

# 2022

## 6<sup>TH</sup> ANNUAL HEALTH FINANCING FORUM

# Health Taxes

Financing Primary Health Care:  
Opportunities at the Boundaries

June 14-16, 2022

Co-hosted by:



WORLD BANK GROUP



USAID  
FROM THE AMERICAN PEOPLE



GLOBAL  
FINANCING  
FACILITY

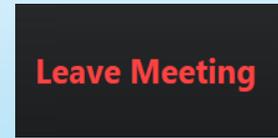
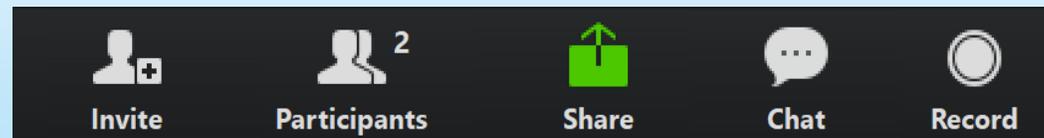
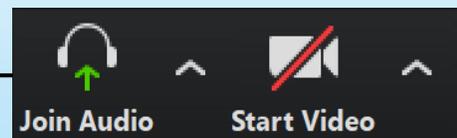
Co-sponsored by:



**giz** Deutsche Gesellschaft  
für Internationale  
Zusammenarbeit (GIZ) GmbH

# Interactions & Questions : **Virtual Participants**

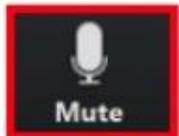
**\*Join Audio:** Select how you want to join the call; either by phone or through your computer.



**Participants:** Click here to see the list of participants in the meeting.

**Chat:** Click here to enable the chat and interact with others.

**Leave Meeting:** Click here to leave the meeting.



Muted and Video off

# Interpreters Available

The screenshot displays a Zoom meeting interface. At the top left, it says 'Zoom Meeting'. The main area is dark with a 'Speaker View' indicator. On the right, a 'Participants (8)' list is visible, showing names and roles: Kara Howard (Host, me), aidakereksizova (Interpreter), Taya Levine, Iciar Gomez (Interpreter), Elena (Interpreter), Esperanza Pombo, Karine Matusiak (Interpreter), and Kristin Cairns (Interpreter). At the bottom, a control bar includes icons for Unmute, Stop Video, Security, Participants, Polls, Chat, Share Screen, Record, Interpretation (circled in red), Reactions, and More. A red arrow points from the text 'Select your language' to the 'Interpretation' menu, which lists 'Off', 'English', 'French', 'Russian', and 'Spanish'. Another red arrow points from the text 'Mute the original language audio.' to the 'Mute Original Audio' option in the menu.

**Select your language**

**Mute the original language audio.**

Zoom Meeting

Speaker View

Participants (8)

Find a participant

- KH Kara Howard (Host, me)
- A aidakereksizova (Interpreter)
- Taya Levine
- IG Iciar Gomez (Interpreter)
- E Elena (Interpreter)
- EP Esperanza Pombo
- K Karine Matusiak (Interpreter)
- KC Kristin Cairns (Interpreter)

Off

- English
- French
- Russian
- Spanish

Mute Original Audio

Manage Language Interpretation...

Interpretation

Unmute Stop Video Security Participants Polls Chat Share Screen Record Reactions More

yes no go slower go faster more clear all

Invite Mute All Unmute All

Elena Esperanz

End

# Side Event 6

## Health Taxes

June 16<sup>th</sup> / 13:00 – 14:30 EST



**Evan Blecher**

Economist, Health Tax Program, World Bank



**Mai Farid**

Assistant Minister of Finance for Economic Justice, Board Advisor for the Universal Health Insurance Authority, Egyptian Ministry of Finance



**Eduardo Gonzalez-Pier**

Senior Technical Director Health Financing, Palladium Global Group, Mexico



**Tessa Edejer**

Acting Director of Health Systems Governance and Financing, WHO



**Ceren Ozer**

Lead, Health Tax Program, Macro, Trade and Investment Global Practice, World Bank



**Alan Fuchs**

Senior Economist, Poverty and Equity Global Practice, World Bank



**Adanna Chukwuma**

Senior Health Economist, World Bank



**Toomas Palu**

Advisor, World Bank



# Health Taxes: Improving health and budgets

Evan Blecher, Global Tax Program

Macroeconomics, Trade & Investment GP, World Bank

2022  
6<sup>TH</sup> ANNUAL  
HEALTH FINANCING  
FORUM

# Key Take-Away Messages

- Health taxes are an established and well-regarded fiscal policy tool underpinned by a strong economic framework
- Health taxes are very effective at improving population level health; however, not enough attention is paid to ensuring that high-quality tax policies are well designed, implemented, administered and evaluated
- One of the most important considerations of tax design are the tax structures (i.e. type, base and attributes of the tax); one of the most under appreciated policy aspects that is crucial to ensure that health taxes result in improvements in population level health outcomes
  - Uniform specific taxes are the most effective tax structure for tobacco
  - While specific taxes are preferred to ad valorem taxes, there is no one-size-fits-all approach to the tax base for alcohol and sugar-sweetened beverages taxes
  - Countries need to be aware of the structure of local markets, patterns of use and harm, policy goals as well as tax administration and regulatory capacity in order to design high-quality and fit for purpose tax structures
- Substantial experience and evidence that supports the design, implementation, administration and evaluation of health taxes, including case studies of successful reforms

## What are health taxes?

- Excise taxes that are applied to products that cause health related harms and generate negative externalities and internalities
- Most common health taxes are tobacco, alcohol and sugar-sweetened beverages (SSBs), although some movement to frame some environmental taxes as health taxes
- Historically called "sin taxes" in some countries but this term has become less common; more modern term is health or pro-health taxes since it implies that these taxes improve health
- Direct taxes, sales taxes and tariffs are not generally considered health taxes

## Economic framework for health taxes

- Negative externalities
- Negative internalities
- Increase prices to ensure that market price account for the economic costs

## Influence consumer and firm behaviour to improve population health

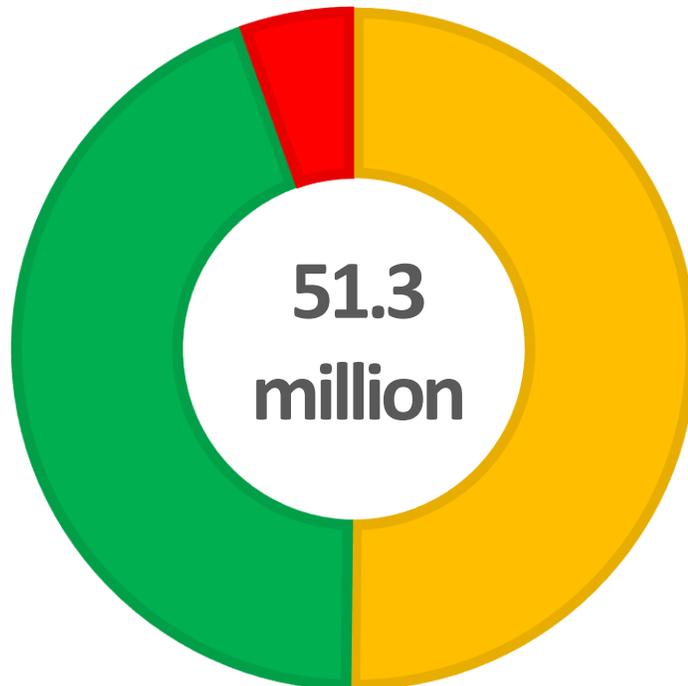
- Increase prices to reduce use and consumption
- Increase cessation; reduce initiation; reduce intensity
- Tax structures can encourage/incentivise reformulation

## Fiscal Policy context

- Reduces expenditures related to externalities (e.g. health care costs; policing, justice and corrections; etc)
- Generates additional tax revenue that improves fiscal space
- Compensatory measures (e.g. cessation services)
- Potential to earmark funds to health sector

# Health taxes have an incredibly large potential to prevent deaths and raise revenues

Deaths averted by a once-off 50% tax induced price increase over 50 years



**Tobacco**  
30.3 million



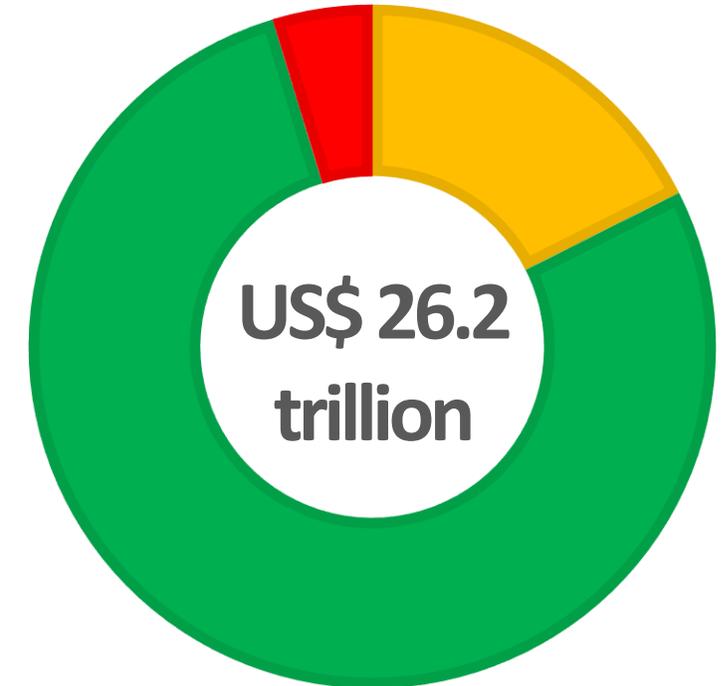
**Alcohol**  
26.8 million



**SSBs**  
3.3 million



Incremental tax revenue raised from a once-off 50% tax induced price increase over a 50 years



**Tobacco**  
US\$ 4.6 trillion

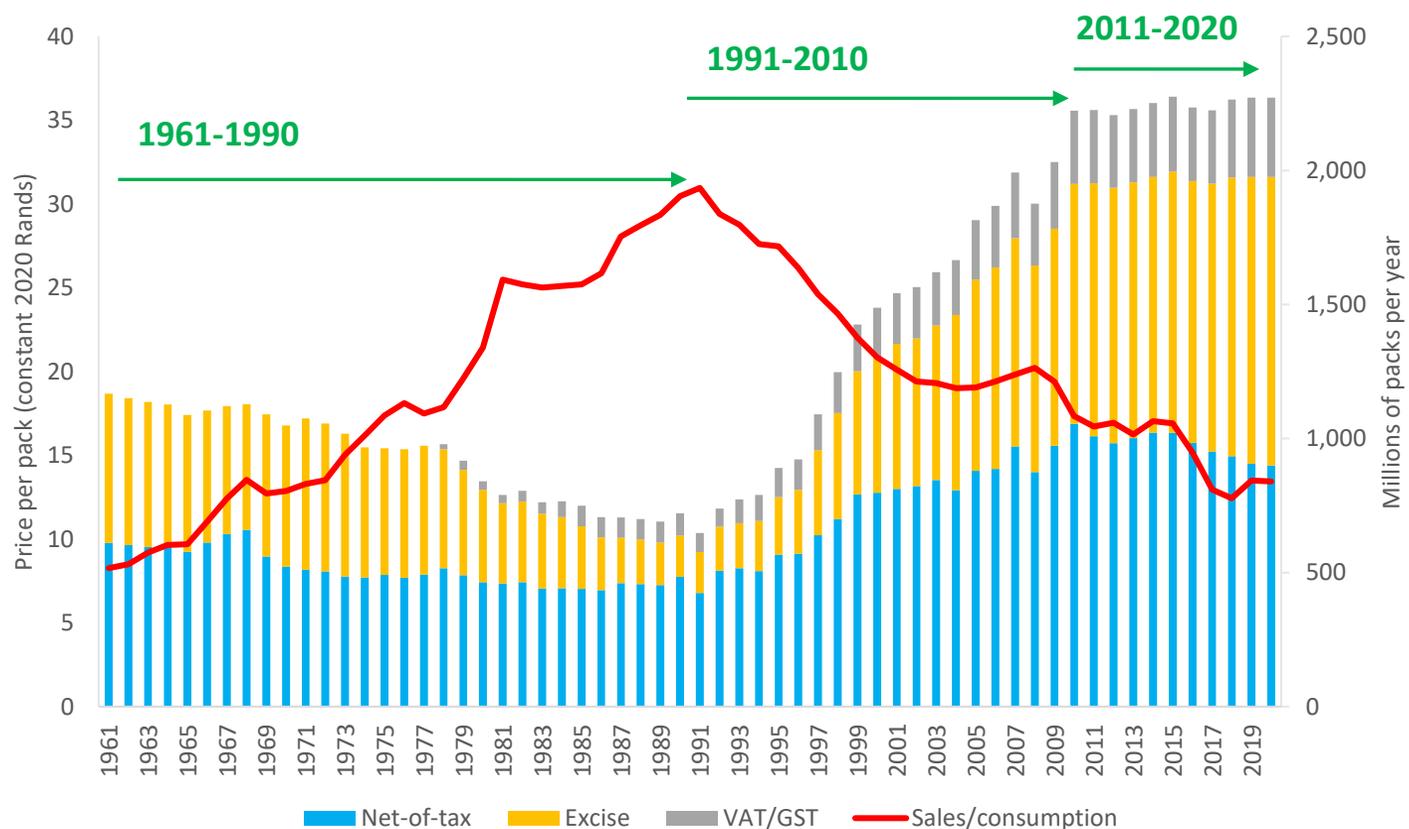
**Alcohol**  
US\$ 20.4 trillion

**SSBs**  
US\$ 1.2 trillion

Source: Summan et al. (2020)

Note: in 2018 constant US \$; estimates are the upper bound 95% confidence interval

Cigarette excise taxes, prices and sales in South Africa, 1961-2020



**1961-1990:** specific taxes eroded by inflation (no nominal or insufficient increase in taxes) → falling prices (in real terms) → rising sales

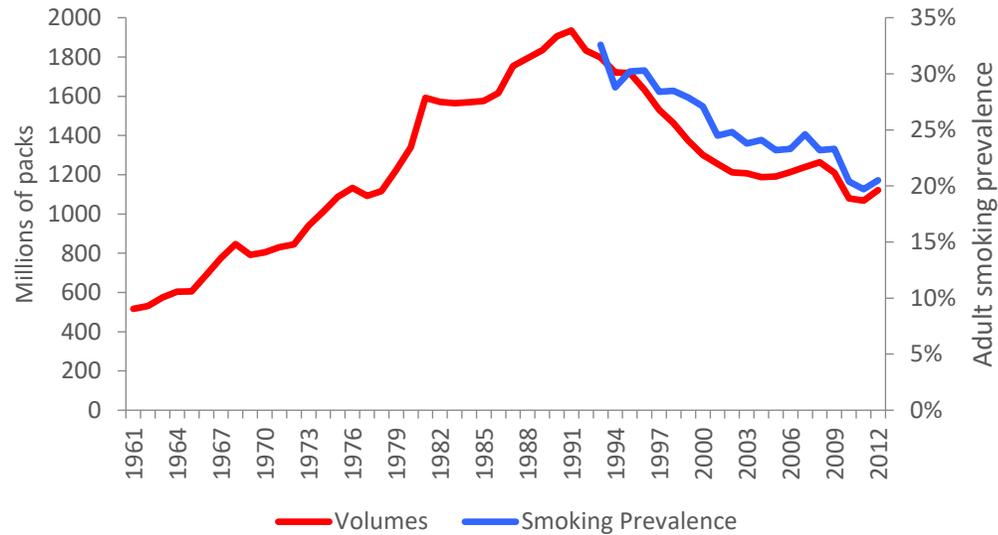
**1991-2010:** deliberate action to increase specific taxes → increasing prices (over shifted) → declining sales

**2011-2020:** smaller tax increases aimed at maintaining real value → sales flat at first, but then decline as tax administration suffers under challenging governance environment

## South Africa is a global leader on health taxes

- Regular tax increases have occurred since the early 1990s on tobacco and alcohol
- Relationship between prices and consumption is an excellent example of the **inelastic price elasticity of demand**
- Smartly designed taxes has ensured that tax increases had significant impact on health:
  - Tobacco: uniform specific taxes
  - Alcohol: alcohol-content based taxes on beer and spirits; uniform specific taxes on wine
  - Recently introduced an SSB tax using sugar-content based taxes

**Cigarette sales volumes and smoking prevalence in South Africa, 1961-2012**



**Mortality and morbidity due to tobacco use in South Africa, 1990-2019**

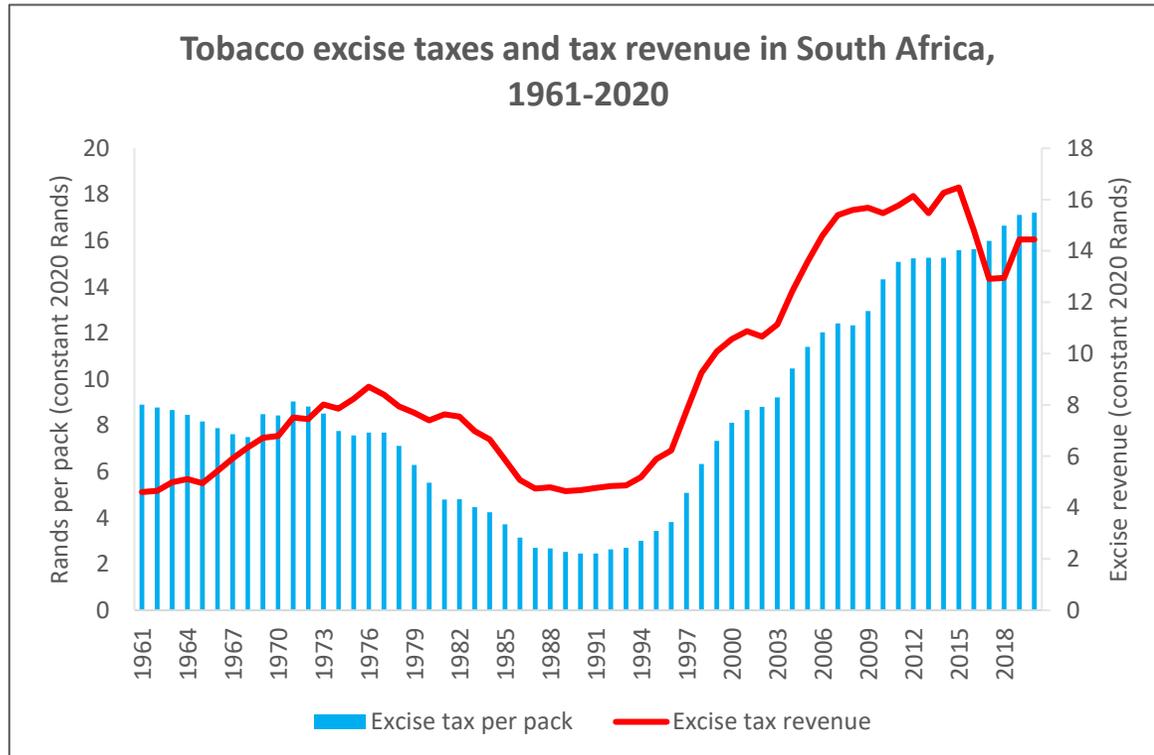
Percentage of all cause mortality	1990	2000	2010	2019
Deaths	13.0%	10.6%	7.9%	8.2%
DALYs	7.6%	6.2%	4.8%	5.0%
<b>Rate per 100,000</b>				
Deaths	104	127	100	77
DALYs	3,785	4,042	3,122	2,372

## South African experience shows that declines in tobacco use result in improvements in mortality and morbidity

- Declines in sales and consumption of cigarettes correlate highly with:
  - Declines in smoking prevalence (resulting from increased cessation and reduced initiation, particularly by youth); adult smoking prevalence declined by a third between early 1990s and 2010s
  - Declines in mortality (37% and 26% decline) and morbidity (34% and 27% decline)
- Similar, declines have been observed in alcohol use, mortality and morbidity:
  - Declines in sales volumes have been somewhat smaller than tobacco, although declines in total alcohol consumption (i.e. litres have absolute alcohol) have been larger than the declines in sales volumes due to declining ABV, particularly beer (will come back to this later)
  - Declines in mortality (29% and 18% decline) and morbidity (24% and 20% decline)

## Strong relationship between tax rates and tax revenues

- Since tobacco (and alcohol) are price inelastic, declines in sales are less than proportional to increases in taxes and prices
- This means that tax increases will result in increases in tax revenues
- Increases in taxes since 1991 in South Africa resulted in large increases in real revenues; similar increases in alcohol tax revenues have been observed



## Important to consider health tax revenues in the context broader tax policy and domestic revenue mobilization efforts

- Most direct and indirect tax revenues in South Africa have increased since the early 1990s, not just health taxes
- Even though health tax revenues have increased considerably, share of total tax revenue and GDP has remained somewhat unchanged
- Contribution to total tax revenues and GDP varies by product; will also vary by country based on patterns of use and tax policies

**Health tax revenues in South Africa, 2020/21**

2020/21	Excise revenue (billions)		Percentage	
	Rands	US Dollars	Tax revenue	GDP
Alcohol	R 31.1	\$ 1.8	2.3%	0.6%
Tobacco	R 14.9	\$ 0.9	1.1%	0.3%
SSBs	R 2.9	0.2	0.2%	0.1%
Liquid fuels	R 84.4	4.9	6.2%	1.5%
Plastic bags	R 0.6	0.0	0.0%	0.0%

Sources: Research Unit on Excisable Products, University of Cape Town; National Treasury Budget Review (2022)

Note: all values are adjusted for inflation (converted into 2020 constant prices)

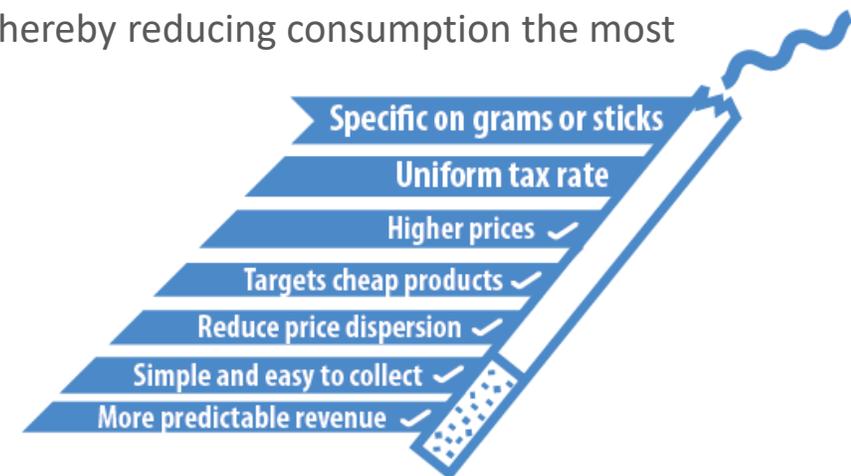
## How to design health taxes

- In order to achieve intended economic, health and fiscal goals, health taxes need to be well-designed
- Poorly designed health taxes will fail to achieve policy goals and squander political capital
- Quality of health taxes may be assessed through an analysis of the design, implementation and administration through:
  - Tax structures
  - Tax rates
  - Tax administration
- Given our limited time, focus here is on tax structures since this is what is most important in achieving meaningful **health** benefits
  - Type of tax: specific, ad valorem or mixed
  - Tax base: e.g. volume of beverage or the volume of alcohol/sugar
  - Other attributes: uniformity, thresholds or tiers

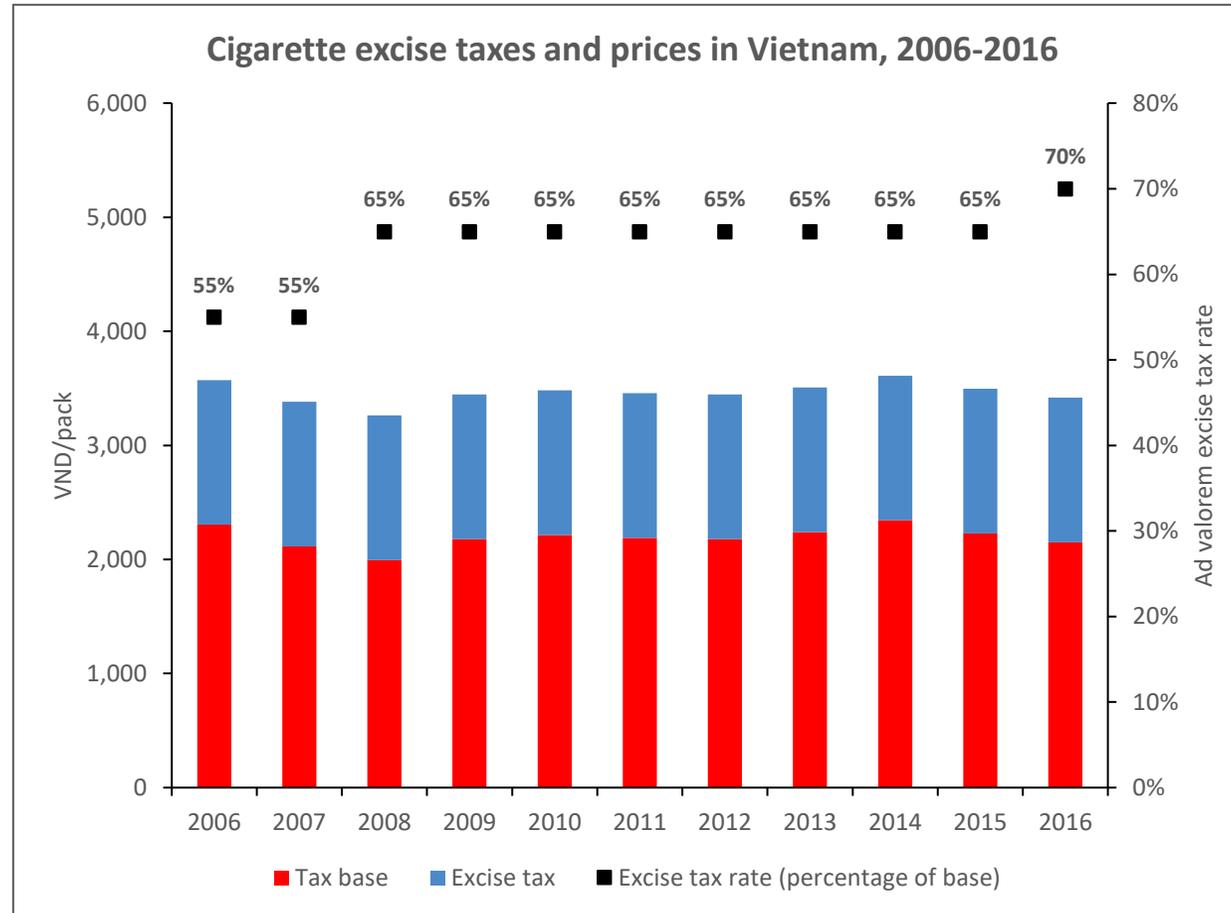
### Case study: tobacco taxes

WHO recommends that countries implement uniform specific taxes (i.e. the same value of tax for each cigarette), but why?

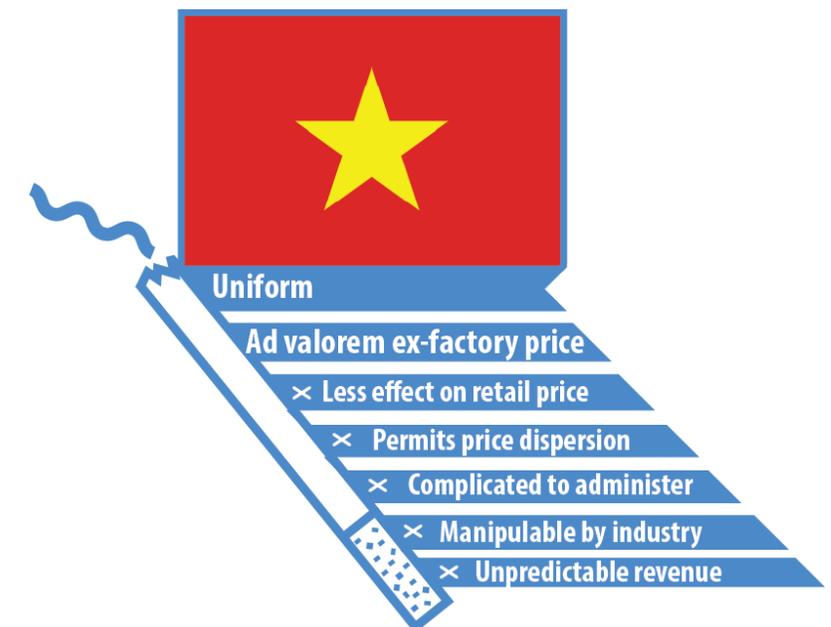
- Harm is correlated by the number of cigarettes smoked and the years smoked rather than other attributes of the cigarettes
- Homogeneity of cigarettes means that all cigarettes are similarly harmful
- A cheaper is not less harmful than a more expensive cigarette, so taxing based on value is not optimal
- Specific taxes raise prices on cheaper cigarettes more, thereby reducing consumption the most



## Ad valorem taxes do not result in improved health outcomes: example of Vietnam



- Vietnam uses an ad valorem excise tax on cigarettes based on the ex-factory price, which is early in the supply chain and a very small tax base
- No increase in retail prices when taxes increased in 2008 and 2016; tax increase would have no effect on smoking prevalence or health!
- Tax increases “*under shifted*” as producers cut ex-factory prices to lessen the effect on retail prices
- Ad valorem taxes have other disadvantages:



Source: Blecher and Le Thu Thu (2018)

Note: all values are adjusted for inflation (converted into 2016 constant prices)

## Uniform specific taxes are the best practice tax structure for tobacco

- Harm caused by consumption of tobacco is correlated with the number of cigarettes smoked and the years smoked
- Homogeneity of cigarettes means that all cigarettes are similarly harmful

## Alcohol and sugar-sweetened beverages are different

- Harm caused by consumption of alcohol and sugar-sweetened beverages are linked to the volume of alcohol or sugar, not the volume of the beverage
- Concentration and pattern of consumption highly correlated with harm (e.g. binge drinking)
- How does this inform the design of taxes? There is no one-size-fits-all approach!



	Volumetric tax base	Alcohol and sugar content tax bases
Design	Simple and easy to design	Complex and challenging to design
Tax administration	Simple and easy to collect	Regulatory and compliance capacity required to verify alcohol and sugar content
Policy transmission mechanism	Increases prices and reduces demand	Generates incentives for producers to reduce tax liability by reformulating products or encouraging consumers to consume lower alcohol or sugar products
Health impact	Increases prices of cheap products more in relative terms; effective at reducing demand if tax rate is sufficient	Small taxes can have large health impact if tax induced reformulation (population level effects)
Unintended consequences	Relative price increases may be smaller on most expensive products that may have highest alcohol or sugar content	May encourage cheaper low alcohol products; potentially increasing consumption among vulnerable populations
Tax revenue	Larger revenue scope	Revenue will decline over time as producers reformulate

## Alcohol content as the tax base

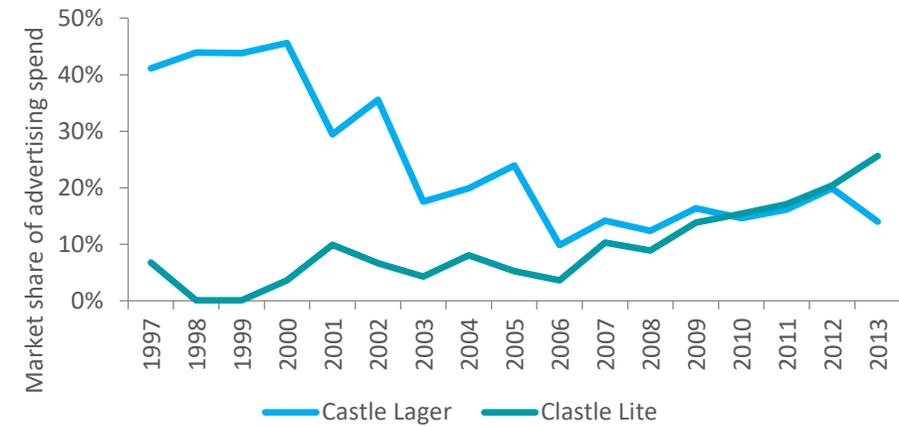
- Prior to 1998, beer excise taxes in South Africa were volumetric (i.e. **per litre of beer**); in 1998, base was changed to the **litres of absolute alcohol**, taxing based on the strength of the beer
- The current excise rate is R79.26 per liter of alcohol, resulting in a tax yield per 330ml can of beer as follows:

ABV	Brands	Excise
2.4%	Windhoek Light	R 0.62
4.0%	Castle Lite, Amstel Lite, Windhoek Lager	R 1.04
5.0%	Castle Lager, Amstel Lager, Heineken	R 1.31
5.5%	Black Label	R 1.44

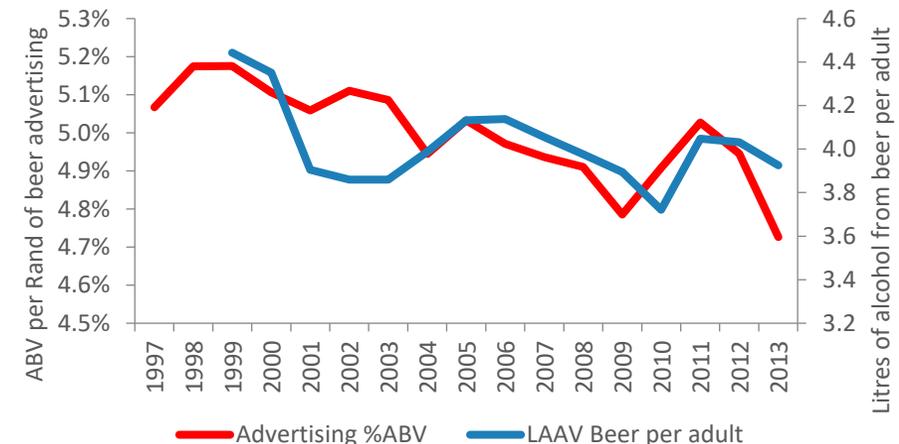
## What have the effects in the market been?

- No noticeable tax pass-through to prices, i.e. higher-alcohol beers did not become relative more expensive than lower-alcohol beers
- Instead, large shifts in advertising occurred with brewers favoring advertising lower-alcohol beers compared to higher-alcohol beers
- Consumption shifts followed advertising and per capita alcohol from beer declined substantially

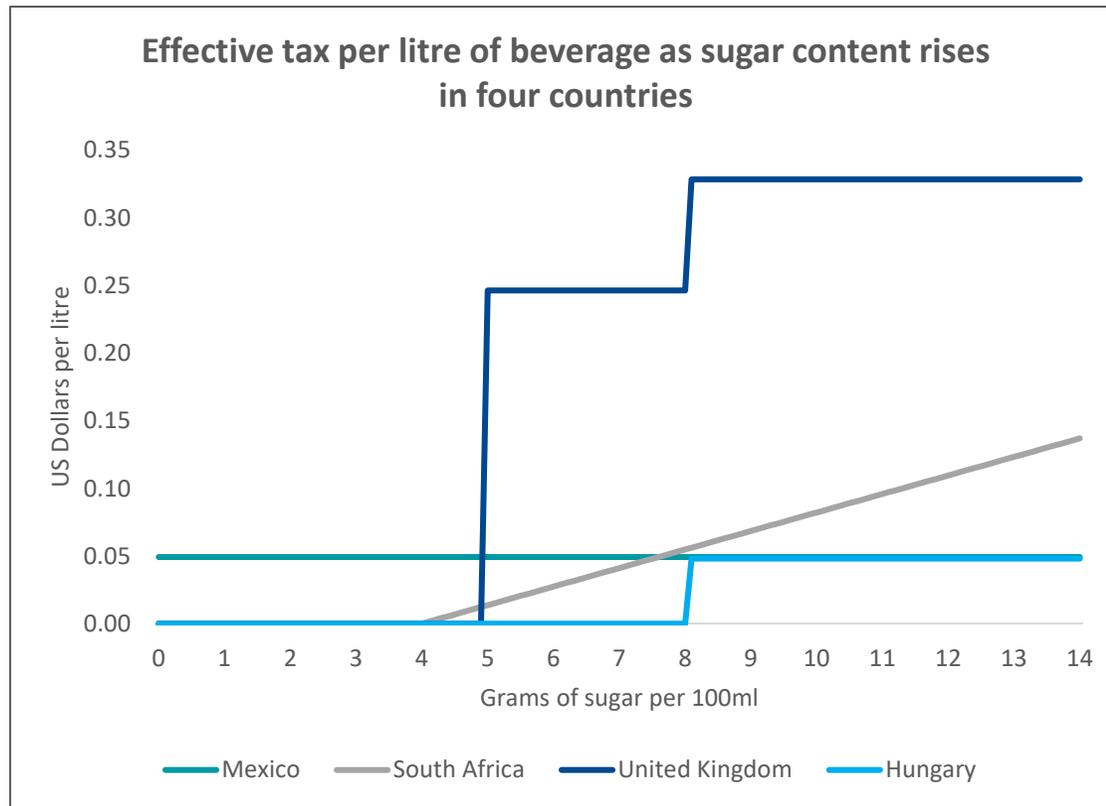
Advertising market share of Castle Lite and Castle Lager, 1997-2013



Beer advertising by ABV and total alcohol consumption from beer in South Africa, 1997-2013



## How to apply sugar-content-based taxes on SSBs



Many countries favor thresholds and other sugar-content attributes (e.g. tiers) to generate incentives for producers to reformulate products and lower sugar content

- Thresholds set a sugar level below which no tax is paid, whereas tiers apply different tax rates based on sugar content
- These create more explicit incentives compared to linear systems but can be used in addition to them

Linear with threshold: South Africa applies a tax of ZAR 0.021/g/100ml where sugar content > 4g/100ml

Tier with threshold: UK applies a tax of GBP 0.18/L for sugar content > 5g/100ml and < 8g/100ml; GBP 0.24/L if sugar content > 8g/100ml; no tax below 5g/100ml

Volumetric tax with threshold: Hungary applies HUF 7/L for all beverages where sugar content > 8/100 ml

Volumetric tax: Mexico applies a uniform specific volumetric tax (MXN 1/L)

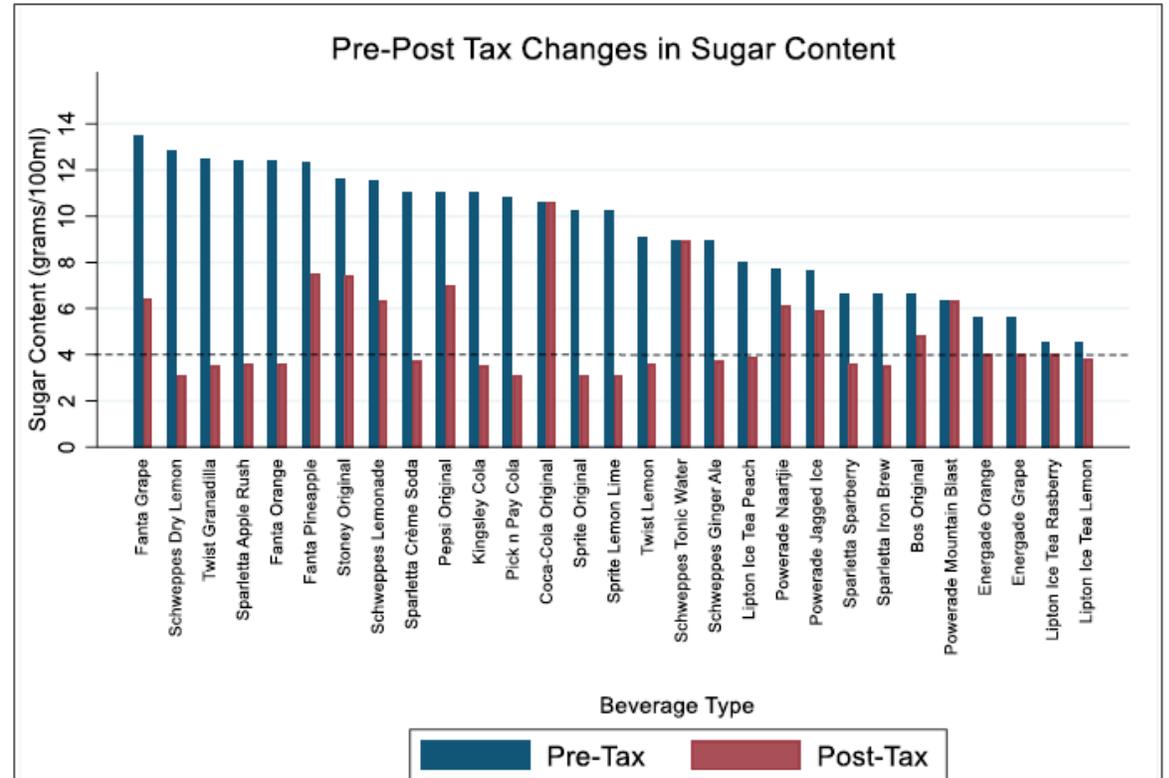
## How effective are these incentives? Evidence from South Africa

After implementation of the SSB tax in 2019, majority of brands reformulated and reduced sugar content; figure shows the sugar content for the most popular SSBs before and after implementation

- 18 reduced sugar content below the threshold to avoid the tax entirely
- 9 reduce sugar content, but remain above the threshold, lowering tax liability
- Only 3 did not lower their sugar content and assumed the full tax liability

A convenient artefact of this tax structure is that the tax revenue collected implicitly tells us about how much sugar is being consumed from SSBs

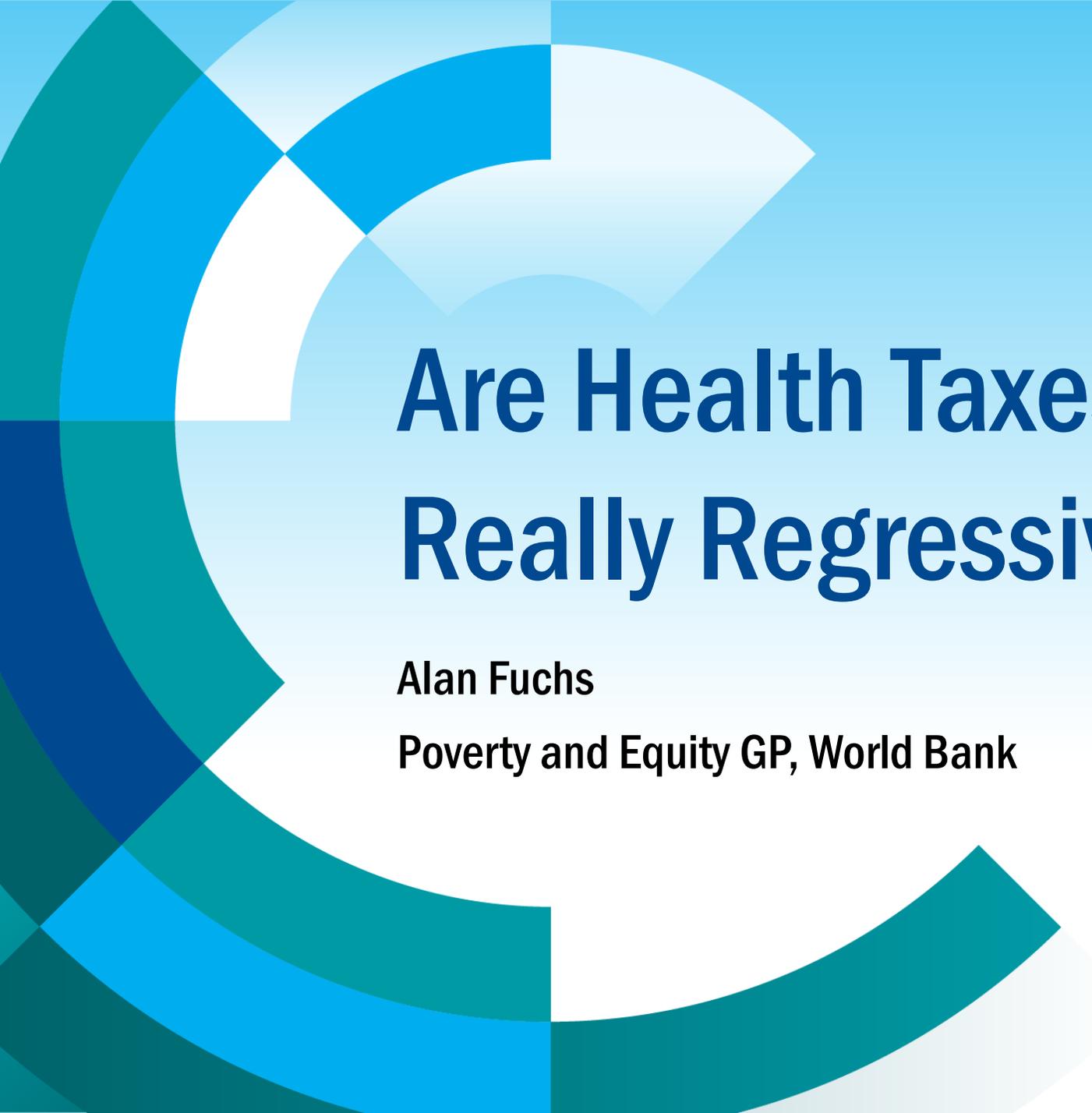
- Caveat: only tells us about consumption over the 4g threshold!
- Tax revenue has declined since the tax was implemented at start of 2018/19 fiscal year
- Since the rate has remained unchanged, implies that sugar consumption from SSBs with more than 4g/100ml of sugar has declined by 29% in 3 years



Fiscal year	Tax revenue (ZAR million)	Tax rate (Cents/g/100ml)	Tonnes of sugar
2018/19	R 3,248	2.21	146,976
2019/20	R 2,513	2.21	113,701
2020/21	R 2,114	2.21	95,638
2021/22	R 2,289	2.21	103,568

# Setting the scene

- The technical elements of health taxes may appear daunting, but there is a wealth of evidence, experience, expertise and support available
- Policy reforms and successes are achievable in countries in all regions, at all levels of economic development
- Health taxes are an established and well-regarded fiscal policy tool underpinned by a strong economic framework; need to engage with the fiscal sector (e.g. ministries of finance, revenue authorities, etc.)
- Tax structures are under appreciated; health taxes and tax increases need to be well-designed to ensure that they result in improvements in population level health outcomes
- However, we have not discussed the political economy barriers and challenges, challenges in tax administration, and the unique macro fiscal opportunities and challenges that world is currently facing; our panel will discuss many of these challenges as they apply to contemporary country work



# Are Health Taxes Really Regressive?

Alan Fuchs

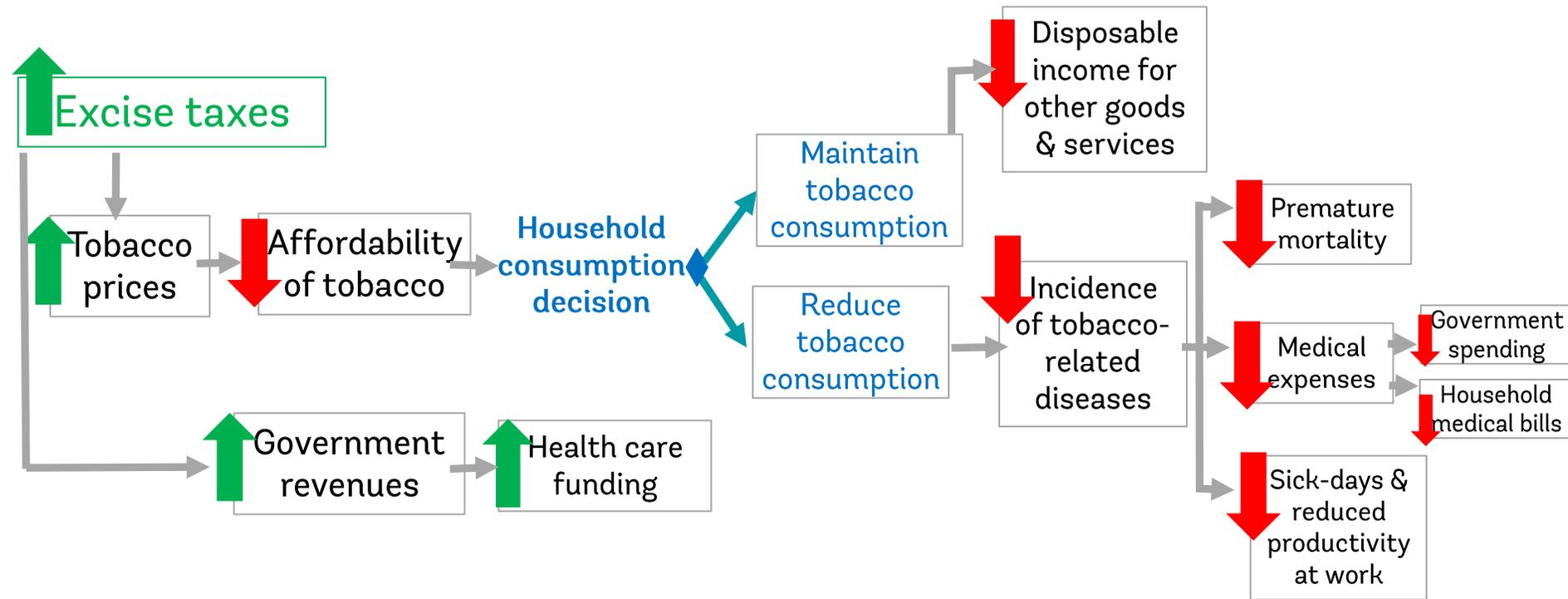
Poverty and Equity GP, World Bank

2022  
6<sup>TH</sup> ANNUAL  
HEALTH FINANCING  
FORUM

# Key Take-Away Messages

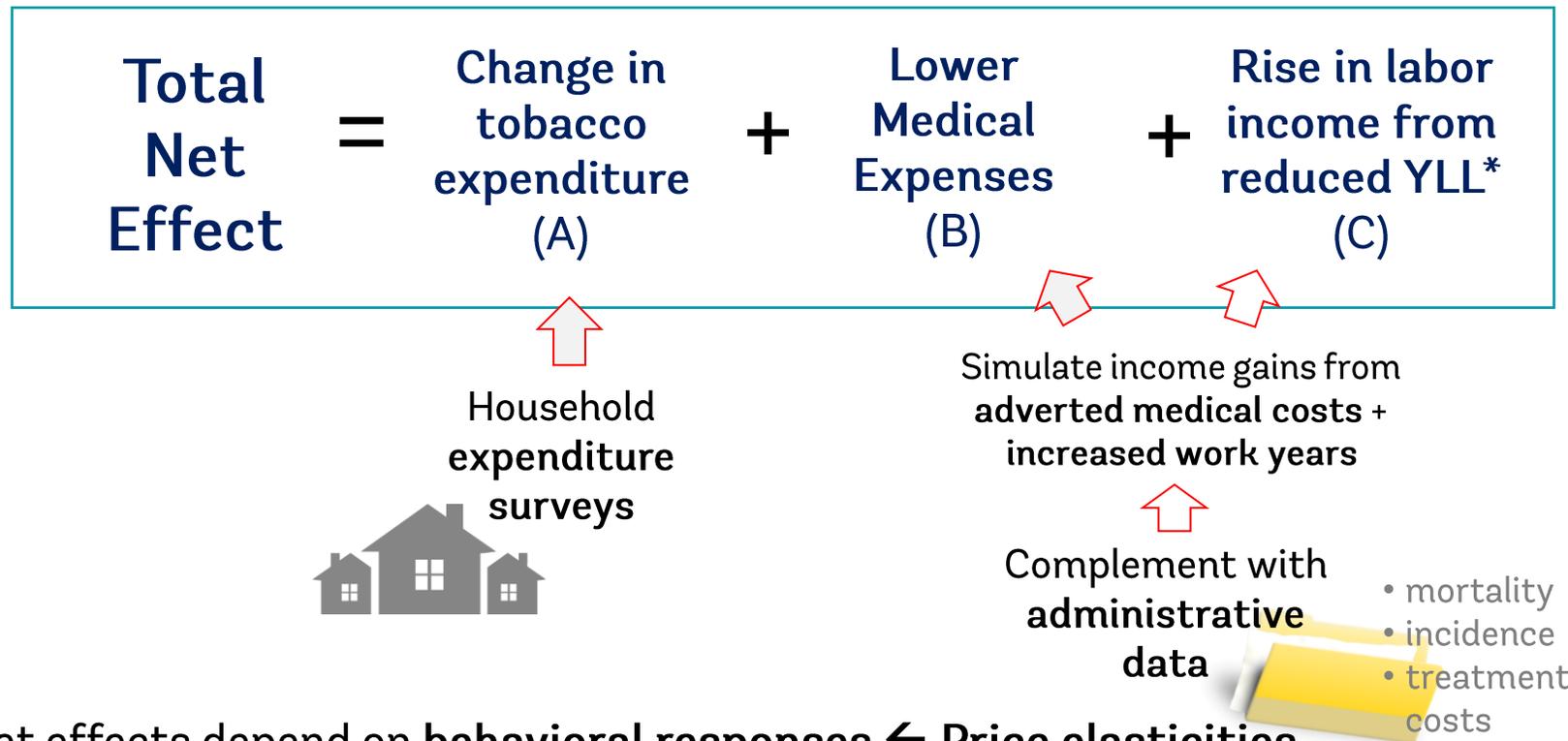
- What are the distributional effects of Health Taxes?
- Are they regressive? progressive?
  - Poor households allocate larger budget shares to purchase tobacco and SSBs
  - Taxation may seem *regressive* in the short-run
  - However, taxes and high prices discourage tobacco, alcohol and SSBs use (price elasticity), offsetting adverse effects that burden households
- Contribution of the Extended Cost Benefit Analysis (ECBA):
  - Incorporate price-responses to evaluate distributional impact
  - Incorporate effects of reducing tobacco-related:
    - (a) Medical expenses + (b) Years of working life lost
- Empirical findings suggest potential for **progressive and welfare-improving** effects of increasing taxes on tobacco, SSBs and alcohol

# Economic Channels of Taxing Tobacco (example)



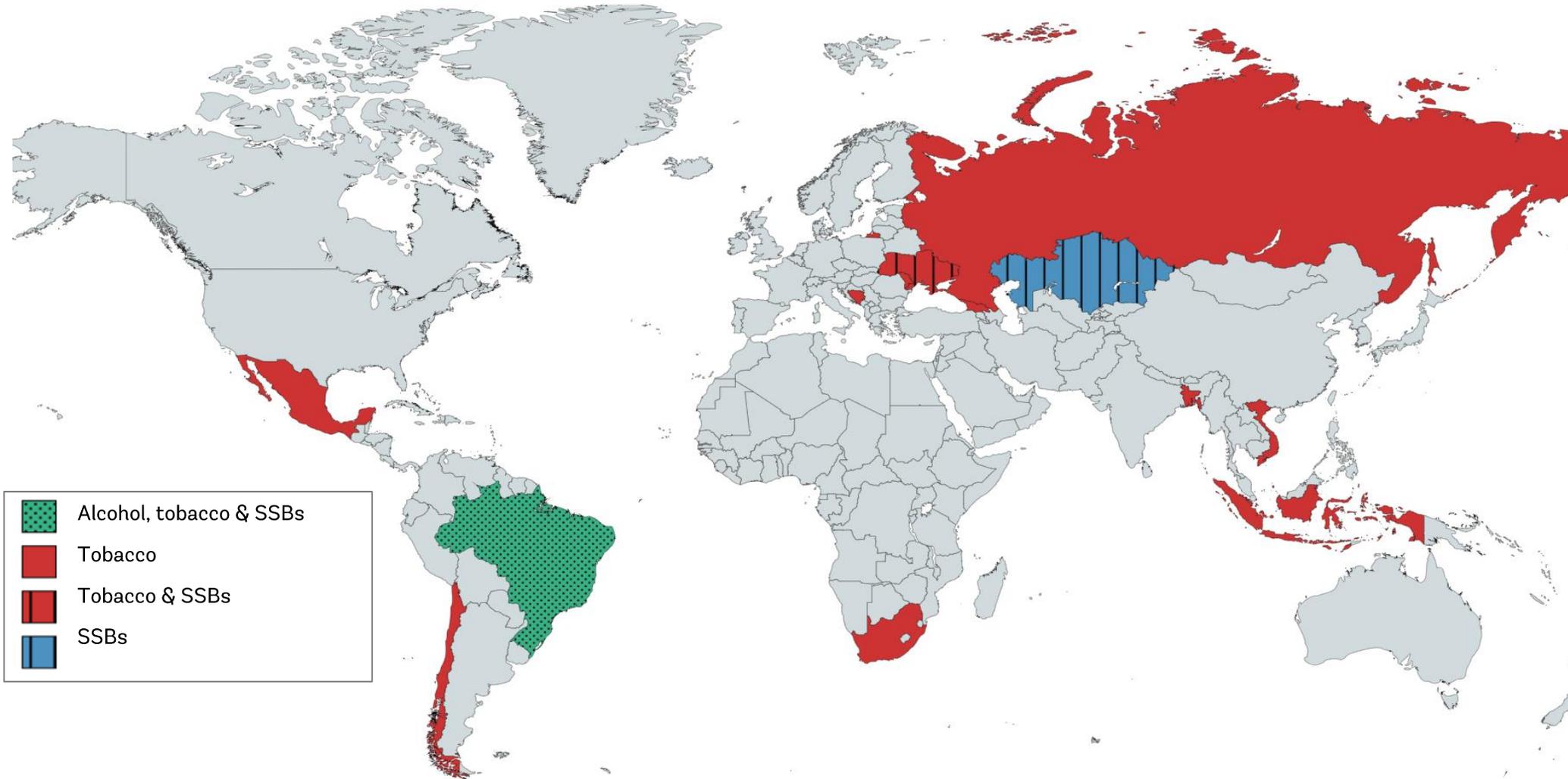
# Extended Cost-Benefit Analysis (ECBA)

- Model and empirical strategy:



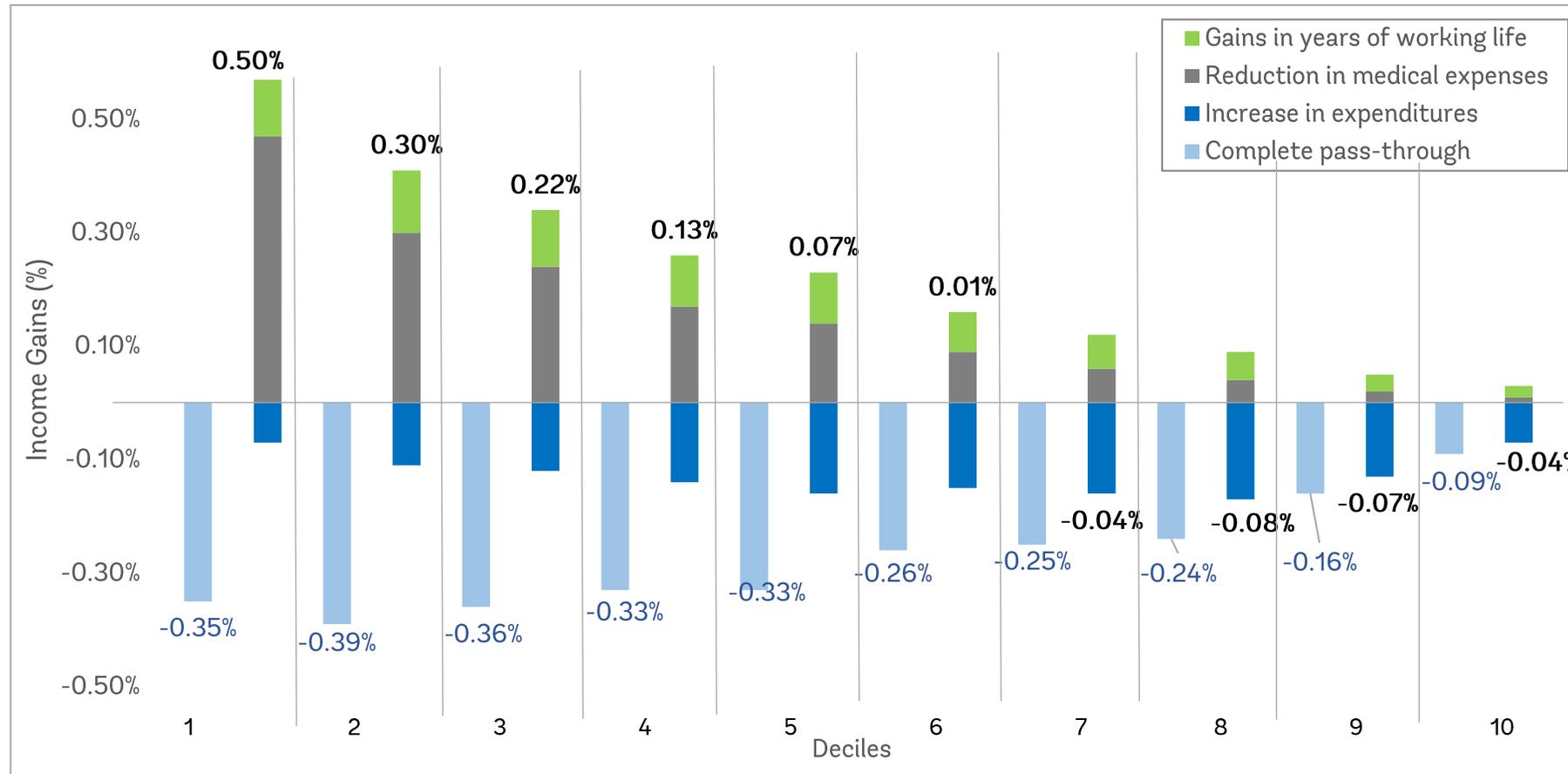
- Ultimately, net effects depend on **behavioral responses** ← **Price elasticities**
  - Lower-income groups have higher elasticities.
  - Younger groups are more sensitive to price increases.

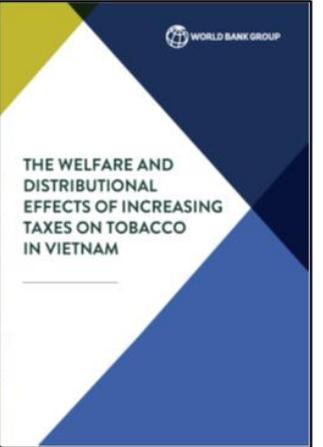
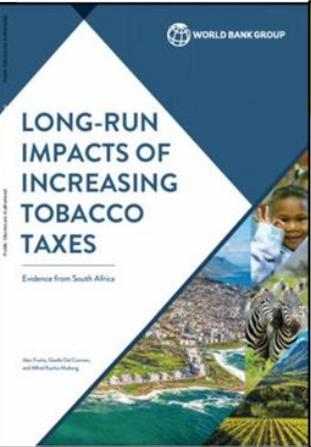
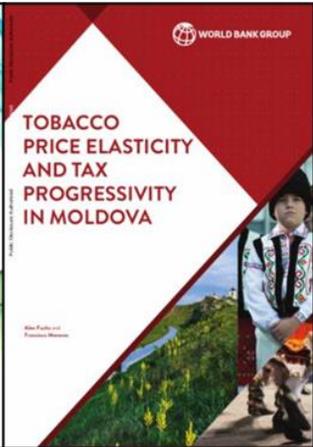
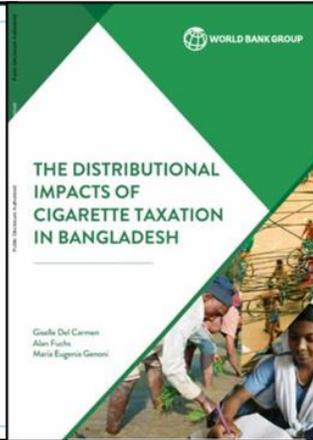
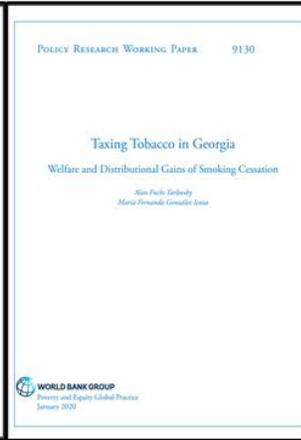
- **Tobacco taxation** in 11 countries: Bangladesh, Bosnia and Herzegovina, Chile, Georgia, Indonesia, Mexico, Moldova, Russian Federation, South Africa, Ukraine, and Vietnam.
- **Taxes on SSBs** in Kazakhstan & Ukraine.
- Additionally, a study in Brazil analyzed all three excise taxes on **tobacco, alcohol & SSBs**.



# Results: Chile

$$\text{Total Net effect} = \text{Increase in Tobacco Expenditure (A)} + \text{Lower Medical Expenses (B)} + \text{Rise in Labor Income (C)}$$





Links:

- <https://pubmed.ncbi.nlm.nih.gov/33734366/>
- <https://documents1.worldbank.org/curated/en/358341554831537700/pdf/Distributional-Effects-of-Tobacco-Taxation-A-Comparative-Analysis.pdf>
- <https://openknowledge.worldbank.org/handle/10986/26238?show=full>
- <https://openknowledge.worldbank.org/handle/10986/32062>
- <https://openknowledge.worldbank.org/handle/10986/31249?show=full&locale=attribute=es>
- <https://openknowledge.worldbank.org/handle/10986/30424?locale=attribute=en>
- [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3144091](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3144091)
- [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3060915](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3060915)
- [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3116474](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3116474)
- <https://openknowledge.worldbank.org/handle/10986/33970>



Thank you!

2022  
6<sup>TH</sup> ANNUAL  
HEALTH FINANCING  
FORUM