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Health Taxation in BAHRAIN

Estimating the government revenue implications for Bahrain of health taxes on alcoholic beverages, tobacco products and sugar-sweetened beverages for non-communicable disease prevention

ACKNOWLEDGEMENTS

The authors express their sincere gratitude to the Ministry of Health of Kingdom of Bahrain, the national team that supported the data collection and analysis and the stakeholders who took the time to be interviewed. In particular, the authors would like to thank Dr Ameera Ali Al Nooh with the Ministry of Health for her support and input.

The investment case is made possible by the financial and technical support received from the Gulf Health Council (GHC). GHC representatives provided key contributions by reviewing all deliverables, participating in project planning and organizing meetings with Kuwait officials. The publication also greatly benefited from the intensive advice and contributions of Dr Yahya Al Farsi and the overall guidance of Dr Suleiman Aldakheel, both with the GHC.

The economic modelling was led by Odd Hanssen, Barbora Kohoutova, and Daisy Lanvers of UNDP. Valuable contributions were made by Dudley Tarlton, Emily Roberts, Daniel Grafton, Luis D'Souza, Rachael Stanton, Roy Small, Vito Intini, Saud Al Fassam, Mohammedsiddig Mudawi, Nahid Hussein, Elfatih Abdelraheem and Ahtesham Khan of UNDP; by Nicholas Banatvala and Alexey Kulikov of WHO and the United Nations Interagency Task Force on NCDs; by Dr Yahya Al Farsi and HE Sulaiman Saleh Aldakheel of the Gulf Health Council; by Dr Lamia Mahmoud, Deena Alasfoor, Matilda Bystrom, Dr Ayoub Al-Jawaldeh and Dr Ibrahim El-Ziq and Anne Marie Perucic of the World Health Organization by Dr Khalifa Elmusharaf of the University of Birmingham; and by Ekundayo Babatunde, Marie Fuchs, Antoine Dedewanou, Margaret Ho and Lauren Short of United Nations Volunteers.

The revenue forecast model was based on the work of Marie Fuchs and Antoine Dedewanou, as well as Ben Davis and Pascale R. Leroueil of the William Davidson Institute at the University of Michigan and William Savedoff at the Inter-American Development Bank. Contributions to the model were also provided by Céline Colin and Bert Brys of the OECD.

Graphic design by Zsuzsanna Schreck.

DISCLAIMER

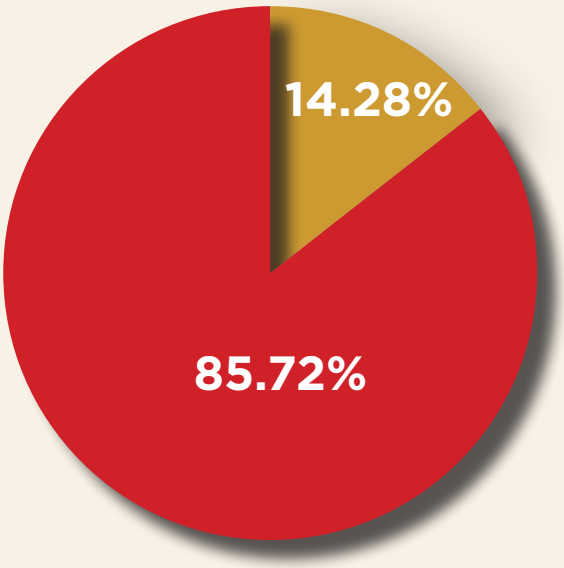
TABLE OF CONTENTS

Increasing taxes on tobacco, alcohol and sugar-sweetened beverages in Bahrain is predicted to generate

US$1.4 billion

in additional tax revenue by 2026.

Share of additional health tax revenue on total projected tax revenue (cumulative for 2022-2026, non-discounted, current US$)



Projected cumulative additional health tax revenue

Projected cumulative tax revenue without additional health taxes (2022-2026)

EXECUTIVE SUMMARY

The investment case for the prevention and control of non-communicable diseases (NCDs) in Bahrain was conducted by the United Nations Development Programme (UNDP), the UN Inter-agency Task Force on NCDs (UNIATF), the World Health Organization (WHO), the Gulf Health Council (GHC) and the Bahrain Ministry of Health (MOH) from 2019 to 2021 (UNDP, 2021). This report supports the investment case recommendation to increase taxes on unhealthy products (tobacco, alcohol and sugar-sweetened beverages [SSBs]).

A tax on tobacco, alcohol and SSBs that increases retail prices by 50 percent could "*avert over 50 million premature deaths while raising over US$20 trillion of additional revenues worldwide over the next 50 years*" (Task Force on Fiscal Policy for Health, 2019).

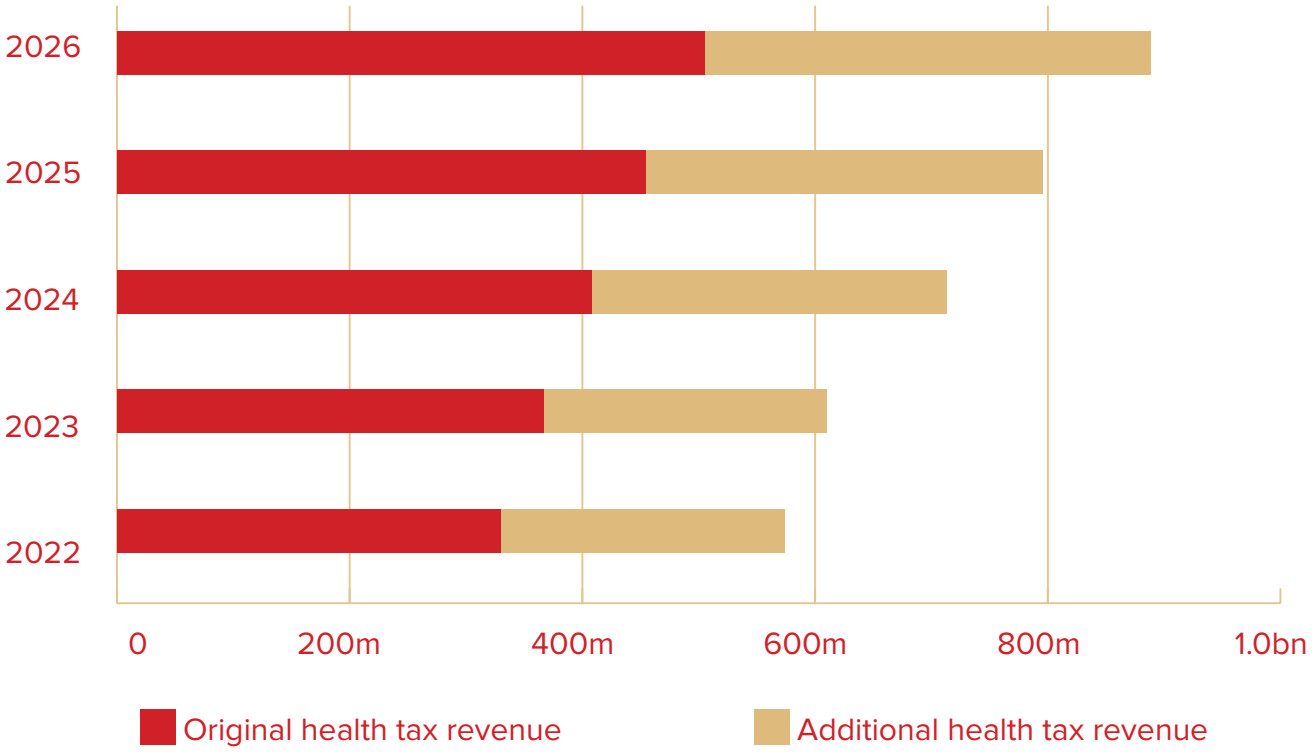
Health taxes are one of the most effective policy measures to reduce consumption of unhealthy products and are recognized by the 'Addis Ababa Action Agenda on Financing for Development' as an important revenue stream for financing development (UN General Assembly, 2015). The WHO Global Action Plan for Sustainable Development Goal (SDG) 3, "to ensure healthy lives and promote well-being at all ages", emphasizes the role of taxes on tobacco and sugar in improving population health while reducing healthcare expenditures and increasing government revenue. Indeed, health taxes can help sustain health system financing across low- and middle-income countries (LMICs) whose funding levels are currently insufficient to advance progress towards SDG3 (WHO, 2018a).

Identifying and increasing sustainable domestic revenue streams is more important now than ever, with COVID-19 causing economic contraction worldwide (Gopinath, 2020) and placing an additional strain on health-systems. In response to the COVID-19 pandemic, governments are advised to adapt tax and fiscal policies to diversify and secure finances, promote sustainable economic growth and enhance equity (OECD, 2021).

While health taxes hold great potential, they remain under implemented, including in the Kingdom of Bahrain. In 2018, the Government of Bahrain presented a Fiscal Balance Program focused on improving the fiscal situation by enhancing efficiency and reducing government expenditures, increasing non-energy revenues among other measures (Government of Bahrain, n.d.). Health taxes can support this program by serving as a means to diversify Bahrain's revenue base, increase non-oil government revenues and reduce public debt.

While the country has implemented high tax rates on tobacco, alcohol and SSBs, these products remain either very affordable or the tax structure could be improved. The tax projection model for Bahrain estimates the potential additional government revenue Bahrain could receive from increasing excise tax rates on tobacco, alcohol and SSBs in a moderate scenario based on a 50 percent increase in tobacco retail prices, and a 20 percent increase in prices for SSBs and alcoholic beverages (beer, spirits and wine). It also includes high (75 and 50 percent respectively) and conservative scenarios (30 and 10 percent respectively) for comparison.

Original and additional health tax revenue (non-discounted current US$)



Main findings

Increasing taxes on tobacco, alcohol and SSBs is predicted to generate an **additional tax revenue of US$1.4 billion by 2026.**

- The model forecasts a total of **US$1.4 billion in additional tax revenue from 2022 to 2026**.

- The **tax on tobacco** is projected to contribute most of the additional revenue (69 percent) with more than **US$975 million**, followed by **alcohol** at 18 percent bringing in over **US$252 million** and **SSBs** at 13 percent with nearly **US$192 million** in **additional tax revenue from 2022 to 2026.**

1. CONSUMPTION OF HEALTH-HARMING PRODUCTS IN BAHRAIN

It is well understood that tobacco use, alcohol consumption, and an unhealthy diet are risk factors for NCDs, representing a massive health and economic burden in Bahrain. Every year, NCDs kill around 2,000 Bahraini citizens (nearly one in five before the age of 70) and cost the economy BD 534 million (US$1.4 billion), equivalent to 3.8 percent of its 2019 GDP (UNDP, 2021).

In recent years, consumption of tobacco has slightly decreased. Still, Bahrain has the highest per capita consumption of tobacco among the Gulf Cooperation Council (GCC) countries (WHO, 2019d). Bahrain however ranks lowest among the GCC countries in consumption of SSBs[1] (Ferretti & Mariani, 2019). In the Eastern Mediterranean Region, Bahrain ranks third highest for total alcohol per capita consumption at 1.9 litres of pure alcohol annually, after the United Arab Emirates (UAE) and Qatar (WHO, 2018b).

To increase awareness of NCDs and their risk factors, findings from both the investment case and this health tax report can inform mass media campaigns, school programmes and other advocacy measures. This will increase government transparency and can be used to generate public support for health taxes, promoting a policy environment conducive to tax reform.

Tobacco products

According to the most recent national NCD risk factors survey[2] conducted in Bahrain in 2018, 15 percent of the total adult population in Bahrain (aged 18 and over) smoked tobacco daily (Kingdom of Bahrain, 2018). This data suggests a slight decrease in tobacco use over time, as a previous survey in 2007 found that 17.9 percent of adults smoked tobacco daily (Kingdom of Bahrain, 2007).

Tobacco usage is much higher among men (24 percent) than women (3.3 percent). Shisha smoking is also prevalent with about one third of tobacco users (28 percent) with more than half of women smokers (54 percent) using shisha (Kingdom of Bahrain, 2018).

According to the 2015 Global Youth Tobacco Survey, 17.7 percent of students 13-15 years old used tobacco products (25 percent of boys and 10.1 percent of girls) (Kingdom of Bahrain, Ministry of Health and the Information, 2015).

Sugar-sweetened beverages

In Bahrain, the majority of the adult population (18 years old and older) is either overweight or obese (72 percent). Approximately 43 percent of adult women and 33 percent of adult men are obese (Kingdom of Bahrain, Ministry of Health, 2018). Concerningly, obesity and overweight among children and adolescents is on the rise, with more than a third of youth 5-19 years old considered to be overweight (Global Nutrition Report, 2020).

1 No data available for Qatar
2 WHO STEPwise Approach to NCD Risk Factor Surveillance, also known as 'STEPS survey'

Compared to other Gulf countries, the average SSB intake was more than in Jordan and Oman, but less than in Kuwait, the UAE, Qatar and the Kingdom of Saudi Arabia (Global Nutrition Report, 2020). Child and adolescent consumption of sugar is a concern in Bahrain, as the average amount of sugar consumed is higher than the United Kingdom's daily reference value. Moreover, sugar consumption tends to increase with age (Gharib et al, 2011). On average, a person in Bahrain consumes 0.52 servings[3] of sugary drinks per day, less than the global average of 0.58 servings, but greater than the high-income country average of 0.51 servings (Singh et al, 2015). Reducing consumption of SSBs has great potential to reduce obesity in Bahrain, which has one of the highest rates of diabetes and obesity in the region (10.8 percent and 37 percent of all adults, respectively) (Kingdom of Bahrain, 2018).

Box 1. SSB taxes gain momentum – and show early impacts

Over-consumption of sugar has been considered a main contributor of obesity, diabetes and tooth decay, with SSBs being a leading source of sugar consumption (WHO, 2017b). The relationship between SSB consumption and obesity has been extensively researched and well established (Malik, 2006) and as such, WHO recommends to reduce sugar consumption to less than 10 percent of daily energy intake for both children and adults. (WHO, 2017b).

WHO recommends taxation of sugary drinks as a method to 1) reduce consumption of sugars, thus preventing obesity and diabetes, 2) save on healthcare costs, and 3) generate revenue that can be allocated to further improve health (WHO, 2017b). Indeed, SSB taxes are gaining traction, with more than 45 countries, cities and regions implementing SSB taxes (Popkin & Ng, 2021). A specific excise tax on the volume or sugar content of a beverage is considered the most effective SSB tax structure (Thow et al, 2018).

A study in the United States found that a 20 percent increase in the cost of SSBs could reduce consumption and lead to an average weight loss of 1.7 kilograms per year for adults, while still generating revenue (Novak, 2011). Furthermore, several studies on specific SSB taxes yielded positive findings. Chile's SSB tax increase from 13 to 18 percent (Caro et al, 2018) for beverages above a sugar concentration of 6.25 grams per 100 milliliters reduced the monthly volume of sugary soft drinks purchased by 21.6 percent (WHO, 2019f). The 2018 SSB tax in the United Kingdom encouraged manufacturers to reformulate beverages to reduce their amount of sugar. Researchers found no change in the volume of soft drinks purchased, but there was a drop in grams of sugar consumed from these drinks at around 30 grams per household per week (Smelie, 2021; Pell et al, 2021).

Crucially, evidence indicates that low-income consumers and young people stand to benefit the most from SSB taxes. A study in Germany found that a 20 percent SSB tax reduced consumption in all individuals 15-29 years old, with higher reductions in low-income groups compared to middle- or high-income groups (Schewendicke & Stolpe, 2017). Two years after the introduction of an SSB tax in Mexico, households with the fewest resources were more responsive to the tax, reducing their SSB purchases by 12 percent, compared to 8 percent among the general population (Colchero et al, 2017; WHO, 2017b).

3 One serving equals 8 oz.

Alcoholic beverages

Consumption of alcohol in Bahrain is exceptionally low on a global scale. This could be influenced by cultural and social norms, religion or personal preferences. Notably, tourists contribute to the level of alcohol consumption in Bahrain, and as such is considered in the model. Considering the alcohol tax applies to all in Bahrain beyond the local population, revenue may fluctuate depending on the level of tourism. In 2021, Bahrain received 3.6 million tourists, while not quite up to pre-pandemic levels, it has increased dramatically since 2020 (UNWTO, 2022).

However, out of the alcohol that is consumed, spirits constitute the bulk of it (WHO, 2018b). Among adults (ages 15 and older) in Bahrain, average per capita consumption of pure alcohol was 1.2 litres in 2018 (WHO, 2021a). Despite this low level of per capita consumption, alcohol use still contributed to health consequences including cases of liver cirrhosis, road traffic injuries and cancer (WHO, 2018b). In 2016, alcohol-attributable deaths amounted to 14 deaths from liver cirrhosis, 7 from road traffic injuries and 6 from cancer.

2. FISCAL CONTEXT

Diversification of government revenues is a stated priority in all six GCC countries (First Abu Dhabi Bank, 2021). Yet, shifting away from fossil fuels remains a challenge with oil and gas production accounting for more than 40 percent of GDP in most GCC countries (Kabbani & Mimoune, 2021). The UAE and Bahrain have slightly more diversified economies as oil and gas account for 30 and 18 percent of their respective GDP.

The government of Bahrain has been operating with fiscal deficits since 2009 (Government of Bahrain, n.d.), which has also led to an accumulation of debt. General government gross debt reached 133 percent of GDP in 2020, slightly decreased to 129 percent in 2021, and is projected to grow to 153 percent in 2026 (IMF, 2021; IMF 2022b), exceeding the recommended 77 percent threshold for public debt-to-GDP ratio. When debt beyond this threshold is sustained for a prolonged period, each additional percentage point of debt costs 0.017 percentage points of annual real growth (Caner et al, 2010). The European Union considered an even lower threshold of 60 percent as a maximum for healthy public finance (Burriel et al, 2020).

Understandably, research demonstrates that a high level of public debt adversely affects potential long-term output and that such economies are more vulnerable to shocks (crises) (Burriel et al, 2020). As demonstrated during the COVID-19 pandemic, the over-reliance on oil exports with fluctuating prices further aggravates this vulnerability.

In 2020, fiscal and external deficits worsened, reversing the previously narrowing trend from the previous year. Due to disruptions resulting from COVID-19 and a sharp decline in global energy demand, Bahrain's GDP fell by 5.8 percent in 2020 (World Bank, 2020b). At the end of 2021, economic growth reached 2.6 percent driven by non-oil sectors including the transportation and communication sectors, along with increased agricultural and fishing activities (World Bank 2022a). The economy is expected to grow by 3.5 percent in 2022 and to be driven mainly by increasing oil prices as an outcome of the conflict in Ukraine and the lifting of COVID-19 restrictions reviving non-oil economic activity (World Bank, 2022a). However, already in 2023-2024 economic growth is expected to decelerate considering the costliness of oil (World Bank, 2022a). Bahrain's efforts

to diversify its economy (e.g., by investing in non-oil sectors such as manufacturing, tourism and finance and fostering the role of the private sector (Khayati & Al-Sayegh, 2020)) are thus essential for the country to achieve sustainable and long-term growth.

Fossil fuel subsidies represent another burden for public finance, with Bahrain ranking 10th among all countries for fossil fuel subsidies at US$185 per capita (IEA, 2022). Electricity consumption per capita in Bahrain is the highest among the Gulf Countries,[4] more than double the OECD average and more than six times higher than the global average (World Bank, 2014).[5] While the high consumption is partly due to the high usage of air conditioning and because more efficient use of electricity is discouraged by subsidies to households and businesses (UNDP, 2018). Despite significant cuts, in 2020, Bahrain paid US$315 million to subsidize the use of fossil fuels, representing 0.9 percent of GDP. Additionally, fossil fuel subsidies are expected to surge post 2022, reaching 7.4 percent of GDP globally in 2025, climbing from 6.8 percent in 2020 (OECD, 2021; Parry et al, 2021).

Current health expenditures in Bahrain represented 4.0 percent of GDP in 2019 (World Bank, 2022b) compared to 12.5 percent in OECD countries and 5.1 in Arab states. Government health expenditures represent 59 percent of total health expenditures, while out-of-pocket (OOP) spending accounts for 30 percent, putting a financial burden on households to pay for health care. This is more than double the amount of OOP spending in OECD countries (Knoema, n.d.).

There is an increasing effort in Bahrain to prioritize development of the currently small agricultural sector, ensure food security and promote local food production (Bahrain News Agency, 2019). However, the desert climate, influx and competitivity of cheap imports and amount of government resources and private investments make this difficult (Kingdom of Bahrain, Ministry of Municipalities Affairs and Urban Planning & FAO, 2012).

In 2018, the governments of Saudi Arabia, Kuwait, and the UAE agreed to provide Bahrain with US$10 billion between 2018 and 2022 to cover maturing public debt payments and to finance the budget deficits (Kingdom of Bahrain, Ministry of Finance, 2018b). The same year, the Government of Bahrain presented a Fiscal Balance Program focused on improving the fiscal situation by enhancing efficiency and reducing government expenditures through increasing non-energy revenues as well as other measure (Government of Bahrain, n.d.). Despite these efforts, Bahrain remains behind original targets set in the program and postponed the target of achieving fiscal balance from 2022 to 2024. In 2021, Bahrain's overall fiscal deficit decreased from 17.9 percent of GDP in 2020 to 11.1 percent of GDP in 2021 (IMF, 2022a).

Health taxes are a way for Bahrain to diversity revenue base, increase non-oil government revenues while reducing budget deficits and public debt. The International Monetary Fund (IMF) called for urgent fiscal reforms in Bahrain to address imbalances, lower public debt, and restore macroeconomic sustainability.

4 Electricity consumption per capita in Bahrain 19,597 kWh per capita compared to 15,591 kWh in Kuwait, 14,782 kWh in Qatar,11,088 kWh in UAE and 9,401 kWh in Saudi Arabia.

5 In OECD countries electricity consumption is 7,750 kWH per person and the world average is 3,128 kWh per person.

The high dependence on oil revenues – illustrated by 75 percent of government revenue coming from oil in 2017 (Government of Bahrain, 2018) – and the low growth rate of non-oil revenues are among the main reasons why reaching balanced budgets is a challenge.

Cross-border tax harmonization

Cross-border tax coordination helps to ensure the effectiveness of health taxes by coordinating the costs and affordability of unhealthy products across neighbouring countries. Without such coordination, health taxes can be undermined through the import of lower-taxed products from neighbouring countries, tax avoidance, and cross-border smuggling. This may encourage consumption of unhealthy products abroad, obstructing the goal of health taxes to reduce consumption. If countries coordinate on cross-border taxation, there is less incentive to undercut tax rates, as countries have similar rates, and the efficiency of taxes is maximised (IMF, 2022a).

Over the years, the GCC has demonstrated increased commitment to ensure cross-border tax coordination. In the Gulf region, an agreement exists to address coordination of health taxes across borders – the Common Excise Tax Agreement of the States of the GCC of 2016 to adopt and impose excise taxes on goods that are deemed harmful to human health and the environment (PWC, 2022). In accordance with the GCC Economic Agreement of 2001, the GCC enacted the Common Excise Tax Agreement that aims to set similar legislations across Member States (GCC, 2016). Excise taxes on unhealthy goods are in place in every GCC country, except Kuwait (Varghese, 2021), and are set according to the GCC standard. For example, in December 2019, the minimum excise tax on tobacco products was set to AED 0.4 per cigarette pack (PWC, 2019). Despite the setting of minimum tax standards, GCC's tax levels remain low by international standards.[6]

3. HEALTH TAXES IN BAHRAIN

The overall pricing and tax structure for health-harming products in Bahrain currently leaves room for improvement and better alignment with taxes in other GCC countries and WHO recommendations.

The GCC first agreed to introduce excise taxes on health-harming products in 2016. This decision embodied the first step away from a historical regime of only applying import duties on these products (WHO, 2019e). Although the GCC countries have levied new excise taxes as a regional bloc, each country levies different additional taxes on products such as import duties and different rates of sales tax.

Bahrain increased the value added tax (VAT) rate from 5 to 10 percent in January 2022. The increase comes two years after Bahrain implemented a 5 percent VAT to reduce the budget deficit and re-stabilize the Fiscal Balance Program, which was disrupted by COVID-19 (Nasrallah, 2022). Similarly, Saudi Arabia raised its VAT rate to 15 percent in July 2020 to assist with COVID-19 relief efforts (KMPG, 2020).

6 The average total tax rate in the Middle East is around 24 percent, compared to the global average of 41 percent (PWC, n.d.)

Tobacco products

Compared to other regions in the world, prices of the cheapest, most sold and premium brands of cigarettes have on average been more affordable in the Eastern Mediterranean Region (Gordon et al, 2020). High-income countries tax cigarettes an average of 67 percent of the retail price, while an average of 62 percent of the retail price is taxed globally (Statista, 2020). Finland and Estonia impose the highest cigarette tax rates, with a tax of 88 percent of retail price of the most popular brand of cigarettes. This is above the WHO-recommended 75 percent tax rate (WHO, 2021d).
Studies have shown that minimum price laws requiring higher statutory minimum prices and banning discounting for tobacco products have been shown to reduce tobacco consumption and eliminate very cheap products (Doogan et al, 2018). Countries that implement minimum cigarette price laws include Morocco (WHO, 2021e), Malaysia (Liber et al, 2015) and certain states in the United States (Counter Tools, 2020).

Bahrain: Taxes account for 72 percent of the retail price of tobacco in Bahrain, lower than the WHO-recommended 75 percent (WHO, 2021c). Bahrain imposes an import duty of 100 percent of cost, freight and insurance or BHD 20 per 1,000 cigarettes, whichever is higher (WHO EMRO, 2020). In 2017, Bahrain implemented an ad valorem excise tax at 100 percent of pre-tax retail price (WHO EMRO, 2020). The least expensive brand of cigarettes is 2.9 times cheaper than the premium brand (BHD 0.8 versus BHD 2.30) (WHO, 2021c), meaning the current tax structure allows for substitution with cheaper brands. Bahrain has significantly reduced the affordability of cigarettes in the past 10 years. In 2010, 0.89 percent of GDP per capita was needed to purchase 2,000 cigarettes of the most sold brand, compared 2.7 percent in 2020 was needed (WHO, 2021c).

However, despite this progress, substitution with cheaper brands remains an issue. For example, in 2014 the cheapest cigarette brand John Player Gold Leaf replaced the more expensive brand Marlboro as the most popular brand (WHO, 2016). According to the Cigarette Tax Scorecard, Bahrain's overall score is 3.88 out of 5, scoring above the Eastern Mediterranean region, high income and global averages, but still not on par with the top performing countries. The tax structure and tax share of price components are bringing Bahrain's score down (Chaloupka et al, 2021).

GCC: GCC countries have the highest import duties (100 percent) globally, which is bound by the World Trade Organization trade rules and cannot be increased further. However, Saudi Arabia has modified its import duty structure and has a rate of US$1.06 per pack of cigarettes, compared to Bahrain's US$0.54 per pack. (World Bank, 2018).

Sugar-sweetened beverages

Consumption often increases when people are presented with larger portions. For example, increased portion sizes have been estimated to increase consumption by 12 to 16 percent in the United Kingdom. Another study found that consumption increases by 35 percent on average by doubling portion size (OECD, 2019). Since prices heavily influence buyer's product choice, foods and drinks in larger portions may appear more appealing because they often cost less in relative terms (Marteau et al, 2015).

Policy options incorporating behavioural insights can help nudge consumers towards better self-control (Schwartz et al, 2012). SSB excise taxes result in a change in shelf price, exposing the

consumer to the price change when selecting a beverage, which may entice them to chose a cheaper and healthier option (Thow et al, 2018).

Excise taxes can be either specific or ad valorem – specific meaning based on sugar or volume content and, ad valorem based on percentage of product value. Specific excise taxes can also be tiered meaning different rates apply depending on volume and sugar content, such as those in Ireland and the United Kingdom (World Bank, 2020a). Additionally, tax exemptions can be removed for SSBs, as seen in British Columbia, Canada in 2021. The provincial sales tax exemption on carbonated beverages with sugar, natural sweeteners or artificial sugars was eliminated, making these beverages subject to the tax (Smelie, 2021).

Globally, the majority excise taxes imposed on SSBs taxes are specific taxes.. A specific excise tax structure is often preferable to ad valorem because it utilizes a uniform method to increase the product price and provides more stable revenues (World Bank, 2020a). Ad valorem excise taxes are imposed in all five Middle East and North African countries that impose excise taxes on SSBs, including Bahrain (World Bank, 2020a).

Bahrain: Bahrain implemented an excise tax rate at 50 percent on carbonated drinks, and 100 percent on energy drinks in December 2017. Sugar-sweetened beverages as well as sugar-free, diet and sparkling waters with no sugar are subject to the tax. A full list of the beverages subject to the tax and their costs can be found in an 'excise goods list' on Bahrain's eGovernment website (Kingdom of Bahrain, eGovernment Authority, 2020).

GCC: Saudi Arabia implemented a tax on SSBs that increased the price of soda by 50 percent and energy drinks by 100 percent in 2017 (Alsukait et al, 2019). In 2016 the cost of one litre of Coca-Cola in Bahrain was US$0.48 (2010 US$). This was the same as in Oman, but US$0.23 less than in Saudi Arabia, US$0.66 less than in Qatar, and US$0.97 less than in Kuwait. From 1990 to 2016 the real price for one litre of Coca-Cola decreased in Bahrain, while it increased in Oman, Qatar and Kuwait (Blecher et al, 2017).

Alcoholic beverages

The global average ad valorem excise taxes for all alcoholic beverages is 69 percent of retail prices (Anderson, 2020). In general, there is a low tax burden on alcoholic beverages in the 26 OECD countries, particularly for beer and wine. There is a wide range of excise taxes in OECD countries, with taxes represented as portions of mean retail price ranging from 4 to 51 percent (Ngo et al, 2021).

Bahrain: Currently Bahrain imposes a 225 percent duty rate for imported alcoholic beverages (PWC, 2020). There currently is no excise tax on alcohol in Bahrain, creating a window of opportunity to begin the initiation of a tax.

GCC: Saudi Arabia and Kuwait completely ban alcohol (Oishimaya, 2017). In the Gulf countries where alcohol is not banned, high tax rates are often in place. For example, Abu Dhabi and Dubai in the UAE impose high rates of sales tax on alcohol at 30 percent in addition to the national 5 percent VAT already in place in the UAE (Duncan, 2020).

Box 2. Taxes and regulations on other health-harming products

A 2022 WHO Political Declaration recommends fiscal and price policies "that emphasize the consumption of whole grains, legumes, nuts, vegetables and fruit and reduce the demand for products high in fats, sugars and salt/sodium" (WHO Exec Board, 2022). In line with this recommendation, countries have enacted taxes on other health-harming products. Countries have taxed unhealthy foods based on different characterizations. For example, in 2014 Mexico enacted an 8 percent ad valorem excise tax on foods considered "nonessential foods" with more than 275 kcal per 100 grams. There were less purchases of taxed foods in the first three years of implementation of the tax, particularly among lowers socioeconomic households (WHO and STOP, 2022). Similarly, Hungary enacted the Public Health Product Tax in 2011 which is applied to "ready-to-eat food and beverages with high salt, sugar or caffeine content, with rates varying depending on the product category". Assessments of the tax found that following the introduction of the tax purchases of processed food decreased, while purchases of unprocessed foods increased (WHO and STOP, 2022). An additional fiscal approach to promote a healthy diet is to remove taxes, such as VAT, on healthy foods, namely fruits and vegetables. The Government of Tonga followed this approach by abolishing a 15 percent VAT on fruit, vegetables, eggs, water and yogurt. Similarly, the Government of Fiji lifted the 10 percent excise duty on imported vegetables resulting in a substantial increase in their import (WHO and STOP, 2022). Countries are recommended to go even further by subsidizing these healthy foods to promote their consumption (WHO and STOP, 2022). While not fiscal, the 2022 Updated Appendix 3 of the WHO Global NCD Action Plan 2013-2030 includes the recommended cost-effective intervention to reformulate food and beverages to be healthier through the elimination of trans-fatty acids (WHO, 2022). The REPLACE action package provides technical guidance for countries to implement this intervention (WHO, 2021f).

4. METHODOLOGY

UNDP and a team of UN Volunteers developed a model in 2020 for estimating potential additional government revenues from raising excise tax rates on tobacco, alcohol and SSBs.[7] The methodological approach builds on previous efforts to quantify excise tax revenues in a static context (Davis et al, 2019) and is extended by some initial estimations of future revenues. We construct a similar model for both the static one-year additional excise tax revenue as well as the short-term future revenue for Bahrain, taking into account lower consumption from higher prices.[8] In the tax revenue projections, we applied a 5 percent VAT rate for years 2019 to 2021 and a VAT rate of 10 percent from 2022 onwards in line with the planned rate increase. It is important to differentiate the excise tax increases in this model, which are specific to the three indicated unhealthy products, and a VAT that applies to most goods and services. In other words, while the VAT is accounted for, the estimated revenue increases are attributed to the increase in excise taxes.

One-year revenue estimation

We start by pooling estimates for the initial quantity of goods sold from multiple sources, thus smoothing data gaps and measurement errors. We then construct minimum, median and maximum consumption levels for tobacco, alcohol and SSBs in a given year in Bahrain. This is taken as the input variable to project government tax revenues after an increase in excise tax rates. For Bahrain, the model projects revenues following taxes that increase the prices of tobacco by 50 percent of retail price and alcohol and SSBs by 20 percent in a moderate scenario. The model also projects revenue in a high (75 and 50 percent respectively) and conservative scenario (30 and 10 percent respectively). We report the minimum, maximum and median additional excise tax revenue resulting from the model and discuss only the median in our results and findings. The estimation process accounts for price elasticity of demand and adjusted retail prices after the raise in taxes when calculating the additional tax revenue.

Table 1: Product elasticities

Product	Elasticities	Sources
SSB	-0.4	Muhammad et al, 2019
Tobacco	-0.4	WHO FCTC, 2019
Alcohol	-0.5	WHO, 2017

Short-term future revenue estimation

The present value of potential revenues for the short-term future is estimated. We do so by following the underlying idea of the discounted cash flow model for asset pricing. That is, we make assumptions on the future growth path of all previous input variables, thus estimating the annual additional excise tax revenue for each year. These include expected revenue growth for each product, expected sales volume growth, expected growth in per capita consumption, population growth, consumer price index for each product and GDP growth. The resulting increase in government revenue is discounted to 2022.

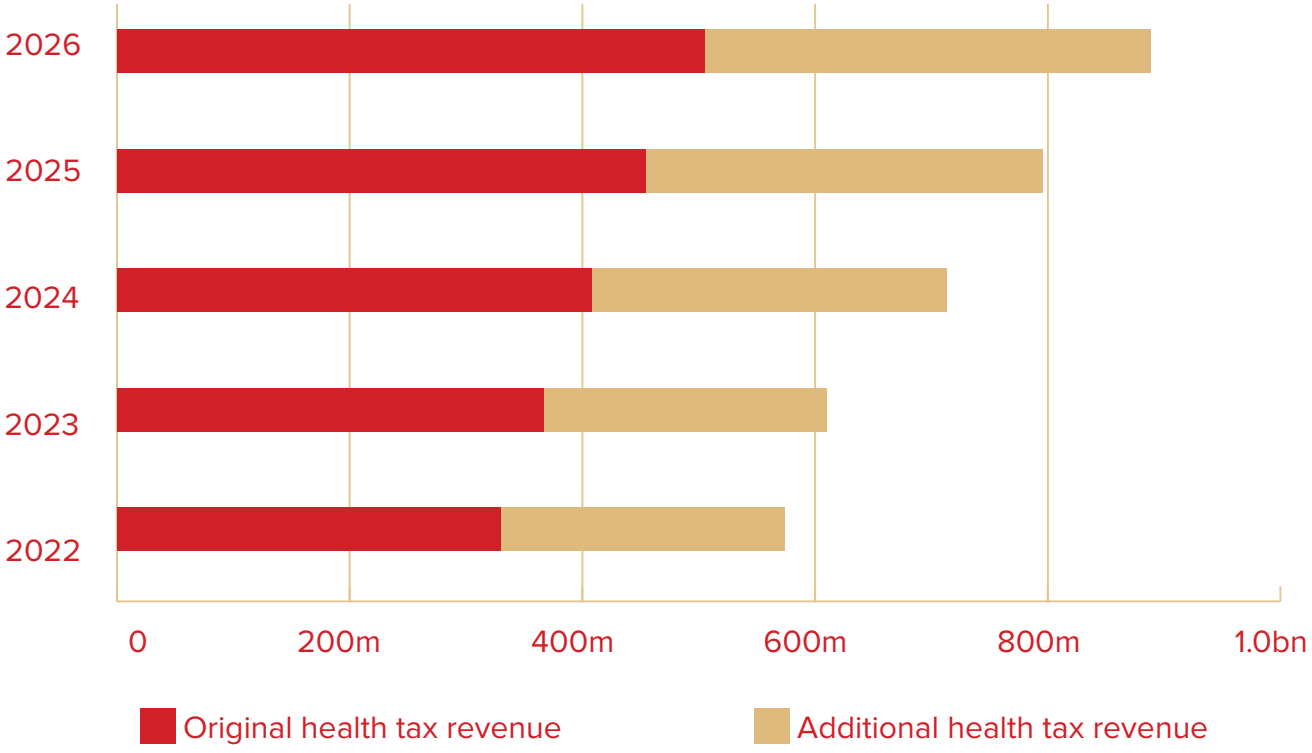
7 For this analysis, carbonated beverages, not including unsweetened sparkling water, were modeled under SSBs.

8 That is, the target price increase is the modelling constraint and the required increase in the excise tax rate is an outcome parameter of the model.

5. RESULTS

The economic model[9] implementing higher excise tax rates on tobacco, SSBs, beer, spirits and wine projects an overall increase in tax revenue in Bahrain. After implementing the suggested excise tax rates, the model predicts an additional US$245 million in tax revenue for 2022 which is a 15.9 percent increase in tax-derived government revenue representing 0.64 percent of forecasted 2022 GDP.[10] The model forecasts an annual increase in additional excise tax revenue through 2026. From 2022 to 2026 the model predicts US$1.4 billion in total additional excise tax revenue discounted to present value of 2022. The additional tax revenue would represent a 14.3 percent share in the total alternative tax-derived government revenue.

Figure 1: Original and additional health tax revenue (non-discounted current US$)



9 This model was developed in 2020 and uses the latest data available in 2021.

10 When forecasting GDP, we account for a 5.815 percent drop in GDP in 2020 due to the Covid-19 pandemic as indicated by available data (World Bank, 2020b). Growth is forecasted to pick up again in 2021 (Economist Intelligence Unit, 2020).

Figure 2 illustrates the cumulative potential revenue expressed in terms of the present value of revenue streams until 2026.

Figure 2: Present value of additional future excise tax revenue (cumulatively in current US$)

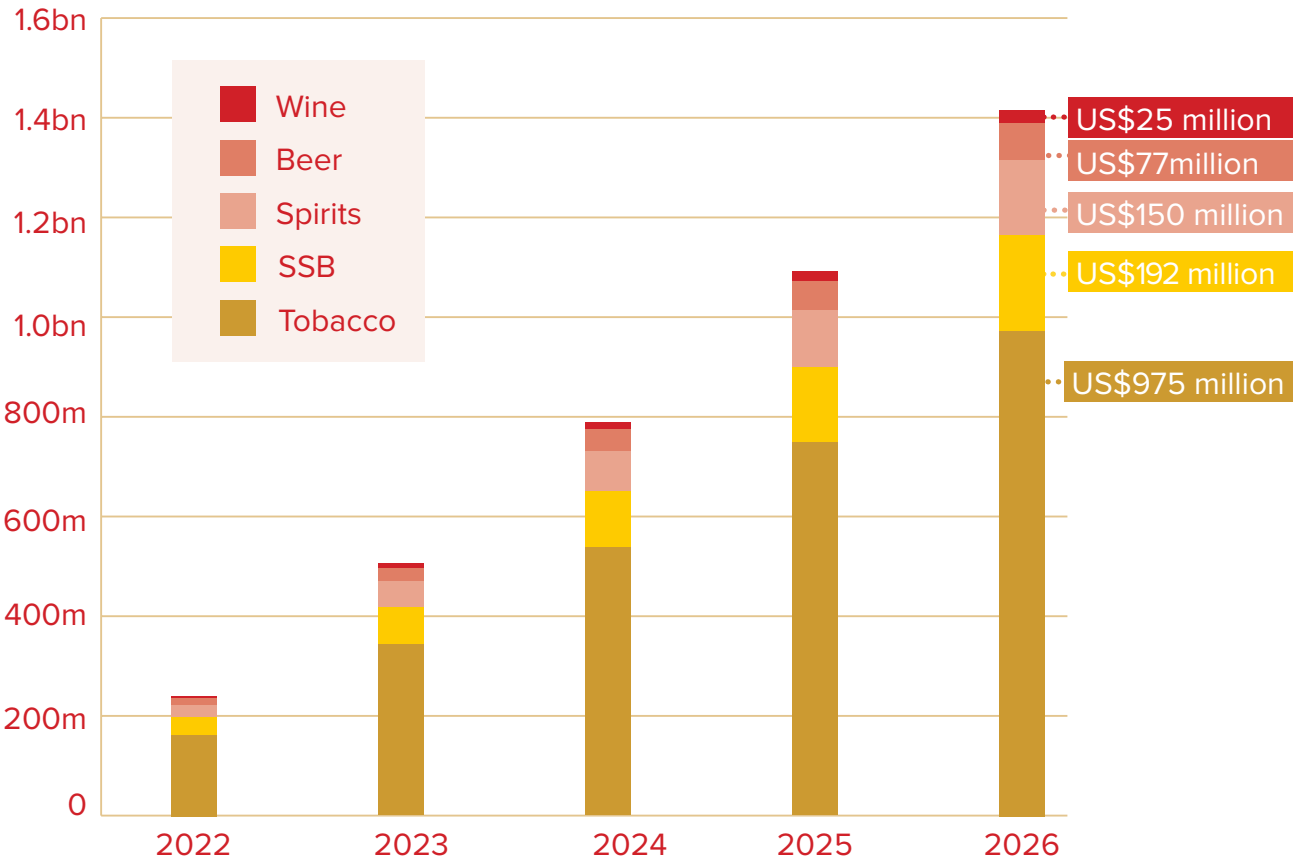


Photo: © Freepik

Most of the estimated additional revenue is attributed to the increase in tobacco excise taxes followed by alcohol and SSBs, both of which have a relatively small range of possible realizations of revenue streams. The majority of the potential increase in revenue from alcoholic beverages is coming from the excise taxation on spirits, beer and wine contribute significantly less.

Product median estimates

Tobacco
We forecast that by 2026 the suggested increase in excise taxes from 100 percent to 205 percent will bring an additional US$975 million in excise tax revenue.

Sugar-sweetened beverages
We forecast that by 2026 the suggested increase in excise taxes on SSBs from 50 percent to 82 percent will bring an additional US$192 million in excise tax revenue.

Beer
We forecast that by 2026 the suggested introduction of an excise tax of 22 percent will bring an additional US$77 million in excise tax revenue.

Spirits
We forecast that by 2026 the suggested introduction of an excise tax of 22 percent will bring an additional US$150 million in excise tax revenue.

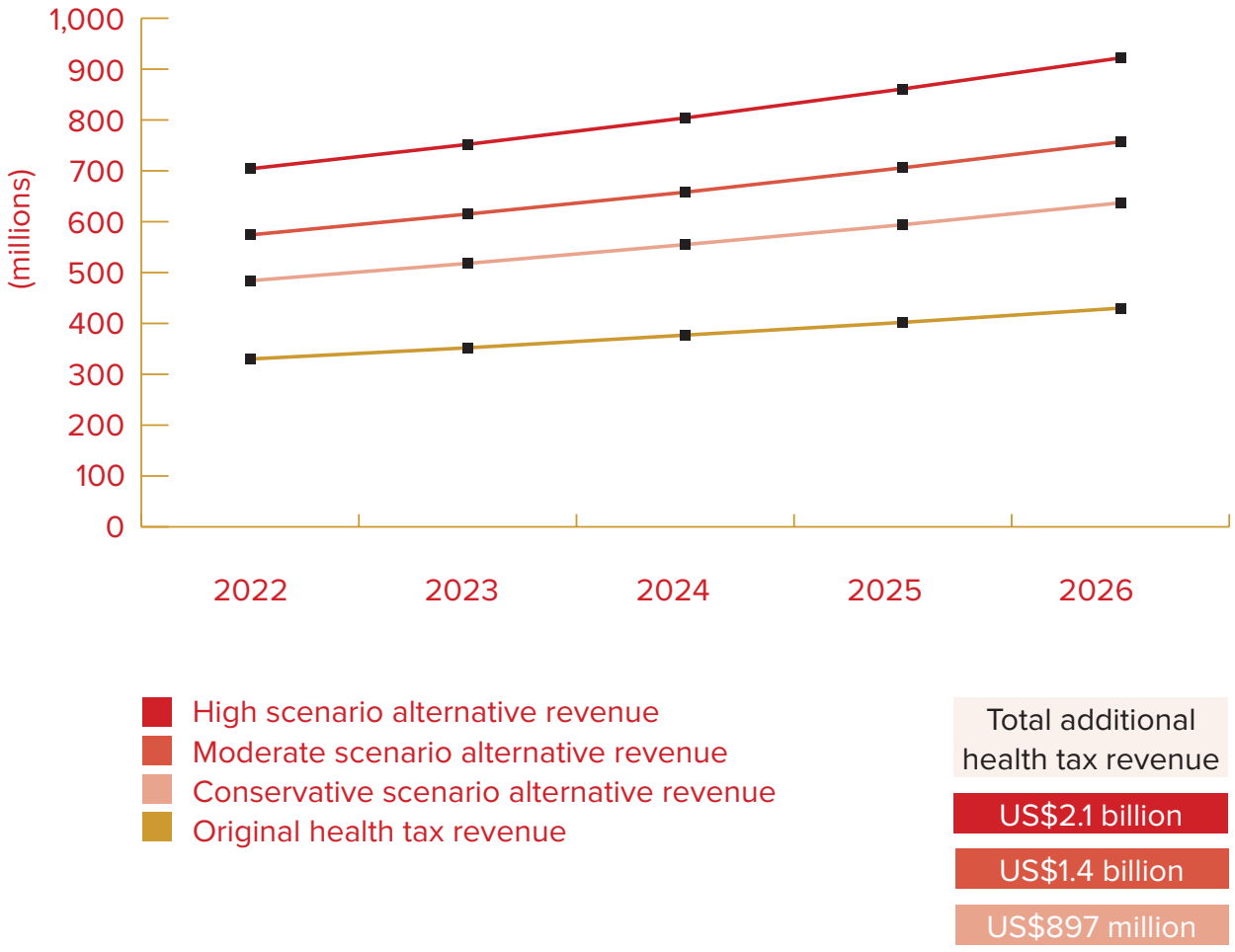
Wine
We forecast that by 2026 the suggested introduction of an excise tax of 22 percent will bring an additional US$25 million in excise tax revenue.

Photo: © Freepik

6. ALTERNATIVE HEALTH TAX SCENARIOS

The model also projects additional revenues for alternative price increase and tax increase scenarios. A high scenario builds on the constraint of retail price increase of tobacco by 75 percent and SSBs and alcoholic beverages by 50 percent. In such case, we forecast that the corresponding increase in taxes would generate an additional US$2.1 billion between 2022 and 2026. A conservative scenario sets the constraint of retail price increase to 30 percent for tobacco and 10 percent for SSBs and alcoholic beverages. The corresponding tax increase would generate US$897 million in additional taxes between 2022 and 2026.

Figure 3: Alternative health tax revenues by scenario (non-cumulative, discounted, in current US$)



7. DISCUSSION AND RECOMMENDATIONS

In line with the fiscal strategy of the Government of Bahrain, implementing and raising health taxes can support diversifying resources and income. The results show that beyond improving public health, raising excise taxes on tobacco, alcohol and SSBs, has the potential to noticeably increase government revenues. Currently, more than half of Bahrain's total government revenue is derived from oil and gas (Kingdom of Bahrain, Ministry of Finance and National Economy, 2018a). Raising excise taxes on harmful products could advance diversification of revenue sources and mitigate reliance on the energy industry.

Revenue from increased health taxes would help enable a consistent source of funding for the current universal healthcare system and health system reforms to scale up prevention and control of NCDs as well as help reduce the financial burden of OOP health expenditures, and even fund COVID-19 response measures (see **Box 2**). Additional revenue could also be used to support development of the agriculture sector, promoting a healthy sustainable food system, as well as economic diversification through the production of nutritious foods. Investing health tax revenue into other sustainable endeavors would help further diversify the economy. To enable longer term revenue gains and continue to reduce the negative health impact of harmful products, health tax revenue can be incorporated into the tax revenue mix from sectoral taxes, corporate taxes, taxes on very high incomes and foreign transaction taxes.

While tax increases do not have a history of garnering public support in Bahrain, increased transparency on tax policy and engagement with the public is suggested to increase public buy-in (Al-Ubaydli, 2021). In Tbilisi, Georgia, where far more people use tobacco than in Bahrain, a 2014 survey on the partial tobacco-free policy found that 36 percent of respondents were in favour of increasing tobacco prices and taxes, and only 29 percent opposed the policy (Ministry of Labour, Health and Social Affairs of Georgia, 2019). Findings from a systematic review by the University of Edinburgh revealed that earmarking revenue from health taxes for health spending such as improving health system and obesity prevention can help gain public and political support for taxes (Wright et al, 2017).

Despite some arguments that health taxes have a regressive character, they may, contrarily, lower inequalities by reducing the incidence of NCDs, which disproportionately affect low-income groups. OOP expenditures on health represent a greater proportion of income for poorer households rendering them less able to afford quality care when it is needed most. Poorer households appear more likely to modfiy their behaviour in response to health taxes and recent evidence confirms that health taxes bring net gains to lower-income households (WHO & UNDP, 2016; Sassi et al., 2018; Fuchs and Meneses, 2017, 2018; GTEC, 2018; World Bank, 2020).

This pro-poor effect can be amplified by earmarking revenues from health taxes to programmes targeting poorer groups and more widely used tax instruments, such as VAT, actually do show a regressive character (Leahy et al.,2011; Ruiz & Trannoy, 2008; O'Donnoghue et al., 2004). According to a study by the OECD (2020), VATs are mildly regressive in countries with broad-based VAT systems with few reduced rates or exemptions. When VAT rates are reduced or eliminated for certain products, governments must ensure these measures do not amplify unhealthy behaviours.

While VAT is typically geared towards raising revenue across most goods and with limited exemptions, health taxes incentivize substitution in favour of healthier products.

Box 3. Health taxes and the COVID-19 response

Health tax revenues have significant potential to finance the COVID-19 response, ensure social protection, strengthen health systems, and reduce the burden on health systems by reducing the incidence of NCDs. The COVID-19 pandemic caused a significant decline in public finances, increasing the importance of domestic resource mobilisation and calling for a "rethink" of tax policies. Strong tax policies can support domestic resources, such as using health tax revenue to contribute to funds for the healthcare sector (OECD, 2021).

Since the beginning of the pandemic, studies have consistently shown people living with NCDs to be at greater risk for disease or death from COVID-19. People living with pre-existing NCDs, including those caused by tobacco use, are likely more vulnerable to becoming severely ill with COVID-19 (WHO & UNDP, 2020). According to WHO, smokers have up to a 50 percent increased risk of developing a severe disease or dying from COVID-19 (WHO, 2021).

The Executive Committee for COVID-19 in Bahrain issued a decision in March 2022 to close restaurants and cafés with waterpipes. The following month, the Ministry of Trade banned delivery of all tobacco products and hefty fines were administered in response to violations. The coordination between the government sectors was key for the success of this ban (WHO EMRO, n.d.). Other countries have also enacted measures addressing COVID-19 and NCDs and some have applied these measures to fund their pandemic response. In India, a 70 percent tax on retail alcohol purchases was imposed to discourage gatherings to slow the spread of COVID-19 and to replenish funds lost due to the economic burden of the pandemic (The Guardian, 2020). Indonesia and India used established tobacco tax funds to finance their respective government response to the COVID-19 pandemic (the Union, n.d.). While civil society in Pakistan advocated for tax increases on tobacco and carbonated drinks to generate financing for the COVID-19 response (Daily Times, 2020), as of 2022 these tax increases have yet to be made.

The pandemic has exacerbated inequalities and governments are advised to adapt tax and fiscal policies to address inequalities, as well as secure financing and promote sustainable economic growth (OECD, 2021). Implementing or increasing heath taxes is an ideal option given the multiple benefits in health, poverty reduction and education accrue mostly to the poor, while wealthier consumers end up paying the majority portion of the tax increases (WHO & UNDP, 2016). Such a comprehensive approach to health taxes, however, will require whole-of-government support. The following recommendations aim to assist Bahrain in improving the health and well-being of its population and to enhance the fiscal sustainability of its health systems.

Making the most of health taxes

Increase taxes on tobacco, alcohol and SSBs.

1. Increase and restructure tobacco taxes to reduce substitution

Bahrain has room to increase tobacco taxes to at least the WHO recommended 75 percent of the retail price of the most sold brand of cigarettes with an excise tax component of at least 70 percent. The increased price of cigarettes will make them less affordable and more aligned with prices in neighbouring countries in the region, such as in Saudi Arabia. In Bahrain, there is a large difference between the price of the most expensive brand of cigarettes and the cheapest brand. Taxes should be harmonized to reduce the large price differentials and the likelihood of consumers switching to cheaper products after additional price and tax increases. Bahrain can also introduce legislation requiring a minimum price for tobacco products and banning discounting for tobacco products to reduce the likelihood of substitution.

2. Increase taxes on alcohol

Similarly, while there is relatively low levels of alcohol consumption in Bahrain, imposing an excise tax on alcohol can still help reduce consumption and associated health consequences. Notably, such taxation can help discourage the consumption of spirits, the main alcoholic beverage consumed in Bahrain. Additionally, tourist alcohol purchases contribute to the alcohol tax revenue discouraging consumption among everyone in Bahrain, not only the locals.

3. Increase and restructure SSB taxes

Finally, Bahrain should increase and modify its tax structure on SSBs. Bahrain should ensure that only sugary drinks are taxed, omitting beverages without sugar, as it is crucial for a price difference to be visible to the customer to entice them to select a healthier and less expensive beverage. Although not modeled, Bahrain should also modify the tax to use a specific tax structure that is based on sugar content or the volume of the beverage (Thow et al, 2018) and not an ad valorem tax based on the price alone the Government of Bahrain can decide whether a specific excise tax on volume or sugar content is most appropriate (Hattersley et al, 2020). In addition to reducing consumption and the associated risk of adverse health outcomes such as obesity and diabetes and generating revenue, this would influence consumer choice, encouraging them to choose smaller portion with less sugar.

To increase the success of health taxes, a tax reform requires a robust tax and customs administration regime, good policy design and a satisfactory database, as well as consensus building, effective communication and coordination among multiple stakeholders. Support from the public on health taxes is also important and should be generated early (OECD, 2021), especially considering the public in Bahrain has not supported tax increases historically (Al-Ubaydli, 2021). The GCC makes tax decisions as a regional bloc and as such Bahrain can present the GCC with evidence of the fiscal and health benefits of health taxes, encouraging the other countries to follow its example. Bahrain can support coordination of health taxes across all Gulf countries, leading the way for strong health taxation regionally and globally.

Diversify revenue sources and support sustainable economic growth.

Despite recent progress, Bahrain remains dependent on its oil sector, making it vulnerable to macroeconomic volatility from oil price fluctuations. Bahrain can strengthen economic stability by investing in sectors independent from the oil sector and, by developing the regulatory and institutional framework to provide sound policies that ensure successful economic diversification. Health taxes are an efficient way for the government to diversify economically, shifting away from oil and generating alternative revenues.

Diversifying the economy to reduce reliance on the oil sector would make Bahrain more competitive, attract foreign direct investments, and stimulate sustainable economic growth. Health tax revenues can support Bahrain's efforts to invest in non-oil sectors such as manufacturing, tourism and finance and foster the role of the private sector (Khayati & Al-Sayegh, 2020). Bahrain can use health tax revenues to promote private sector growth, as it is currently doing with the development of a privatized metro system (Smith, 2021), as well as infrastructure that would attract tourism and foreign investments, such as through digital transformation, one of the goals mentioned in its national plan 'Bahrain Economic Vision 2030' (Oxford Business Group, 2020). Per suggestions from the IMF, Bahrain can continue to support fintech and digitalization, along with targeted labor market policies to provide additional employment opportunities and boost productivity, and also prioritize women in the workforce by supporting women entrepreneurs, access to financial support and providing increased work flexibility (IMF, 2022b). Without diversification of the economy, the country would face increasing economic uncertainty and instability as its natural resources are depleted.

Bahrain can allocate revenue from excise taxation specifically for health, and it could serve to address its increasing prevalence of NCDs (Oxford Business Group, 2016) while supporting sustainable development priorities. Bahrain can follow the example of the Philippines where additional revenue from health taxes are designated to universal healthcare (STAX Group, 2018). Similarly, Egypt supports sustainable development priorities by allocating additional tax revenue from tobacco products to health insurance schemes for students (Tobacco Free Kids, 2020).

Remove the VAT exemption for salt, sugar and meat.

While fruits and vegetables are currently exempt from the 10 percent VAT in Bahrain, so are salt, sugar, meat, sweet or salty bread products and other unhealthy foods (Kingdom of Bahrain, National Bureau for Revenue). Meaning, there is no price incentive to purchase healthier items over unhealthy ones. Bahrain should recategorize the foods exempt to only healthy options including fruit and vegetables. This is a simple change Bahrain can make to not only promote healthier food choices, but to also make them more affordable. To make healthy food choices even more affordable, Bahrain can subsidize fruits and vegetables.

This would also support Bahrain's efforts to strengthen the agriculture sector, by stimulating revenue growth from locally produced fruits and vegetables. Research has shown that exempting fruits and vegetables from VAT is an effective method to increase their sale and thus, producers' revenue (Mikkelsen et al, 2021). Additionally, a study in Sweden demonstrated that if a 25 percent VAT was applied to products high in saturated fat versus a 0 percent VAT on fruits and vegetables, this would avert or postpone 1,100 deaths over one year in Sweden. Furthermore, if a subsidy was applied to fruits and vegetables plus the VAT was increased to 34.4 percent on products high in saturated fat, then almost 2,100 deaths would be averted or postponed (Saha et al, 2021).

The Common VAT Agreement in the Gulf Cooperation Council states that while all foods are subject to the tax, Member states can apply a zero-rate on certain foods included in the list of Goods approved by the Financial and Economic Cooperation Committee (GCC, 2016). Bahrain can work with MOH and consult with nutrition, food and health experts to ensure only healthy items are exempted from VAT and can lead coordination efforts with other GCC Member states on foods exempt from VAT. Restructuring the food items exempt to VAT should be phased in slowly and carefully, considering the complexity of determining the healthiness of foods and political costs may be higher.

Reform fossil fuel subsidies.

Bahrain spends US$185 per capita on fossil fuel subsidies ranking 10th among all countries (IEA, 2022). These subsidies worsen Bahrain's current fiscal situation consisting of budget deficits and public debt in addition to the negative impact they have on the environment, encouraging overconsumption of energy and accelerating the depletion of Bahrain's scare natural resources. The IMF estimates that removing these subsidies and taxing fossil fuels could add 3.5 percent of GDP to government revenues each year. Bahrain can use this additional fiscal space to address its current fiscal imbalances, to support diversification of its economy, achieve the SDGs and support the 'Economic Vision 2030 for Bahrain' "to shift from an economy built on oil wealth to a productive, globally competitive economy" (Kingdom of Bahrain, 2008).

For this tax reform to be successful, a robust technical assessment of the impacts of the reform on the economy, society and poverty is recommended. Careful planning, slowly phasing in the reform, stakeholder consultations, an effective communication plan, efforts to de-politicize the reform, managing the risk of interference from opposing groups, and packaging the reform with other interventions (namely health taxes) are all factors that can assist to achieving a successful tax reform.

Overcoming challenges of health tax implementation

Industry interference

Tobacco, alcohol and SSB companies often use misinformation to encourage governments to not tax unhealthy products (Smith et al, 2016). For example, they will use the argument that health taxes are regressive and unfair to the poor. In reality, unregulated policy environments are unfair to the poor because they allow inequities to persist. Poor and vulnerable groups experience higher rates of disease and their health conditions are less likely to be detected and treated, exacerbating inequities (WHO and UNDP, 2016). Rather than committing to safeguarding public health, these industries have used the COVID-19 pandemic as an opportunity to promote production, distribution and sales of their harmful products. Especially, the tobacco industry exploited the pandemic to persuade governments to maintain lax public health policy environments that were conducive to their business interests. The tobacco industry capitalized on the decline of public finances and used this as an opportunity to offer donations to governments, which often come with certain conditions that compromise health policy and will continue to harm public health beyond the pandemic (Assunta, 2021).

While Bahrain has policies in place to protect public health from tobacco industry interference, they still face a serious threat. Two tobacco companies are present in Bahrain - Intercol, a domestic tobacco company and British American Tobacco Middle East. There is also the Middle East Tobacco Association, whose mission is to promote and defend the tobacco industry in the GCC as well as the Middle East Tobacco Association, with the mission to promote and defend the tobacco industry in the GCC (WHO EMRO, 2017).

Industry interference in California, United States leads to bans of food and beverage taxes

The SSB industry has taken extreme measures to prevent successful SSB taxation. In 2014, Berkeley, California became the first city in the United States to pass an SSB excise tax, imposing a US$0.01-per-ounce levy on SSBs. About four months after implementation, consumption of SSBs decreased by 21 percent (Falbe et al, 2016) and within three years SSB consumption fell by 52 percent and water consumption increased by 29 percent (Lee et al, 2019). Following the tax in Berkeley, three other municipalities in California implemented SSB taxes. Not long after, a bill pushed by industry was passed that banned local beverage and food taxes for 12 years (O'Connor & Sanger-Katz, 2018) preventing other municipalities in California from continuing progress in successful SSB taxation.

Illicit trade in tobacco products

Increases in tobacco taxes are often opposed with the argument that they will lead to increases in illicit trade. Evidence demonstrates, however, that raising tobacco taxes is not accompanied by increases in illicit trade (Tobacconomics, 2019). Moreover, tobacco taxes generate significant fiscal and health benefits through increased revenue and reduced tobacco use.

- Turkey substantially increased its tobacco tax in January 2013 and the size of the illicit cigarette market remained stable at 12 percent five months after the tax increase (Kaplan et al, 2018).

- Significant tax rate increases in South Africa in the 1990s (38 to 50 percent of the retail price) led to only in the illicit trade prevalence, a decline in legal sales by 20 percent and a doubling of excise tax revenue (Blecher, 2010).

- In the United Kingdom, the market share of illicit cigarettes declined from 31 percent in 2000 to 21 percent in 2010 (Ross & Blecher, 2019) despite increases in cigarette taxes and related revenues; it was also linked to a decline in consumption (Partos et al., 2020).

- A study from Thailand reported that the level of cigarette excise taxes decreased consumption but had no the level of illicit trade (Pavananunt, 2011).

- In Viet Nam, the illicit cigarette market share declined from 21 percent in 2012 to 13.7 percent in 2017, despite an ad valorem tax increase from 65 to 70 percent over the same period (Nguyen & Nguyen, 2019).

Tobacco tax reform in Brazil coupled with a track and trace system is followed by a reduction in smoking prevalence and an increase in tax revenue

Until 2011, Brazil structured tobacco tax policies in an effort to prevent illicit trade. During this time, the tobacco industry increased prices attempting to expand profit margins and obstruct cooperation efforts between Brazil and Paraguay (Iglesias, 2016). In 2011, Brazil implemented a reform which introduced a system combining ad valorem and specific tax options and included a minimum prices and minimum regular adjustments based on expected inflation (Iglesias, 2016). The reform together with the implementation of the track and trace system in 2007 (Szklo et al, 2022) and the widening of smoke-free environments, led to a decline in smoking prevalence from 15.6 percent in 2006 to 10.8 percent in 2014 and an increase in cigarette excise tax revenue by 20 percent (in real terms) from BRL 4.2 billion in 2011 to BRL 5.3 billion in 2014 (Iglesias, 2016).

The tobacco industry's claims about the illicit market size have often been proven to be misrepresentations (John & Ross, 2018) and studies provided by the industry had methodological limitations (Gallagher et al., 2019). Some studies find that the tobacco industry itself is responsible for the production of the majority of illicit cigarettes (Gilmore et al., 2018).

In reality, the impact of taxes and prices on illicit trade is limited (IMF, 2016) and empirical data shows that the illicit market is often larger in countries with low taxes and prices than in countries with higher taxes and prices (National Research Council & Institute of Medicine, 2015). Other factors, such as the strength of the administration and enforcement, social norms and market characteristics play a more important role in the illicit market size (Chaloupka et al., 2015).

To appropriately address illicit trade, governments can implement policy, administrative, and enforcement measures to reduce illicit trade while increasing tobacco taxes (Tobacconomics, 2019). Regulation and monitoring of the entire supply chain significantly reduces unofficial tobacco flows as well as consumption (World Bank, 2017). The WHO FCTC's Protocol to Eliminate Illicit Trade in Tobacco Products provides a framework and guidance to curb illicit trade (WHO FCTC Article 15).

8. CONCLUSION

Health taxes support public health and economic diversification. Raising excise taxes on tobacco, alcohol and SSBs in Bahrain can promote reduced consumption of these unhealthy products while generating a substantial amount of additional tax revenue estimated to reach US$1.4 billion in 2026. This influx of revenue would reduce budget deficits and public debt while diversifying the economy and shifting away from fossil fuels. This revenue can be invested in the health sector and sustainable sectors to further diversify the economy and achieve the goals set out in Bahrain's fiscal strategy.

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