any NRT on the country's essential drug list?	No
Bupropion (e.g. Zyban, Welbutrin)	Is this product legally sold in the country?	Yes
	Where and how can this product be legally purchased in your country?	Pharmacy with Rx
	Does the national/federal health insurance or the national health services cover the cost of this product?	No
Varenicline	Is this product legally sold in the country?	Yes
	Where and how can this product be legally purchased in your country?	Pharmacy with Rx
	Does the national/federal health insurance or the national health services cover the cost of this product?	No
Is smoking cessation support available in the following places in the country?	Health clinics or other primary care facilities	Yes in some
	Hospitals	Yes in some
	Office of a health professional	No
	In the community	Yes in some
	Other	No

Source: WHO report on the global tobacco epidemic, 2019 (WHO, 2019)

All Indicators and Compliance

The following table illustrates how well Bangladesh has complied with the WHO's FCTC indicators between 2008 and 2019. There was a steady but minimal decline in the adult daily smoking prevalence rate, from 22.3% in 2008 to 19% in 2019. Compliance with smoke-free policies has improved but is still not high enough. Other indicators also demonstrate improvement, but the taxation rate and compliance with advertising bans declined in 2019.

Table 55 (5.2.1.6): All indicators and compliance, 2008-2019

Indicator	2008	2011	2013	2015	2017	2019	
Age and Sex Standardized Adult Daily Smoking Prevalence	22.3%	22%	23%	20%	20%	19%	

Monitoring		Recent data for both adults and youth, but missing representative data for either adults or youth	Recent and representative data for both adults and youth	Recent and representative data for both adults and youth	Recent and representative data for both adults and youth	Recent and representative data for either adults or youth	Recent, representative and periodic data for both adults and youth	
Smoke-free Policies		Not Reported	3	3	5	6	6	
Cessation Programme		Moderate	NRT and/or some cessation services (neither cost-covered)	NRT and/or some cessation services (neither cost-covered)	NRT and/or some cessation services (neither cost-covered)	NRT and/or some cessation services (neither cost-covered)	NRT and/or some cessation services (neither cost-covered)	
Warning	Labels	Minimal Policy	Medium size warnings missing some appropriate characteristics OR large warn	Medium size warnings missing some appropriate characteristics OR large warnings missing many appropriate characteristics	Large warnings with all appropriate Characteristics	Large warnings with all appropriate characteristics	National campaign conducted with 5-6 appropriate characteristics, or 7 characteristics excluding airing on television and/or radio	
	Mass Media	Minimal Policy	No warnings or small warnings	National campaign conducted with at least 7 appropriate characteristics including airing on television and/or radio	National campaign conducted with at least 7 appropriate characteristics including airing on television and/or radio	National campaign conducted with at least 7 appropriate characteristics including airing on television and/or radio	National campaign conducted with 5-6 appropriate characteristics, or 7 characteristics excluding airing on television and/or radio	
Advertising Bans		5	7	8	8	7	6	
Taxation		50%	68%	71%	76%	77%	71%	

Source: WHO, 2008, 2011, 2013a, 2015, 2017c, 2019

5.2.2. Legal, political, and economic concerns and reasons behind implementation failures

Bangladeshi government officials are involved in the corporate social responsibility (CSR) activities of the tobacco companies, which is against the guidelines of FCTC article 5.3 (Assunta, 2019). Article 5.3 guidelines requires the disclosure of agendas, contents, and proceedings if government officials meet with tobacco industry representatives, and the registration of tobacco industry entities, affiliated organizations, and individuals acting on their behalf, including lobbyists (Assunta, 2019).

In February of 2018, the NBR held a closed-door meeting to decide how to implement graphical health warnings on tobacco packs. The Bangladesh Cigarette Manufacturers' Association (BCMA) and Security Printing Corporation Bangladesh, Ltd. were invited as stakeholders. JTI made a huge investment and acquired the Akij Group's tobacco business. The Executive Chairman of the Bangladesh Investment Development Authority (BIDA), the government agency responsible for encouraging and facilitating private investment, was present when the deal was signed.

The NBR also gave BATB a tax credit worth more than 2,000 crore BDT by scrapping a special order. Six members of the BATB board of directors were high government officials at the time. In 2016, BATB was granted beneficial production conditions and was allowed to pay their employees lower salaries and deny them benefits they are owed under the Bangladesh Labor Act of 2006. BATB continues to deposit large amounts of money into the Bangladesh Labour Welfare Foundation Fund, which is a government body. In 2019, the NBR approved a 25% tax waiver on the export of tobacco products by factories located in the Export Processing Zones (Assunta, 2019).

The Bangladesh Bidi Owners' Association also applied for special privileges in FY 2018-19, asking the Ministry of Finance and Commerce for a tax reduction and cottage industry status, which was granted. Bidi prices remained the same in the FY 2018-19 budget (Assunta, 2019).

All of these aforementioned activities violate the Article 5.3 of the FCTC guidelines (PROGGA, 2019).

6. Conclusions

In spite of abundant sources, such as several waves of GATS reports, ITC reports, and Health Cost Studies, 2013 GYTS, the Agricultural Yearbooks, the Bangladesh Bureau of Statistics, the BER study 2019, the World Bank Report, WHO Reports on the Global Tobacco Epidemic and academic studies, used in this report, the authors noted significant data gaps.

On demand issues, no current data is available on cessation programs or products, tobacco addiction relapse behavior, tobacco acceptability, tobacco affordability, the consumption of harm reduction products, and switching between different types of tobacco products (including harm reduction products). No data is available past 2009 on quit rates, the prevalence of tobacco use by different demographic groups, the prevalence of tobacco use among health professionals, or categorizations of smokers on the basis on smoking intensity.

On supply issues, information is lacking on alternatives to combustible cigarettes (such as e-cigarettes), and there is no data at all on the availability of other cessation products. There is no market share or employment information on the bidi and smokeless tobacco industries, and no reliable data on the illicit trade of both manufactured and unmanufactured tobacco products because the NBR does not collect data on the illicit trade in cigarettes. There is also no data on the environmental impact of cigarette manufacturing. Data on employment in the manufactured tobacco industry was last updated in 2005, while data on tobacco trading partners was last updated in 2011.

On health consequences, information is lacking on the health impacts of harm reduction products; health insurance programs and coverage; the relative health burden of different forms of tobacco use; DALYS (disability adjusted life years); long-term health expenditures at household and national levels; or the effectiveness and cost-effectiveness of alterative smoking cessation programs. Data on the health burdens of tobacco consumption by wealth quartile, the impact of household expenditures on tobacco, and health issues related to tobacco, were last updated in 2004.

On the policy side, information is lacking on policies related to harm reduction products or the success of tobacco cultivation policies, and there is no nationally representative data on the success of policies to benefit at-risk populations. Data and estimates on the following are available but have not been updated since 2009: the effectiveness of graphic warning labels, the effectiveness of public bans on smoking, and the effectiveness of banning tobacco advertising, promotion and sponsorship.

Based on the data and evidence available for review, we have come to the following conclusions:

Demand for tobacco

Over the years, all types of tobacco have become more affordable because the taxation system is dysfunctional and individual incomes have grown. The market for the premium and high price tier cigarettes remained stable, but the medium price tier was overtaken by the lowest price tier as taxes rose and consumers needed to switch to less expensive tobacco products.

When it comes to the characteristics of tobacco consumers, the mean age of daily smoking initiation was 18; but a significant proportion of people started smoking at a very young age.

In general, people surveyed in the studies mentioned above had a negative perception of both combustible tobacco and smokeless tobacco and thought they caused serious illnesses.

Between 2009 and 2017, the number of both smokers who attempted to quit in the past 12 months and those who wanted to quit declined by a little less than 2% (GATS, 2009; 2017). A small percentage of both smokers and smokeless tobacco users actually quit in 2009 (GATS, 2009). Only 0.2% of the population used e-cigarettes in 2017 (GATS, 2017).

Supply side of tobacco

In 2019, Bangladesh was the eighth largest cigarette-consuming country in the world. Cigarettes account for about three-quarters of the overall gross output of the tobacco industry, while bidi production employs 80% of the people involved in tobacco production.
There are only three cigarette production companies in Bangladesh, while bidis are manufactured by many small and medium enterprises, almost all of which operate out of private households. These enterprises account for almost three-quarters of the total number of tobacco manufacturing establishments in the country.

Between 2009 and 2019, the lowest price tier of cigarettes grew significantly, while medium- and high-priced tiers decreased drastically since FY 2013-14.

Tobacco cultivation increased between FY 2010-11 and FY 2016-17, even though the amount of land under tobacco cultivation has gradually decreased.

In the international trade sphere, both exports and imports of unmanufactured tobacco have declined drastically in recent years.

The estimated revenue loss from illicit trade in the tobacco industry is US $100 million per year, representing about 4% of total tobacco revenues, which in reality could be much higher.

Health consequences of tobacco use

In Bangladesh, tobacco use is a major cause of deaths for both tobacco users and those being exposed to secondhand smoking. The average 25-year-old Bangladeshi male smoker currently loses an average of seven years of life because of smoking.

The costs of tobacco-induced diseases and deaths in Bangladesh accounted for almost 1.4% of the GDP in FY 2017-2018. From 2004 to 2018, total tobacco-attributable health costs more than doubled.

Policy measures related to tobacco use, production and trade

Motivated by the FCTC framework, a range of policy measures are in place in the country to regulate the use, production, and trade of tobacco. These include fiscal tools, physical bans, and advertising guidelines.

Taxes on the most sold brands of tobacco products are 71%, with a 1% health development surcharge included in excise tax rates.

Significant progress has been made in creating smoke-free environments in Bangladesh, including banning smoking in various public spaces such as educational institutions, workplaces and restaurants. Bans that result in fines have been imposed on tobacco advertising, promotion, and sponsorship, and anti-tobacco messages are required if actors use tobacco in movies. The government also mandates written health

warnings and pictorial warning labels to be put on cigarette packs. Cigarette advertising, promotion, and sponsorship decreased significantly between 2009 and 2017, but increased significantly for bidis and smokeless tobacco.

In contrast to the progress in policy formulation, there has been little or no progress in policy implementation. Compliance is very low concerning advertising at the point of sale, bans on free tobacco product distribution and promotional discounts for tobacco products. Bans on the appearance of tobacco products in films, non-tobacco products identified with tobacco brand names, and sponsorship contributions have never been implemented. Enforcement of the ban on smoking in public places is inadequate. No laws exist that explicitly ban tobacco product displays at points of sale or tobacco sales on the Internet.

Tobacco cultivation has also come under regulation. Since 2017, tobacco has been dropped from the list of cash crops in Bangladesh. Tobacco farmers no longer receive help from the government, and the production of tobacco has also been banned on any farm where food crops are grown. The government has also initiated several policies in the international trade of tobacco products. The share of tobacco exports increased significantly between 2000 and 2009, due to a 10% cash incentive policy introduced in 2003 that was later withdrawn in 2008. In FY 2010-11, the government created a reverse policy and imposed a 10% duty on tobacco leaf exports to discourage tobacco cultivation.

Finally, cessation resources are almost non-existent. There is no toll-free telephone quit line in Bangladesh with live counselors to help potential quitters, and nicotine replacement therapy products are not legally sold in the country.

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Appendix for Chapter 3

Table 56 (1): Prevalence of tobacco use by gender and geographic location, 2007-2019

		WHO 2007	GATS 2009	GATS 2017	ITC 2009	ITC 2011-12	STEPS 2010	STEPS 2013	GYTS 2013	Faruque et al. (2019)
Overall		36.8	43.3	35.3	43.2	35.9	51	45.8	6.9	41.5
Gender	Male	48.6	58	46	53	45.6	70	58	9.2	51.4
	Female	25.4	28.7	25.2	32.8	25.5	34.4	32	2.8	30.3
Residence	Urban	28.5	38.1	29.9	36.2	30.9	-	-	-	-
	Rural	40.8	45.1	37.1	45.1	38.5	-	-	-	-

Sources: GATS 2009 report, GATS 2009 and 2017 comparison, GATS 2017 fact sheet, WHO 2004 report, STEPS 2010 and 2013 reports, GYTS 2013 report, Faruque et al. (2019)

Table 57 (2): Prevalence of different types of tobacco users, 2007-2019

	WHO 2007	GATS 2009	GATS 2017	ITC 2009	ITC 2011-12	STEPS 2010	STEPS 2013	Faruque et al. (2019)
Types of tobacco users								
Any form of tobacco	36.8	43.3	35.3	43.2	35.9	51	45.8	41.5
Smoked tobacco	20.9	23	18	22.7	19.2	26.2	20.3	20.5
Cigarettes	10.8	14.2	14	9.4	-	-	-	16.6
Bidis	8.9	11.2	5	3.1	-	-	-	5.1
Smokeless	19.7	27.2	20.6	29.1	21.7	31.7	28.7	25.3
E-cigarettes	-	-	0.2	-	-	-	-	-

Sources: GATS 2009 report, GATS 2009 and 2017 comparison, GATS 2017 fact sheet, ITC reports, WHO 2004 report, STEPS 2010 and 2013 reports, GYTS 2013 report, Faruque et al (2019)

Table 58 (3): Prevalence rates from Wave 1 (2009) to Wave 3 (2012) of the ITC Bangladesh Survey.

Demographic Characteristics		Any Type of Tobacco		Smoked Tobacco		Smokeless Tobacco	
		Wave 1 (2009)	Wave 3 (2012)	Wave 1 (2009)	Wave 3 (2012)	Wave 1 (2009)	Wave 3 (2012)
Overall		42.4	36.3	22.2	19.4	28.6	22.0
Sex	Male	53.2	47.1	42.0	37.0	26.8	19.5
	Female	31.2	24.9	1.8	0.9	30.4	24.5
Residence	Urban	36.2	30.9	19.9	16.2	21.8	18.1
	Rural	45.1	38.5	23.2	20.7	31.5	23.5
	15-17	4.6	2.8	3.3	1.8	1.7	1.2
	18-24	16.3	12.0	10.6	8.1	7.9	4.9

Age Group	25-39	41.5	33.3	24.3	20.6	25.1	16.9
	40-54	64.0	54.2	32.2	27.9	45.8	34.8
	55+	70.9	64.2	28.9	26.9	56.2	47.1
Socioeconomic Status	Low	49.6	43.0	27.4	24.0	33.2	25.4
	Middle	43.0	36.8	22.4	19.5	29.2	22.6
	High	36.4	30.6	18.0	15.7	24.5	18.6

Source: Prevalence and Patterns of Tobacco Use in Bangladesh from 2009 to 2012: Evidence from International Tobacco Control (ITC) Study (Nargis et al., 2015)

Table 59 (4): Transition matrices, 2009-2011

		ITC 2010			
		Low	Medium	High	Premium
ITC 2009	Low	67.42	22.95	8.78	0.45
	Medium	27.27	57.21	11.53	3.99
	High	11.01	14.21	58.72	16.06
	Premium	2.59	8.62	28.45	60.34
		ITC 2011-12			
		Low	Medium	High	Premium
ITC 2010	Low	74.08	18.03	6.76	1.13
	Medium	34.12	52.23	8.01	5.64
	High	13.66	19.67	49.18	17.49
	Premium	5.13	2.56	28.21	64.1

Source: Huq, Nargis, Lkhagvasuren, Hussain & Fong, 2019

Table 60 (5): Composition of the tobacco industry according to tobacco products in terms of number of establishments, gross output, employment, and fixed assets, 2001-02

Products	No. of Establishments	Gross Output (Value "000" BDT)	Employment (No.)	Fixed Asset (Value"000" BDT)
Cigarette Manufacturing	22 (10.1)	19864929 (75.8)	8908 (16.0)	2247184 (87.4)
Bidi Manufacturing	153 (70.2)	5860986 (22.4)	45328 (81.2)	23453 (0.9)
Tobacco Stemming, Retrying	14 (6.4)	403806 (1.5)	925 (1.6)	73240 (2.8)
Zarda & Quivers	15 (6.9)	16273	210	4149
Total Tobacco Manufacturing	**218 (100.0)**	**26177500 (100.0)**	**55797 (100.0)**	**2571033 (100.0)**

Source: Tobacco Underground: Loose Borders and Booming Trade in Bangladesh (Kabir, 2010). Note: Figures in parentheses indicate percentage in total.

Table 61 (6): Cigarette and bidi production (billion sticks) in Bangladesh, 2007-2016

Financial Year	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Premium cigarettes	2.9	3.3	4.1	4.4	5.2	4.2	3.8	4.1	4.0	4.4
High cigarettes	7.5	6.8	9.2	7.0	8.1	8.1	8.8	8.0	4.6	4.5
Medium cigarettes	11.7	18.8	19.2	19.9	19.4	14.6	16.8	12.5	9.4	8.8
Low cigarettes	1.4	13.7	33.6	41.5	49.4	39.7	50.3	58.1	65.9	66.8
Total cigarettes	23.5	42.6	66.1	72.8	82.1	66.6	79.7	82.7	83.9	84.5
Bidis	35.3	46.3	63.4	67.2	72.8	44.4	46.8	44.5	43.2	43.5
Totals	**58.8**	**89.0**	**129.4**	**140.0**	**154.9**	**111.0**	**126.5**	**127.2**	**127.0**	**128.0**

Source: Ahmed et al., 2019 and Marquez, Krasovsky & Andreeva, 2019

Table 62 (7): Raw tobacco prices by variety and grade in Bangladesh

Varieties and Grade	Price for FY 2016/17 (BDT/Kg)	Price for FY 2017/18 (BDT/Kg)
Bangla 1	107	110
Bangla 2	103	106
Bangla 3	98	100
Bangla 4	93	95
Bangla 5	88	90
Bangla 6	81	83
Barley 1	84	86
Barley 2	82	84
Barley 3	80	82
DV 1	78	79
DV 2	76	77
DV 3	73	74
Jati 1	n/a	79
Jati 2	n/a	77
Jati 3	73	74
Motihar	68	68
Talim	73	73
Without any grade	n/a	30

Source: Ministry of Agriculture, Government of Bangladesh, 2018 (as cited in Ahmed et al., 2019)

Table 63 (8): Social net benefit of tobacco cultivation (per bigha)

Item	BDT
Sales/revenue (R)	45016.96
Input costs and labor costs (B)	23,803.42
Direct profits C:(R-B) without opp. costs	21,213.54
Indirect costs:	
Unpaid family labor costs (D)	11,680.23
Health costs (direct health cost and income loss) (E)	65.274325
Private benefit with opportunity costs	9,468.04
F: (C-D-E)	
Social/environmental costs (G1)	26,125.60
Soil and water quality degradation (G2)	5498
Social benefit: (F-G1-G2) in BDT	-22,156
Social benefit (in USD)	-262

Source: Economic Cost of Tobacco Cultivation in Bangladesh (BER, 2019)

Table 64 (9): Sample characteristics of patients with tobacco-related diseases, 2018

	Number of patients by disease category	Urban	Rural	Total
Diseases (number of patients)	Ischemic heart disease	144	220	364
	Stroke	130	194	324
	COPD	70	91	161
	Pulmonary tuberculosis	23	28	51
	Lung cancer	17	14	31
	Laryngeal cancer	10	11	21
	Oral cancer	3	5	8
	Total	397	563	960
Gender (%)	Men	66.7	76.2	72.3
	Women	33.3	23.8	27.7
Age (%)	30-39 years	14.9	11.9	13.1
	40-49 years	27	22.2	24.2
	50-59 years	26.4	25.8	26
	60-69 years	20.4	24.9	23
	70 years and older	11.3	15.3	13.6
Marital status (%)	Married	85	90.4	88.3
	Single/widowed/separated	15	9.6	11.7
Relationship to household head (%)	Head	90.2	91.8	91.1
	Other members	9.8	8.2	8.9
	No formal education	30	35.6	33.4

Education (%)	Less than primary	9.8	14	12.3
	Primary	14.6	19	17.2
	Less than secondary	38.3	28.2	32.4
	Secondary and above	7.3	2.8	4.7
Employment status (%)	Not Employed	39.1	31.3	34.5
	Employed	60.9	68.7	65.5
Primary occupation (%)	Self-employed in non-farm businesses	24.6	17.7	20.6
	Laborer	10.1	10.2	10.1
	Farmers	10.4	26.8	20
	Professional	11.1	6.3	8.3
	Retired, students, others	4.4	6.8	5.8
	Homemaker	26.7	22.5	24.3
	Unemployed	12.7	9.6	10.9
Annual per capita household income	1st Quartile (less than BDT 28,800)	17.4	29	24.5
	2nd Quartile (BDT 28,801 to 45,000)	25.1	24.2	24.6
	3rd Quartile (BDT 45,001 to 88,000)	31	21.8	25.4
	4th Quartile (above BDT 88,000)	26.5	24.9	25.5

Source: Faruque et al. (2019)

Table 65 (10) : Retail prices and tax rates of cigarettes over the years

Tiers	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Low (price)	5.25-6.24	6-6.99	6.5-7.5	7.25-8.75	8.4-9.15	11-11.3	12.1-12.3	13.69-13.91	15-16.5	18	23	27 L 35 I	32
Tax rate (%)	32	32	32	32	33	36	39	39	43	48	50	52 L 55 I	55
Medium (price)	10.50-12.49	12.5-13.49	13.25-14.25	16.25-17.25	18.4-19	22.5-23	24.75-25.25	28-30	23.5-35	42-44	45-69	45-69	48-74
Tax rate (%)	52	52	52	52	53	55	56	56	60	61	62	63	65
High (price)	18.00-24.99	19-26.9	21-28	23.25-29.25	27-32	32-36	35.2-39.5	42-45	50-54	70-100	70-100	70-100	75-100
Tax rate (%)	55	55	55	55	56	58	59	59	61	63	64	65	65
Premium (price)	30+	35+	41+	46.25+	52+	60+	66+	80+	90+	101+	101+	101+	101+
Tax rate (%)	57	57	57	57	58	60	61	61	61	63	64	65	65

Sources: (1) The tobacco industry uses pricing to undermine tobacco tax policy: Evidence from Bangladesh (Nargis et al., 2018a) (2) Bangladesh: Overview of Tobacco Use, Tobacco Control Legislation, and Taxation (Marquez, Krasovsky & Andreeva, 2019) (3) A decade of cigarette taxation in Bangladesh: lessons learnt for tobacco control. (Nargis et al., 2019) (4) WHO country profile: Bangladesh (5) Tobacco Price and Taxation Policies in Bangladesh: Evidence of Effectiveness and Implications for Action (ITC Project, 2014) Note: L – Local; I – International.

Table 66 (11): Tax rates and prices of bidis

	2012-2013	2013-2014	2014-2015	2015-2016-	2016-2017	2017-2018	2018-2019
Bidi non-filtered (price, BDT per pack of 20 bidi)	4.36	5.354	6.14	7.06	10.61	12.5	12.5
Tariff value (in BDT)	3.1573	3.88	4.27	4.91	7.1		
Tax rate %	20	20	25	25	30	30	30
Actual specific tax (BDT per pack)	0.63	0.78	0.85	0.98	1.42	3.75	3.75
Bidi filtered (price, BDT per pack of 20 bidi)	4.93	6.052	6.92	7.98	12.03	12.5	15
Tariff value (in BDT)	3.43	4.22	4.64	5.34	7.75		
Tax rate %	25	25	30	30	35	35	35
Actual specific tax (BDT per pack)	0.69	0.84	0.93	1.07	1.55	4.375	5.25

Source: Bangladesh: Overview of Tobacco Use, Tobacco Control Legislation, and Taxation. (Marquez, Krasovsky & Andreeva, 2019).

Table 67 (12): Tax rates of smokeless tobacco

Year	SD%	VAT%	Health Development surcharge %	Total %
2010-2011	20	15		35
2011-2012	30	15		45
2012-2013	30	15		45
2013-2014	30	15		45
2014-2015	60	15	1	76
2015-2016	60	15	1	76
2016-2017	100	15	1	116

Source: Smokeless tobacco and public health in Bangladesh: Review (Huque, Zaman, Huq & Sinha, 2017)

Table 68 (13): Simulations of price increases on cigarette consumption

Decile	25% Cigarette Price Increase			50% Cigarette Price Increase			75% Cigarette Price Increase		
	Complete Pass Through	Medium	High	Complete Pass Through	Medium	High	Complete Pass Through	Medium	High
1	-0.3	-0.2	0.2	-0.5	-0.4	0.5	-0.8	-0.6	1.0
2	-0.3	-0.2	0.2	-0.7	-0.5	0.6	-1.0	-0.7	1.2
3	-0.3	-0.2	0.2	-0.7	-0.5	0.6	-1.0	-0.7	1.2
4	-0.3	-0.2	0.2	-0.7	-0.4	0.6	-1.0	-0.5	1.3
5	-0.4	-0.2	0.2	-0.8	-0.3	0.7	-1.1	-0.5	1.5
6	-0.3	-0.1	0.2	-0.7	-0.3	0.6	-1.0	-0.4	1.2
7	-0.3	-0.1	0.2	-0.6	-0.2	0.5	-1.0	-0.4	1.1
8	0.4	-0.1	0.2	-0.7	-0.3	0.6	-1.1	-0.4	1.2

9	-0.3	-0.1	0.2	-0.6	-0.2	0.5	-0.9	-0.3	1.1
10	-0.2	-0.1	0.1	-0.5	-0.2	0.4	-0.7	-0.3	0.8

Source: The Distributional Impacts of Tobacco Taxation in Bangladesh (Carmen, G., Fuchs, A., & Genoni, M., 2018)

Table 69 (14): Anti-tobacco activities by government (2017-2018)

January-June 2017	Communication campaign through different media (observance of World Health Day, Safe Motherhood Day & World No Tobacco Day)
July 2017-June 2018	Communication campaign through different media for behavior change by arranging 3 advocacy workshop on prevention of tobacco and cancer and other non-curable diseases.
	Workshop on advocacy on tobacco

Source: Health bulletin 2018 (Ministry of Health and Family Welfare [MHFW], 2018)

Table 70 (15): Anti-tobacco activities by National Tobacco Control Cell (NTCC)

Date/Year	Activities/seminar/workshop/training
5-Aug-19	District meeting on Tobacco Control Law in Chapainawabganj
4-Aug-19	District meeting on Tobacco Control Law in Naogaon
10-Jul-19	District meeting on Tobacco Control Law in Chittagong
14-May-19	District meeting on Tobacco Control Law in Pabna
2-Feb-19	District meeting on Tobacco Control Law in Khulna
21-Mar-19	Coordination meeting of NTCC with different anti-tobacco organizations (INGOs, NGOs)
9-Jan-19	Meeting on prepare road-map to make the country tobacco free by 2040
29-Nov-18	Coordination meeting on tobacco control
9-Sep-18	Coordination meeting on tobacco control
6-Apr	Meeting for formulating policy to discourage tobacco farming and to switch to alternative crops
15-Jun	Two divisional and district workshops on implementation and enforcement of Tobacco Control Law
13/14-July-14	Capacity Building Training for the Executive Magistrates on Tobacco Control Law
17-Jun-14	District workshop at Madaripur
11-Jun-15	District workshop at Jessore
31-Mar-14	District workshop at Munshiganj
24-Mar-14	District workshop at Rangpur
24-Mar-15	Divisional workshop at Sylhet
25-Mar-15	District workshop at Kushtia
30-Nov-11	Divisional Workshop at Sylhet
Mass Media Campaign	
19-Feb-19	Inauguration program of Mass Media Campaign "Atma-Jiggasa" (What Damage will this Cigarette or Bidi Do?)
N/A	Inauguration program of 'বিষধোঁয়া' [Bish-dhoa] – a mass media campaign
26-Oct-17	Inauguration program of Mass Media Campaign "Sickening"

Source: National Tobacco Control Cell (https://ntcc.gov.bd/)

Table 71 (16): NGOs/organizations involved in anti-tobacco activities

Organization/ NGO	About	Date of Establishment
Vital Strategies	A global Public health organization. Works with government to strengthen their public health system. Have five international offices and global network of leading experts and impact in 73 countries.	2003, New Delhi India.
Campaign for Tobacco-Free Kids (CTFK)	A Leading advocacy organization working to reduce tobacco use and its deadly consequences around the world. It promotes the adoption of proven solutions that are most effective at reducing tobacco use by Providing strategic communications and policy advocacy campaigns.	Sep-95
World Health Organization (WHO)	World Health Organization is a specialized agency of the United Nations (UN) responsible for international public health. WHO has been providing technical support to the government of Bangladesh for strengthening the public health system from the beginning of its collaboration in 1972.	7-Apr-98
National Anti-Tuberculosis Association of Bangladesh (NATAB)	It is a national organization with branches all over the Bangladesh. Currently it has nearly 100 staff and 4500 volunteers.	1948
MANAS	MANAS is a non-profitable organization. MANAS campaign for prevention of drug use since 1981. Different activities had been undertaken by MANAS to reduce tobacco use in Bangladesh with the collaboration with Government of Bangladesh and NGOs. About 3000 volunteer working on behavioral change communication activities throughout the country covering 9 districts, 70 sub-districts and 15 thana on anti-tobacco programs.	1981
বাংলাদেশ তামাক বিরোধী জোট (The Bangladesh Anti-Tobacco Alliance-[BATA])	Bangladesh Anti-Tobacco Alliance (BATA) is a civil society network across Bangladesh that includes about seven hundred local, regional and national organizations. BATA funded in October 9, 1999	1999
Bangladesh Cancer Sosity (BCS)	Nonpolitical non-profit philanthropic organization. In 1995, the Bangladesh Cancer Society became full UICC member	
National Heart Foundation Hospital & Research Institute	National Heart Foundation Hospital and Research Institute is the prime project of National Heart Foundation of Bangladesh. Other than providing services to the patients, it has some other activities. One of them is United Forum against Tobacco (UFAT) program. It was formed by five health professional organizations. UFAT aims to control tobacco menace in the country by involving physicians.	23-Dec-12
Ark Foundation	Help to accelerate socio-economic development through research, knowledge and evidence-based solution. RK Foundation has been engaged with innovation and good practice in health and development. Research, training and program implementation are the major areas of interest of this organization.	25-Nov-13
Bangladesh Centre for Communication Programs (BCCP)	Strategic communication organization mainly provides services for social development sector both in Bangladesh and in Asian region.	1996
UBINIG	UBINIG is a policy and action research organization in Bangladesh. It aims to improve social, economic, political and cultural transformation by various activities.	1984
WBB Trust (Work for a Better Bangladesh Trust)	The initial programs of WBB Trust were tobacco control, discouraging polythene shopping bags and addressing noise pollution. WBB Trust also conducts short-term research with a specific focus on actions and policies mostly on needed areas for policy action, popular support for policies, or ways to improve policy implementation. Right now WBB has three broad departments namely Health Right, Livable Cities and Economic and Social Justice. Now tobacco control program works under Health Rights.	Dec-98
Young Power in Social Action (YPSA)	YPSA is a voluntary, nongovernmental and nonprofit organization for sustainable development. YPSA works on five major categories namely Health, Economic Empowerment, Human Rights and Governance, Environment Climate change and Disaster Management and Education.	20-May-85

Source: www.vitalstrategies.org
https://www.tobaccofreekids.org/

https://www.who.int/
http://www.natabbd.org/
http://www.manas.org.in/
http://bata.net.bd/
https://www.uicc.org/membership/bangladesh-cancer-society
http://www.nhf.org.bd/
https://arkfoundationbd.org/
http://www.bangladesh-ccp.org/
https://www.ubinig.org/
http://www.wbbtrust.org/
http://ypsa.org/

Table 72 (17): Anti-tobacco activities done by NGOs

Activities	Time	Details
Exhibition	10-Mar-16	A day-long exhibition was organized with the images set by the Ministry of Health and Family Welfare for tobacco packets and other images of tobacco-related diseases before the National Museum, Dhaka
Discussion meeting with policymakers	12-Mar-16	Describe the necessity and benefit of GHW. Honorable Minister for Health and Family Welfare, MPs, journalists and doctors were present.
Human Chain	12-Mar-2016	Seven to eight human-chains were organized in allover Bangladesh.
Road-show	14-16-Mar-16	Were organized in Dhaka, Sylhet and Chittagong demanding for implementing Graphic Health Warning (GHW) on tobacco packs.
Leaflet and factsheet	April- June 2016	A leaflet was prepared and distributed among the pedestrians during the roadshows in Dhaka, Sylhet and Chittagong.
Media Campaign	April- June 2016	Media Camping engaged the journalists to prepare and publish/broadcast some special reports on implementation status of GHW on their respective media houses. This included: Social Media Community Radio Earned media
Pre-budget press conference	April- June 2016	Presenting research findings and tobacco tax proposal Remembering legal bindings VOTV presentation Unveiling tobacco company ill tactics Remembering the Premiers directives
Meeting with tax makers and Economists	April- June 2016	Lobbying Unveiling tobacco company ill tactics Recalling Premier's directives Research findings presentation Remembering the Premier's directives
Meet with Finance Minister	April- June 2016	Attracting Finance Minister's attention on having benefit of multinational company over unchanged tax on pricy cigarettes Greeting on adopted taxation on tobacco products

Social Media campaign	April- June 2016	Recalling the Premier's directives Utilizing social media in a planned manner in the entire campaign Deploy a skilled team for continuous support to run social media campaign Supplying campaign updates on social media regularly Providing immediate updates on tobacco company ill tactics Publicizing reports published/ aired on mass media Publicizing the overall campaign activities

Source: Latest Achievement of Bangladesh: Graphic Health Warning Implementation and Plea to Hike Tobacco Price and Tax 2017 (Side, Road, & Id, 2017).