

Health Taxes to Save Lives

Background Materials: Briefs

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Tobacco, Alcohol, and Sugary Beverages in Low- and Middle-Income Countries: Harms, Consumption, and Costs

More than 40 million people die each year from noncommunicable diseases (NCDs), accounting for 70 percent of deaths in the world. More than three-quarters of all NCD deaths occur in low- and middle-income countries (LMICs) (WHO 2018).

Rates of death and disability from NCDs are declining in every region of the world due to improved prevention, better treatment, or some combination of both. However, while rates are declining, absolute numbers of NCD deaths are increasing, in large part due to demographic changes in population growth and aging occurring in LMICs worldwide (WHO 2018).

A significant portion of the 40 million NCD deaths and 5 million injury deaths are caused by three risk factors: tobacco, alcohol, and obesity. While obesity has many causes, one significant factor is the growth of consumption of highly processed foods and sugary beverages worldwide.

Tobacco

Seven million people die each year from tobacco use, an estimated 13 percent of all deaths worldwide (Collaborators GRF 2017). Half of lifetime smokers will die before they reach 70, losing an average of 10 years of life (Jha et al. 2015).

There is no safe level of tobacco use. Smoking substantially increases the risk of death from lung and other cancers, heart disease, stroke, respiratory disease, and tuberculosis. Secondhand smoke and smoking during pregnancy also harm non-smokers. Fifteen to 50 percent of the global population is exposed to secondhand smoke, resulting in 890,000 deaths each year (WHO 2017a).

More than 1 billion people in the world smoke (21 percent of the world's population). Eighty percent of smokers live in LMICs (WHO 2017a). Manufactured cigarettes are the most commonly used tobacco product, accounting for 92 percent of worldwide tobacco sales. Other smoked tobacco products include cigars, kreteks, bidis, and waterpipes. An estimated 346 million adults use smokeless tobacco products.

Smokeless tobacco use is most common in the WHO South-East Asia region, the region that accounts for 86 percent of smokeless tobacco consumption (WHO 2017a).

Globally, smoking prevalence is declining. However, the number of tobacco users is growing in many low- and middle-income countries due to population and income growth, while the number of smokers in high-income countries is declining (NCI 2016). Tobacco use is highest among the poorer socio-economic groups in almost all countries, contributing to a disproportionate burden of disease and death among the poor (NCI 2016).

Tobacco use is highly addictive. Patterns of use start early in life and often persist throughout adulthood. Seven percent of youth (25 million) between 13-15 years of age are smokers worldwide (WHO 2017a).

The economic impacts of tobacco use globally were estimated to be the equivalent of 1.8 percent of global GDP (PPP¹ \$1852 billion) in 2012 (PPP \$467 billion in direct health expenditure and PPP \$1385 billion in indirect costs from lost productivity). Forty percent of this cost was incurred in developing countries (Goodchild et al. 2017).

Alcohol

About 2.8 million people die each year from alcohol use, approximately 5 percent of all deaths worldwide (Collaborators GRF 2017). Twenty-five percent of total deaths between the ages of 20-39 are alcohol attributable. Harmful use of alcohol is the leading risk factor for death in males aged 15-59 years (WHO 2014).

Alcohol-related harm is determined by the volume of alcohol consumed and patterns of drinking. Heavy episodic drinking is causally related to acute outcomes including homicides, suicides, traffic crashes, and alcohol poisonings. Long-term excess drinking causes acute and chronic heart and liver disease, including cirrhosis, and cancers. Alcohol use can result in mental health problems, including addiction. Alcohol-caused externalities include fetal alcohol spectrum disorders, violence against others, traffic fatalities, injuries, and the spread of infectious disease (WHO 2014).

¹ Purchasing Power Parity (PPP\$) or international dollars have the same purchasing power as the U.S. dollar has in the United States.

There is significant variation in number and percent of deaths attributed to alcohol across regions. Over 10 percent of deaths in Central and Eastern Europe and Central Asia are attributable to alcohol while less than 1 percent of deaths from North Africa and the Middle East are alcohol attributable, reflecting in large part differences in consumption (WHO 2014).

Most harms from alcohol are caused by the roughly 20-25 percent of drinkers that consume between 50-75 percent of all alcohol; however, most drinkers can reduce harm from alcohol by reducing use (OECD 2015).

Worldwide approximately 40 percent of adults consumed at least some alcohol in the past year. There is large variation in the prevalence of alcohol use across regions and countries; prevalence of drinking is highest in the WHO Americas and Western Pacific Regions and lowest in the Eastern Mediterranean Region. About 16 percent of drinkers worldwide engage in heavy episodic drinking², with similar large variation in HED across countries and regions (WHO 2014).

Alcohol consumption and high-risk patterns of drinking are highest in high-income countries and lowest in low-income countries. However, while there are more drinkers in higher socioeconomic groups and more abstainers in the poorest social groups, people with lower socio-economic status who consume alcohol are more vulnerable to alcohol consumption problems and consequences (Hemström 2002; WHO 2014).

Most of the world's alcohol is consumed as beer, wine, or spirits, with regional differences in the most commonly consumed form. One-quarter of world consumption consists of unrecorded and untaxed products (WHO 2014). The total amount of alcohol consumed and the total number of people who drink is expected to substantially increase, especially in growing LMICs. The highest increase is expected in the populations of the WHO Western Pacific Region.

Economic costs of alcohol use have been estimated for middle- and high-income countries at over 1 percent of GDP. Of that, direct health sector costs account for 9-24 percent of all alcohol-attributable social costs. Costs

range considerably across countries. For example in South Africa, total costs of harmful use of alcohol were estimated at 10-12 percent of the 2009 GDP (Rehm 2009; OECD 2015).

Sugary beverages

Sugary beverages are sweetened with sugar or other caloric sweeteners and include regular soda, fruit punch, sports drinks, energy drinks, sweetened waters, and coffee and tea beverages with added sugar.

Consumption of sugary beverages is directly linked to weight gain and obesity and both directly and indirectly increases the risk of diabetes (Malik et al. 2013; Vartanian et al. 2007). Obesity causes over 4.5 million deaths and diabetes causes 1.6 million worldwide each year (Collaborators GRF 2017). More than 2.1 billion people - 30 percent of the global population - are overweight or obese³ (Ng et al. 2014). An estimated 383 million people have diabetes worldwide; 65 percent of them live in LMICs (Collaborators GRF 2017).

Consuming sugar in liquid form in sugary beverages is a significant contributor to rising rates of obesity and its related diseases. A single 20-ounce regular soft drink on average provides 12 percent of total daily calories from added sugar for an adult on a 2000 kcal/day diet. WHO guidelines recommend consuming no more than 10 percent of total calories from added sugar, and preferably less than 5 percent (WHO 2015).

Sugary beverages are energy dense and high in calories. The amount of sugar contained in sugary beverages is not well understood by all consumers, leading to over-consumption. People consuming sugary beverages do not compensate for their high caloric content by eating less food (Pan and Hu 2011). In children, sugary beverage consumption is associated with lower consumption of healthful foods and greater sedentariness (Gebremariam et al. 2017). Sugary beverage consumption is linked to under-nutrition, especially in some African and Latin American countries where some infants are given sugary beverages as a weaning food, increasing under-nutrition and stunting (Adair et al. 2013).

² 60 or more grams (roughly 5 U.S. standard drinks) of pure alcohol on at least one occasion at least monthly.

³ Overweight is defined as having a Body Mass Index (BMI), or weight-to-height ratio, greater than or equal to 25 and lower than 30, while obesity is defined as having a BMI equal to or greater than 30.

Consumption of sugary beverages is increasing globally, especially in LMICs. Consumption of sugary beverages varies considerably across regions, with the highest levels of per capita consumption of sugary beverages in Latin America and the Caribbean. People in upper-middle-income countries consume the highest number of daily servings of sugary beverages, followed by those in lower-middle-income countries (Singh et al. 2015).

The global health care and productivity costs of obesity diabetes have been estimated to be \$2.0 trillion (Dobbs et al. 2014). Health care costs alone for diabetes have been estimated to be \$727 billion per year (IDF 2017).

Interventions to Reduce Consumption

In May 2013, the World Health Assembly endorsed a set of 'best buys' and recommendations to provide guidance to countries to reduce and control non-communicable diseases. This guidance was based on a review of effectiveness and cost effectiveness, as well as the feasibility and non-financial considerations of potential interventions. These recommendations were updated in 2017. Measures to reduce tobacco, alcohol, and sugary beverage consumption include taxes, bans on advertising, promotion, and sponsorship, public information campaigns, warning labels, prohibiting sales to minors, and restricting places and times where products can be purchased or consumed. Among these policies, significant tax and price increases are the most cost-effective (WHO 2017b). The impact of these population-wide strategies tends to be cumulative. Higher taxes on tobacco, for instance, reduce tobacco use. Coupling such tax increases with mass media campaigns on the harms of tobacco can increase the impact of both policies on demand.

The Sustainable Development Goals call for a one-third reduction in premature mortality from NCDs by 2030. Policies to discourage consumption of these three key risk factors – tobacco, alcohol, and sugary beverages – are central to achieving that goal.

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Using Fiscal Policy to Promote Health: Taxing Tobacco, Alcohol, and Sugary Beverages

Noncommunicable diseases (NCDs) impose enormous health and economic costs. The burden of NCDs has increasingly shifted from high-income countries (HICs) to low- and middle-income countries (LMICs). Increases in tobacco use, alcohol consumption, and the consumption of highly processed foods and sugary beverages that follow increases in incomes in LMICs are a driving factor behind the growing burden of NCDs. Fiscal policies, specifically excise taxes, are central to countries' efforts to curb unhealthy consumption of tobacco, alcohol, and sugary beverages.

Excise taxation has a well-established economic justification.

The markets for tobacco products, alcohol, and sugary beverages have significant information failures: consumers are often unaware and/or underestimate many of their health consequences, producers have greater information than consumers about product contents and the health impact of consumption, and aggressive product marketing promotes demand.

Tobacco use, drinking, and consumption of sugary beverages impose significant negative externalities. The health of non-smokers is harmed by exposure to tobacco smoke. Non-drinkers are often the victims of traffic crashes and violence caused by excessive drinking. Maternal smoking, drinking, or obesity during pregnancy results in a variety of complications for infants and can affect a child's health later in life (NCI 2016; Rehm et al. 2009; Sassi et al. 2013; Gruber and Kőszegi 2008).

The economic costs of smoking were estimated to be over \$1.4 trillion globally in 2012, equivalent to 1.8 percent of GDP (Goodchild et al. 2017). Annual economic costs from alcohol consumption were estimated to be over 1 percent of GDP in middle-income and high-income countries in 2009 (Rehm et al., 2009). Economic costs of obesity and type 2 diabetes, two of the health consequences of sugary drink consumption, have been estimated to be \$2.0 trillion for healthcare and productivity and \$727 billion in healthcare costs alone per year respectively (Dobbs et al. 2014; IDF 2017).

Raising the price of tobacco, alcohol, and sugary beverages through tax increases is a highly effective way to reduce consumption and improve population health.

Extensive evidence has accumulated on the impact of taxes and prices on the demand for tobacco products and alcoholic beverages over the last few decades, and, in recent years, similar evidence has emerged on the impact of taxes and prices of sugary beverages.

Evidence from HICs consistently shows that tobacco demand responds to changes in prices, with most estimates of overall price elasticity clustering around -0.4, implying that a 10 percent increase in price would reduce overall consumption by 4 percent. Estimates from LMICs find more variation in price elasticity estimates, with most in the range from -0.2 to -0.8, clustering around -0.5 (NCI 2016).

Evidence from HICs shows that the overall price elasticity of demand for alcoholic beverages ranges between -0.5 and -0.8. Limited evidence from LMICs produces an overall elasticity of -0.6 (Wagenaar et al. 2009; Elder et al. 2010; Sornpaisarn et al 2013).

Estimates for sugary beverages indicate that demand is more responsive to price, with the elasticity around -1.2, with the greater elasticity in part reflecting the opportunity to substitute away from sugary beverages (Escobar et al. 2013; Powell et al. 2013).

Evidence shows that the disease and premature deaths caused by smoking and the negative consequences of alcohol use are inversely related to taxes and prices (Bowser 2016; Ho et al. 2017; Hatoun et al. 2018; Ringel and Evans 2001; Wagenaar 2009). Studies on the association of higher prices and obesity are more limited; some have found inverse associations between prices and body weight outcome (Powell et al. 2013; Escobar et al. 2013). Models simulating the impact of lower sugary beverage consumption following the implementation of a tax find lower obesity rates, reduced incidence of diabetes, and other improvements in health (Finkelstein et al. 2013; Smith et al. 2010; Manyema et al. 2014; Long et al. 2015; Sánchez-Romero et al. 2016).

Reforms to tax structure design and significant tax increases, particularly in LMIC settings, are critical to reducing consumption.

Governments can and do impose a variety of taxes on tobacco, alcohol, and sugary beverages, including customs duties, value added or general sales taxes, and excise taxes.

Excise taxes are most important when using fiscal policy to promote health, as they are uniquely applied to the products and thus will have a greater impact on the relative price of the taxed product than will taxes on a broader range of goods and services (WHO 2010; WBG 2017; WHO 2016; Sornpaisarn et al. 2017).

Specific excise taxes have many advantages over ad valorem excises.

Excise taxes can be levied as specific taxes, based on some measure of quantity, or as ad valorem taxes, based on the price of a product. Specific taxes reduce the price gaps among different brands of the taxed product, reducing opportunities for consumers to trade down to cheaper brands when taxes are increased. They encourage production of higher priced products, produce more stable tax revenues, are relatively easy to administer, and are not as susceptible to industry tax avoidance and evasion. Specific excise taxes, however, need to be increased regularly or their value will be eroded by inflation.

Since they are based on price, ad valorem excise taxes tend to keep up with inflation. However, ad valorem taxes tend to result in larger gaps in prices between high- and low-price brands, creating more opportunities for consumers to trade down to cheaper brands as taxes and prices rise. They also produce less stable revenues, as industry price cuts reduce the amount of the tax collected.

Some countries maintain tiered tax structures (whether specific, ad valorem, or mixed), where the tax varies based on price and/or product characteristics. Tiered tax structures widen price gaps between brands, creating more opportunities for substitution to lower-price products and facilitating tax avoidance by producers who may manipulate prices or their product to reduce their tax bill.

What products are taxed is important for maximizing the health impact and revenue effect of excise taxes.

The narrower the product base, the greater the opportunities for consumers to substitute away from taxed to untaxed products, reducing the effectiveness of a tax in promoting health, while also generating lower revenues.

It is challenging to determine the optimal level of tax or magnitude of tax increases.

The World Bank recommends that all countries increase tobacco excise taxes immediately and by large amounts because this will have a larger impact on consumer behavior than small incremental change (WBG 2017). WHO has recommended that tobacco excise taxes should account for at least 70 percent of retail prices, a target that would require significant tax increases in nearly all countries (WHO 2010).

WHO recommends that sugary beverage tax rates be set high enough to raise prices by 20 percent, given that this is likely to result in net reductions in caloric intake that are potentially large enough to improve weight outcomes at the population level (WHO 2016).

There are no similar recommendations for the level of taxes on alcoholic beverages.

Taxes need to be increased regularly over time by enough to offset inflation and income growth in order to reduce the affordability of the taxed products.

Cigarettes have generally become less affordable over time in HICs where taxes have increased and income growth is small, while getting more affordable in many LMICs where taxes have changed little over time while incomes have grown rapidly. Alcoholic and sugary beverages have generally become more affordable over time in both LMICs and HICs.

Effective tax administration maximizes the health and revenue impact of a given tax by minimizing tax avoidance and evasion.

Strong tax administration begins with control over the distribution chain, including licensing of all involved in the manufacture, import, distribution, and retail sales of the taxed product and the monitoring of the product as it moves through the distribution chain.

State-of-the-art systems are used cost-effectively in several countries for tobacco products, alcoholic beverages, and soft drinks. These systems include sophisticated tax stamps or other product markings coupled with tracking and tracing systems to verify the quantity produced or imported; confirm correct tax payments; track products through the supply chain; trace illegally diverted products back to their source; and minimize tax revenue leakages.

Current Status of Tobacco, Alcohol, and Sugary Drink Excise Taxes

Nearly all governments levy excise taxes on manufactured cigarettes.

A total of 173 countries reported levying a cigarette excise tax in 2016, among the 188 countries that reported tax and price data for the WHO Global Tobacco Control Report.

Excise taxes account for 32 percent of price in LMICs and 48 percent of price in HICs on average. About 38 percent of countries levy specific excise taxes, 27 percent levy ad valorem excises, and the remainder use a combination of specific and ad valorem taxes. LMICs tend to rely more on ad valorem excises, while HICs are more likely to employ a specific or mixed tax (WHO 2017).

Nearly all governments levy excise taxes on alcoholic beverages.

A total of 155 countries reported levying an excise tax on beer, 138 on wine, and 151 on distilled spirits, among the 192 countries that provided data for WHO's Global Information System on Alcohol and Health in 2012. Alcohol sales were banned in some, but not all of the non-taxing countries.

Excise taxes as a share of retail prices averaged 17.3 percent, among reporting countries. Taxes as a

percentage of price tend to be lowest on beer and highest on distilled spirits, with considerable variation across reporting countries (WHO 2014).

Relatively few governments levy an excise tax on sugary beverages.

The number of countries that levy excise taxes on sugary beverages has grown in recent years, although the number remains low. The first wave of taxes adopted tended to be small, but more recently jurisdictions have adopted or proposed taxes that aim to raise retail prices by at least 10 percent, with a few resulting in more significant increases.

There is considerable variability in tax structure, with some governments using ad valorem taxes, others applying volume-based specific taxes, and still others taxing based on sugar content.

Tobacco, alcohol, and sugary beverage excise taxes, while generating significant revenues, tend to account for a relatively small share of overall government revenue in most countries. In general, excise tax revenues account for a greater share of total tax revenues in LMICs than in HICs, but this varies considerably across countries.

Tobacco excise tax revenues accounted for less than 3 percent of total revenues in 64 countries and for more than 5 percent in 10 countries, among the 90 countries for which data were available for 2013. Alcohol excise tax revenues accounted for less than 3 percent of total revenues in 19 out of 24 countries for which data were available in 2013 and for more than 5 percent in only 3 countries. Mexico's sugary beverage tax generated nearly 16 billion pesos in 2015, less than 0.5 percent of total revenues.

Economic Impact of Excise Tax Increases – Myths & Facts

Opponents of increased tobacco and alcohol taxes and implementation of a sugary beverage tax argue that a tax increase will: reduce revenues from the tax given declines in consumption; have harmful macroeconomic consequences; hurt the poor; and lead to extensive tax avoidance and evasion. Experiences from around the world demonstrate that these arguments are either false or greatly overstated.

Revenues

In the short- to medium-term, increases in taxes on tobacco products and alcoholic beverages will result in increases in revenues, given the relative inelasticity for these products and the share of price accounted for by tax. In the longer run, as taxes are increased and other policies aimed at curbing consumption are implemented, tax revenues may eventually fall, but this turning point is a long way off in nearly all countries, particularly in LMICs. In every country that has raised its tobacco tax by a non-trivial amount, consumption fell and revenues rose (NCI 2016).

Employment

The tobacco, alcoholic beverage, and soft drink industries argue that they create numerous jobs and contend that tax increases, by reducing sales of their products, will cause significant job losses. While there may be some job losses in the taxed industry, these will be offset by job gains in other sectors as consumers shift from the taxed products to spend on other goods and services. A relatively large evidence base consistently finds that reductions in tobacco use resulting from higher taxes or other tobacco control efforts either have no net impact on jobs or lead to modest job gains in nearly all countries (NCI 2016). Recent studies from the United States and Mexico have reached similar conclusions for alcoholic and sugary beverage taxes (Powell et al. 2014; Wada et al. 2017; Guerrero-Lopez et al. 2017).

Impact on the Poor

Opponents of excise taxes argue that they will have a particularly adverse impact on the poor as consumption taxes are generally regressive. For tobacco products and sugary beverage products consumption is generally higher for lower socioeconomic groups and thus the consequences of use are regressive (NCI 2016; Sassi et al. 2013; WBG 2017). Coupled with the greater price sensitivity of lower-income populations, the impact of tax increases on tobacco products and new taxes on sugary beverages will have a progressive health impact.

Illicit trade

The most commonly used oppositional argument for tobacco tax increases is that they will lead to significant tax avoidance and evasion, undermining the health and revenue impact of the tax. Experiences with tobacco taxes in a wide range of countries find that tobacco tax increases produce health and revenue benefits even in the presence of tax avoidance/evasion, albeit smaller than if there was full compliance. Other factors, particularly

strength of governance, are as or more important than tax rates in explaining tax avoidance and evasion. Governments can strengthen tax administration and curb illicit trade at the same time as they raise taxes, enhancing the health and revenue impact of the tax (NCI 2016).

Summary & Conclusions

Experiences from around the world show that excise taxes are powerful tools for reducing tobacco use, excessive drinking, and consumption of sugary beverages. The demands for tobacco, alcohol, and sugary beverages are responsive to prices, and countries and other jurisdictions that have raised or introduced taxes have seen reductions in consumption and, for tobacco and alcohol tax increases, improved health outcomes.

While most countries levy excise taxes on tobacco and alcohol products, these taxes are generally well below recommended levels and could be raised significantly. Big increases are needed to reduce the affordability of these products, particularly in LMICs. Few countries levy excise taxes on sugary beverages, but the evidence that such taxes reduce consumption is growing.

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Structure and Tactics of the Tobacco, Alcohol, and Sugary Beverage Industries

Noncommunicable diseases are the leading cause of death globally, accounting for over 70 percent of deaths worldwide. Tobacco, alcohol, and sugary beverage consumption represent three key risk factors for the global burden of disease.

Recent decades have seen expansion by leading producers of tobacco, alcohol, and sugary beverages into low- and middle-income country (LMIC) markets and increased consolidation in all three industries. Large multi-national companies can bring significant resources and expertise to aggressively promote products in LMICs.

To effectively reduce harmful use of these products through tax policy, it is critical to understand the structure of the tobacco, alcohol, and sugary beverage industries and the strategies these industries use to oppose and undermine the implementation of effective policies.

The Tobacco Industry

Recent decades have seen significant consolidation in the global tobacco industry. In 2001, the five leading multi-national tobacco companies accounted for approximately 43 percent of the global market. By 2016, their market share exceeded 79 percent. The China National Tobacco Corporation (CNTC) has the largest single share at 41.5 percent of global cigarette sales in 2016. Philip Morris International (PMI) accounts for 14.4 percent of the market followed by British American Tobacco (BAT) (11.4 percent), Japan Tobacco International (JTI) (8.4 percent), and Imperial Tobacco (3.5 percent). Growing markets for these companies are concentrated in LMICs in Asia Pacific, the Middle East, and Africa (Euromonitor 2017a).

Tobacco multi-national companies have used various strategies to expand into emerging markets, including directly purchasing state-owned monopolies and other domestic producers and mergers and joint ventures with domestic companies (Euromonitor 2017a; Gilmore et al. 2011). These investments marry the marketing expertise

and resources of multi-national companies with the market knowledge and political influence possessed by domestic companies.

The Alcohol Industry

Rapid global expansion and acceleration in consolidation has also occurred in the alcohol industry. The alcohol industry remains more stratified and complex than tobacco, with substantial variation in structure across the beer, spirits, and wine sectors (Hawkins et al. 2018). The top five global alcohol companies accounted for 43 percent of the market in 2016 - Anheuser-Busch InBev (21.4 percent), Heineken (8 percent), Carlsberg (4.7 percent), China Resources (4.7 percent), and Molson Coors (3.8 percent) (Euromonitor 2017b).

The main sites for expansion and investment are in Latin America, Asia Pacific, the Middle East, and, increasingly, Africa (Collins et al. 2014). For spirits, the Asia Pacific region has been key to the growth of the industry, with the Chinese and Indian markets as principal drivers. In 2016, Asia Pacific accounted for around 60 percent of the volume growth for global spirits (Euromonitor 2017c).

The Processed Food and Sugary Beverage Industry

The range of actors and products in the processed food and beverage industry is many times more diverse than for either tobacco or alcohol. There are large parts of the food industry whose products and activities enhance health (IFPRI 2015). However, there is increasing recognition that the global expansion of leading food and beverage manufacturers poses a threat to global health through rapid changes in diet and consumption patterns in emerging markets (Williams and Nestle 2015).

Ten food companies control the majority of the world's leading food and beverage brands - Nestlé, PepsiCo, Coca-Cola, Unilever, Danone, General Mills, Kellogg's, Mars, Associated British Foods, and Mondelez (Oxfam 2013).

The global market in soft drinks has among the strongest growth prospects of any consumer-packaged good; the annual growth rate for the soft drinks industry

exceeded 5 percent between 2012 and 2017. The Asia Pacific region is projected to account for almost half (47 percent) of global volume growth in soft drinks in the next five years. India is expected to be the most rapidly growing market. Coca-Cola is the market leader in soft drinks with 23.3 percent of the market in 2016, followed by PepsiCo (10.3 percent) (Euromonitor 2018).

Industry Strategies to Influence Tax Policy

Excise tax policies that reduce consumption of unhealthy products are central to efforts to combat the rise of noncommunicable diseases. However, taxes that reduce consumption are a direct threat to the interests of tobacco, alcohol, and processed foods and sugary beverage companies. These industries make significant investments in influencing tax policy to their advantage, deploying sophisticated strategies to influence tax policy decisions.

The strategies of the tobacco industry to oppose, delay, or undermine effective tobacco tax policies are well documented (Saloojee and Dagli 2000; Smith et al. 2013; WHO 2009, 2014; Gilmore et al. 2015; Ross et al. 2017; TCRG 2017). Available case studies document that the alcohol and food industries have used similar tactics to shape taxation policies toward their products (Brownell and Warner 2009; Bond et al. 2010; Moodie et al. 2013; Granheim et al. 2017).

Examples of key strategies used by the tobacco, alcohol, and processed food and sugary beverage industries include:

Working via front groups and third-party organizations to obscure their involvement influencing policy and to enhance the credibility of industry positions.

- The International Alliance for Responsible Drinking (IARD), a non-profit funded by the alcohol industry, has consistently sought to shift the policy agenda away from recognized cost-effective public policy interventions and divert attention towards addressing questions of individual choice and responsibility (IARD 2017).
- The International Tax and Investment Center (ITIC), a non-profit group sponsored until 2017 by PMI, BAT, JTI, and Imperial, held workshops and facilitated meetings with finance officials in multiple countries advancing tobacco industry interests (TCRG 2017).

Distorting the evidence base to divert attention from health issues and invoke fears of negative impacts.

- ITIC commissioned Oxford Economics to produce a series of reports measuring illicit trade. Analysis of the reports by academics highlighted problems with the studies' methods; attempts to validate the reports yielded much lower estimates of illicit trade in several cases (Chen et al. 2015; Ross 2015).
- In Mexico, the beverage industry supported multiple reports questioning studies of the impact of the sugary beverage tax on consumption and claimed it would have socially regressive effects. In fact, studies demonstrate that the sugary beverage tax implemented has led to substantial reductions in consumption and disproportionately benefited low-income groups (Barquera et al. 2018; Donaldson 2015).

Using the media to influence policy makers and the public.

- In 2010, BAT South Africa and the Tobacco Institute of South Africa (TISA), an industry body representing primarily large cigarette producers, ran an advertising campaign to link public perceptions of illicit cigarettes and organized crime. One billboard pictured a man with a gun and was captioned "Warning: The money you spend on illegal cigarettes, he uses to buy guns," while another warned of " selling drugs to your family" (van Walbeek and Shai 2015).
- During Congressional consideration of the sugary beverage tax in Mexico, the beverage industry paid for advertising in national newspapers and for columns and editorials questioning the link between obesity and sugary beverage consumption and promoted positions highlighting individual responsibility and physical activity (Donaldson 2015).

Direct lobbying of policy makers and officials.

- During discussion of a proposed law to raise alcohol taxes in South Africa, SAB Miller promoted education, self-regulation, and responsibility and committed to donating R9 million to political parties ahead of the 2014 elections (Babor et al. 2015).
- The scale of lobbying around Congress undertaken on behalf of Coca-Cola, PepsiCo, and their local bottling companies Femsa and Cultibato against the Mexican soda tax was described as unprecedented by politicians involved (Donaldson 2015).

Conclusion

The tobacco, alcohol, and processed food and sugary beverage industries have gone through significant consolidations globally, both driving and reflecting their expansion into emerging markets. Currently, large multi-national companies dominate the markets for all three

product categories and across all regions of the world. These industries utilize an array of tactics to oppose, dilute, or limit effective health policies, including excise taxes aiming to reduce harmful consumption of these products. Efforts to implement tax policies must take into account the strong industry opposition to well-designed policies and effective implementation.

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