

# Health Taxes: A Global Overview of the Evidence

Frank J. Chaloupka, University of Illinois at Chicago Sin Tax Policy Reform World Bank and International Monetary Fund Annual Meetings 12 October 2018, Nusa Dua, Bali, Indonesia

#### Overview

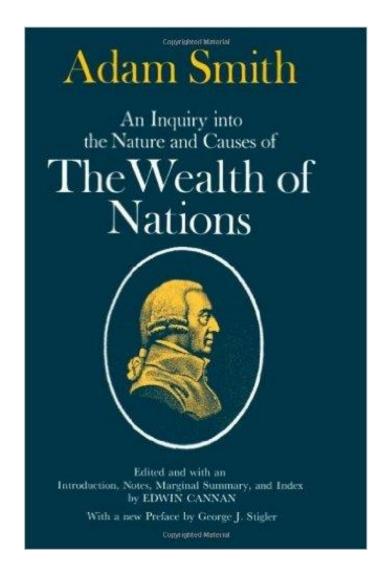
- Impact of Tobacco, Alcohol, and Sugary Beverage Taxes on Use and Consequences of Use
- Myths and Facts About Economic Impact of Taxes





## Impact of Taxes & Prices on Unhealthy Behaviors

"**Sugar**, **rum**, and tobacco, are commodities which are no where necessaries of life, which are become objects of almost universal consumption, and which are therefore extremely proper subjects of taxation.



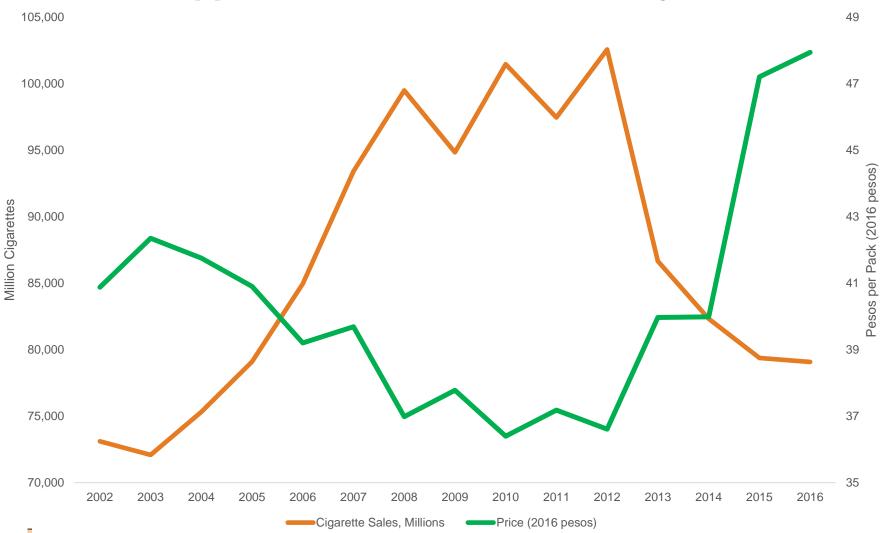


### **Tobacco Consumption and Cigarette Prices New Zealand, 1990-2013, Inflation Adjusted**



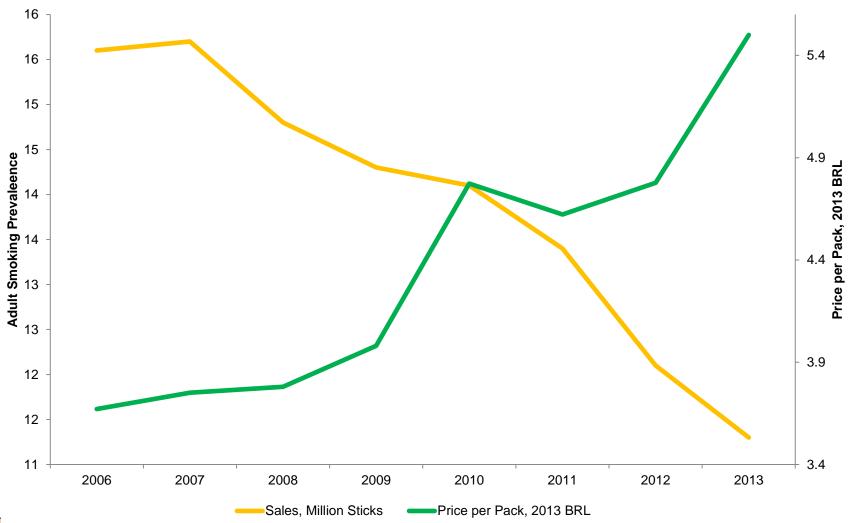


### **Cigarette Sales and Cigarette Prices Philippines, 2002-2016, Inflation Adjusted**



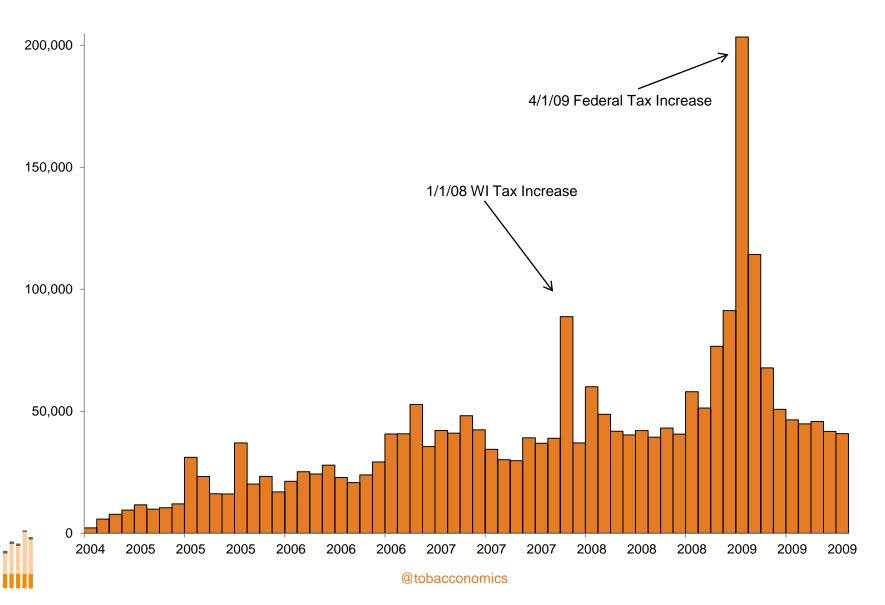


### Adult Prevalence & Price, Brazil Inflation Adjusted, 2006-2013





### Monthly Quit Line Calls United States 11/04-11/09



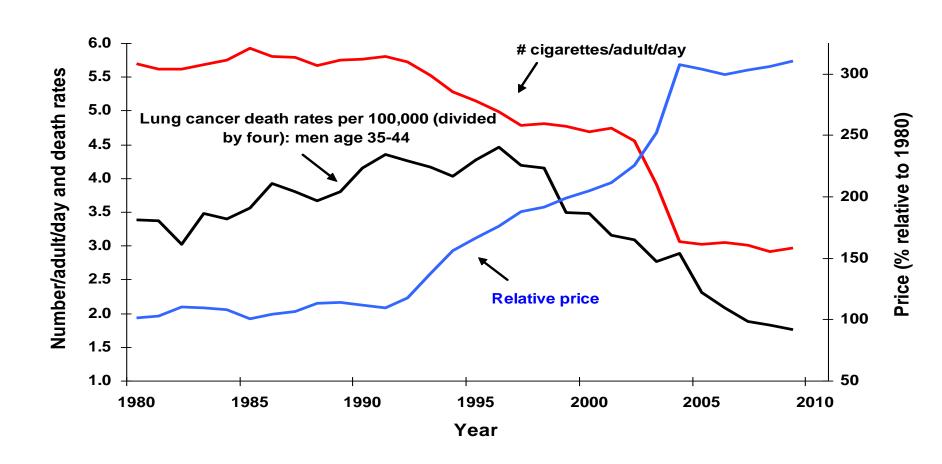
#### Cigarette Price & Youth Smoking Prevalence Chile, 2000-2015





Source: Paraje, 2017

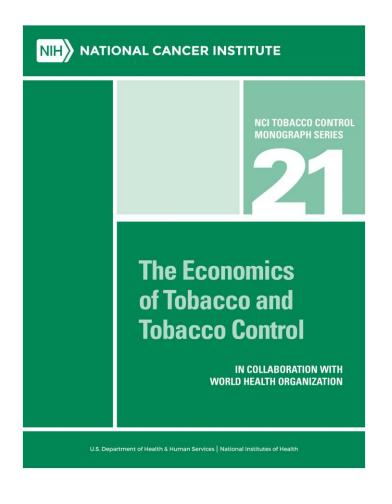
### Price, Consumption & Lung Cancer, France Inflation Adjusted, 1980-2010





Sources: Jha & Hill, 2012

#### **Effectiveness of Tobacco Taxes**



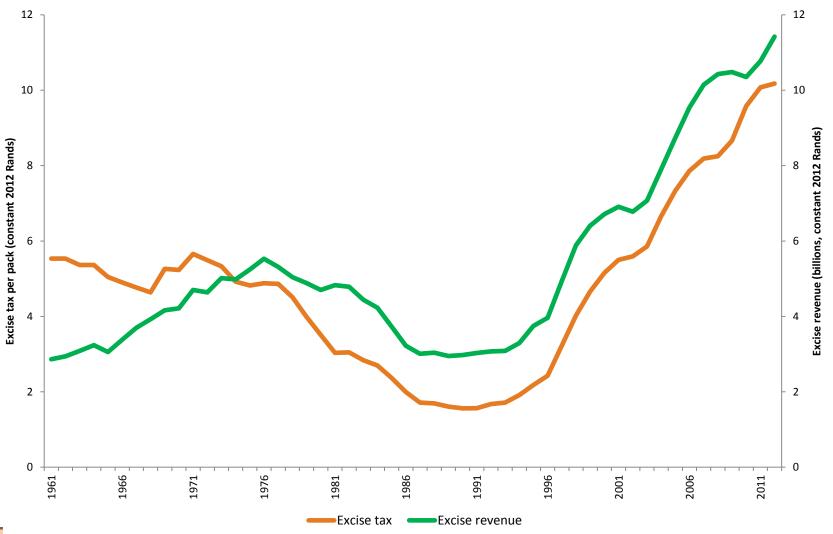
Chapter 4, Conclusion 1:

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.



#### Taxes & Tax Revenues, South Africa

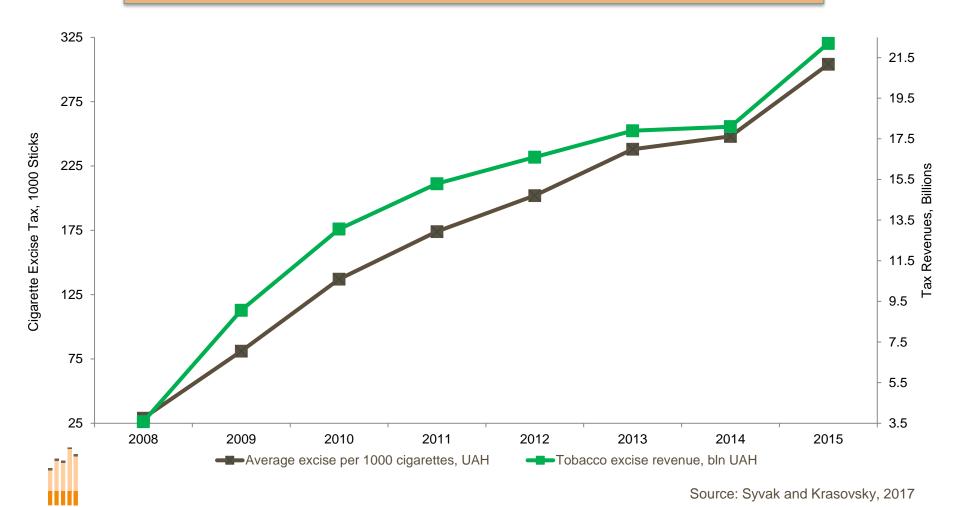
Inflation Adjusted, 1961-2012



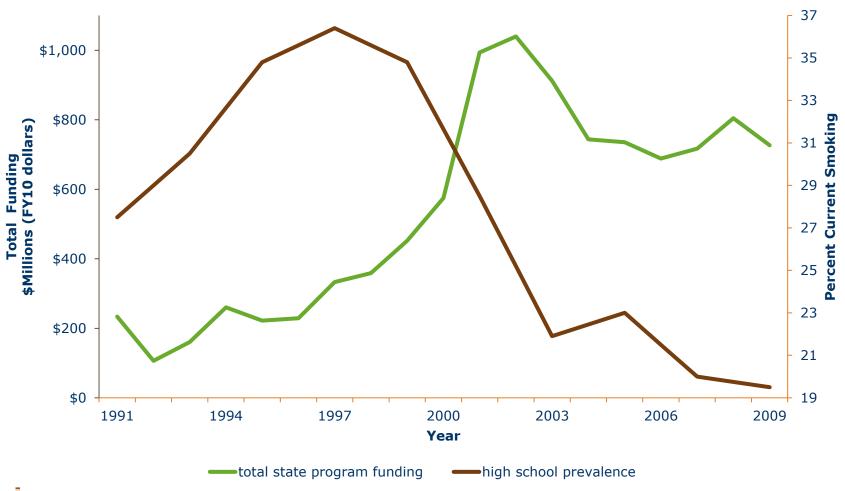


### Cigarette Tax and Revenues Ukraine: 2008-2015

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



### Tobacco Control Funding & Youth Smoking United States, Inflation Adjusted, 1991-2009





#### **Tobacco Taxes and Revenues**

• The Addis Ababa Action Agenda states:

"... price and tax measures on tobacco can be an effective and important means to reduce tobacco consumption and health-care costs, and represent a revenue stream for financing development in many countries"



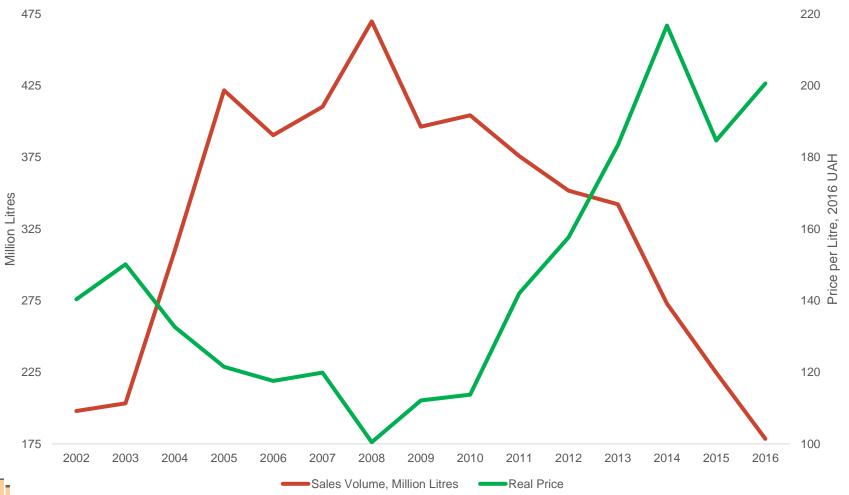


#### **Alcohol Taxes, Prices & Drinking**

- Extensive econometric and other research shows that higher prices for alcoholic beverages significantly reduce drinking:
  - 10 percent price increase would reduce:
    - Overall consumption by 5.1% to 7.7% in HICs
    - Overall consumption by 6.4% in LMICs
  - Tax/price increases reduce all aspects of drinking
    - Prevalence, frequency, intensity
  - Generally larger effects on youth and young adults

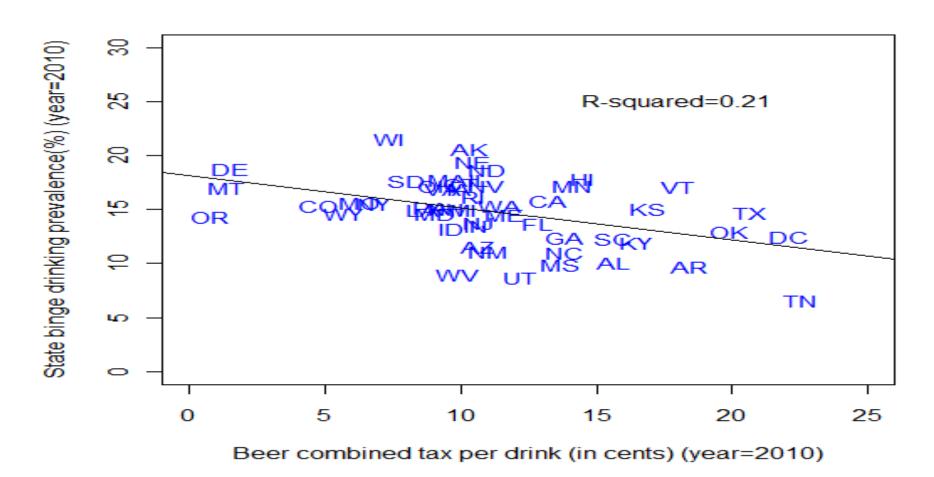


### Distilled Spirits Prices & Sales Ukraine, Inflation Adjusted, 2002-2016





### Beer Taxes &Binge Drinking Prevalence United States, 2010





#### **Alcohol Taxes, Prices & Consequences**

- Econometric and other research shows that higher prices for alcoholic beverages significantly reduce:
  - Drinking and driving, traffic crashes, and motor-vehicle accident fatalities
  - Deaths from liver cirrhosis, acute alcohol poisoning, alcoholrelated cancers, cardiovascular diseases, and other health consequences of excessive drinking
  - Violence (including spouse abuse, child abuse, and suicide) and other crime
  - Other consequences of drinking, including work-place accidents, teenage pregnancy, and incidence of sexually transmitted diseases



### Federal Beer Tax & Tax Revenues United States, Inflation Adjusted, 1945-2013





## Prices and Food & Beverage Consumption

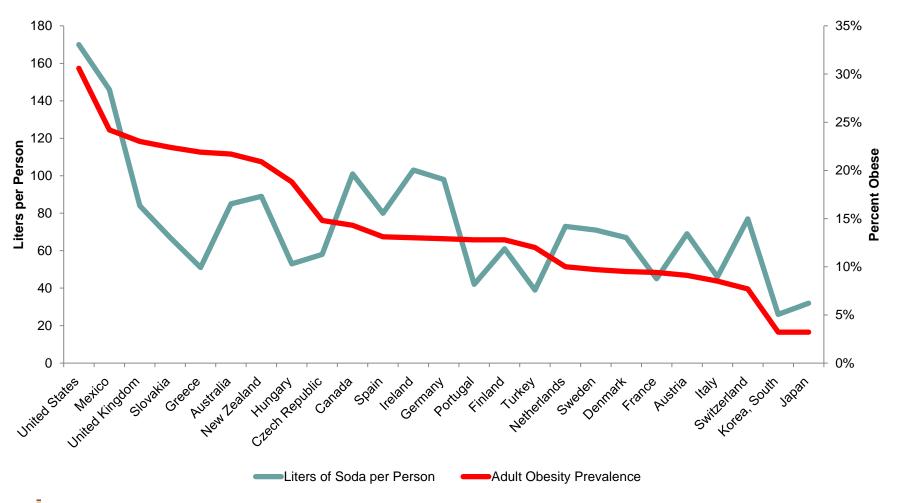
Extensive economic research on the effects of prices on food/beverage consumption

- Our recent review concludes 10% increase in own-price would reduce:
  - Sugar-sweetened beverage consumption by 12.1%
  - Fruit consumption by 4.9%
  - Vegetable consumption by 4.8%
  - Fast food consumption by 5.2%



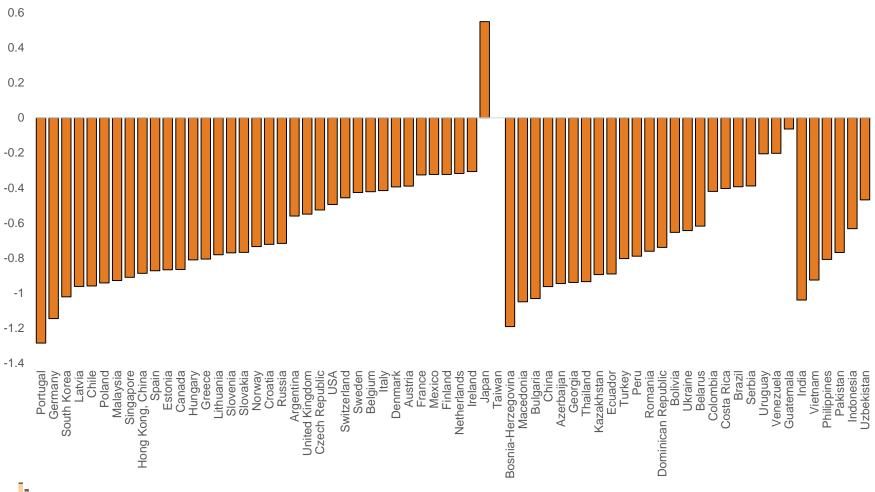
Source: Powell, et al., 2013

### Soda Consumption & Obesity Selected Countries





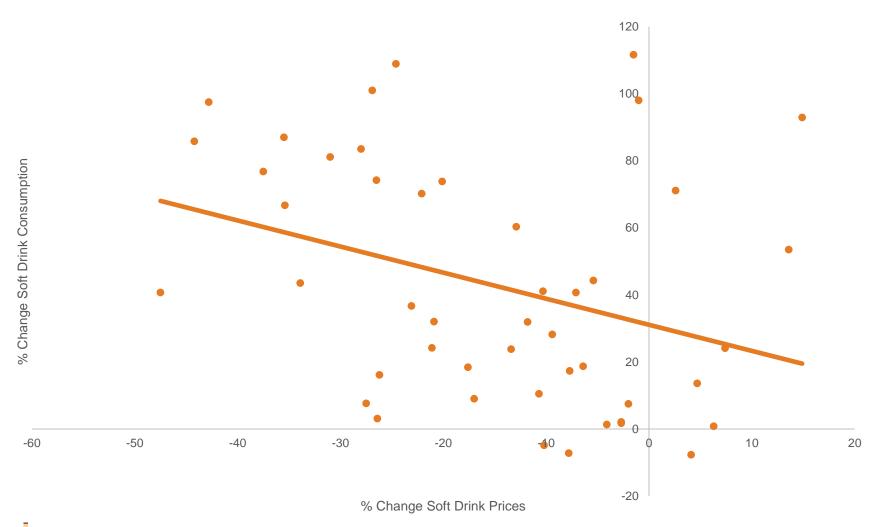
### Change in Soft Drink Affordability 2000-2013, Selected Countries





#### **Soft Drink Prices & Consumption**

Percentage Change, 2000-2014, Selected Countries



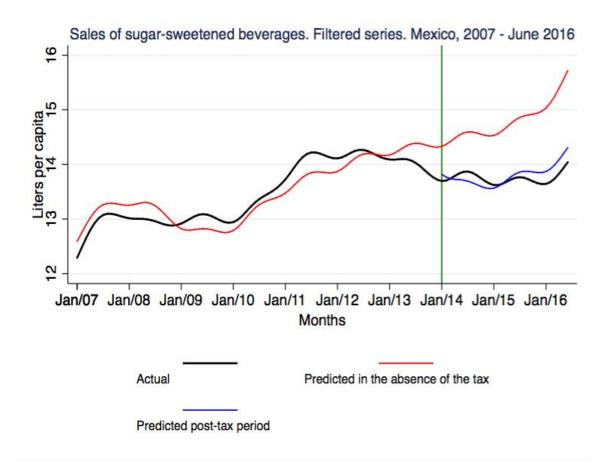


#### Sugary Drink Tax - Mexico

- Mexico implemented peso-per-liter tax on SSBs in 2014
  - Increased prices for SSBs relative to non-taxed beverages
    - about 10% price increase
    - pass through varies by type, size, location
  - Generated nearly 16 billion pesos in new revenue in first year
  - Also implemented a 'junk food' tax of 8% at the same time



### Impact of SSB Tax on Sales Mexico, 2007-2016



Significant reductions in SSB sales:

- 6% drop in 2014
- 8% drop in 2015
- 11% drop in first half of 2016

5.2% increases in bottled water sales

OLS- Adjusted for seasonality, the global indicator of the economic activity



#### Impact of SSB Tax on Household Purchases Mexico, by Income Group, 2014-2015

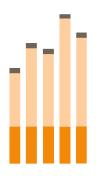


#### Impact of SSB Tax on Purchases Mexico, by Purchase Level, 2014

- Greatest impact on heaviest consumers
  - Highest purchasers:
    - 31% of households, purchased average of 157 liters of SSB/capita/yr
      - 10% reduction in purchases following tax
  - Middle purchasers:
    - 40% of households, purchased average of 60 liters of SSB/capita/yr
      - 8% reduction of taxed beverages post-tax
  - Light and non purchasers:
    - Remaining households; small impact on light purchasers

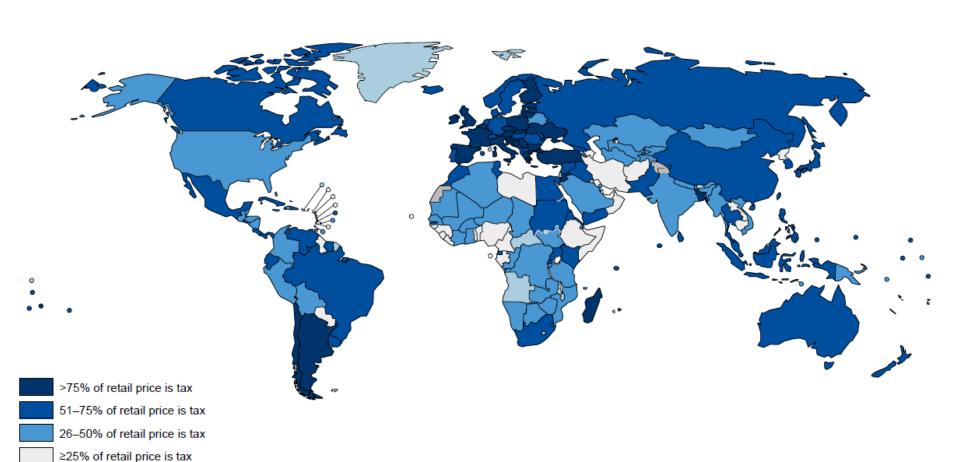


Ng SW, Rivera J, Popkin B, Colchero MA. Did high purchasers respond differently to the excise tax on sugar-sweetened beverages in Mexico?



# Oppositional Arguments Myths & Facts

### Cigarette Taxes as Percent of Retail Price July 2016

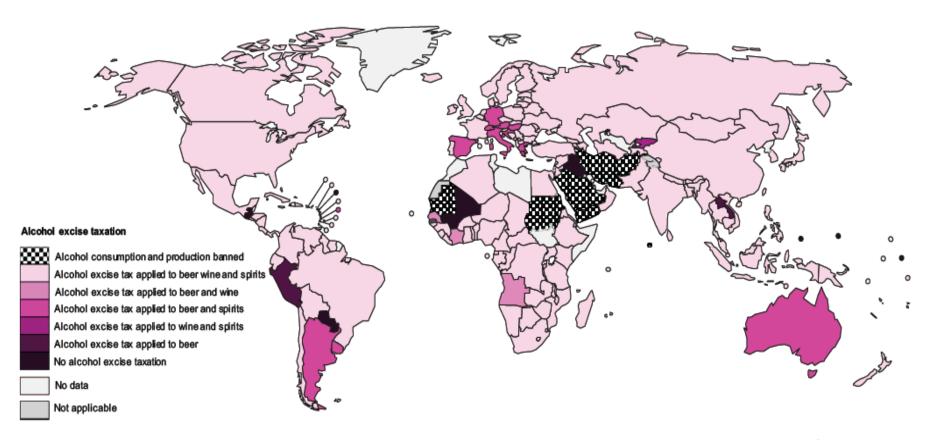


Not classified or data not available

Not applicable

#### Alcoholic Beverage Excise Taxes

#### by Beverage Type



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country territory city or area or of its authorities or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.





#### Sugary Drink Taxes, January 2018





#### **Oppositional Arguments**

- Massive job losses as consumption falls in response to higher taxes and other control policies
- Poor adversely affected by higher taxes
- Increased tax avoidance and tax evasion in response to higher taxes



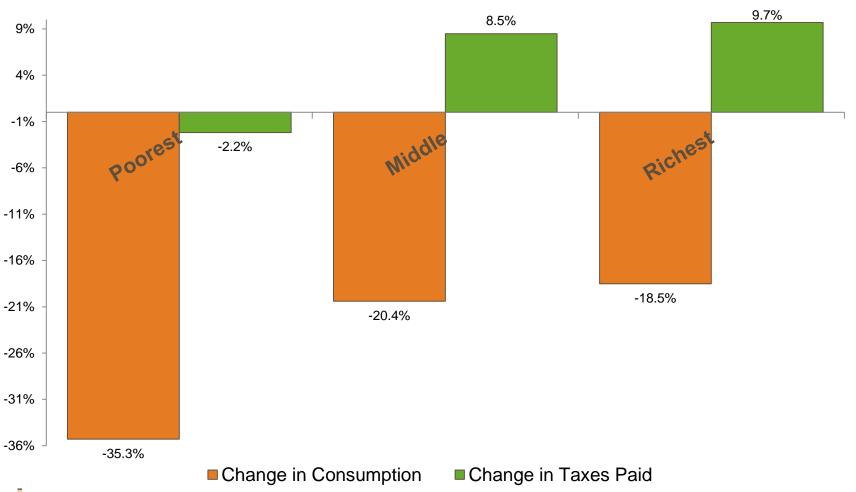
#### **Excise Taxes and Jobs**

#### Industries tell only part of story:

- Focus on the gross impact:
  - New tax or tax increase will lead to decreased consumption of taxed product
  - Results in loss of some jobs dependent on production of taxed product
- Ignore the net impact:
  - Money not spent on taxed product will be spent on other goods and services
  - New/increased tax revenues spent by government
    - Offsetting job gains in other sectors

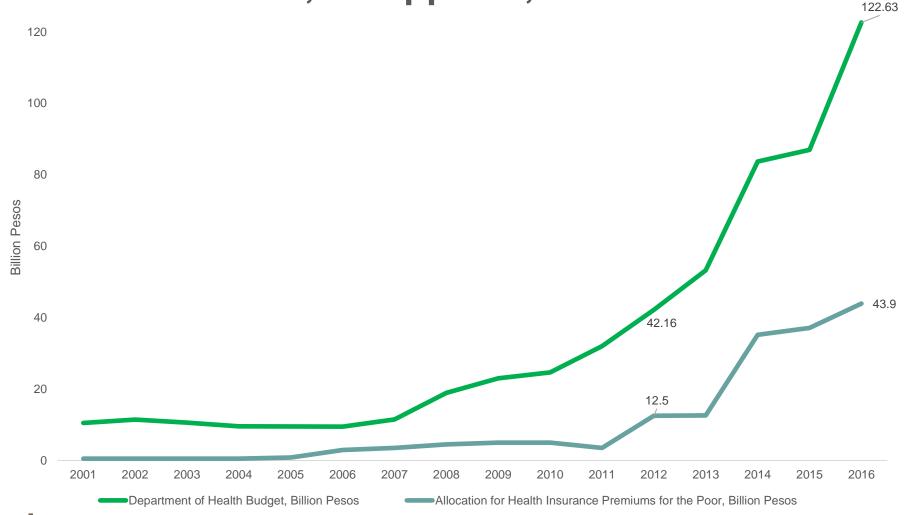


### Who Pays& Who Benefits Turkey, 25% Cigarette Tax Increase



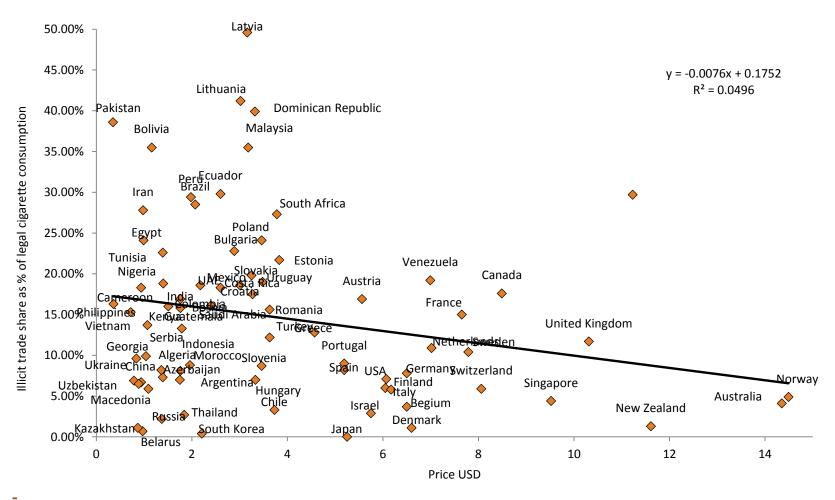


Incremental Revenues for Health and the Poor, Philippines, 2001-2016





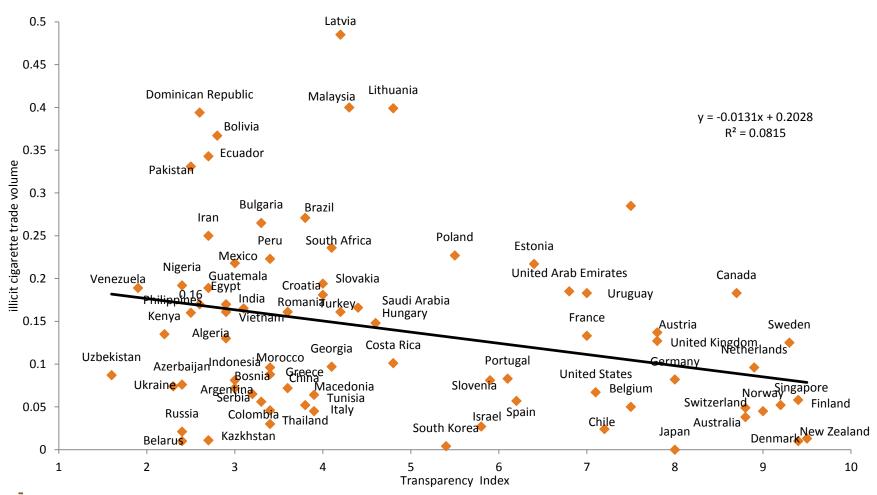
### Illicit Cigarette Market Share & Cigarette Prices, 2012





Sources: NCI & WHO, 2016

### Illicit Cigarette Market Share & Corruption, 2011





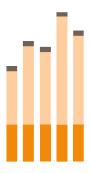
Sources: NCI & WHO, 2016

### Cigarette Consumption: Duty Paid, Illicit, and Cross-Border Shopping, United Kingdom, 2000-01 – 2013-14

#### **Billions** 60 **UK duty paid** 50 40 30 20 Illicit market CB\$ 10 7003-04 2004-05 2005-06



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#### Conclusions

#### **Conclusions**

- Higher tobacco and alcohol taxes, and new sugary beverage taxes will significantly reduce consumption
- Reduced consumption will lead to fewer cases of cancer, cardiovascular disease, diabetes, and other non-communicable diseases
- Counterarguments about negative economic impact false or greatly overstated
- Taxes generally considered one of the "best buys" in NCD prevention



#### **Bloomberg Initiative – UIC**

- Build capacity of 'think tanks' in selected priority countries and regions to provide local evidence to support tobacco tax reforms and tax increases
- High-level engagement with decision makers to build technical capacity and political support for tobacco tax policy
- Develop/disseminate resources (policy briefs, white papers, etc) on tobacco taxation to build knowledge and support for tobacco tax policy



#### **Technical Assistance**



#### **THANK YOU!**

For more information:

Bridging the Gap <a href="http://www.bridgingthegapresearch.org">http://www.bridgingthegapresearch.org</a>

Tobacconomics <a href="http://www.tobacconomics.org">http://www.tobacconomics.org</a>

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Policy Brief | August 2018

#### Tobacco Taxation Can Reduce Tobacco Consumption and Help Achieve Sustainable Development Goals

#### Introduction

A substantial body of research shows that significantly increasing the taxes and prices of tobacco products is the single most effective way to reduce tobacco use and its devastating health consequences. A tax increase that raises prices by 10% can reduce tobacco consumption on average by 5% in low and middle income countries (LMICs).

Tobacco also poses a threat to development, especially in the LMICs that have the highest rates of tobacco use. The global economic costs from smoking due to medical expenses and lost productivity in 2012 alone totaled over \$1.4 trillion dollars.ii

Besides the growing recognition of the obvious harmful effects of tobacco on health and healthcare, there is a noticeable international movement recognizing the harmful effects of tobacco use on sustainable development. The United Nations (UN) 2030 Agenda for Sustainable Development has set 17 Sustainable Development Goals (SDGs) and 169 related targets. One of those targets focuses specifically on tobacco, and urges "strengthened implementation of the Framework Convention on Tobacco Control (FCTC)." The FCTC is an international treaty created under the auspices of the World Health Organization (WHO). It focuses on reducing the demand and supply of tobacco products. In order to finance the SDGs, the Addis Ababa Action Agenda of the Third International Conference on Financing for Development noted that "price and tax measures on tobacco can be an effective and important means to reduce tobacco consumption and healthcare costs and represent a revenue stream for financing for development in many countries".

Raising tobacco excise tax by 1 International Dollar (about US\$ 0.80) in all countries would:

42%

Increase average cigarette prices by 42% globally Increase excise revenue by 47%, representing an extra US\$ 141 billion 4%

Global increase in public health expenditures 66

prevalence by 9%, representing 66M fewer smokers

Source: WHO

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