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Leveraging Price Elasticity to Curb Tobacco Consumption in Botswana: A Strategy for Healthier Outcomes

# Policy Brief No: No: 2 2023

## **Key Takeaway**

Tobacco consumption remains a significant public health concern in Botswana, with existing policies failing to effectively reduce its prevalence. The study "Responsiveness of Cigarette Demand to Price Changes in Botswana" reveals that a 10% increase in the price of cigarettes leads to an 8.6% decrease in demand among smokers, providing crucial insights for policy formulation. Based on these findings, it is recommended that policy changes focus on increasing taxes on tobacco products, with the additional revenue invested in health programs aimed at further reducing tobacco use and improving public health outcomes.

### 1. The issue

Tobacco consumption remains a significant public health concern in Botswana. Despite the implementation of various policies aimed at reducing tobacco use, the prevalence of smoking continues to be high. The government's efforts to control the use of tobacco products through policies have not yielded the desired results, indicating a need for a more effective approach.

One of the key factors influencing the demand for tobacco and tobacco products is price. Literature shows that changes in tobacco prices and taxes have a substantial impact on tobacco consumption. According to the International Agency for Research on Cancer (IARC), raising excise taxes on tobacco is the most effective instrument for controlling tobacco consumption. This suggests that fiscal policies could play a crucial role in reducing tobacco use in Botswana.

However, research on tobacco control in Botswana is limited. Most studies have focused on determining the prevalence and risk factors of smoking, analyzing the effects of the ban on tobacco advertising and promotion, and providing a situational analysis of tobacco control. There is a noticeable gap in the research: no study has carried out a quantitative analysis of tobacco taxation in Botswana, particularly estimating how the demand for tobacco would change if prices were to change.

This gap in knowledge presents a challenge for policymakers. Without a clear understanding of how price changes affect tobacco demand, it is difficult to formulate effective policies for tobacco control. This underscores the need for a study that analyzes how the demand for cigarettes responds to price changes in Botswana. Such a study could provide valuable insights for policymakers, helping them develop more effective strategies for tobacco control.

### 2. Key findings and implications

The study's key finding is the estimation of the price elasticity of demand for cigarettes in Botswana, which is found to be -0.86. This means that for every 10% increase in the price of cigarettes, the demand among smokers decreases by 8.6%. This is a significant finding as it provides scientific evidence of conditional elasticity on consumption for policymakers in Botswana. In addition, the study found that when household income goes up by 10%, people are likely to smoke 4.4% more cigarettes. This is a significant finding, suggesting that as people earn more, they tend to spend more on smoking. These findings has several important implications:

### Effectiveness of price increases:

The negative price elasticity of demand indicates that price increases can be an effective tool for reducing cigarette consumption in Botswana. This supports the argument for using fiscal measures, such as taxes, as a means of controlling tobacco use.

#### **Potential for tax revenue:**

An increase in the price of cigarettes through taxation not only reduces demand but also generates additional tax revenue. This revenue could be used to fund public health initiatives, including those aimed at further reducing tobacco use.

#### Impact on public health:

By reducing cigarette consumption, price increases can contribute to improved public health outcomes. Smoking is a risk factor for many non-communicable diseases, so reducing smoking rates could lead to a decrease in the prevalence of these diseases.

## Need for complementary measures:

While price increases can reduce demand, they are not a complete solution. There may be a need for complementary measures, such as public education campaigns about the dangers of smoking, support for those trying to quit, and stricter regulations on tobacco advertising and sales.

### Guidance for policymakers:

The study's findings provide valuable guidance for policymakers in Botswana. Understanding the relationship between price and demand can help them formulate more effective policies for tobacco control.

#### 3. Main policy recommendations

The study's findings lead to several key policy recommendations:

#### Increase taxes on tobacco products:

Given the negative price elasticity of demand for cigarettes, one of the most effective ways to reduce cigarette consumption is to increase the price. This can be achieved by raising taxes on tobacco products. A tax increase would make cigarettes more expensive, which would likely lead to a decrease in demand, particularly among price-sensitive smokers.

#### Invest in health programs:

The additional revenue generated from increased tobacco taxes should be invested in health programs. These could include initiatives aimed at raising public awareness about the harmful effects of tobacco use, providing treatment for tobacco-related illnesses, and offering support for those trying to quit smoking. Investment in these areas could further reduce tobacco consumption and improve public health outcomes.

#### Regularly review and adjust tobacco taxes:

To ensure that the impact of tobacco taxes on cigarette prices is not eroded by inflation or income growth, it is important to regularly review and adjust the level of these taxes. This would help maintain the effectiveness of tobacco taxes as a tool for reducing cigarette consumption.

#### Strengthen other tobacco control measures:

While increasing the price of cigarettes is an effective strategy, it should be part of a comprehensive approach to tobacco control. Other measures, such as enforcing bans on tobacco advertising, ensuring smoke-free public spaces, and implementing plain packaging laws, should also be strengthened.

### Monitor and evaluate the impact of policies:

After implementing these recommendations, it is important to monitor and evaluate their impact. This would involve tracking changes in cigarette consumption, smoking prevalence, and tobacco-related health outcomes. The findings from this monitoring and evaluation process could be used to further refine and improve tobacco control policies.

In conclusion, the study's findings suggest that increasing the price of cigarettes through taxation could be a highly effective strategy for reducing cigarette consumption in Botswana. However, this should be part of a broader, comprehensive approach to tobacco control that includes a range of other measures.

## 4. Further Reading:

For more detailed information, please refer to the full study: Responsiveness of Cigarette Demand to Price Changes in Botswana. https://elibrary.acbfpact.org/acbf/collect/acbf/index/assoc/HASHe26a/92d676ba/ff4a8629/3f.dir/BIDPA%2 OFinal%20Report.pdf



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