Tobacco Taxes are Good For Health and Good for Public Finance: Global and Regional Evidence

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Latin American Network on Tobacco Tax Policy for Tobacco Control
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"Sugar, rum, and tobacco, are commodities which are nowhere necessaries of life, which are become objects of almost universal consumption, and which are therefore extremely proper subjects of taxation."
Tobacco Taxes & Tobacco Use
Cigarette Price & Consumption
Mexico, 2001-2014, Inflation Adjusted

Sources: EIU, Euromonitor, and World Bank

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Figure 4.2 Percentage Change in Real Cigarette Prices Versus Percentage Change in Per Capita Consumption of Cigarettes, 1996–2011

Note: Country income group classification based on World Bank Analytical Classifications for 2011.
Sources: Economist Intelligence Unit 2012.31 ERC Group 2011
Monthly Quit Line Calls, United States
11/04-11/09

4/1/09 Federal Tax Increase
1/1/08 WI Tax Increase
Cigarette Prices and Cessation
US States & DC, 2009

Source: BRFSS, *Tax Burden on Tobacco*, 2010, and author’s calculations

\[ y = 0.0283x + 43.083 \]

\[ R^2 = 0.371 \]
Cigarette Price & Youth Smoking Prevalence Chile, 2000-2015

Source: Paraje, 2017

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Price, Consumption & Lung Cancer, France

Lung cancer death rates per 100,000 (divided by four): men age 35-44

# cigarettes/adult/day

Relative price

Price (% relative to 1980)

Number/adult/day and death rates

Year

Sources: Jha & Hill, 2012

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The Impact of Prices and Taxes on the Use of Tobacco Products in Latin America and the Caribbean

We examined the impact of tobacco prices or taxes on tobacco use in Latin America and Caribbean countries. We searched MEDLINE, EconLit, LILACS, unpublished literature, 6 specialty journals, and reviewed references. We calculated pooled price elasticities using random-effects models.

The 32 studies we examined found that cigarette prices have a negative and statistically significant effect on cigarette consumption. A change in price is associated with a less than proportional change in the quantity of cigarettes demanded. In

| G. Emmanuel Guindon, PhD, Guillermo R. Paraje, PhD, and Frank J. Chaloupka, PhD

AMONG THE MANY CHALLENGES facing health systems in low- and middle-income countries (LMICs) is the increasing burden of noncommunicable diseases. In 2010, more than one third of the 34.5 million deaths attributed to noncommunicable diseases occurred in LMICs. Tobacco use—a major risk factor of noncommunicable diseases—is worryingly high in many Latin American countries. Chile, for example, has one of the highest smoking prevalences or taxes on tobacco use in countries of Latin America and the Caribbean. We paid particular attention to the data and statistical approaches used.

METHODS

In the development and operation of the review, we used as a methodological guide the Assessment of Multiple Systematic Reviews (AMSTAR) assessment measurement tools developed by the Cochrane Collaboration explicitly discourages quality scales.

Increasing Elasticity with Increasing Price – U.S. TUS-CPS Data

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Price & Other Tobacco Product Use

• Consistent evidence on own-price effects
  – Generally find demand for OTP and vaping products more responsive to price than cigarette demand

• Mixed evidence on substitution among various products
  – Greater substitution among more similar products (e.g. cigarettes and other combustibles)
  – Some evidence of substitution between cigarettes and vaping products
  – Weak evidence of complementarity between combustibles and other non-combustibles
Chapter 4, Conclusion 1:

A substantial body of research, which has accumulated over many decades and from many countries, shows that significantly increasing the excise tax and price of tobacco products is the single most consistently effective tool for reducing tobacco use.
Tobacco Taxes & Tobacco Tax Revenues
Taxes & Tax Revenues, South Africa

Excise Tax per Pack and Excise Tax Revenue
South Africa, Inflation Adjusted, 1961-2012

Sources: Blecher & Van Walbeek, 2014

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Cigarette Tax and Tax Revenues
Ukraine: 2008-2015

Average excise rate for cigarettes – increased 10-fold
Cigarette Tax Revenue – increased 6-fold

Source: Syvak and Krasovsky, 2017
Cigarette Prices, Sales, and Excise Revenue in Brazil (2000-2013)

- **Sales** (bln, packs)
- **Average price per pack** (2013 Reais)
- **Excise revenue** (bln, 2013 Reais)

Source: Campaign for Tobacco-Free Kids
Prices, Consumption & Revenues, Mexico

Cigarette Prices, Sales, and Government Revenue in Mexico (2007-2011)

Source: Campaign for Tobacco-Free Kids
Positive Effect of Tax Increases on Revenues Results from:

Low share of tax in price:
- Globally, excise taxes account for less than half of price, on average
- If 50%, doubling of tax implies a 50% rise in price, if fully passed on to consumers

Less than proportionate decline in consumption:
- 10% price increase reduces consumption by 5% on average, in LMICs
- 25% drop in consumption
- 75% of original consumption at twice the tax
- 50% increase in revenues
Tobacco Taxes Popular Way to Generate Revenue

• Tobacco Excise Tax Increases:
  • Generally supported by the public
    • Including significant number of smokers
  • More support when some of new revenues are used to support tobacco control and/or other health-related activities
  • Greater support than for other revenue sources
Support for 20% Price Increase
Non-Smokers, 2010
Support for 20% Price Increase
Current Smokers, 2010

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Source: Gallus, et al., 2012
Earmarking Tobacco Tax Revenues

• Using a portion of tobacco tax revenues to support other tobacco control and/or health promotion efforts
  – Increases public support for tax increases
    • Including among many smokers
  – Increases the health benefits of tobacco tax increases
# Earmarked Tobacco Taxes

<table>
<thead>
<tr>
<th>Country</th>
<th>Reported Use of Earmarked Tobacco Taxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>6 dinars per pack of cigarettes go to the emergency fund and medical care activities, 2 dinars per pack go to cancer control</td>
</tr>
<tr>
<td>Argentina</td>
<td>Additional emergency tax of 7% of retail price to finance social and/or health programmes of the Rural Change Program and the Social-Agricultural Programmes</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>Additional excise of 1% of the retail price goes to the Ministry of Health</td>
</tr>
<tr>
<td>Cabo Verde</td>
<td>All excise tax revenues are used for sports and health</td>
</tr>
<tr>
<td>Colombia</td>
<td>16% of the specific excise tax on tobacco products is used for sports while all revenues from ad valorem excise go to health</td>
</tr>
<tr>
<td>Comoros</td>
<td>Part of the 5% of tax on tobacco goes to Ministry of Sports and the hospital emergencies section</td>
</tr>
<tr>
<td>Congo</td>
<td>Specific excise tax per pack (40 XOF): half goes to health insurance and half to sports</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>All revenues from the specific excise tax are used to fund programmes for the prevention and treatment of diseases related to tobacco use, cancer treatment, harmful use of alcohol, and sports</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>An extra tax of 5% goes to the AIDS solidarity fund and another 2% extra tax goes to sports</td>
</tr>
<tr>
<td>Egypt</td>
<td>An extra tax of 10 plasters per pack is used to fund student health insurance</td>
</tr>
<tr>
<td>El Salvador</td>
<td>35% of revenues from taxes on tobacco, alcohol and firearms, ammunition and explosives (or a minimum of US$ 20 million per year) fund the FOSALUD (solidarity fund for health)</td>
</tr>
<tr>
<td>Guatemala</td>
<td>All revenues from the ad valorem excise tax on tobacco are used for health programmes</td>
</tr>
<tr>
<td>Iceland</td>
<td>At least 0.9% of gross tobacco sales is allocated to tobacco control</td>
</tr>
<tr>
<td>India</td>
<td>Specific amount for all tobacco products (varies by product), except bidi, goes to the Health Cessation Fund and an amount levied on bidi goes to the Bidi Workers’ Welfare Fund, which also includes medical care to workers involved in the bidi industry</td>
</tr>
<tr>
<td>Indonesia</td>
<td>10% surcharge imposed on tobacco excise; at least 50% of its proceeds are allocated for health programmes and law enforcement at the regional level. 2% of tobacco tax revenues are allocated to regional governments of which a proportion should be used for health</td>
</tr>
<tr>
<td>Iran (Islamic Republic of)</td>
<td>Up to 2% of taxes collected on tobacco products are used to support tobacco control activities</td>
</tr>
</tbody>
</table>
## Earmarked Tobacco Taxes

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<th>Country</th>
<th>Earmarked Use</th>
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<tr>
<td>Jamaica</td>
<td>20% of the Special Consumption Tax (SCT) on tobacco and another 5% of the SCT on all products including tobacco go to the National Health Fund.</td>
</tr>
<tr>
<td>Madagascar</td>
<td>6 ariary per pack to fund the National Fund for the Promotion and Development of Youth, Sports and Recreation.</td>
</tr>
<tr>
<td>Mongolia</td>
<td>A proportion of tobacco (2%) and alcohol (1%) excise tax revenues is allocated to the Health Promotion Foundation.</td>
</tr>
<tr>
<td>Nepal</td>
<td>All tobacco tax revenues go to the Health Tax Fund, financing mainly prevention and treatment of noncommunicable diseases.</td>
</tr>
<tr>
<td>Panama</td>
<td>50% of tobacco tax revenues collected go to National Institute of Oncology, the Ministry of Health for cessation services and Customs to fight illicit trade in tobacco products. The Ministry of Health also funds regional activities on tobacco control through the money received.</td>
</tr>
<tr>
<td>Philippines</td>
<td>Following the tax increase in 2012, about 80% of incremental revenues will be allocated for universal health care while 20% will be allocated nationwide for medical assistance and health-facility enhancement programs.</td>
</tr>
<tr>
<td>Poland</td>
<td>0.5% of the excise duty levied funds a programme to reduce tobacco product consumption.</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>An amount of 354 won per pack goes to the Health Promotion Fund which finances health promotion research and projects.</td>
</tr>
<tr>
<td>Romania</td>
<td>10 euros per 1,000 cigarettes and 13 euros per kilogram of loose tobacco are dedicated for health. Additionally, 1% of the budget from the excise on cigarettes is used to finance sports.</td>
</tr>
<tr>
<td>Switzerland</td>
<td>0.26 francs per pack of cigarettes goes to the Tobacco Prevention Fund.</td>
</tr>
<tr>
<td>Thailand</td>
<td>Surcharge of 2% on tobacco and alcohol excise goes to Thai-Health Fund.</td>
</tr>
<tr>
<td>The former Yugoslav Republic of Macedonia</td>
<td>Amount of 0.053 denars per piece (cigarette) is allocated to fund drugs for rare diseases.</td>
</tr>
<tr>
<td>United States of America</td>
<td>Varies by state. Amount per pack funds different types of activities, mainly health activities.</td>
</tr>
</tbody>
</table>
Economic Impact of Higher Tobacco Taxes
Smoking-Attributable Spending as Share of Total Health Expenditures, 2012, by Income Group and WHO Region

Source: Goodchild, et al., 2017
Smoking-Attributable Health Care Expenditures
Region of the Americas

Source: PAHO 2016
Economic Costs of Smoking-Attributable Diseases as Share of GDP, 2012, by Income Group and WHO Region

Source: Goodchild, et al., 2017
Tobacco Taxes and Jobs

Tobacco industry argues that production and consumption of their products makes a significant economic contribution:

- employment in farming, manufacturing, distribution, retailing, and related sectors
- multiplier effects as income earned in these jobs is spent on other goods & services
Tobacco Taxes and Jobs

Industry-sponsored studies tell only part of the story:

- **Focus on the gross impact:**
  - New tax or tax increase will lead to decreased consumption of taxed products
  - Results in loss of some jobs dependent on production of tobacco products

- **Ignore the net impact:**
  - Money not spent on tobacco products will be spent on other goods and services
  - New/increased tax revenues spent by government
    - *Offsetting job gains in other sectors*
Tobacco Control and Overall Economic Activity

- Chaloupka & Peck (2009)
  - Adaptation of Murphy & Topel (2003) assessment of the broader economic impact of medical research
  - Accounts for increased life expectancy, improved productivity resulting from improvements in health
  - We estimated impact of reductions in cigarette smoking in the U.S. in the 40 years following the 1964 Surgeon General’s report
  - Estimate that by 2004, increased economic activity by $300-$700 billion; (equivalent to 2.4% - 5.7% of GDP)
**Figure 17.3** Tobacco Control Policies and Cost Per Healthy Life-Year Gained, by WHO Region

*Note:* HLYG = healthy life-year gained.

*Source:* Based on calculations from World Health Organization CHOICE model, 2016.
Figure 17.2  Tobacco Control Policies and Cost Per Healthy Life-Year Gained, by Country Income Group

Notes:
Source: Based on calculations from World Health Organization CHOICE model, 2016.
Summary
Significant tobacco tax increases single most effective way to reduce tobacco use

- Generate significant new tax revenues in short to medium term
- Reduce health care spending
- Improve health and productivity
- Tobacco tax increases (and other tobacco control measures) are good for economies
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