Health Taxes to Save Lives

Background Materials: Case Studies

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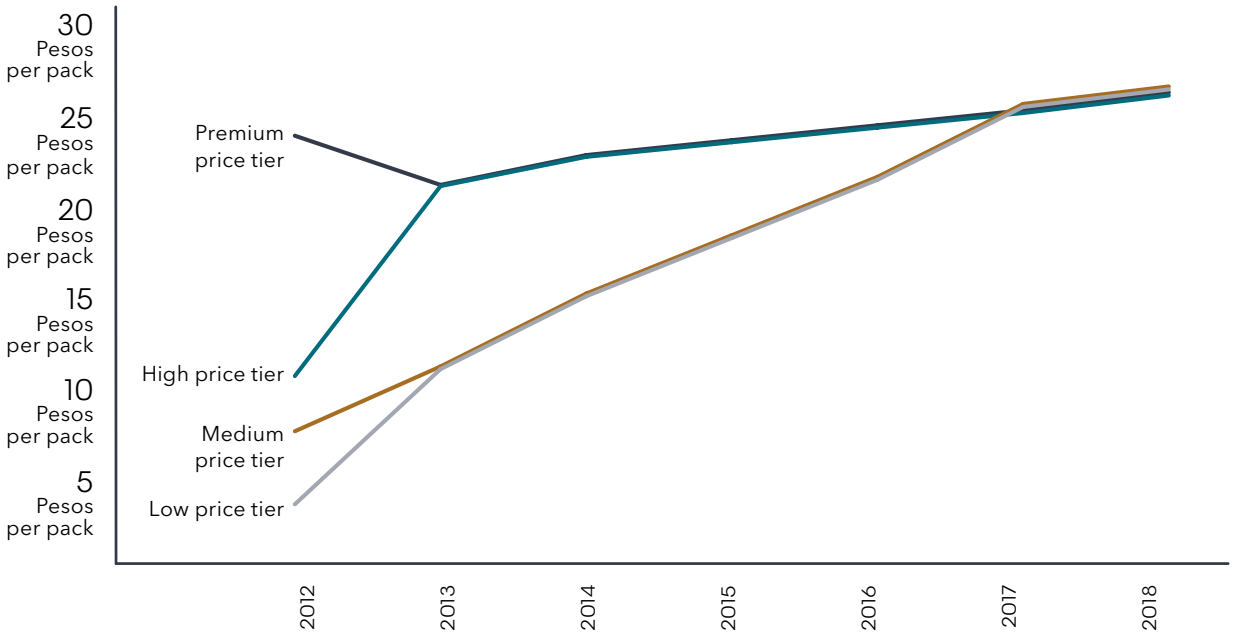
Philippines

Tobacco Tax Case Study

In 2012, the Philippines adopted its Sin Tax Reform Act (Republic Act 10351) which significantly changed its tobacco excise tax system. Prior to the Act, cigarettes were taxed at different rates based on their net retail price.[i] Prices for many brands were subject to a "price classification freeze" based on their prices in 1996, resulting in artificially low taxes on these brands. The 2012 Act removed the price classification freeze and simplified the 4-tier specific excise tax system, initially reducing it to 2 tiers in 2013 and eventually to a uniform specific tax in 2017. Excise tax rates were increased over time, particularly on lower-priced brands (Figure 1). The 2012 law mandated annual increases of 4 percent beginning in 2018 in order to protect the real value of the tax against erosion by inflation; the Act was subsequently amended to impose larger annual increases in the tax. Taxes on other tobacco products (including cigars, cigarillos, roll-your-own tobacco, and smokeless tobacco) and on alcoholic beverages were also increased, albeit not as sharply as taxes on cigarettes.

The tax reforms dramatically raised taxes on nearly all cigarettes sold in the Philippines. Taxes on the lowest-priced brands, for example, rose from 2.72 pesos per pack in 2012 to 30 pesos per pack in 2017. These large tax increases led to significant increases in prices, with the price of a popular local brand cigarette in Manila rising by 167 percent from 2012 to 2017, while Marlboro prices rose by 76 percent.[ii] Despite significant income growth in recent years, the large tax and price increases led to a reduction of almost 113 percent in cigarette affordability from 2012 to 2016.[iii]

Figure 1: Cigarette Excise Tax by Price Tier, Philippines, 2012-2018

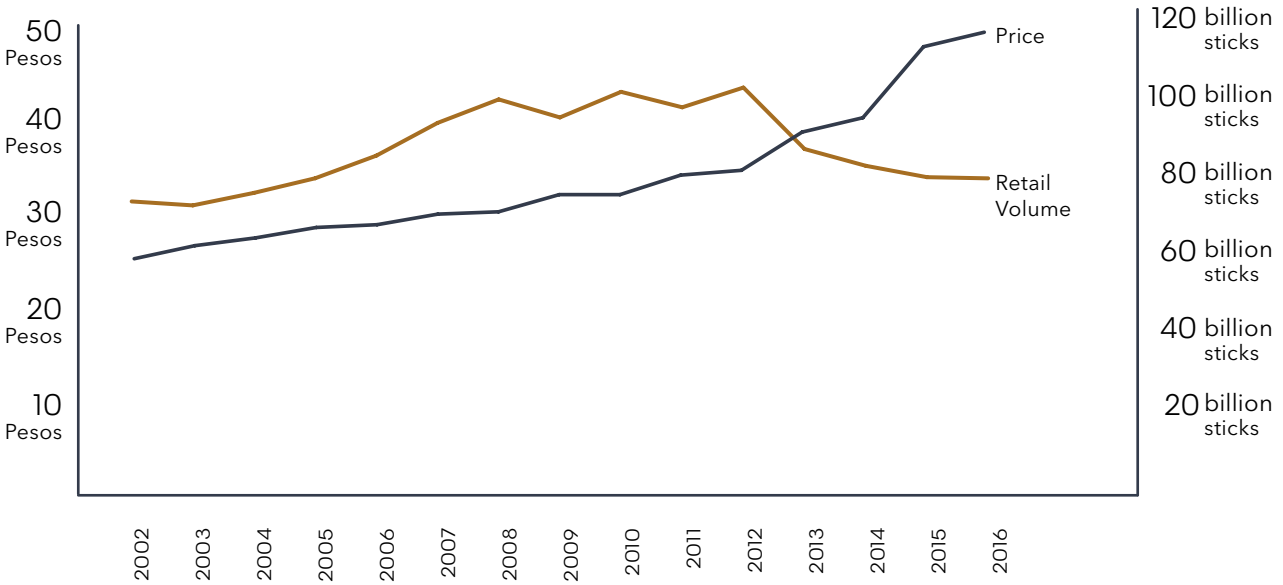


Source: Adapted from Paul JN 2017

Consistent with one of the primary goals of the Act, the large tax and price increases and reduced affordability led to a sharp reduction in smoking in the Philippines. Total cigarette sales fell by nearly 23 percent from 2012 to 2016 (Figure 2).[iv] Based on data from the Global Adult Tobacco Survey (GATS), smoking prevalence fell dramatically, from 29.7 percent in 2009 to 23.8 percent in 2015.[v] Consistent with global experiences, relatively larger reductions were observed among younger and less educated populations. While other tobacco control measures were implemented during this time, much of the reduction in smoking is almost certainly due to the large tax and price increases. In the 2015 GATS, for example, more than 4 of 5 smokers (82.3 percent) reported reducing their cigarette consumption and almost two-thirds (63.8 percent) reported trying to quit in response to the tax.[v]

A second major goal of the Sin Tax Reform Act was to raise revenues to help finance the Philippines' health insurance program. Again, the Act was highly successful in achieving this goal, with tobacco excise tax revenues rising from 32.9 billion pesos in 2012 to 99.5 billion pesos in 2015, a 202 percent increase in revenue despite the drop in tobacco use caused by the tax and price increases.[vi] Eighty-five percent of the incremental revenue from tobacco and 100 percent of incremental revenue from alcohol taxes was soft earmarked for health. This resulted in a tripling of the Department of Health's budget, from 42.2 billion pesos in 2012 to 122.6 billion pesos in 2016 (Figure 3).[viii] Much of this went towards health insurance premiums for the poor, helping to expand coverage to 10.1 million indigent families, as well as for 5.4 million senior citizens by the end of 2016.[vii]

Figure 2: Cigarette Sales and Real Price, Philippines, 2002-2016



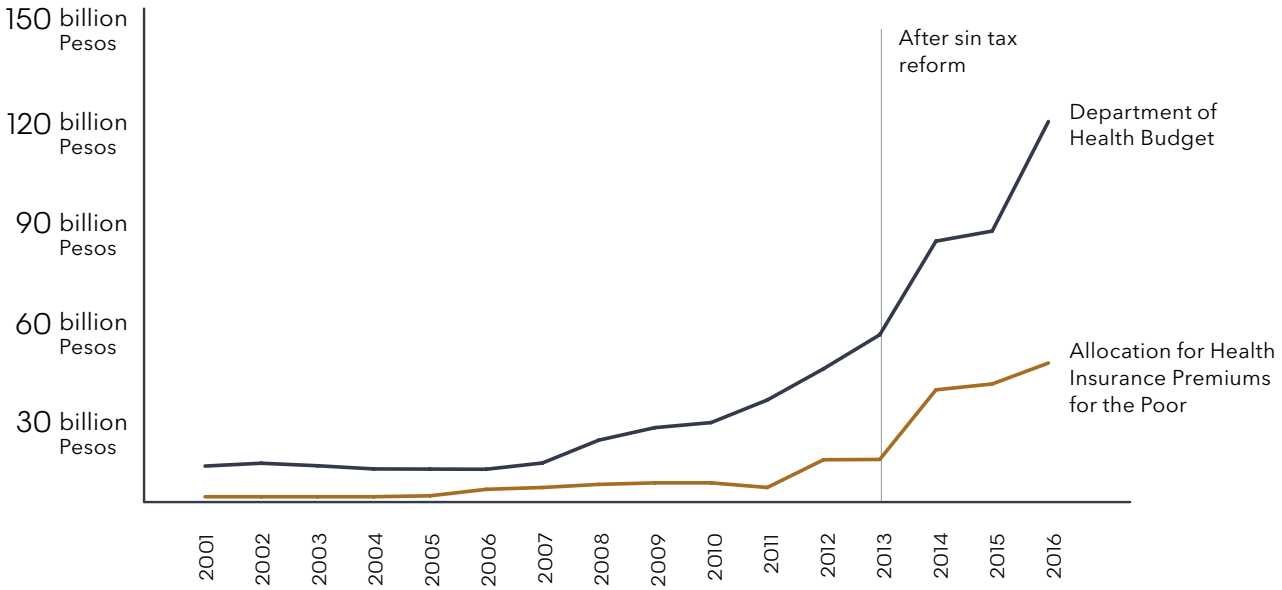
Note: Prices in constant 2016 pesos.

Source: Chaloupka and Powell, Task Force background paper, Data from Euromonitor and World Bank

The increased fiscal space resulting from the higher tobacco and alcohol taxes had broader economic benefits, as the country achieved investment grade status, reducing its costs of borrowing.[viii] In an effort to address concerns about the impact on tobacco growers, 15 percent of the incremental tax revenues were earmarked to tobacco producing regions. Concerns that tobacco growers would suffer appear unfounded as the country's tobacco and tobacco product exports rose sharply in the first year following the Act. Tobacco industry arguments that the large tax and price increases would cause a massive rise in smuggling appear similarly unfounded, as illicit cigarette trade has fallen in recent years, after a modest increase in the first two years following the Act.[viii] The recent decline follows the implementation of a new tax stamp and strengthened tax administration.

The Philippines' experience shows that large tobacco tax increases are a "win-win," resulting in substantially improved public health and considerably higher tax revenues.

Figure 3: Department of Health Budget and Health Insurance Allocations for the Poor, Philippines, 2001-2016



Source: Adapted from Paul JN 2017

[i] Quimbo SLA, Casorla AA, Miguel-Baquilod M, Medalla FM, Xu X, Chaloupka FJ (2012). *The Economics of Tobacco and Tobacco Taxation in the Philippines*. Paris: International Union Against Tuberculosis and Lung Disease.

[ii] Economist Intelligence Unit (2018).

[iii] World Health Organization (2017). *WHO Report on the Global Tobacco Epidemic 2017: Monitoring Tobacco Use and Prevention Policies*; Appendix IX. Geneva CH: World Health Organization.

[iv] Euromonitor International (2018).

[v] Global Tobacco Surveillance System (2016). *2015 Philippines' Global Adult Tobacco Survey Country Report*.

[vi] Department of Finance, Philippines (2018). Statistical Data. http://www.dof.gov.ph/index.php/data/statistics-bulletin/

[vii] Department of Health, Philippines (2016). Sin Tax Law Incremental Revenue for Health. Annual Report. C.Y. 2016.

[viii] Paul JN (2017). *Reducing NCD Risk Factors and Raising UHC/NCD Financing through Tobacco Taxation: Reflections on the Philippine Experience*. Presented at the South East Asian Regional Forum to Accelerate NCD Prevention and Control, Bangkok, Thailand.

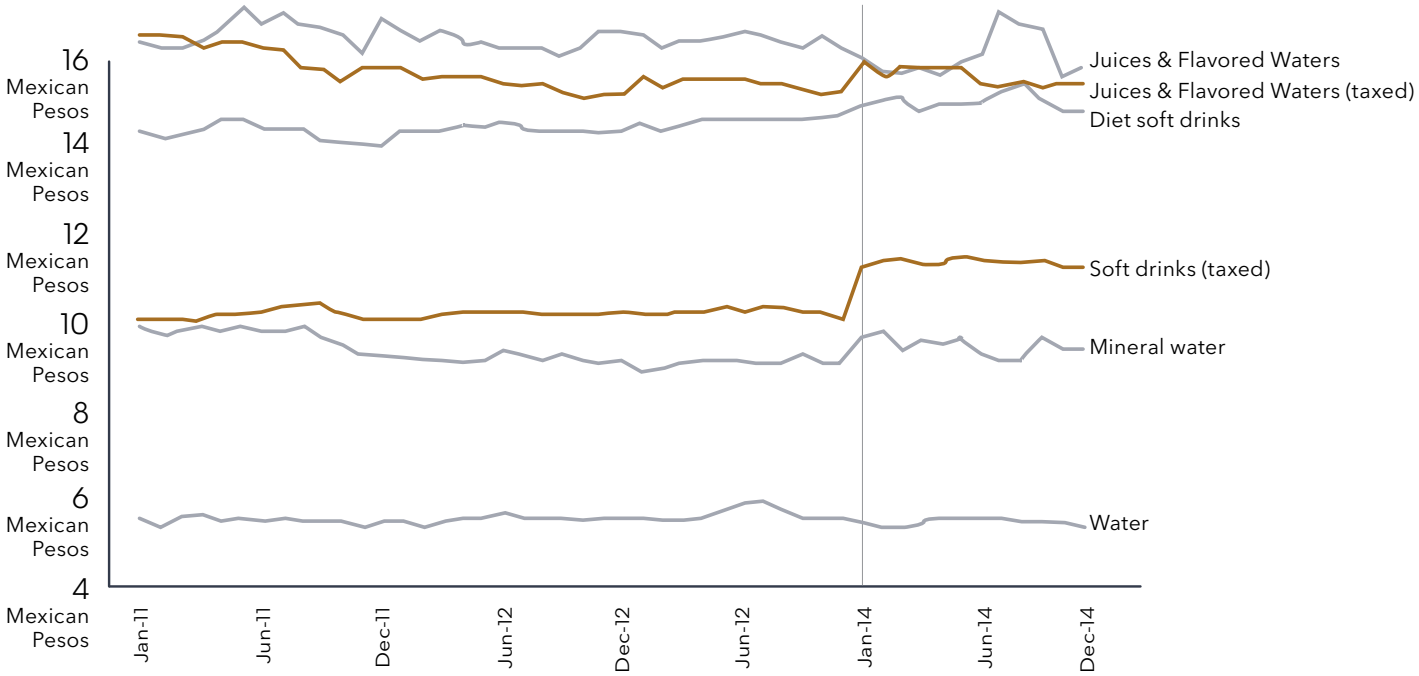
Mexico

Sugary Beverage Case Study

On January 1, 2014, Mexico implemented a specific tax of 1 peso per liter on sugary beverages. The tax applies broadly to non-alcoholic beverages with added sugar, including powders, concentrates, and ready-to-drink beverages, and excludes 100 percent juices, artificially sweetened beverages, and flavored milks. At the same time, the country implemented an 8 percent ad valorem tax on non-essential, energy-dense foods, such as snacks, confectionery products, candies, peanut butter, ice cream, and other foods. The "junk food" tax was levied on non-essential products containing 275 calories or more per 100 grams. In addition, the legislation allows the sugary beverage tax to be adjusted once cumulative inflation relative to January 2014, reaches 10 percent.

High rates of obesity and overweight were the primary motivation for the taxes with the prevalence of obesity/overweight at 71 percent among adults and 30 percent among children and adolescents.[i,ii] Before the implementation of the taxes, the country had the world's highest rate of sugary beverage consumption, with the average Mexican consuming 160 liters per year.[iii] Sugary beverages accounted for 71 percent of consumption of products with added sugar, on average, with consumption of non-basic, energy-dense foods accounting for another 23 percent.[iv] Poor diets and obesity contributed to a high rate of diabetes, estimated at 14 percent in 2006.[v]

Figure 1: Sugary Beverage Prices Compared with Other Beverages, Mexico, 2011-2014



Note: Sugar-sweetened soft drinks, juices and flavored waters taxed since January 2014; prices per capita are inflation-adjusted

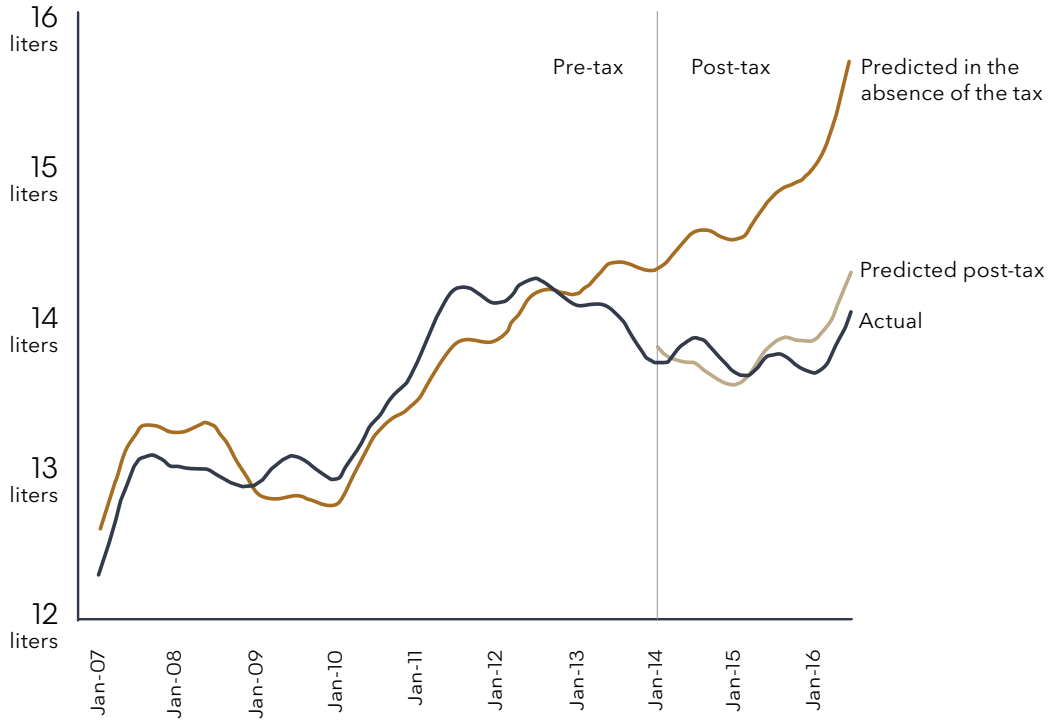
Source: Colchero et al. 2015

On average, the sugary beverage tax was fully passed through to consumers, raising prices on taxed beverages across the country.[vi] There was some variability in the extent of the pass-through of the tax based on product type, package size, geography, and other factors. Carbonated beverage prices, for example, rose by more than the tax, while prices on fruit drinks and other non-carbonated beverages increased by less than 1 peso per liter, on average. Prices per liter generally increased more on smaller package sizes than on larger package sizes, and more in urban areas than in rural areas. In contrast, prices on non-taxed beverages, such as diet sodas and bottled water, remained constant or increased modestly (Figure 1).

The sugary beverage tax was effective in achieving its goal of reducing sugary beverage consumption, relative to what it would have been, given underlying trends in income, population, and other factors (Figure 2).[vii] This effect grew to 9.7 percent in the second year and 12 percent in the second half of 2016.[viii] At the same time, sales of untaxed bottled water rose by 5.2 percent by mid-2016.[viii]

Lower socioeconomic status households responded more to the tax than those at higher socioeconomic levels.[ix] In the two years following the implementation of the tax, purchases of taxed beverages fell by an average of 11.7 percent among households in the lowest level, compared to 5.1 percent among those in the highest

Figure 2: Impact of Sugar-Sweetened Beverage Tax on Sales Per Capita, Mexico, 2007-2016



Note: Changes in liter sales of sugar-sweetened beverages in Mexico before (2007-2013) and after (2014-2016) excise tax. Time series filtered to remove cyclical components.

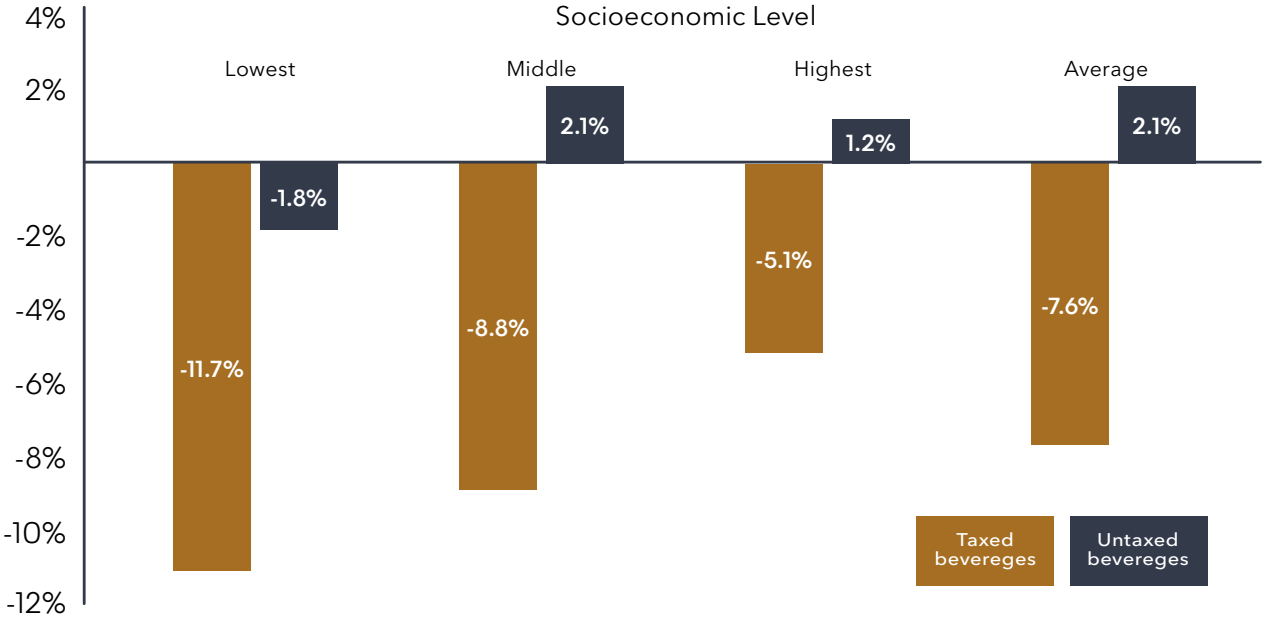
Source: Colchero et al. 2016 and https://www.insp.mx/epppo/blog/4278-changes-sales-beverages.html

level (Figure 3).[ix] It is too soon to see reductions in the prevalence of overweight and obesity in Mexico, but given the reductions in sugary drink consumption that have followed the tax, particularly among those most at risk for obesity, it is expected that weight outcomes will improve in coming years.

In addition to its public health impact, the tax has been very effective in generating new revenues, with over 100 billion pesos collected from 2014 to 2017. Countries implementing such a tax benefit from new revenues that can be allocated to various health promotion activities, including to provide access to free, clean drinking water in schools and public places, as well as to obesity and noncommunicable disease prevention programs. Surveys prior to the implementation of the tax showed that 7 in 10 Mexicans supported the tax if revenues were used in this way.[xi] Finally, there is no evidence that either the sugary beverage or junk food tax has had a negative economic impact, with employment in taxed sectors unchanged after the implementation of the taxes and no increase in unemployment.[xii]

The Mexican experience shows that a sugary beverage tax is a "win-win," resulting in significantly lower consumption with related public health benefits and generating considerable tax revenues.

Figure 3: Changes in Household Purchases of Taxed & Untaxed Beverages By Socioeconomic Level, Mexico, 2014-15



Source: Colchero et al. 2016

[i] Barquera S, Campos-Nonato I, Hérnández-Barrera L, Pedroza-Tobías A, Rivera-Donmarco JA (2013). Prevalence of obesity in Mexican adults. ENSANUT 2012. *Salud Pública de México*. 55(Supplement 2):S151-S160.

[ii] Instituto Nacional de Salud Pública (2012). Encuesta Nacional de Salud y Nutricion 2012. *Estado de Nutricion, Anemia, Seguridad Alimentaria en la Poblacion Mexicana*.

[iii] Euromonitor International (2015).

[iv] Sánchez-Pimienta T, Batis C, Lutter CK, Rivera-Donmarco JA (2015). Main sources of total and added sugars intake in the Mexican population. 16 Congreso de Investigación en Salud Pública. Cuernavaca, Mexico: Instituto Nacional de Salud Pública.

[v] Hernández-Ávila M, Gutiérrez J, Reynoso-Noverón N (2013). Diabetes mellitus in Mexico: status of the epidemic. *Salud Pública de México* 55(Supplement 2):S120-S136.

[vi] Colchero MA, Salado JC, Unar-Mungula M, Molina M, Ng S, Rivera-Donmarco JA (2015). Changes in prices after an excise tax to sweetened sugar beverages was implemented in Mexico: evidence from urban areas. *PLoS One* doi.org/10.1371/journal.pone.0144408.

[vii] Colchero MA, Popkin BM, Rivera JA, Ng SW (2016). Beverages purchases from stores in Mexico under the excise tax on sugar sweetened beverages: observational study. *British Medical Journal* doi.10.1136/bmj.h6704.

[viii] Instituto Nacional de Salud Pública (2016). Changes in sales of sugar-sweetened beverages in Mexico before (2007-2013) and after the tax (2014-2016). https://www.insp.mx/epppo/blog/4278-changes-sales-beverages.html

[ix] Colchero MA, Rivera-Donmarco J, Popkin BM, Ng SW (2017). In Mexico, evidence of sustained consumer response two years after implementing a sugar-sweetened beverage tax. *Health Affairs* 36(3):doi.org/10.1377/hlthaff.2016.1231.

[x] *Policy Profile: Mexico Sugary Drink Tax*. http://www.healthyfoodamerica.org/policy_profile_mexico_sugary_drink_tax

[xii] Guerrero-López CM, Molina M, Colchero MA (2017). Employment changes associated with the introduction of taxes on sugar-sweetened beverages and nonessential energy-dense food in Mexico. *Preventive Medicine* 105(Supplement):S43-S49.

South Africa

Alcoholic Beverage Tax Case Study

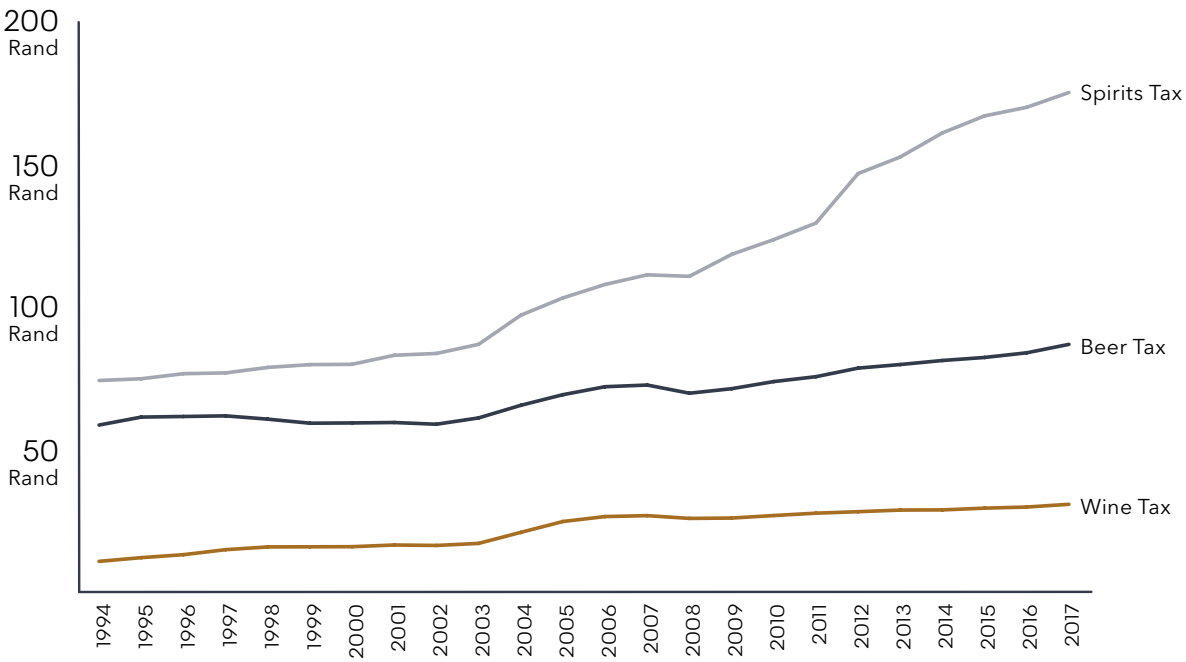
South Africa's excise taxes on alcoholic beverages have evolved over the past few decades.[i,ii] Specific excises are levied on all beverages, although the base varies by beverage type. A distilled spirits tax has been levied based on ethanol volume since 1974, and the base for beer taxes was changed from overall volume to volume of ethanol in 1998. Wine was untaxed from 1982 through 1990, before the tax was reintroduced in 1991. Taxes on ciders and ready-to-drink products were changed from volume-based to ethanol-based taxes in 2016. Wines, vermouth, and sorghum beer (a local beverage) are taxed based on overall volume. Alcoholic beverage taxes were increased infrequently prior to the mid-1990s, with inflation significantly eroding the value of the tax over time. Starting with the 1994/95 budget year, taxes were increased annually in line with inflation, in order to maintain the real value of the tax.

In 2002, the South African Treasury conducted a review of its alcoholic beverage excise tax system and the economic burden from alcohol use.[i] Treasury concluded that excessive alcohol consumption imposed significant economic costs and that many of these costs were borne by non-drinkers. Given these costs, the country decided to annually raise taxes above inflation in order to reduce the harms caused by excessive drinking.

Given perceptions that much of the harm was attributable to spirits consumption, spirits taxes were increased by the largest amount, followed by beer taxes and wine taxes (Figure 1).

Per capita ethanol consumption of beer, wine, and spirits combined fell by 13.5 percent from 1999 through 2016. The reductions in drinking in response to higher taxes and prices were partially offset by rising incomes during this period. While taxes rose significantly, per capita GDP more than quintupled over this period. As a result, alcoholic beverages became only modestly less affordable.

Figure 1: Beer, Wine and Distilled Spirits Excise Taxes Per Liter of Ethanol, South Africa, 1994-2017



Source: South African National Treasury, World Bank, and Authors' Calculations

Note: Wine tax is for 12% alcohol by volume; beer tax is for 5% alcohol by volume in earlier years; year refers to the start of the budget year (e.g. 2016 is budget year 2016/17); figures adjusted for inflation

The consumption of beer (15.3 percent decline) fell relatively faster than consumption of wine and spirits (10.3 percent and 10.1 percent declines, respectively) from 1999 through 2016 (Figure 2). The relatively faster decline in beer consumption likely reflects a combination of the shift to an ethanol-based tax on beer and the lower incomes of beer drinkers. In addition to its demand-side impact, the change in the base for the beer tax appears to have had a supply-side impact, with beer producers increasing the share of their advertising budget spent on lower-alcohol beer, while reducing the share spent advertising higher-alcohol beer.

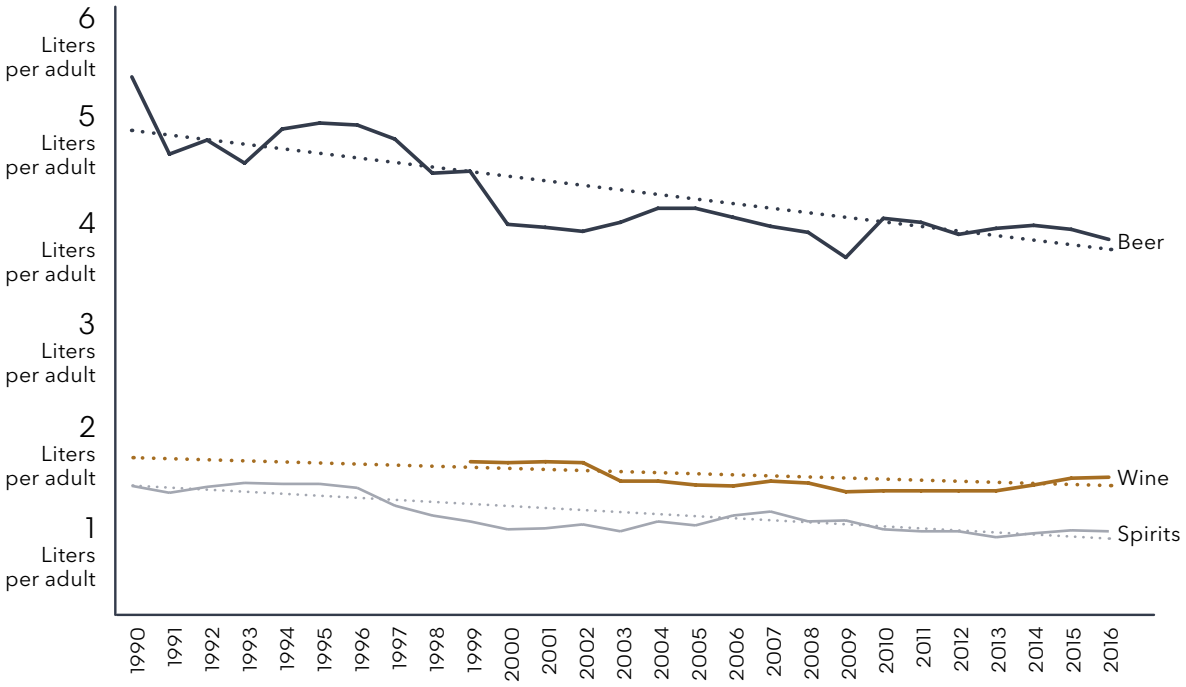
The decline in ethanol consumption appears to have had a positive impact on the health and social consequences of excessive drinking. The alcohol-attributable death rate in South Africa has fallen by about 25 percent since 2000, from 92 to 69.2 deaths per 100,000 population.

Finally, the increases in alcoholic beverage excise taxes have been highly effective in raising tax revenues.

Revenues from alcohol excise taxes were 7.9 billion rand in the 2006/07 budget year, rising to 19.1 billion rand in the 2015/16 budget year, paralleling the rise in tax rates and growing population.

The South African experience shows that increasing alcoholic beverage taxes can be a "win-win," resulting in improved public health and higher tax revenue. That said, it also illustrates the need to raise taxes and prices by enough to significantly reduce affordability in order to have a greater public health impact.

Figure 2: Liters of ethanol Consumed per Adult by Beverage Type, South Africa, 1990-2016



Source: Van Walbeek and Blecher 2014; National Treasury, Republic of South Africa; and authors' calculations

[i] National Treasury (2014). *A Review of the Taxation of Alcoholic Beverages in South Africa*. Pretoria RSA: Department of National Treasury, Economics Tax Analysis Chief Directorate.

[ii] Van Walbeek C, Cleophas E, Molatseli M (2014). Chapter 3: Trends in alcohol consumption, excise tax, and tax revenue in South Africa. *In The Economics of Alcohol Use, Misuse, and Policy in South Africa*, van Walbeek C, Blecher E, editors. Cape Town RSA: University of Cape Town.