



Tobacco Products Are Becoming Increasingly Affordable in Bangladesh

Introduction

Increasing the price of tobacco products through higher taxes is widely recognized as an important policy for reducing tobacco use. It also raises tax revenues. One key challenge, however, is that *affordability* of tobacco products is what matters most. Affordability is the price of tobacco products in relation to the income of tobacco users. So even if prices go up via higher taxes, if incomes have risen at a greater rate, the impact of increasing taxes is reduced, or even eliminated. Thus, it is important not simply to increase taxes, but to increase taxes so much that the price of tobacco products increases over and above the rate of inflation and income growth. This strategy would make tobacco products less affordable over time, reduce tobacco consumption and prevalence, and improve public health.

This Policy Brief is based on a summary of a recently published research paper examining affordability trends of cigarettes, bidis and smokeless tobacco products in Bangladesh, a country that graduated from low-income to lower middle-income status in 2015.¹

Methods

The data for this study came primarily from four waves of the nationally-representative

International Tobacco Control (ITC) Bangladesh Survey of tobacco users and non-users conducted in 2009, 2010, 2011-12, and 2014-15. Self-reported data on prices of tobacco products paid in the last purchase, household income and other individual and household-specific characteristics also came from the four waves of surveys.

Excise taxes for cigarettes, bidis and smokeless tobacco products over the study period were obtained from the National Board of Revenue (NBR) of the Government of Bangladesh.

The affordability index, or the Relative Income Price (RIP) is the ratio of hundred times the price per unit of tobacco product divided by the per capita annual household income. The lower the value of RIP, the more affordable the tobacco products are. This measure of affordability of tobacco products is widely used to evaluate progress in tobacco taxation in low- and middle-income countries (LMICs), especially in countries that are experiencing rapid economic growth. Based on this measure, the trends in affordability of cigarette, bidi and smokeless tobacco products were examined using statistical analyses that controlled for individual-specific demographic and socio-economic characteristics. The trend in affordability of cigarettes was determined by brands categorized into four price and tax tiers—premium, high, medium, and low.

Results

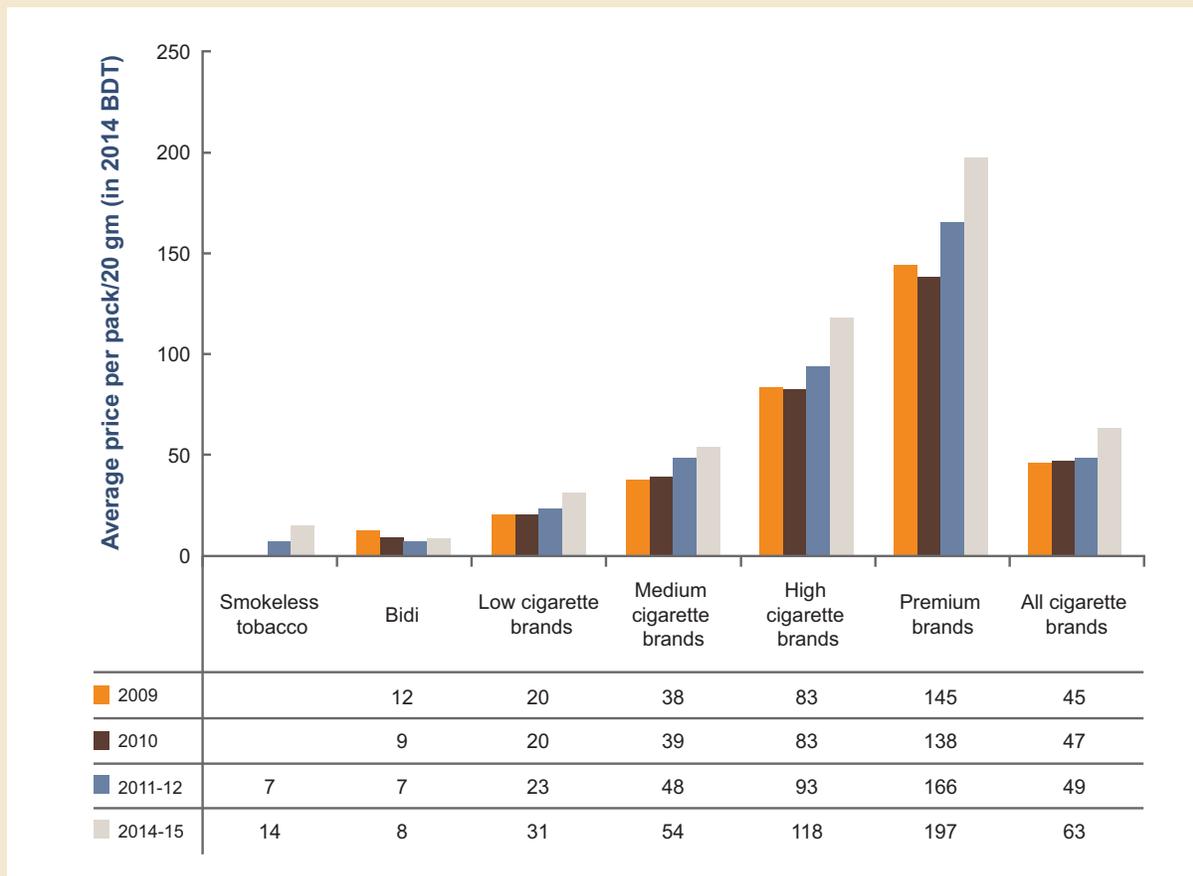
Changes in the average prices of tobacco products:

The average cigarette price generally increased in real terms for the four brand tiers between 2009 and 2014-15 (Figure 1). On average, inflation-adjusted cigarette prices for all brands increased at an annual rate of 6.9%. This increase in the

real price of cigarettes reflects price increases every year above the annual inflation rate along with minor increases in the tax rates by the NBR. The average price of bidis decreased at an annual rate of 7.3% between 2009 and 2014-15. The average price of smokeless tobacco products almost doubled between 2011-12 and 2014-15, attributable in part to the tripling of the tax rate during this period.

Figure 1

Average price per 20gms of smokeless tobacco, per pack of bidis and cigarettes (by brand types) in Bangladesh, 2009, 2010, 2011-12, and 2014-15 (in 2014 BDT).



Affordability of tobacco products:

The comparison of RIP, based on the estimates from the statistical analyses, suggests the following trends in the affordability of tobacco products in Bangladesh from 2009 to 2015:

1. The affordability of cigarettes increased overall and across all types of brands. The increase in affordability was more pronounced for more expensive brands.
2. The affordability of bidis increased.
3. There was no change in the affordability of smokeless tobacco.

This study also showed that:

- Cheaper tobacco products are more affordable.
- Higher tax reduces affordability.
- Affordability increases with age, but it is not significantly different between men and women.
- Compared to smokers with no education, affordability is not significantly different for those with 1-8 years of education, but it is higher for those with 9 or more years of education.
- Tobacco users from higher socio-economic populations generally enjoy greater affordability of tobacco products.
- There is no significant difference in affordability between rural and urban residents.

The increase in the real price of cigarettes and the decrease in the real price of bidis should have led to a decrease in cigarette smoking and an increase in bidi smoking. To the contrary, prevalence data show that the rate of exclusive cigarette smoking increased from 7.2% to 10.6% between 2009 and 2012, resulting in 4.1 million additional cigarette smokers, while the number of bidi smokers went down. There is clearly a shift among smokers from bidi to cigarette use, which was most likely helped by a greater

increase in the affordability of cigarettes compared to bidis—RIP decreased by 7-9 percentage points for all cigarettes and by 2-3 percentage points for bidi according to three different methods of estimation in the statistical analyses.

Policy Implications

The current price and tax policy in Bangladesh falls short of the objective of effective tobacco control through taxation, as is evident from the increasing affordability of tobacco products in the country.

The tax increases that were implemented during 2009-2015 were not enough to increase tobacco product prices sufficiently to outweigh the effect of income growth and reduce tobacco consumption. The negative effects of greater affordability of tobacco products are greater among lower-income people, who are not only more sensitive to price, but also more likely to smoke. And the combination of these two factors leads to widening health disparities.

The growing consumption of cigarettes implies that tobacco control policies need to be strengthened in Bangladesh. Specifically, significant increases in tax and price of cigarettes are needed to outpace the growth of income to reverse the upward trend in cigarette smoking.

Further, the current excise tax system for cigarettes in Bangladesh is a tiered *ad valorem* system, which magnifies the problem because it allows for the cheapest brands to stay relatively lower in price. The resulting price gap creates incentives for smokers to switch down to cheaper cigarettes when taxes increase the price. This also contributes to increases in affordability. Therefore, the tax structure in Bangladesh should be changed (indeed, simplified) from a complex tiered *ad valorem* system to a uniform excise system. Such a change would reduce the incentive of switching to cheaper cigarettes and encourage smokers to quit altogether. The *ad valorem* system should also be replaced with a

uniform specific tax (applied at a fixed rate per pack), which is more efficient in increasing price and generating revenue.

It is also important to consider the multiple types of tobacco products used in Bangladesh. Changing the tax system and increasing the price level of cigarettes in isolation from bidis and smokeless tobacco may induce switching from cigarettes to bidis or to smokeless tobacco. Excise taxes should be increased significantly to bring forth simultaneous increases in smokeless tobacco, bidi, and cigarette prices, and close the gaps among them.

Conclusion

For reasons of public health, it is important to put into place increases in tax and price that would keep pace with inflation and rising income. This is more important in countries experiencing rapid economic growth.

In summary, for the short to medium term in Bangladesh, the authors recommend the elimination of structural features that weaken the impact of tax and price increases on tobacco use, such as ad valorem or multiple tax tiers. Instead, this complex structure should be replaced with a uniform, specific tax that is periodically increased to keep pace with inflation and income on all tobacco products.

Endnotes

Nargis N, Stoklosa M, Drope J, et al. Trend in the affordability of tobacco products in Bangladesh: findings from the ITC Bangladesh Surveys. Tobacco Control Published Online First: 19 April 2018. doi: 10.1136/tobaccocontrol-2017-054035. For survey methods, see <http://www.itcproject.org/countries/bangladesh>

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About Tobacconomics

Tobacconomics is a collaboration of leading researchers who have been studying the economics of tobacco control policy for nearly 30 years. The team is dedicated to helping researchers, advocates and policymakers access the latest and best research about what's working—or not working—to curb tobacco consumption and the impact it has on our economy. As a program of the University of Illinois at Chicago, Tobacconomics is not affiliated with any tobacco manufacturer. Visit www.tobacconomics.org or follow us on Twitter [www.twitter.com/tobacconomics](https://twitter.com/tobacconomics).