

HIGHER TAXES ON TOBACCO, ALCOHOL, AND SOFT DRINKS:

AN EFFECTIVE POLICY TO DECREASE CONSUMPTION
AND INCREASE REVENUE



DIRECTOR CIAC

Pablo Wong González

EDITION

Luis Huesca Reynoso and Linda Llamas Rembao

COMMUNICATION AND GRAPHIC DESIGN

José Iván Ruiz Gaytán and Martín Enrique Flores Flores

PROJECT DIRECTOR AND SENIOR RESEARCHER

Luis Huesca Reynoso (CIAD)

RESEARCH TEAM

Abdelkrim Araar (Université Laval) and Linda Llamas Rembao (Universidad Estatal de Sonora)

SUGGESTED CITATION

HUESCA, L.; ARAAR, A. & LLAMAS, L. (2021). Higher taxes on tobacco, alcohol, and soft drinks: An effective policy to decrease consumption and increase revenue. Policy Brief No. 4/2021. CIAD.

ISSN electronic edition: In process ISSN printed edition: In process June, 2021

© Centro de Investigación en Alimentación y Desarrollo, A.C. Carretera Gustavo Enrique Astiazarán Rosas No. 46, CP 83304, Hermosillo, Sonora, México www.ciad.mx

Introduction

he consumption of tobacco, alcohol, and soft drinks is a global public health concern. All three substances which are key causes of non-communicable diseases (NCDs) which are the leading cause of death in Mexico.

Consumption of soft drinks is associated with diabetes and obesity, and smoking is linked to hypertension and heart disease, among other significant negative health effects (Colchero et al., 2016).



Simultaneously increasing taxes on tobacco, alcohol, and soft drinks helps to reduce consumption of all three

This policy brief highlights the potential impact of a joint tax increase on tobacco, alcohol, and soft drinks in Mexico. To explore these effects, it is important to understand what happens to demand when prices increase, a concept known as elasticity. All three of these products appear to be complementary in Mexico, as they present negative elasticities when their prices rise; in other words, consumption decreases as prices increase. Additionally, consumers with NCDs are even more responsive to price changes than the general population.

Tax increases on tobacco, alcohol, and soft drinks that effectively increase prices would reduce their consumption while also generating new resources that the government can allocate to support public health and cover a substantial portion of the current cost of NCDs. The effects of this policy—reducing consumption and increasing revenue—would be particularly helpful in the context of the COVID-19 pandemic and the obesity epidemic that Mexico is currently facing.

Excise tax in perspective and the control of NCDs

Recent increases in excise tax (IEPS) on tobacco in 2011 and soft drinks and junk food in 2014 effec-

tively reduced their consumption. In the case of soft drinks, as prices increased by 11 percent, consumption of taxed beverages was reduced by 12 percent in 2014 (Colchero et al., 2016).

In 2020 the specific component of IEPS for tobacco rose from 0.35 to 0.49 pesos per stick. This tobacco reform is expected to reduce consumption by 4.8 percent and increase tobacco tax revenue by 9.3 percent (Huesca et al., 2020).

While this tax update was important, the World Health Organization's (WHO, 2015) recommendation is to raise total taxes to at least 75 percent of the retail price, which translates into a specific component of 1.50 pesos per stick. This policy would have positive effects by increasing revenue collection and further reducing tobacco consumption.

An increase in the price of tobacco, alcohol, and soft drinks via higher taxes would result in changes in the consumption of the taxed products, and since the products are related and complementary, a price change in one will also affect consumption of the other two. Table 1 presents the effect on consumption by type of product across the full population.

Table 1. Effect of a ten-percent increase in cigarette prices in Mexico on the population

Effect on	Increase of 10% in the price of:			
consump- tion of:	Tobacco	Alcohol	Soft drinks	
Cigarettes	-7.57	-0.36	-8.09	
Alcohol	-0.22	-5.99	-1.09	
Soft drinks	-0.81	-0.17	-4.04	

Note: Estimation of own and cross-elasticities where the products are complementary.

Source: CIAD

In the case of tobacco consumers, a ten-percent increase in cigarette prices would reduce tobacco consumption by 7.6 percent, alcohol consumption by

0.22 percent, and soft drink consumption by around 0.81 percent (Table 1, first column).

On the other hand, a ten-percent increase in the price of alcohol would reduce alcohol consumption by 6 percent, tobacco consumption by 0.36 percent, and soft drink consumption by 0.17 percent (Table 1, second column). Lastly, the third column shows that a 10 ten-percent increase in the price of soft drinks would reduce soft drink consumption by 4.04 percent, alcohol consumption by 1.09 percent, and tobacco consumption by 8.09 percent.

"

In the face of a tax increase for each product, consumption would be most heavily impacted among smokers, who would reduce their consumption of tobacco, alcohol, and soft drinks to a greater extent than other groups

A joint tax reform increasing taxes on all three products would cause the price of tobacco to rise 43.7 percent, followed by 8.7 percent for soft drinks, and 8.3 percent for alcohol. This reform would produce an even larger aggregate reduction of 40.4 percent in the consumption of cigarettes, 6.8 percent for alcohol, and 7.2 percent for soft drinks, as shown in Table 2.

Table 2. Reductions in consumption as a result of the 2020 tax reform proposal for the three products in Mexico (%)

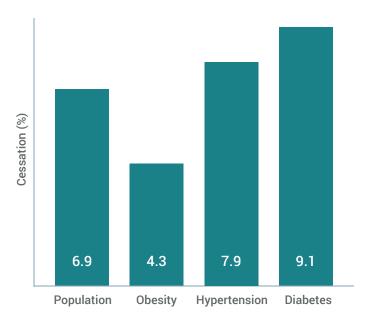
Increase in product price due to reform				
Only cigarettes	Only alcohol	Only soft drinks	Three products	
43.7	8.3	8.7		
-33.08	-0.30	-7.08	-40.46	
-0.96	-4.96	-0.95	-6.88	
-3.54	-0.14	-3.54	-7.22	
	Only cigarettes 43.7 -33.08 -0.96	Only cigarettes Only alcohol 43.7 8.3 -33.08 -0.30 -0.96 -4.96	Only cigarettes Only alcohol Only soft drinks 43.7 8.3 8.7 -33.08 -0.30 -7.08 -0.96 -4.96 -0.95	

Source: CIAD

Tobacco tax reform would have the greatest effect on each type of NCD

Smoking cessation among individuals with one NCD compared to the entire population is shown in Figure 1. Increasing the tobacco specific excise tax to 1.50 pesos per stick reduces smoking by 6.9 percent among the general population. A greater prevalence reduction is observed for diabetics, at 9.1 percent (38,892 smokers), along with a decrease of 7.9 percent among the hypertensive (61,133 smokers) and 4.3 percent for obese individuals (80,514 smokers). Consequently, a total of 169,084 smokers with at least one NCD would quit smoking.

Figure 1. Smoking cessation response by health condition (cessation rates)



Source: CIAD

The tax reform will offer a triple benefit:

- 1. A reduction of consumption across the entire population
- 2. An even greater reduction among those groups with one or more NCDs
- 3. An increase in revenue

Therefore, simultaneously increasing tax on tobacco, alcoholic beverages, and soft drinks would produce the greatest impact on the Mexican population, especially those with preventable health problems such as many NCDs.

Conclusions

Mexico faces a twofold challenge for which it urgently needs public health resources: first, the NCD pandemic due largely to smoking, obesity, and diabetes; and second, the COVID-19 pandemic. The WHO has indicated that health-promoting taxes are the most cost-effective mechanism for reducing consumption

of these products while providing governments with additional resources to help meet the current public health burden of NCDs.

By doing all three tax reforms on tobacco, alcohol, and soft drinks would decrease their consumption; the government would get even more in terms of positive public health effect than if they implemented them separately at different times. Furthermore, it would induce smokers with medical conditions to quit, resulting in increased government revenue and lower health costs.

References

Colchero, M. A., Popkin, B. M., Rivera, J. A., & Ng, S. W. (2016). Beverage purchases from stores in Mexico under the excise tax on sugar sweetened beverages: Observational study. *BMJ*, 352. https://doi.org/10.1136/bmj.h6704

Huesca, L., Llamas, L., Araar, A., & Molina, O. (2020). Análisis del impuesto al tabaco en México y simulaciones de reforma usando LATIN- MOD [Analysis of tobacco taxation and simulations in Mexico using LATINMOD]. CIAD, Technical report, Sonora, Mexico.

World Health Organization (2015). WHO report on the global tobacco epidemic, 2015: Raising taxes on tobacco. (Fifth Report). https://apps.who.int/iris/bitstream/handle/10665/178574/9789240694606_eng. pdf

CIAD is funded by the University of Illinois Chicago's (UIC) Institute for Health Research and Policy to conduct economic research on tobacco taxation in Mexico. UIC is partner of the Bloomberg Philanthropies' Initiative to Reduce Tobacco Use. The views expressed in this document cannot be attributed to, nor can they be considered to represent, the views of UIC, the Institute for Health Research and Policy, or Bloomberg Philanthropies.