

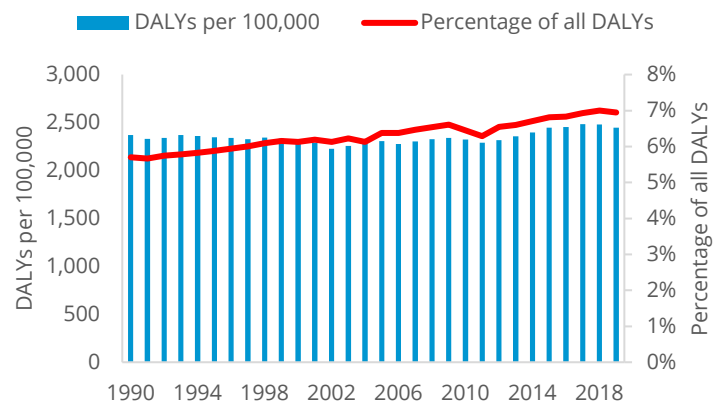
Global Evidence- the Impact of Health Taxes

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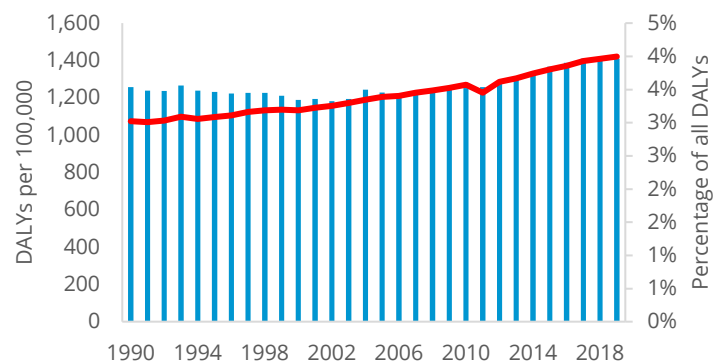
Caribbean Workshop on Health Taxes

**Barbados
December 1-3, 2023**

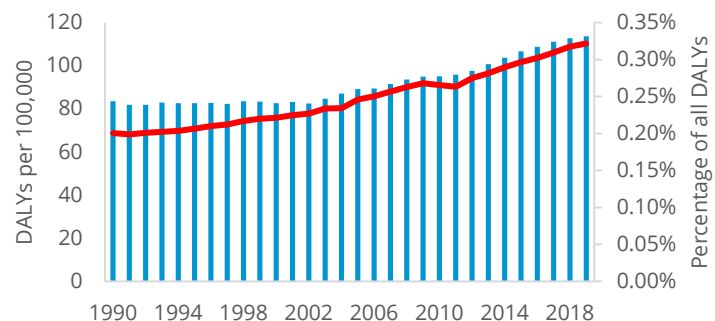
DALYs due to tobacco use, 1990-2019



DALYs due to alcohol use, 1990-2019



DALYs due to diets high in SSB consumption, 1990-2019



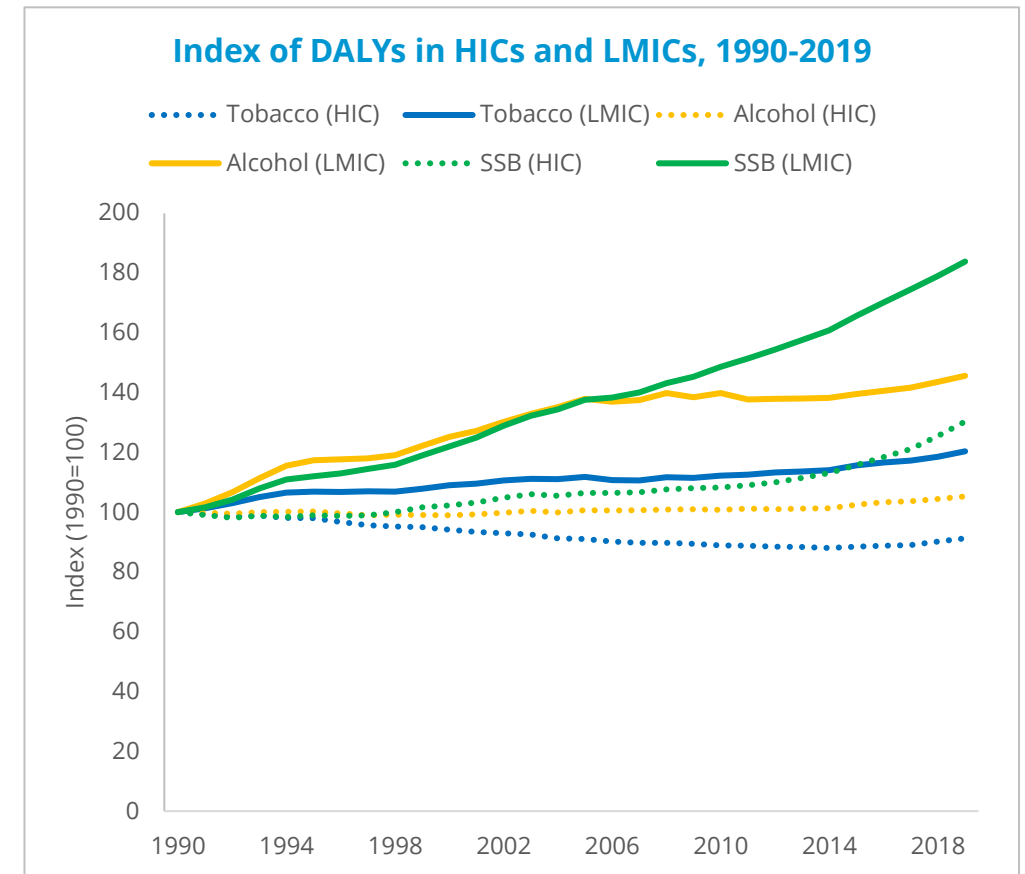
Mortality and morbidity associated with the consumption of tobacco, alcohol, and SSBs are on the rise in the Caribbean

- Tobacco and alcohol are significant contributors to mortality and morbidity in the Caribbean, accounting for 16.1% of all all deaths and 10.9% of all disability-adjusted life years lost (DALYs) in 2019
 - ▶ Tobacco accounts for most of these, 11.7% of all deaths and 6.9% of all DALYs, while alcohol accounts for 4.4% and 4.0% of all deaths and DALYs
- However, mortality and morbidity due to alcohol use is growing significantly faster than tobacco use
 - ▶ Since 1990, deaths and DALY's per 100,000 due to tobacco use have increased 10% and 3%, respectively
 - ▶ While deaths and DALY's per 100,000 due to alcohol use have increased by 23% and 12%, respectively
- While diets high in SSBs result in significantly less mortality and morbidity than tobacco and alcohol, the rapid growth in mortality and morbidity is concerning
 - ▶ Since 1990, deaths and DALY's per 100,000 have increased 23% and 36%, respectively

Source: Global Burden of Disease Study, Institute for Health Metrics and Evaluation (2019)
 Note: DALYs estimates the potential years lost due to premature death and includes equivalent years of healthy life lost due to poor health or disability; combines mortality and morbidity into one metric.

Health costs associated with consumption of tobacco, alcohol, and SSBs are on the rise across the board

- Trends in mortality and morbidity due to tobacco and alcohol use are rising in LMICs, and falling in HICs
- Trends in mortality and morbidity due to diets high in SSB consumption are rising in both LMICs and HICs (although significantly quicker in LMICs)
- The rate of DALYs rises as countries get richer, rising from 2,084 per 100,000 people in low-income countries in 2019, to 3,441 in lower-middle, to 5,276 in upper-middle, to 5,431 in high-income countries
- As countries get richer, the economic costs increase as people demand more and higher quality healthcare, for example:
 - Economic cost of smoking rises from 1.2% of GDP in low-income countries, to 2.2% of GDP in high-income countries (Goodchild et al., 2018)
 - Economic cost of smoking in China rose from US\$ 7.2 to 28.9 billion between 2000 and 2008, even though tobacco use levels did not increase (Tobacco Atlas, 2009)



Source: Global Burden of Disease Study, Institute for Health Metrics and Evaluation (2019)

Why Health Taxes? Key Messages




- Health taxes are an established and well-regarded fiscal policy tool, underpinned by a strong economic framework
- Health taxes generate fiscal and health gains, through increasing tax revenue and improve population health, with limited to no evidence of adverse economic impacts
- Health taxes are very effective; however, not enough attention is paid to ensuring that tax policies are well designed, implemented, administered and evaluated
- Two key considerations of tax design is the tax structures and tax rates; poorly designed tax polies that are not well implemented and administered may result where tax increases do not result in increased tax revenue and/or improvements in population health (or where gains are substantially less than expected)

Tomorrow we will consider the impact of tax structures in more detail

- Substantial experience and evidence supports 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)
- Historically called "sin taxes" in some countries but this term has become less common
- Health taxes or pro-health taxes is a more modern term 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	<ul style="list-style-type: none">• Negative externalities (societal harms including non-users)• Negative internalities (uninternalized costs)• Increase prices to account for the economic costs (i.e., corrective taxes)
 Influence consumer and firm behavior to improve population health	<ul style="list-style-type: none">• Increase taxes → increase prices → reduces consumption• Reduced consumption through increased cessation, reduced initiation, reduced intensity and reduced concentration
 Understanding the fiscal policy context	<ul style="list-style-type: none">• Reduces government expenditures (e.g., health care costs; policing, justice and corrections; etc)• Generates additional tax revenue that improves fiscal space• Impetus for potential complementary measures (e.g., target priority programs and populations, i.e., cessation services)



Policy Transmission Mechanism of Health Taxes

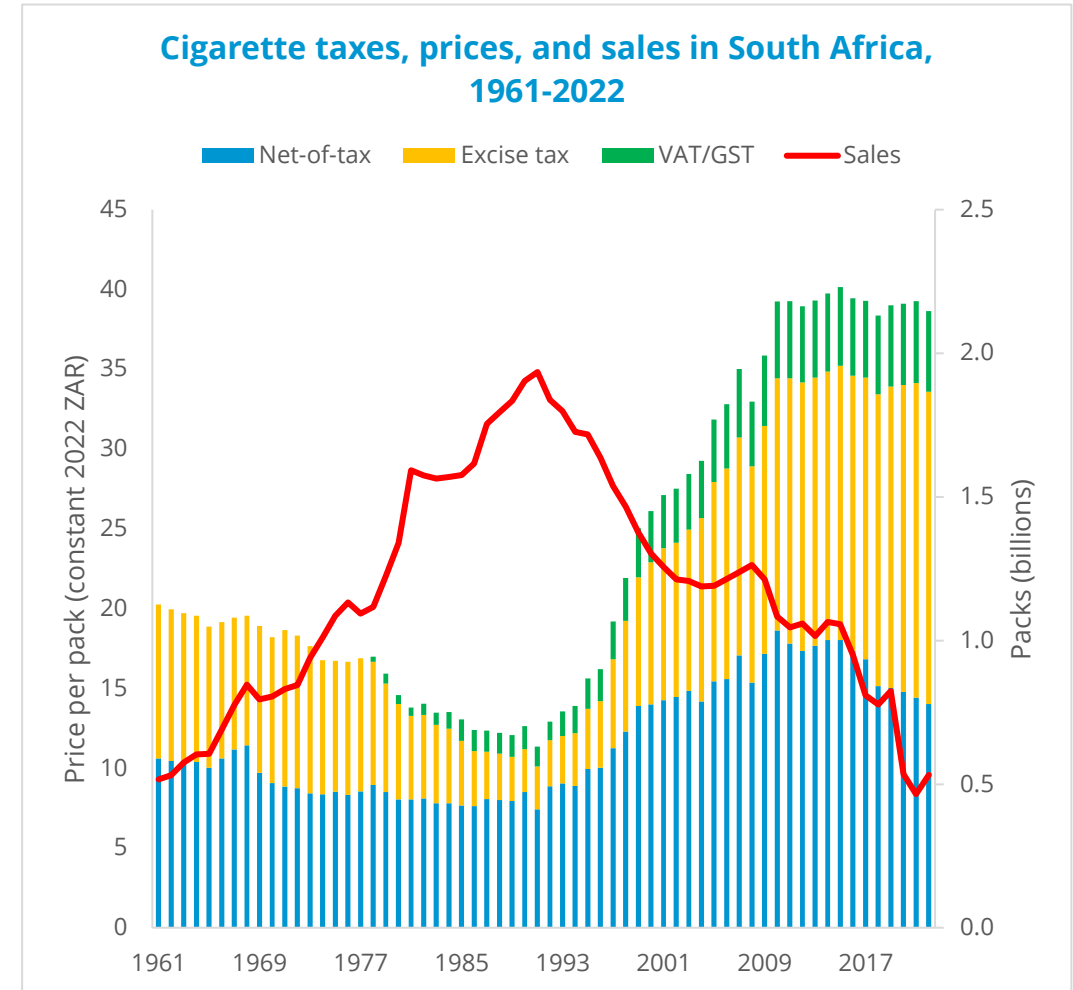
1. Increase in taxes results in higher prices
 - ▶ Tax pass through influences impact, but it is overwhelmingly positive
 - ▶ Well designed **tax structures** ensure optimal impact; poorly designed tax structures can undermine the policy impact
2. Increases in prices reduce consumption
 - ▶ Even though tobacco and alcohol are relatively inelastic, consumption responds predictably to increases in prices
3. Reduced consumption improved health outcomes
 - ▶ Increased cessation, reduced initiation, and reduced intensity of use (amongst continuing consumers)
4. Higher taxes result in increased tax revenue
 - ▶ Price inelastic demand ensures tax revenues increase even when consumption falls

An example of the Policy Transmission Mechanism in action: cigarette taxes in South Africa

Stage 1: Increase in taxes results in higher prices

Stage 2: Increases in prices reduce consumption

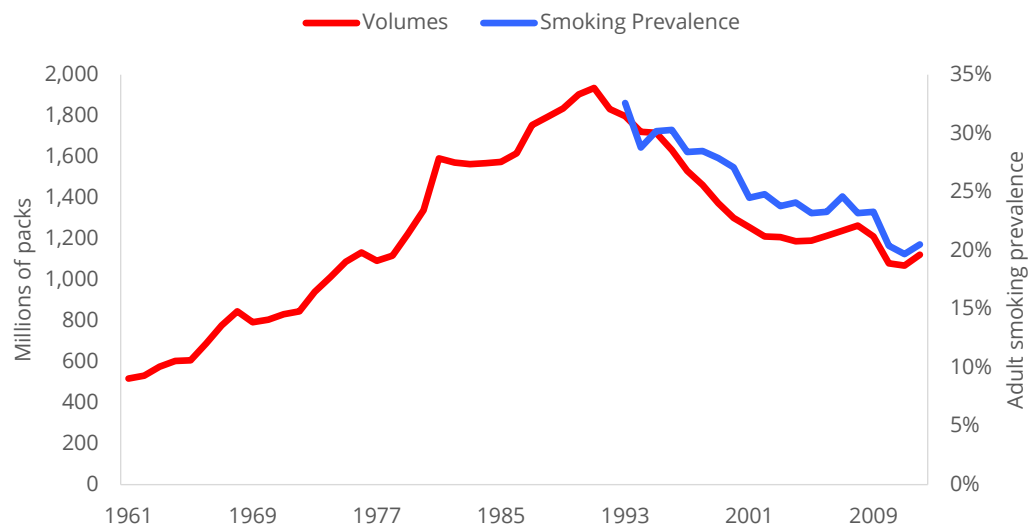
- Since the early 1990s, South Africa has increased excise taxes on cigarettes, resulting in significant health and fiscal gains
- South Africa has a best practice tax structure, implementing uniform specific taxes (will come back to tax structure later); between 1990 and 2022:
 - Excise taxes increased by 627% (inflation adjusted terms)
 - Resulting in prices increasing by 206% increase (inflation adjusted terms)
 - Causing sales to decline by 72% (81% in per capita terms)
- South Africa has also engaged in similar reforms on alcohol and more recently has implemented an innovative SSB tax (discussed more later)



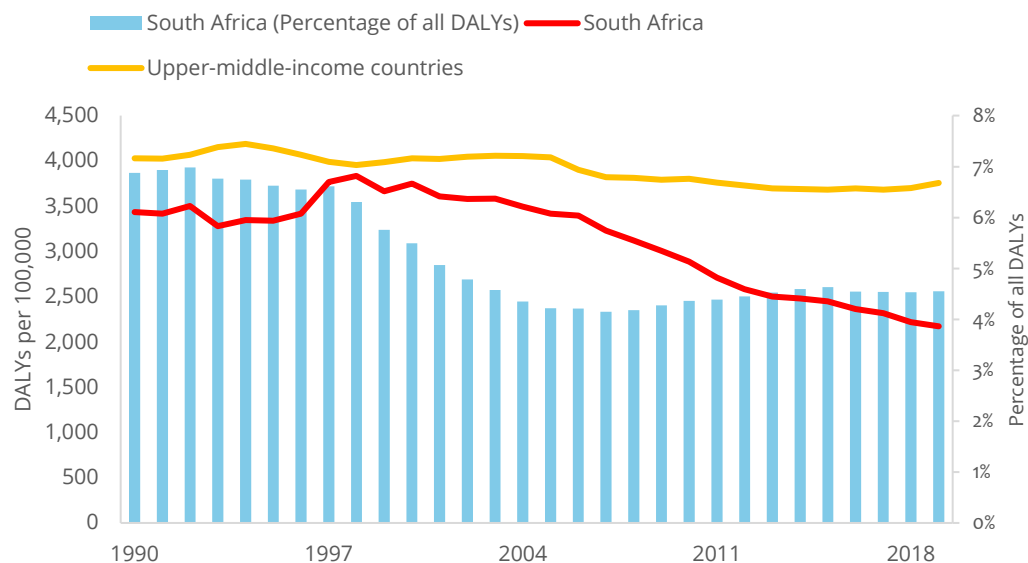
Source: Research Unit on Excisable Products, University of Cape Town; National Treasury; StatsSA

Products		Countries	Estimates	Special observations	Sources	Implications
Tobacco	Cigarette	HICs	-0.2 to -0.6, clustering around -0.4	Lower income consumers and youth consistently less inelastic	NCI (2016); IARC (2011)	More inelastic due to addiction → larger tax increases needed to affect consumption, but larger impact on revenue; but strong impact among young & poorer groups
		LMICs	-0.2 to -0.8, clustering around -0.5			
Alcohol	Beer	Global	-0.3	Beer more inelastic than wine & spirits, cross price elasticities show potential for substitution; heavier drinkers more inelastic, not clear age gradient; direct impact on behaviors (i.e., pattern of drinking, road traffic fatalities)	Guindon et al. (2022)	While heavier drinkers are less responsive to tax increases, they are still responsive; strong impact on behaviour
	Wine		-0.6			
	Spirits		-0.65			
	Beer	Mostly HICs	-0.3		Nelson (2013)	
	Wine		-0.45			
	Spirits		-0.55			
	Beer	LMICs	-0.64		Sornpaisarn et al. (2013)	
	Wine		-0.5			
	Spirits		-0.79			
SSBs	SSBs	Global	-1.59	No clear country level income group evidence; narrower categories (e.g., juices or sodas) generally less inelastic/more elastic than broad categories	Andreyeva et al. (2022)	Very strong impact on consumption, but smaller revenue impact; strong potential for substitution between sub-categories of non-alcoholic beverages

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



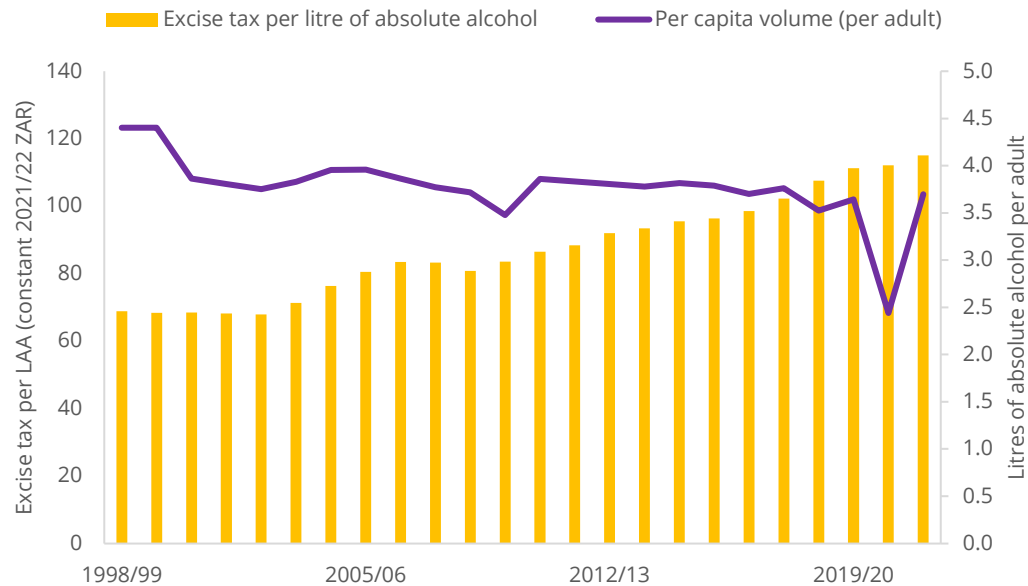
Mortality and morbidity due to smoking in South Africa and peer countries, 1990-2019



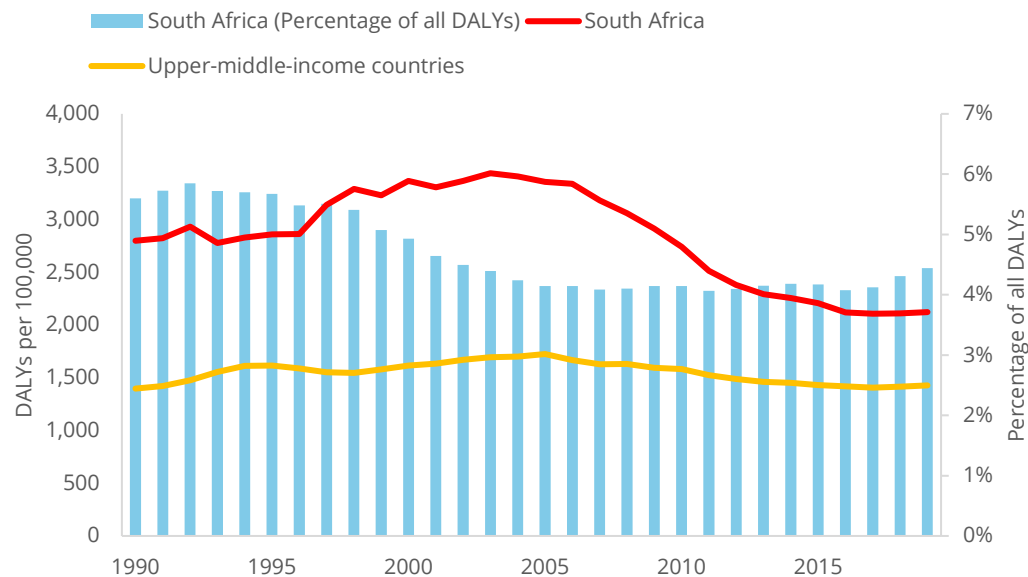
Stage 3: Reduced consumption leads to improved health outcomes

- The reductions in sales coincides with reductions in smoking prevalence (between 1993 and 2012)
- Since 2012, limited time series prevalence estimates are available, however GATS (2021) shows prevalence is currently 25%
- Chelwa et al. (2016) shows that between 1990 and 2004, per capita cigarette consumption was 36% lower than it would have been in the absence of tax policy
- The reductions in sales and smoking prevalence also coincide with declines in smoking related mortality and morbidity
- Declines in mortality and morbidity due to tobacco use in South Africa are significantly more rapid than peer countries (i.e., other upper-middle-income countries)

Beer excise taxes and sales in South Africa, 1998-2022



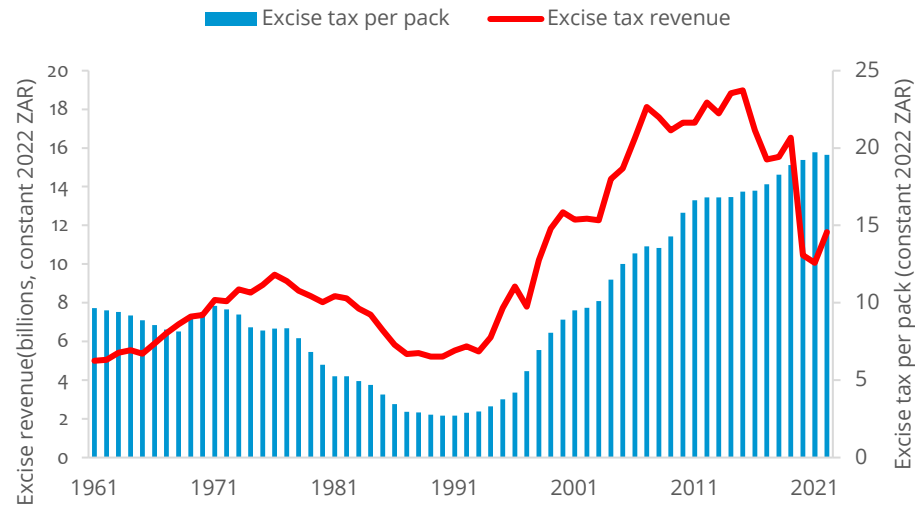
DALYs due to alcohol use in South Africa, 1990-2019



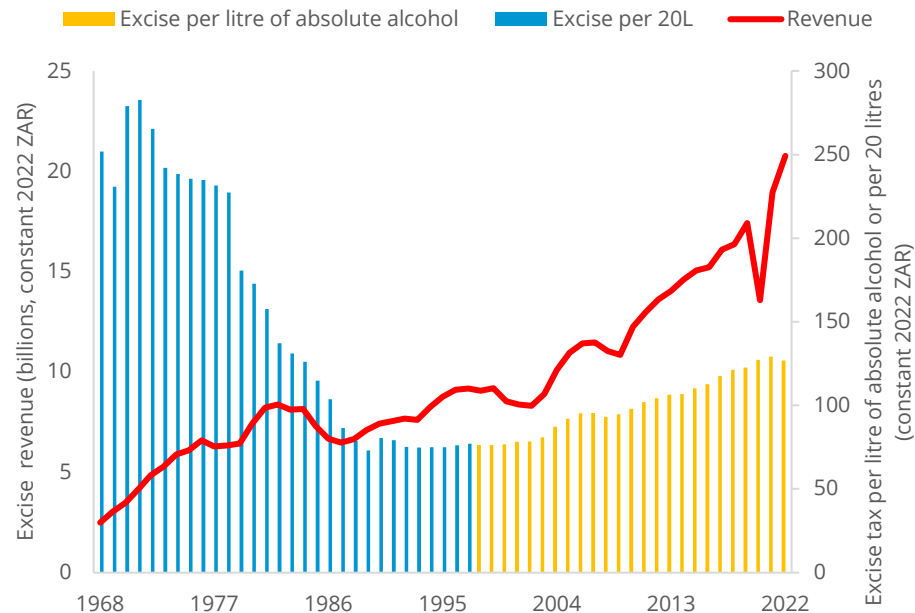
Alcohol tax increases have led to similar outcomes in South Africa, although different tax structures have resulted in variations in the Policy Transmission Mechanism

- Beer and spirits taxes are levied on the volume of alcohol rather than beverage volume (i.e., litres of absolute alcohol rather than litres of beverage)
- This has generated supply side responses in addition to impacting demand (this will be discussed in more detail tomorrow)
- Nevertheless, tax increases have coincided with large declines in consumption (see example of beer in figure) as well as mortality and morbidity due to alcohol
- The decline in mortality and morbidity is striking given how rapid it has been, closing the gap between South Africa and its peers

Tobacco excise tax revenue in South Africa, 1961-2022



Beer excise tax revenue in South Africa, 1968-2022

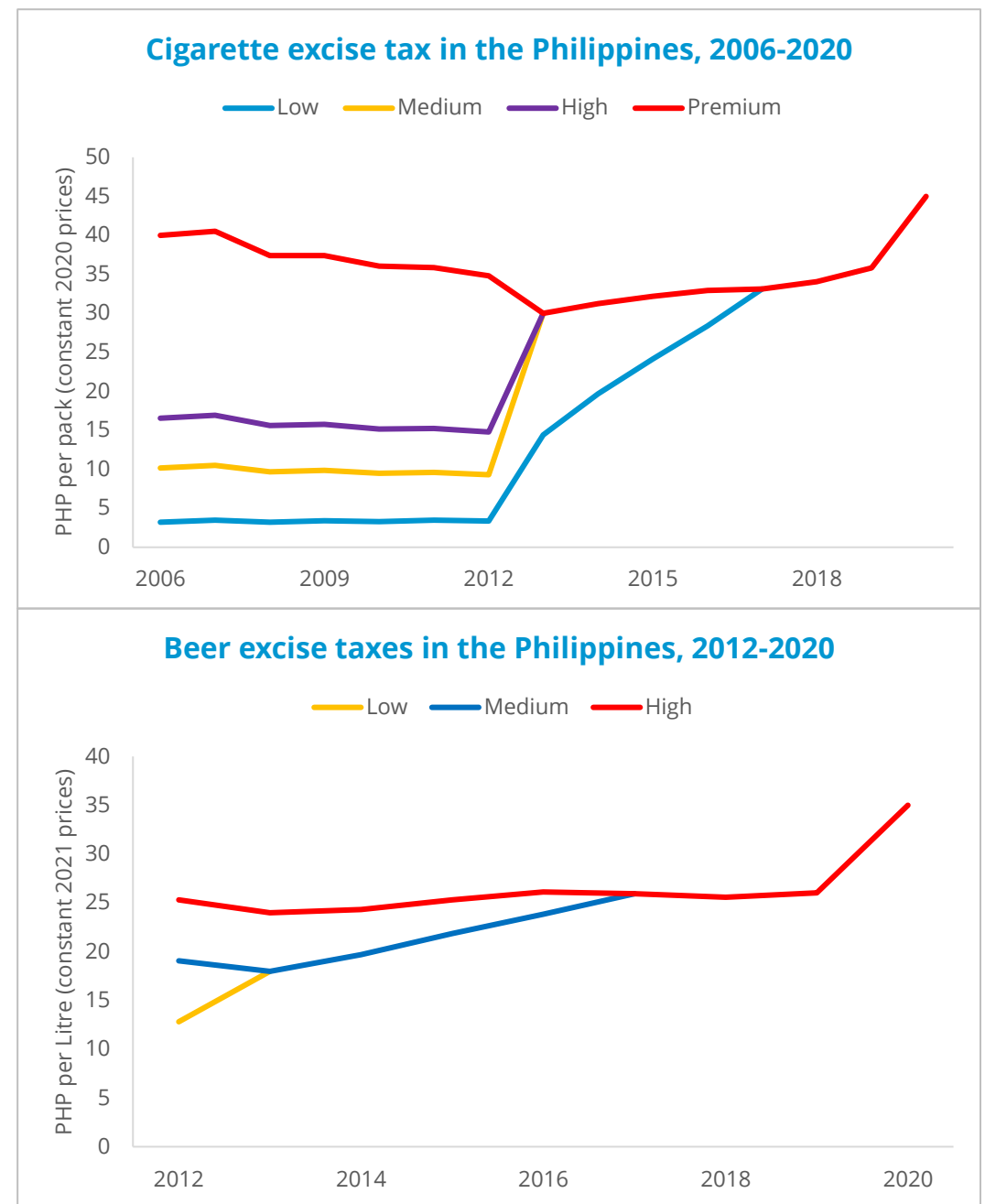


Stage 4: Higher taxes result in increased revenue

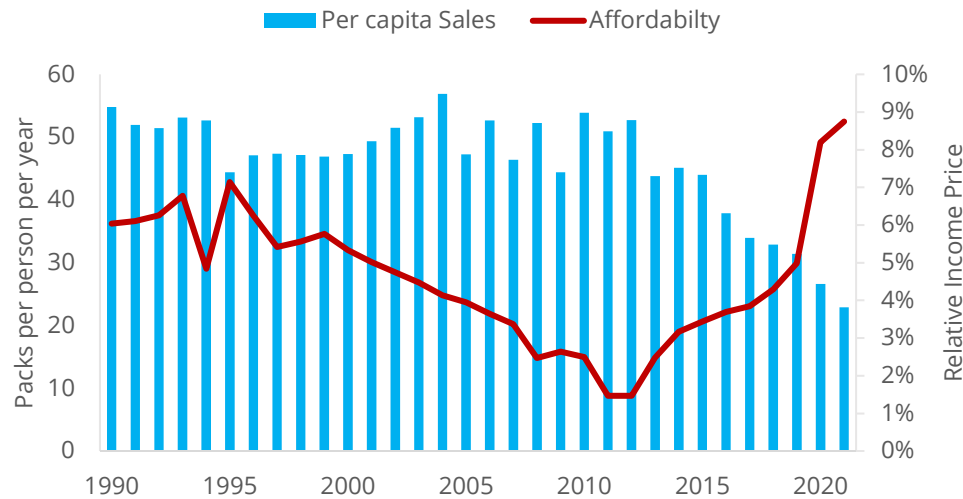
- Both tobacco and alcohol tax increases resulted in large and sustained increases in tax revenue in South Africa
- In recent years, South Africa has experienced significant challenges with tax administration
- On tobacco, Challenges in tax revenue collections in the last decade, however not separable from broader governance challenges in the country (see Van Walbeek, 2020)
- On alcohol, these were temporary and associated with temporary sales bans during the COVID-19 pandemic

Health tax reforms in the Philippines led to dramatic declines in sales and increases in revenues

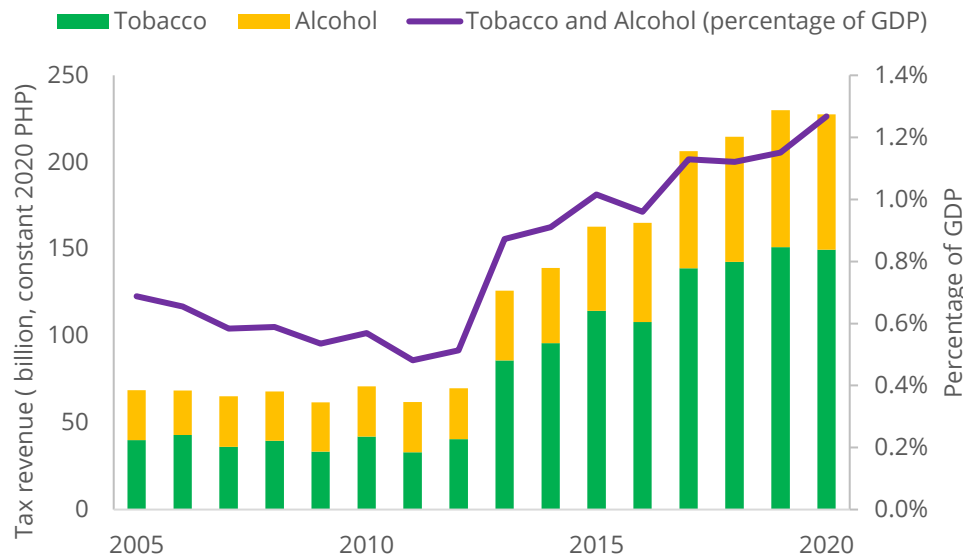
- Prior to a major health tax reform in 2012, the Philippines had a value based tiered excise system on tobacco and alcohol
- Not only had excises been declining in real terms in the years prior to the increase, tax increases were ineffective since consumers could easily trade down to cheaper brands/tiers to avoid tax/price increases
- The 2012 reform consolidated the tiers by raising taxes of lower tiers to match (increasing) tax rates on higher tiers until a uniform tax was achieved in 2017
- This resulted in dramatic increases in taxes and effective taxes



Cigarette sales and affordability in the Philippines, 1990-2021



Tobacco and alcohol excise tax revenue in the Philippines, 2005-2020

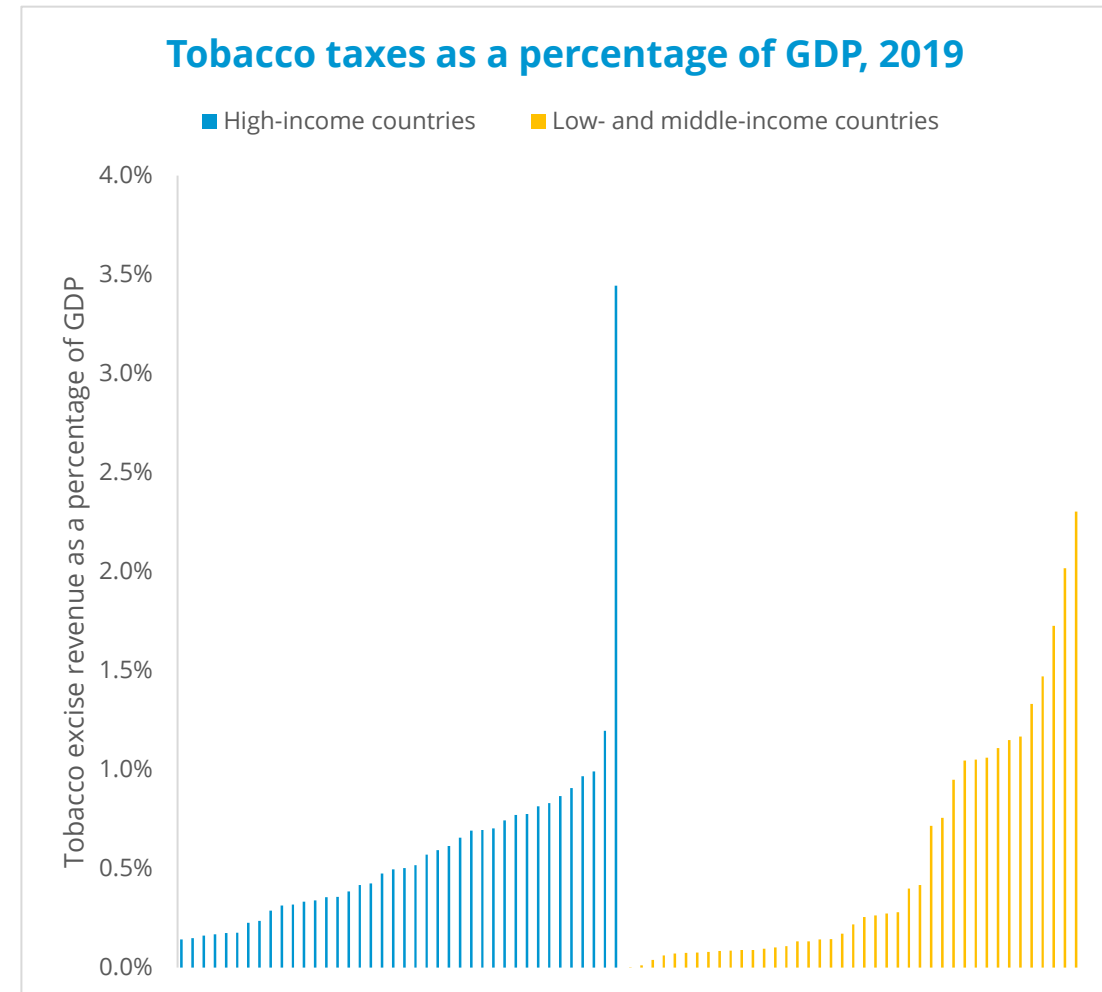


Impact of Philippines health tax reforms

- Impact on cigarette affordability and sales:
 - Tax and price increases led to significant declines in affordability (i.e., became less affordable as indicated by percentage of per capita GDP required to purchase 100 packs of cigarettes increasing from 1.5% in 2012 to 9% at present)
 - This led to cigarette sales falling by nearly half in a decade
- Tax revenue from tobacco and alcohol taxes increased, and very rapidly, from 0.5 to 0.9% of GDP in the first year alone, and within a decade to 1.3% of GDP
- Incremental revenues were largely dedicated to the expansion of Universal Health Coverage (Danielle will speak to this tomorrow)

Some nuance is necessary on health tax revenues

- There is wide variation in health tax revenues across countries, with no clear pattern by income groups or region
- There is also variation in health taxes revenues between products
 - Tobacco (0.6%) generates more tax revenue than alcohol (0.3%) in most countries
 - SSBs generate low revenues (<0.1%)
- See example of variation in tobacco tax revenues in the figure
- The magnitude of tax revenues is a function of tax policy (i.e., tax structures and rates), but also underlying levels of consumption, let's consider this in more detail



Note: country names have been removed
Source: World Bank Global Tax Program Knowledge Note (2023)
Unpacking the empirics behind health tax revenue.

What determines the scope of revenue?

	HICs		LMICs		
	Greece	Norway	Cambodia	Philippines	South Africa
Tobacco excise revenue (% of GDP)	1.2%	0.2%	0.2%	0.8%	0.3%
Tobacco excise per smoker (US\$)	1,128	848	24	143	101
Effective tax per pack (US\$, most sold brand)	\$3.39	\$5.92	\$0.08	\$0.91	\$1.01
Smoking prevalence (adult)	27%	12%	15%	18%	17%

Source: World Bank Global Tax Program Knowledge Note (2023) *Unpacking the empirics behind health tax revenue*.

- Tax structure: countries with specific taxes (e.g., Philippines and South Africa), mixed systems (e.g., Greece and Norway) tend to have higher tax revenues than countries with ad valorem taxes (e.g., Cambodia)
- Tax rates: countries with higher tax rates have higher levels of tax revenues; countries with higher effective tax rates (affected by tax structure) have high levels of tax revenues
- Baseline consumption: higher levels of baseline consumption results in higher tax revenues

World Bank's Global Tax Program Health Taxes Knowledge Note Series

Health Taxes Knowledge Note Series focuses on contemporary and relevant topics linked to implementation of health taxes

- Focuses on questions that emerge from the field during engagements with Ministries of Finance, tax authorities, and Ministries of Health
- Provides policy makers with an overview of the issues, and feasible solutions and policy choices
- Knowledge Note 4 published in October 2023, responds to specific questions related to the revenue potential from health taxes and health tax reforms

<https://bit.ly/health-tax-revenue>

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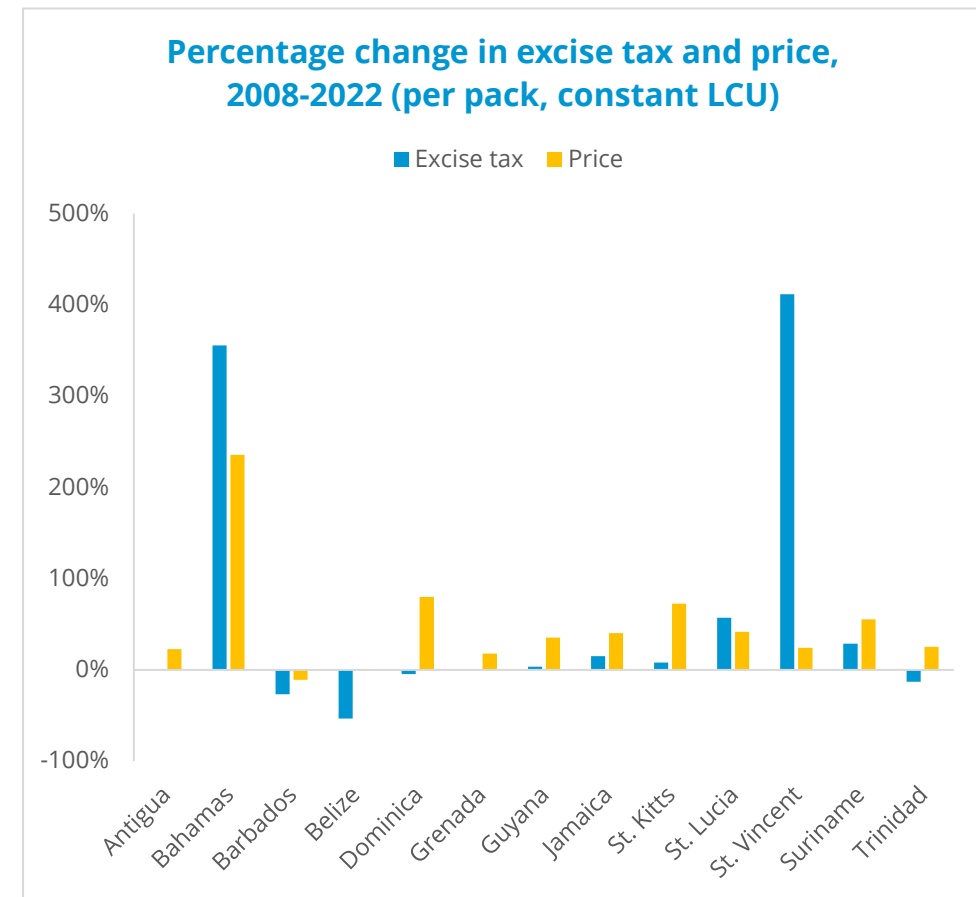
KN#4. Unpacking the empirics behind health tax revenue¹

The purpose of this note is to provide policy makers with an overview of the revenue potential for health taxes, including from increases in tax rates and reforms of tax structures. It is one in a series of knowledge notes responding to specific questions around health taxes and key issues raised during health tax reforms.

- Uses a novel database to generate estimates of health tax revenues
- Health tax revenues vary widely between countries, affected by tax design including tax structures and tax rates, tax administration and baseline levels of consumption; however, no significant variation between HICs and LMICs
- Reforms of health taxes, including reforming tax structures and raising tax rates can contribute to significant increases in revenue very rapidly; tax increases can be sustained over long periods
- Health taxes are efficient since they are relatively easy to implement, can generate revenue quickly, and limited distortion to general economic activities

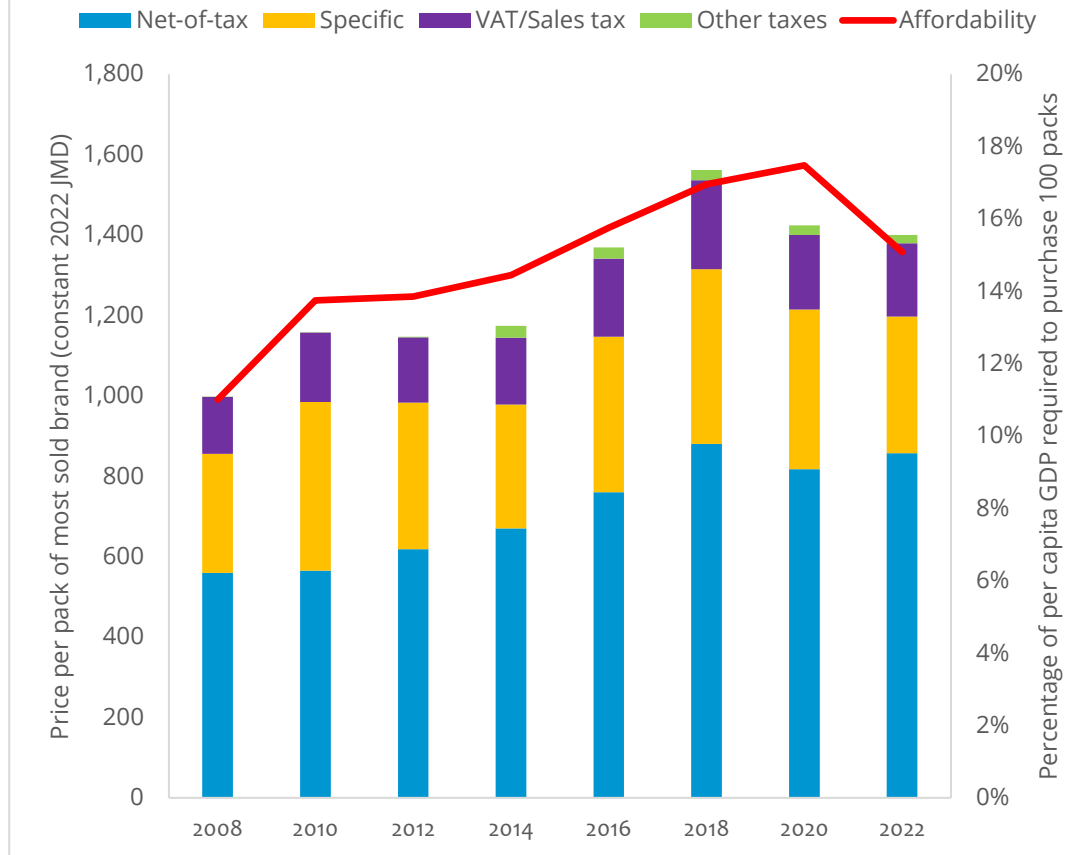
Trends in health taxes in Caricom countries (example of cigarettes)

- Cigarette taxes and prices have increased in recent years, although variation within the region has been wide, with increases also applying to a relatively low baseline
- Between 2008 and 2022:
 - ▶ Cigarette excise taxes (in real terms) have increased in 7 of 11 countries (Antigua does not apply excise); ranged between a decline of 53% in Belize to an increase of 412% in St Vincent
 - ▶ Prices of cigarettes (in real terms) have increased in 11 of 13 countries; ranged between a decline of 11% in Barbados to an increase of 236% in the Bahamas
 - ▶ Cigarettes became less affordable in 11 of 13 countries
- A note on data:
 - ▶ Antigua does not apply excise
 - ▶ Grenada does not have tax data for 2008; no data in Haiti and Montserrat
 - ▶ No consistent data on sales and revenues are available
 - ▶ No comparable time series data is available for other products



Source: World Bank Global Tax Program estimates using WHO (2022) data

Cigarette taxes, prices and affordability in Jamaica, 2008-2022



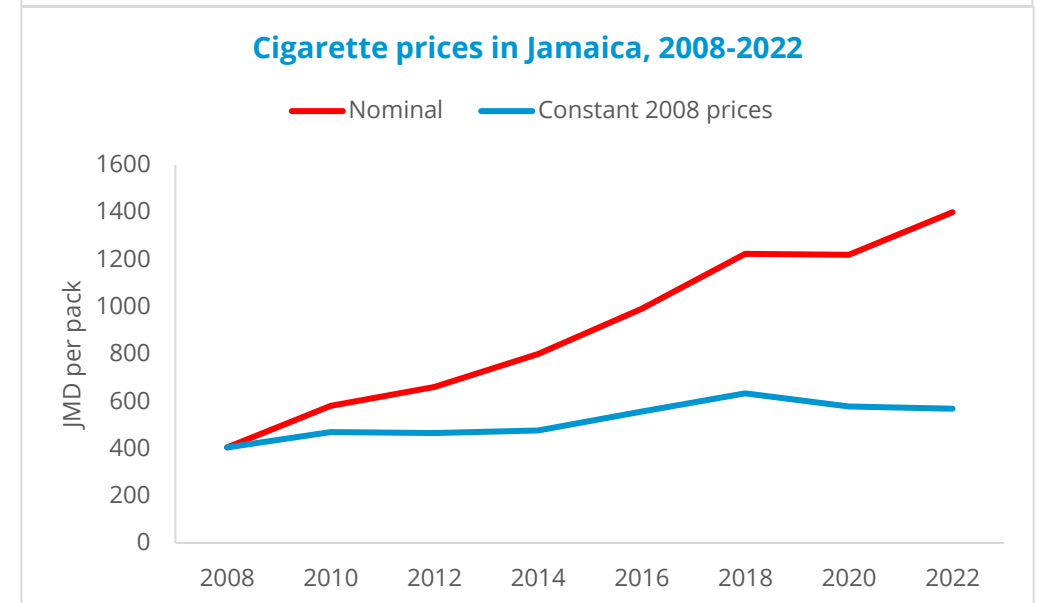
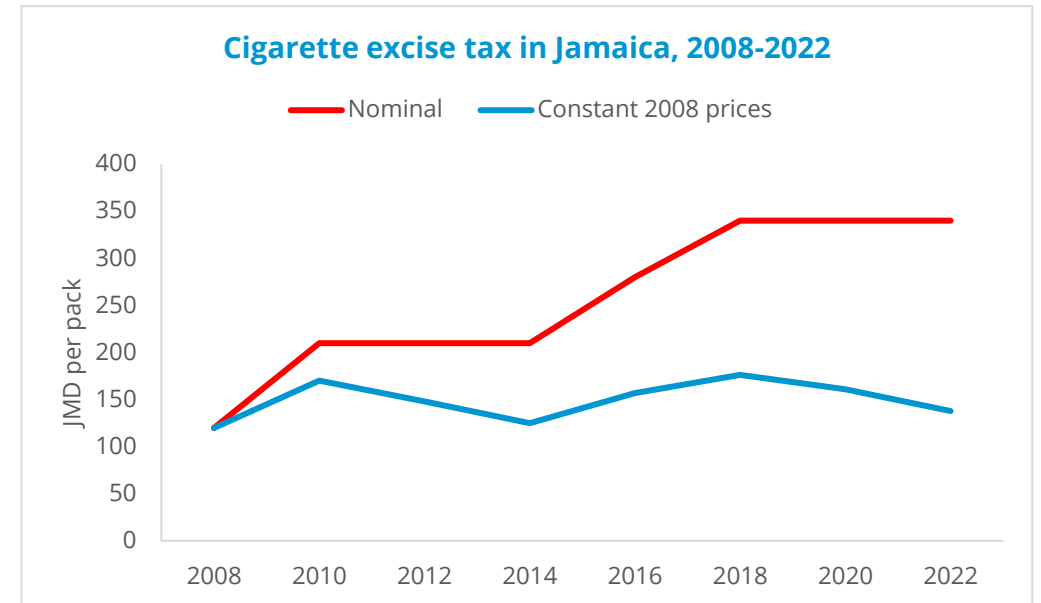
Source: World Bank Global Tax Program estimates using WHO (2022) data

Case study of tobacco taxes in Caricom: cigarettes in Jamaica

- Cigarette taxes led to price increase in Jamaica over time, although not consistently
- This has led to declining cigarette affordability, however in the most recent years, prices increases have subsided and affordability trends have reversed, let's consider it in more detail

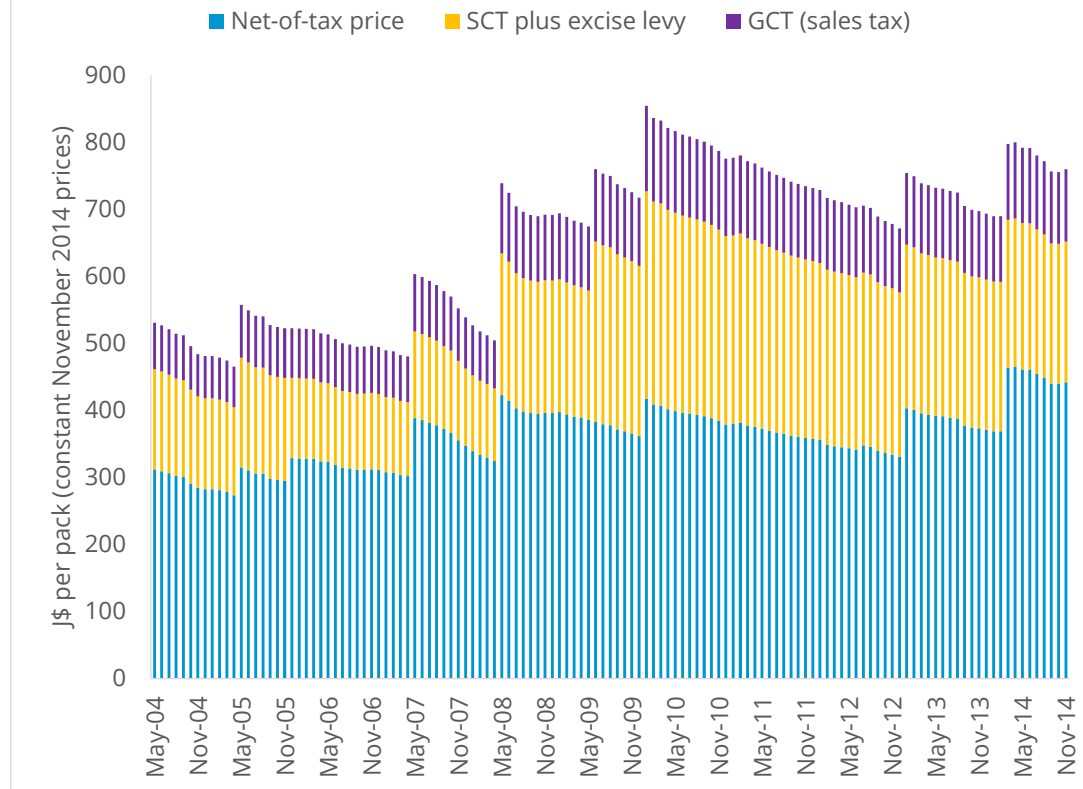
Case study of tobacco taxes in Caricom: cigarettes in Jamaica

- While taxes and prices have increased in nominal terms, the effect of inflation have eroded these increases
- The nominal tax remained unchanged from 2010 until 2014
- It increased again in 2016 & 2018, whereafter it remained unchanged through 2022;
- the net result is that in inflation adjusted terms, despite increasing 183% in nominal terms, in real terms taxes were only 15% higher in 2022 than 2008.



Source: World Bank Global Tax Program estimates using WHO (2022) data

Cigarette prices (decomposed) in Jamaica, 2004-2014



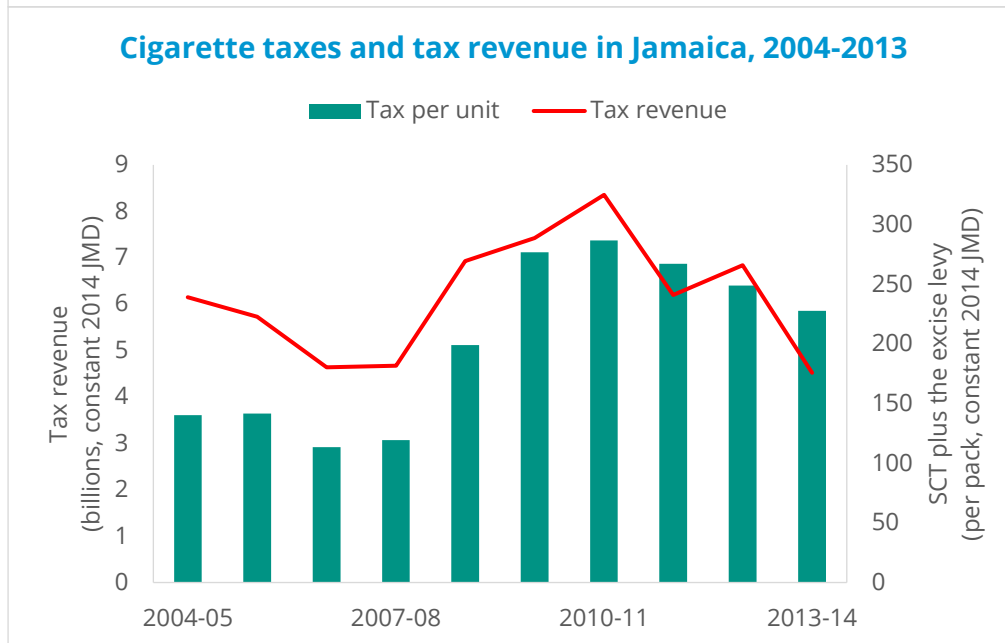
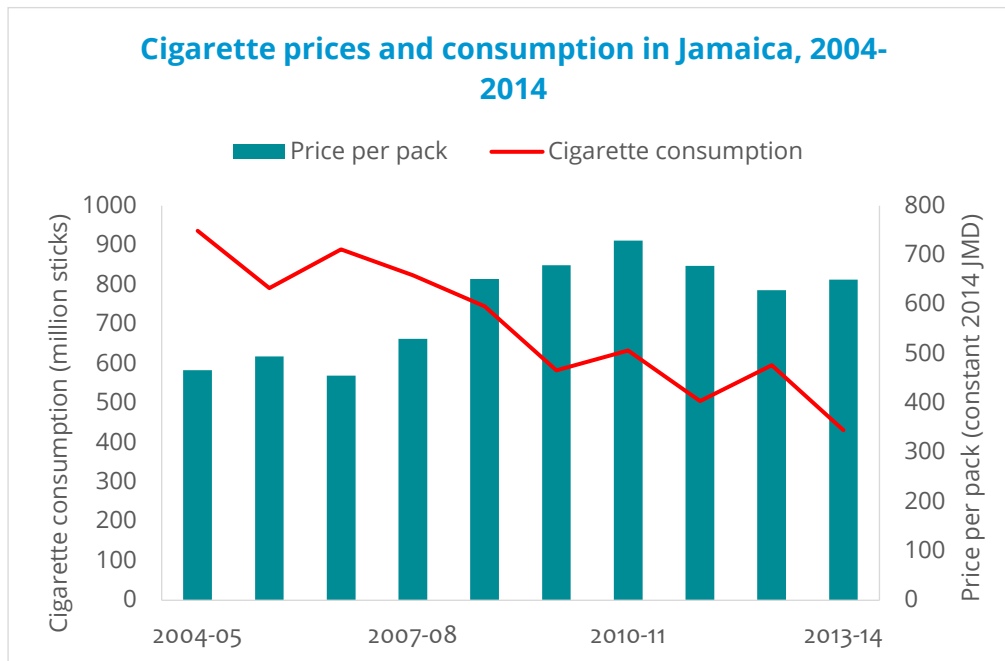
Source: Van Walbeek (2015)

Case study of tobacco taxes in Caricom: cigarettes in Jamaica

- When prices increase by more than the increase in tax, taxes are said to be over shifted
- Over shifting results in larger declines in sales, but smaller increases in tax revenues (compared to tax increases being fully pass through)
- The figure shows that whenever taxes increased in Jamaica (increase in the orange bar), the net-of-tax price (blue bar) increased
- The net-of-tax price is the value attributable to the supply chain, including the industry margins
- The industry was taking advantage of, and exploiting, tax increases to compensate for declining sales with larger margins

Why does the industry over shift?

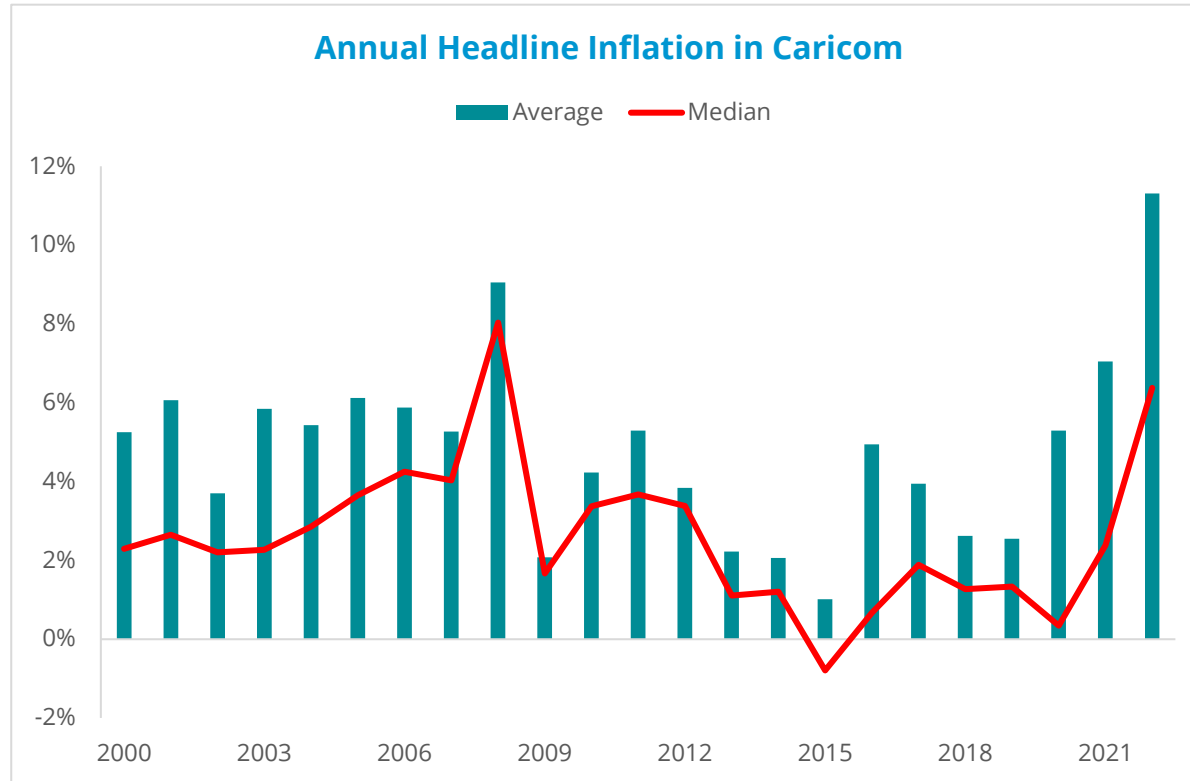
- If something is very inelastic, and a market is concentrated, then they can compensate for the declining volumes (inducted by the tax and price increase) by increasing prices by more
- While this reduces sales further, the decline in sales is less than proportional to the increase in price



Impact of tax increases in Jamaica

- Recent sales and revenue data is not available, however an evaluation conducted in 2015 showed that tax increases from 2007 to 2010 had a considerable impact on increasing prices, reducing sales and increasing tax revenue
- Post 2010, tax increases, prices and revenues were unable to maintain their value in real terms leading to stagnation
- Between 2006 and 2011, taxes per pack increase by 80%, prices by 60%, sales declined by 45%, and revenue increased by 152%
- Subsequent challenges with tax administration, combined with stagnant tax increases, and inflation erosion led to declines in real revenue

Source: Van Walbeek (2015)



Source: World Bank Inflation Database

Health taxes face unique challenges in the current macroeconomic climate due to higher inflation

- Prior to the COVID-19 pandemic, many economies, including in Caricom, enjoyed a period of low and stable inflation
- However, the effects of the COVID-19 pandemic, including supply chain disruptions and fiscal stimulus, combined with the effects of global conflicts and energy prices have resulted in the most significant inflationary period in decades
- This generates risks to health taxes, as highlighted in Jamaica (and South Africa)
- There are good practice policy options available to mitigate these risks and challenges

World Bank's Global Tax Program Health Taxes Knowledge Note Series

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- Focuses on questions that emerge from the field during engagements with Ministries of Finance, tax authorities, and Ministries of Health
- Provides policy makers with an overview of the issues, and feasible solutions and policy choices
- Knowledge Note 2 published in February 2023 on "Health Taxes and Inflation", recognizing the unique risks and challenges that higher contemporary high presents to health tax policy and administration

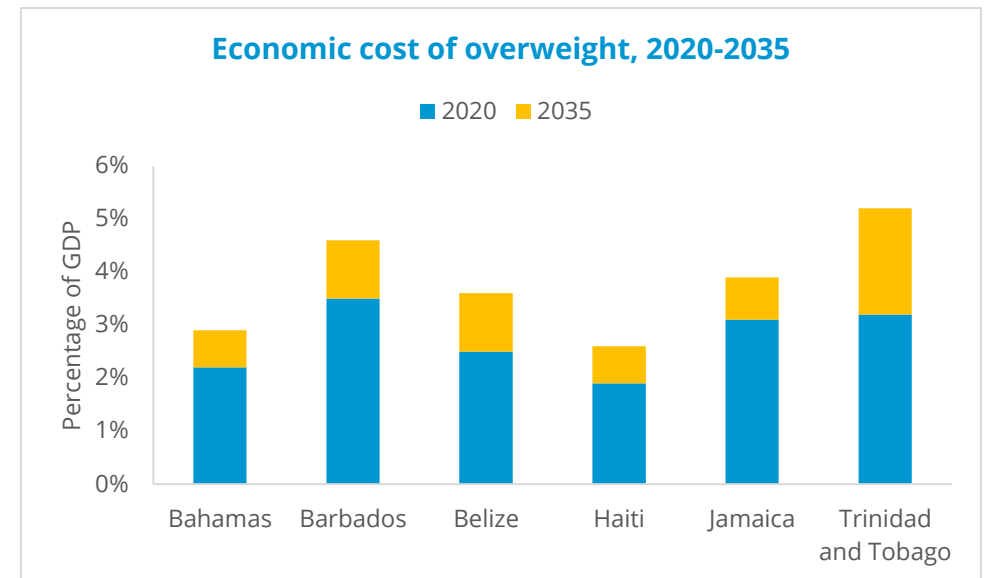


- Using country case studies, identifies the risks and challenges of higher inflation to health taxes
- Highlights how these vary based on different tax structures and policy making cycles
- Considers the impact of health taxes themselves on inflation (how much do health taxes contribute to inflation) and the monetary policy environment (impact on inflation targeting)
- Identifies good practice policy responses, including benchmarking health taxes to inflation to protect the real value of taxes and tax revenues
- Navigates country examples, identifying good practices in benchmarking under different tax structures and fiscal systems

Why SSB taxes?

- The case for tobacco and alcohol taxes is very strong: tobacco and alcohol use generates significant negative externalities and internalities
 - ▶ Example tobacco: Cost of smoking in England in 2022 was estimated at GBP 17 billion; direct costs estimated at GBP 3.6 billion (health and social care costs in the public sector); indirect costs estimated at GBP 13.2 billion (e.g. productivity losses; work absenteeism, etc); not even accounting for intangible costs (e.g., unpaid care for family member) (ASH, 2022)
 - ▶ Example alcohol: Direct cost in 2009 estimated at ZAR 37.9 billion (includes healthcare, crime including anticipation, response and consequences, and road traffic accidents); 2% of GDP (Matzopoulos et al., 2014)
- However, opponents of SSB argue that the negative externalities generated by SSB consumption is too low to justify high taxes
- Recent applied work has focused on the negative internalities generated by SSB consumption, for example, Allcott et al. (2019a) estimated the socially optimal SSB tax in the US needing to be between 34 and 71 US cents per litre to account for the negative internalities

Large increases in the economic costs of overweight in Caricom expected in the next 15 years

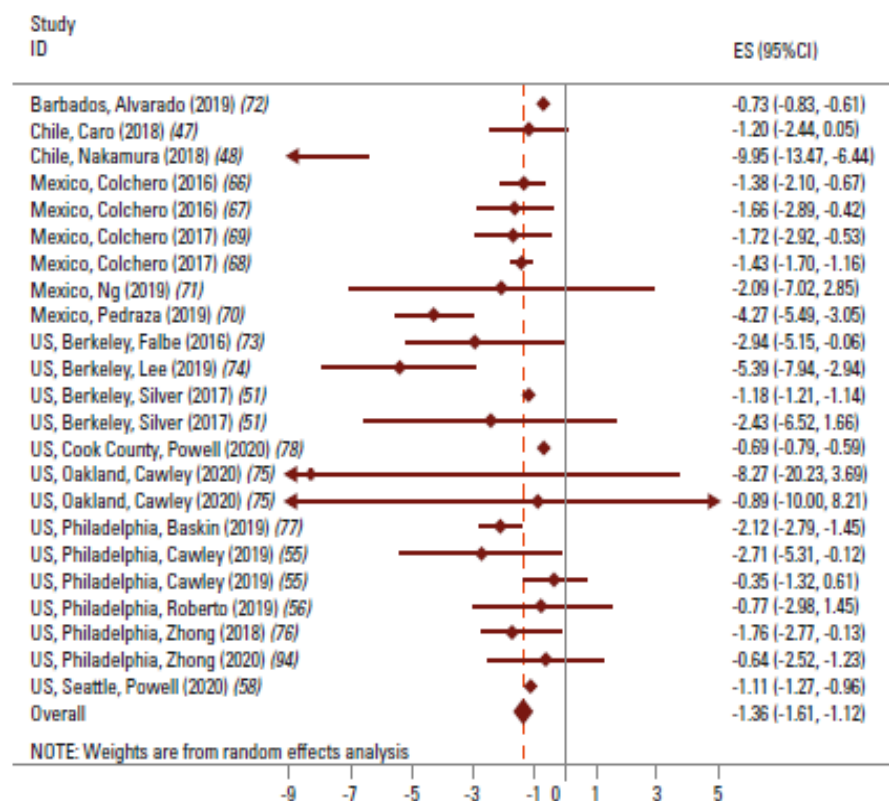


Source: World Obesity (2023)

Evidence from other countries in the Americas shows that SSB taxes are effective

Price elasticity of demand for SSBs

Adjusted for local policy pass-through and cross-border shopping



Source: PAHO (2020) Sugar-sweetened beverage taxation in the Region of the Americas.

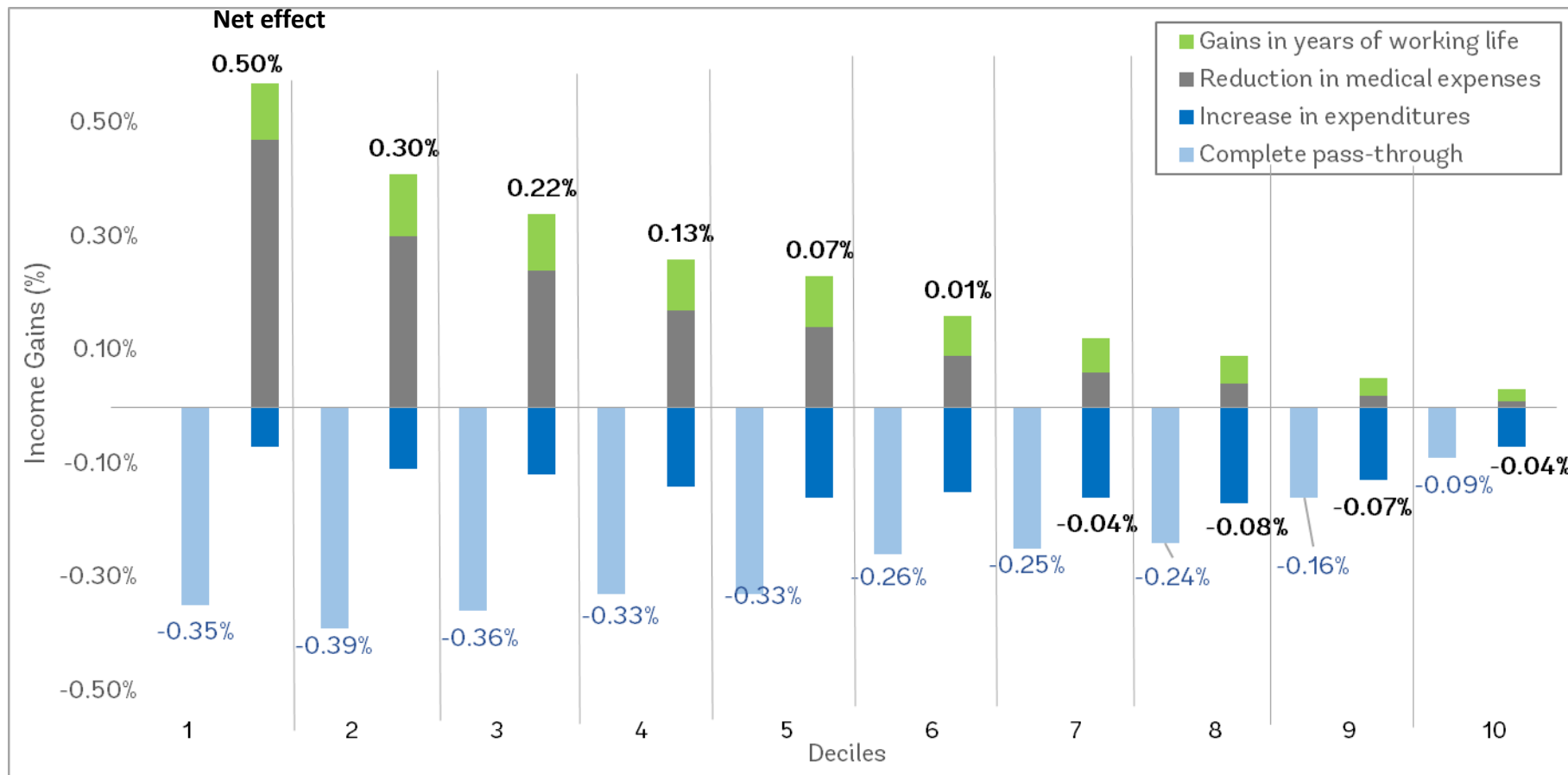
- Estimated price elasticity of demand based on tax evaluations in the Region of the Americas is -1.36
- A tax that raises SSB prices by 20%, for example, is expected to reduce demand for SSBs by 27%
- We will return to SSB taxes tomorrow to take a more thorough view of SSB tax structure

Why Health Taxes? Key Messages

- Health taxes are an established and well-regarded fiscal policy tool, underpinned by a strong economic framework
- Health taxes generate fiscal and health gains, through increasing tax revenue and improve population health, with limited to no evidence of adverse economic impacts
- Health taxes are very effective; however, not enough attention is paid to ensuring that tax policies are well designed, implemented, administered and evaluated
- Two key considerations of tax design is the tax structures and tax rates; poorly designed tax polices that are not well implemented and administered may result where tax increases do not result in increased tax revenue and/or improvements in population health (or where gains are substantially less than expected)
 - ▶ Tomorrow we will consider the impact of tax structures in more detail
- Substantial experience and evidence supports design, implementation, administration and evaluation of health taxes, including case studies of successful reforms

Example of incidence analysis of tobacco taxes in Chile using ECBA: Simulated effects of a 25% price increase

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

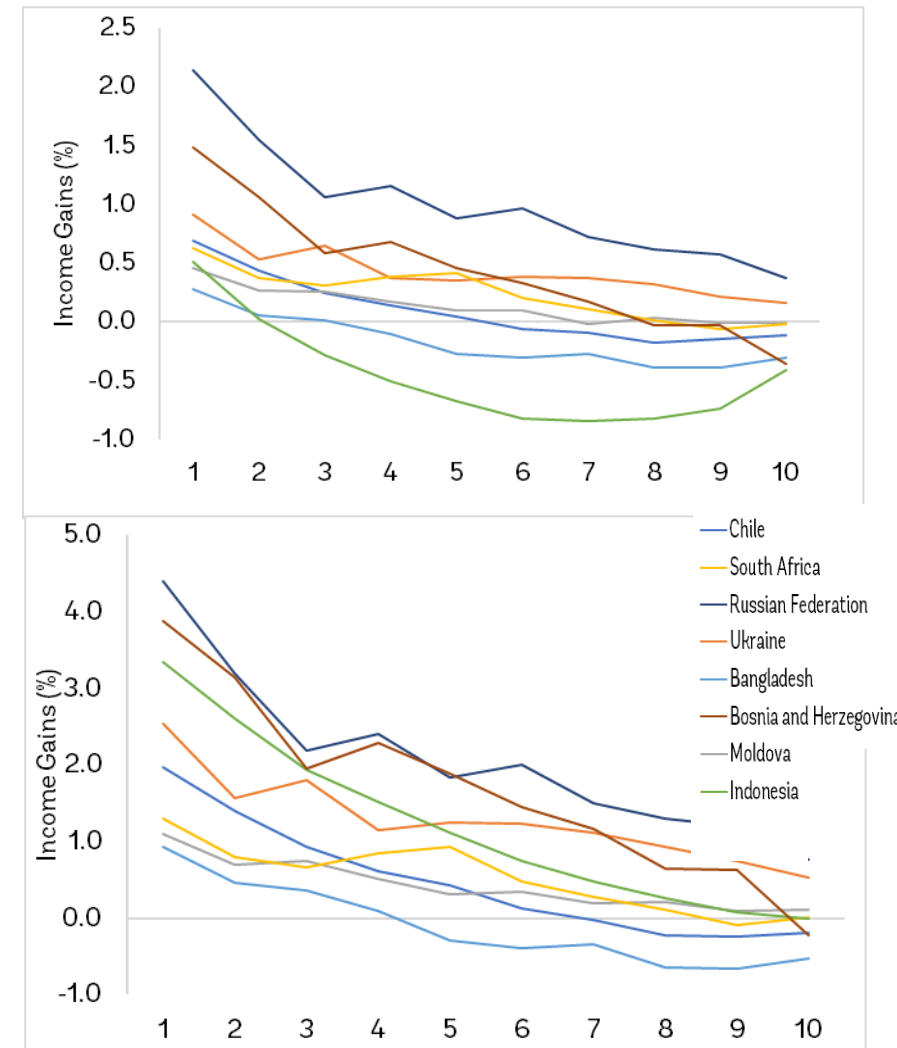


Source: Fuchs and Meneses (2017)
Note: Simulations for Chile based on data from 2011

Distributional impact of health taxes: regressivity and impact on the poor

- Regressivity argument premised on consumption being high among the poor and higher expenditure shares than richer consumers
- This implies that taxes are regressive in that the poor spend a higher proportion of their income on the tax than the rich; on average health are then regressive
- However, economists are more interested in the marginal rather than average effects
- Since we know that tax increases that result in price increases reduce consumption, and that the poor are more price responsive than the rich (go back to the elasticities), we know that health tax increase are progressive at the margin since the poor benefit more than the rich through lower consumption as:
 - reduced consumption also results in **lower medical expenses** due to reduced illness
 - greater labor income through longer and more productive lives
- A growing body of evidence is estimating the impact of these effects through the **Extended Cost Benefit Analysis (ECBA) methodology**

Simulated net effect of tobacco price increase of 50% and 100% (due to tax increase), by income decile



Source: Fuchs, Paz & Gonzalez (2019)

Key issues in health taxes in the region: Negative impact of tobacco subsidies

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KN3. Tobacco Excise Taxes and Tobacco Leaf Farming— Key Considerations¹

The purpose of this note is to provide policy makers with an overview of relevant issues and feasible policy choices in setting tobacco excise taxes,² with a specific focus on how tobacco excises impact factors such as growth and domestic demand for tobacco leaf. It is one in a series of knowledge notes responding to specific questions around health taxes and key issues raised during health tax reforms.

- Evaluates trends in global lead demand and supply, and impact on leaf prices: global demand is declining, leading to declines in global supply, and stagnant leaf prices
- Highlights small contribution to GDP & employment, even in countries with large leaf
- Identifies actions that governments can take to support alternatives to tobacco growing
- Identifies other important considerations including welfare of tobacco farmers, environmental and health effects of tobacco growing, child labor challenges, and food security challenges
- Challenges the narrative that domestic tax policy undermines growing noting that most large tobacco growing countries are large exporters

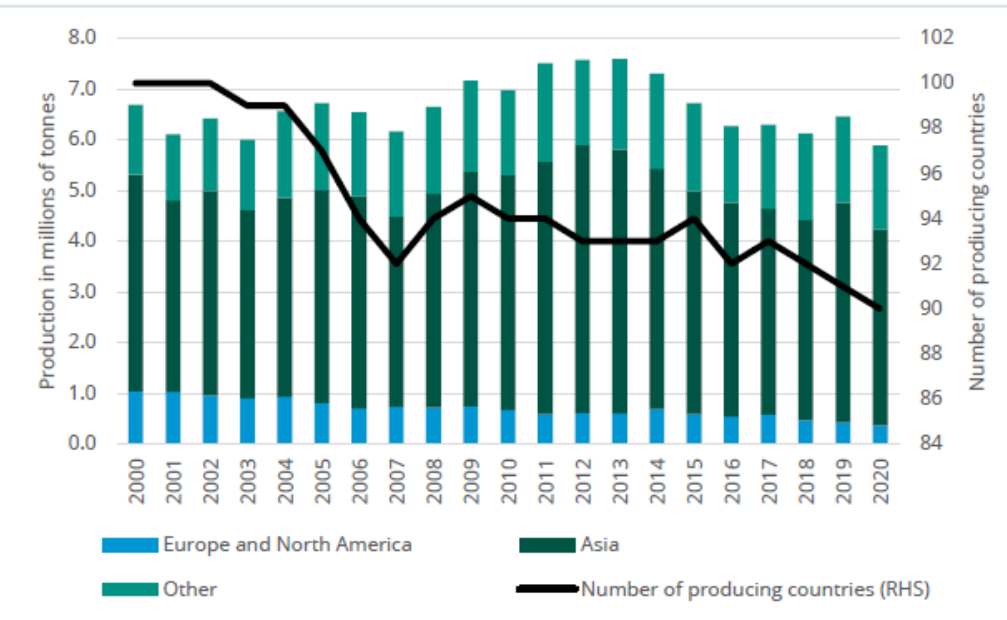
Tobacco farming subsidies are costly

- Several countries in the region continue to subsidize tobacco growing, while most countries globally have phased out tobacco growing subsidies
- There are better targeted and progressive policies: such as, help farmers to transition to more productive crops (e.g., see WHO recent campaign grow food not tobacco), and more targeted support to the vulnerable and the poor (e.g. well-targeted social assistance programs)
- They undermine health tax policy goals with very little public benefit (a subsidy to consumption in importing countries)

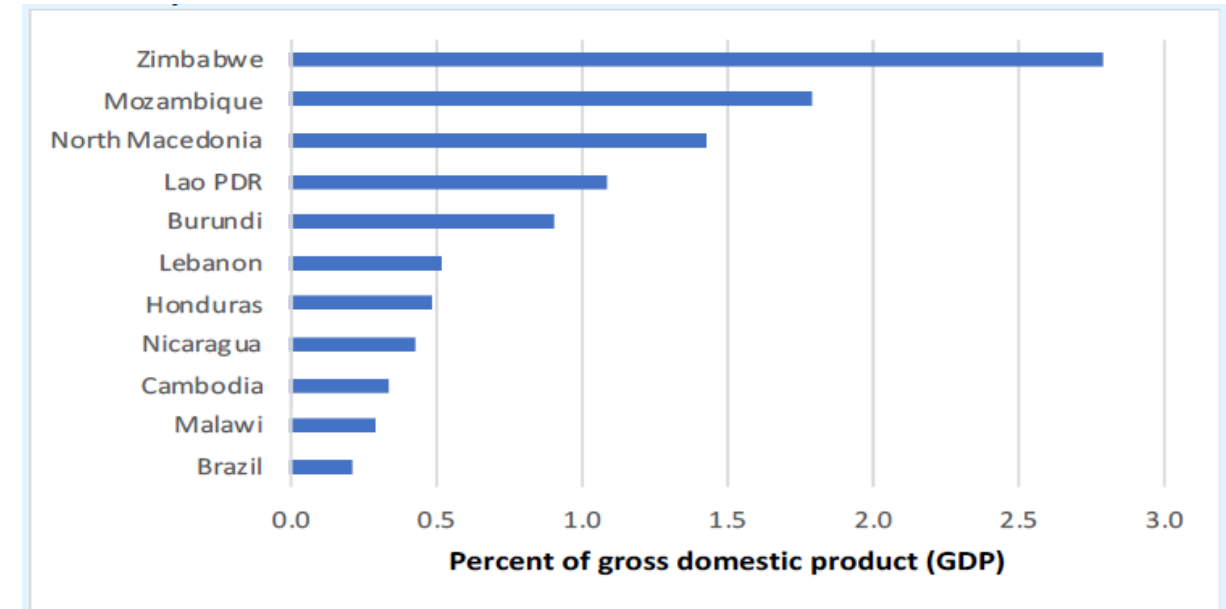
Tobacco farming

- Global production of tobacco leaf is on the decline
- In most countries, the overall contribution of tobacco farming to GDP is relatively small, significantly less than one half percent of GDP except for a handful of countries
- There are a number of measures that governments can take to incentivize farmers to switch to other crops, including investing in supply and value chains for other products and connecting farmers to markets

Global Production of Tobacco, 2000-2020



Gross value of unfinished tobacco as a percentage of GDP, 2020 (highest shares)



Note: Gross domestic product is in 2020 U.S. dollars; production value is in current U.S. dollars.

Source: FAOSTAT. Food and Agriculture Data, <https://www.fao.org/faostat/en/#home>, accessed 12/12/22.

Sources: FAOSTAT. Food and Agriculture Data, <https://www.fao.org/faostat/en/#home>, accessed 12/12/22, World Development Indicators, <https://databank.worldbank.org/reports.aspx?source=World-Development-indicators> accessed 12/12/2022. Data for Malawi not consistent with exports data which is significantly higher