

Building momentum: lessons on implementing a robust sugar sweetened beverage tax



About World Cancer Research Fund International

World Cancer Research Fund International leads and unifies a network of cancer prevention charities with a global reach. We are a leading authority on the links between diet, nutrition, physical activity and cancer. We work collaboratively with organisations around the world to encourage governments to implement policies to prevent cancer and other non-communicable diseases.

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Key Messages

- More action is urgently needed to reach the global non-communicable disease (NCD) targets. Sugar sweetened beverage (SSB) taxes are recommended by the World Health Organization (WHO) as an effective intervention to reduce sugar consumption and help address NCDs.
- Results from rigorous monitoring and evaluation research on the effects of implemented SSB taxes are encouraging policymakers across the globe to take action. SSB taxes have been shown to be effective and should be a key component of a comprehensive approach to prevent and control diet-related NCDs.
- Lessons can be drawn from governments that have successfully passed and implemented or attempted to pass an SSB tax. This report outlines the lessons learned from those examples on:
 - what evidence is required;
 - how to design the tax;
 - how to run and sustain a public and political campaign in support of the tax;
 - how to frame the tax;
 - how best to engage with stakeholders;
 - and how to defend against common arguments against the tax.
- Common elements exist for developing and implementing robust SSB taxes in countries and local jurisdictions worldwide. While lessons can be drawn from international experience, it is fundamental to understand the local context when designing and defending the implementation of the SSB tax. Understanding the jurisdiction – including what will resonate with the public, how the political system works and tailoring the tax design and campaign to that context – will increase the likelihood of successfully passing the tax.
- The tax will likely be challenged, but the experiences of how other countries and local jurisdictions defended their tax against challenges can help others prepare and defend their proposed SSB taxes.
- The implementation of health policies to prevent and control NCDs is a political process. An exploration of the motivations and enablers of the various implemented SSB taxes can contribute to an understanding of the common elements that create a ‘perfect storm’ of political and public will to successfully introduce and implement an SSB tax. Examples of these ‘perfect storms’ from Barbados, Fiji, Mexico, Philadelphia and South Africa are explored.



Introduction

Sugar sweetened beverage consumption promotes weight gain and contributes to rising rates of diet-related NCDs globally.(1–3) This report provides guidance about designing, defending and implementing a robust SSB tax based on the experiences from countries and local jurisdictions around the world who have attempted to implement a tax. The report explores common barriers and enablers to SSB tax implementation.

This report is aimed primarily at policymakers seeking to implement SSB taxes. It is informed by a literature review, as well as interviews conducted with policymakers, advocates and academics involved in SSB tax development, advocacy and implementation around the world (*see Methods box*).

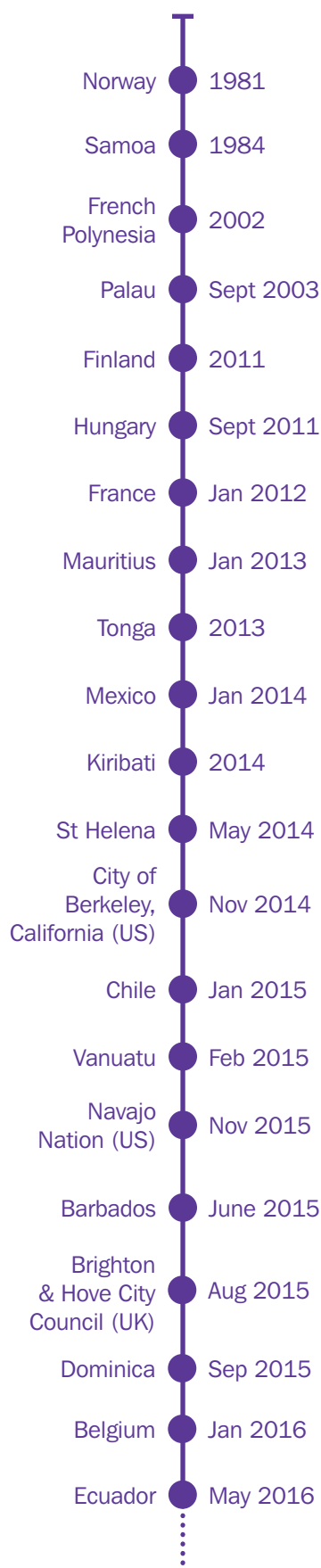


Methods

A literature review was undertaken using relevant key search terms on the implementation challenges governments have encountered when designing and implementing SSB taxes.

Seventeen semi-structured interviews were carried out with key policymakers, academics and advocates, from different countries, who were involved with designing, advocating for and implementing SSB taxes around the world. A thematic analysis of the interviews was undertaken as part of the qualitative research to inform the report.

Timeline for sugary drinks taxes being implemented around the world:



Background

Where we are now

The taxation of SSBs is gaining momentum. The passage, implementation and subsequent evaluation of Mexico's SSB tax (implemented 1 January 2014) acted as a tipping point for global action. The confidence of policymakers is increasing as more SSB taxes are being implemented and demonstrating anticipated effects (see [Effects of implemented SSB taxes](#)). In 2017 alone, 12 SSB taxes were implemented in countries and local jurisdictions globally.(4,5)

The World Health Organization (WHO) recommends taxation of SSBs as an effective intervention to reduce sugar consumption and help address NCDs.(6) This recommendation has helped drive further action, but more action is urgently needed to make progress in reaching the global NCD targets by 2025 and the Sustainable Development Goals by 2030.(7) A comprehensive approach is needed to tackle NCDs, with SSB taxation forming one key part of a wider package of policies. See [Key WHO resources list](#) for more

WCRF International's NOURISHING database keeps track of implemented SSB taxes from around the world.

See 'U – Use economic tools to address food affordability and purchase incentives' www.wcrf.org/NOURISHING



Sugar sweetened beverages



contribute to weight gain



leads to being overweight or obese



increases risk of diet-related NCDs

information. Industry interference remains a major challenge in developing and implementing SSB taxes. This report aims to provide advice on how to design a robust SSB tax to help counter these challenges and increase the likelihood of successfully implementing a tax (see [Defending SSB taxes](#)).

SSBs and NCDs

Consumption of SSBs contributes to diet-related NCDs. SSB consumption promotes weight gain, and increases the risk of overweight and obesity, which increases the risk of at least 12 cancers, cardiovascular disease and diabetes.(9,10) SSB consumption has also been linked directly to diabetes.(3)

Key WHO resources list

- Guideline: Sugars intake for adults and children (World Health Organization, Geneva; 2015)
- “Best buys” and other recommended interventions for the prevention and control of noncommunicable diseases. (World Health Organization, Geneva; 2017)
- Fiscal policies for diet and prevention of noncommunicable diseases: technical meeting report, 5-6 May 2015 (World Health Organization, Geneva; 2016)
- Technical workshop on sugar-sweetened beverages: Meeting Report; Manila 21-22 September 2016 (World Health Organization, Regional Office for the Western Pacific; 2017)
- Using Price Policies to Promote Healthier Diets (World Health Organization, Regional Office for Europe; 2015)

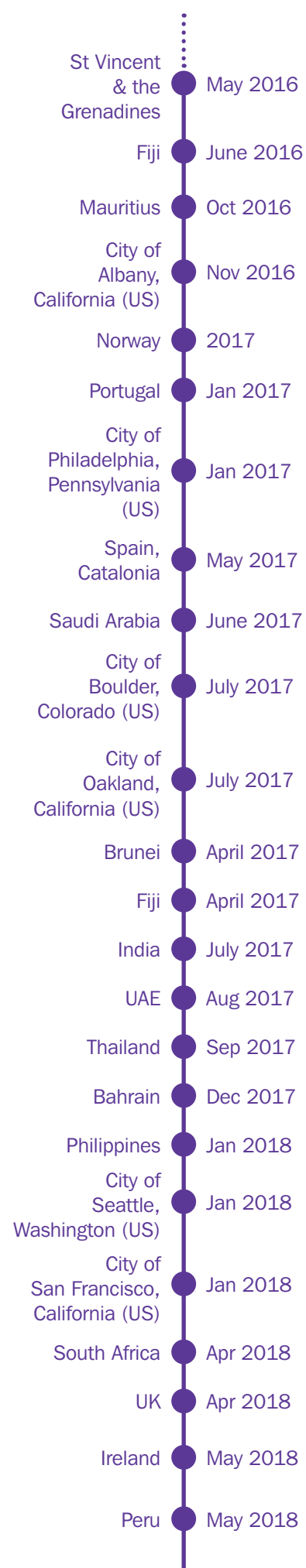
Obesity rates have risen dramatically in all parts of the world over the past several decades. Between 1980 and 2013, global overweight and obesity rates increased by 28% in adults and 47% in children and no country has been able to stop the rise to date.(11) In 2016, more than 1.9 billion adults were overweight and of these over 650 million were obese. In 2016, 41 million children under the age of five were overweight.(12,13)

The 2018 World Cancer Research Fund Cancer Prevention Recommendations include “Be a healthy weight” and, for the first time, a standalone recommendation about SSBs: “Limit consumption of sugar sweetened drinks”. The Recommendations are only made when evidence is sufficiently strong and are based on an analysis of the body of scientific evidence, which is subsequently judged by an independent expert panel.(14)

Global consumption of SSBs

The WHO recommends that adults and children restrict consumption of free sugars to less than 10% of total daily energy intake (and preferably less than 5%).(15) Sugar consumption in many countries exceeds this amount, and SSBs are a major contributor to sugar intake in many parts of the world.

Globally, patterns of SSB consumption are changing.(16) In 2014, North America and Latin America were the largest consumers of SSBs per capita.(16) And while sales fell in North America,



Australasia and Western Europe between 2009 and 2014, sales increased in all other regions. Consumption is increasing dramatically in emerging markets, including China, Thailand and the Philippines. This trend can be partly explained by the fact that SSB companies are increasingly targeting emerging markets to make up for diminishing sales in high-income countries.(15) In addition, the sugar content of internationally produced SSBs varies widely, with sugar content often higher in beverages sold in low- and middle-income countries.(19)

Effects of SSB taxes

Pathways of effects

A main aim of taxing SSBs is to decrease consumption, thereby reducing diet-related risk factors for NCDs. Understanding the pathways of effects through which SSB taxes operate are integral to their successful design, development, implementation, defence and monitoring and evaluation. Figure 1 illustrates the pathways of effects for an SSB tax, including how it can reduce the risk of NCDs.

Other aims of SSB taxes are to generate revenue, which often goes to a general fund or is sometimes formally or informally directed to social initiatives and projects related to health and/or NCD prevention; to raise public awareness about sugar consumption; and to reformulate products to reduce sugar content.

Having clear pathways of effects are helpful when setting policy objectives and beneficial for monitoring and evaluation purposes (e.g. assessing whether the tax is meeting stated objectives). It is necessary to track intermediate outcomes along the pathways of effects since the longer-term outcomes are affected by many other factors.

Effects of implemented SSB taxes

Evaluations of SSB taxes to date have demonstrated that they increase price (to varying degrees depending on the pass through rate), decrease purchases and reduce consumption of SSBs. For example, six months following the implementation of a 10% excise SSB tax in Barbados, average SSB prices rose 5.9%.(20) In Mexico, purchases of taxed SSBs reduced following the implementation of a 10% excise

Definitions

- **Price elasticity of demand:** The degree to which demand for a good or service varies with its price.(8)
- **Free sugars*:** Refers to both added sugars, like sucrose or table sugar, and sugars naturally present in honey, syrups, fruit juices and fruit concentrates. Most free sugars consumed are added to foods and beverages. Free sugars do not include sugar that is naturally built into the structure of foods or to sugars naturally present in milk and milk products.
- **Sugar sweetened beverages:** Beverages containing added caloric sweeteners, such as sucrose, high-fructose corn syrup or fruit juice concentrates. These include, but are not limited to, carbonates, fruit beverages, sports beverages, energy and vitamin water beverages, sweetened iced tea and lemonade.(8) While most SSB taxes only include sugar sweetened beverages, some countries and local jurisdictions also include beverages to which non-caloric sweeteners have been added.
- **SSB tax:** See [Types of tax](#) graphic on page 12.
- **Pass through rate:** The rate of an excise tax that is transferred from producer to consumer.
- **Earmarking:** Using the money derived from an SSB tax for spending on a specific issue or programme (e.g. reducing child obesity or increasing access to drinking water).
- **Nutrient profiling:** The science of classifying or ranking foods according to their nutritional composition for reasons related to preventing disease and promoting health.(8)

*Throughout this report 'sugar' refers to 'free sugars'.

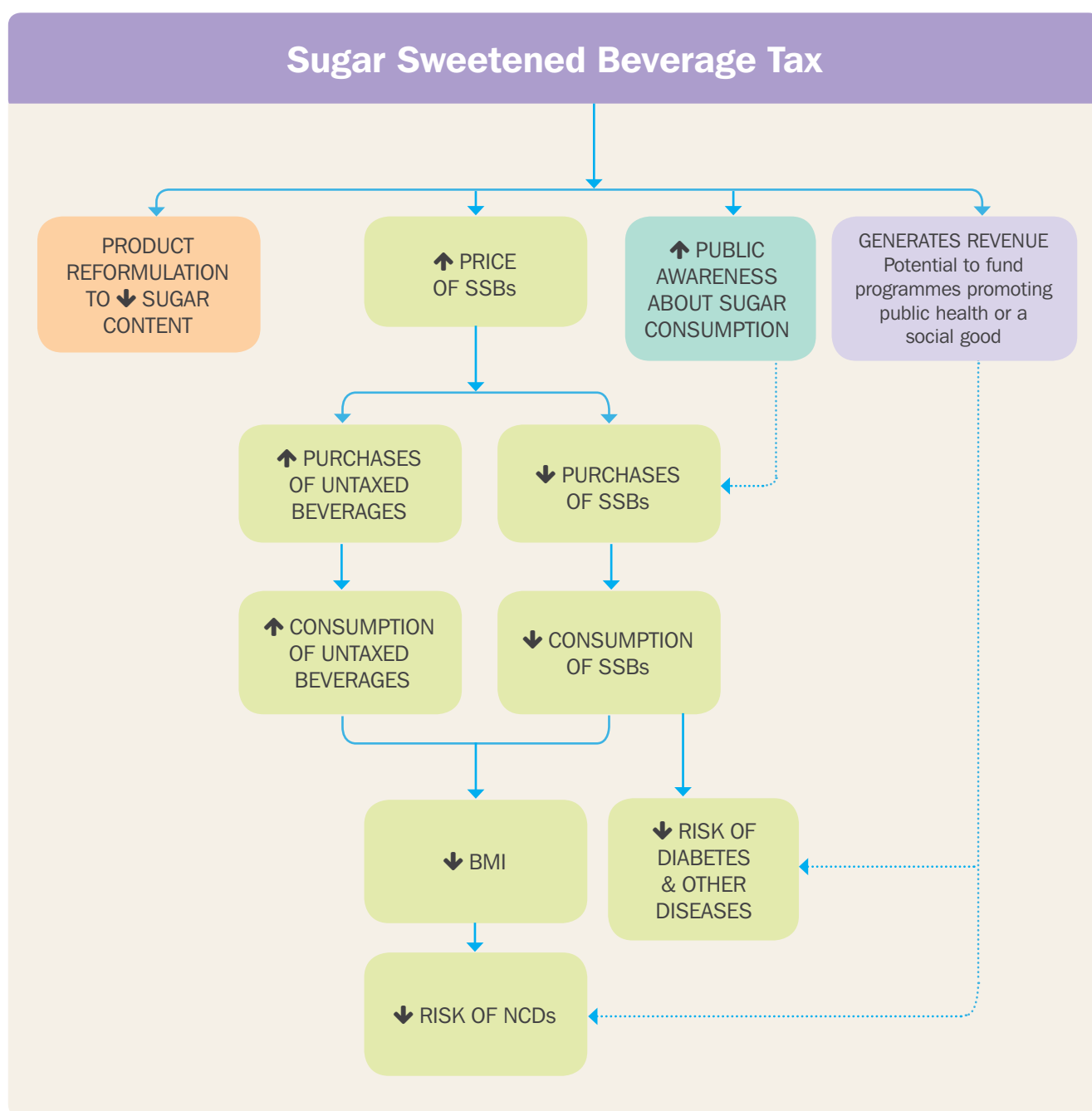
tax, and these reductions were sustained two years post implementation (on average purchases decreased by 8.2% over the first two years).(21) And in Berkeley, the one cent per ounce excise tax decreased consumption of SSBs by 21%.(22)

There is also some evidence showing SSB taxes can lead to reformulation of products.(19) The effects of SSB taxes are well documented (4,25) and taxes continue to be monitored and evaluated.



For a summary of what is known to date see the WCRF International evidence table available online at www.wcrf.org/buildingmomentum

Figure 1: Pathways of Effects



Source: World Cancer Research Fund International. (2018) *Building momentum: lessons on implementing a robust sugar sweetened beverage tax*.

Robust Design

Context

Economic, political, social and cultural factors all shape the approach used to introduce and implement an SSB tax. Therefore, approaches must be context-specific to increase the likelihood of successfully introducing and implementing an SSB tax. However, common elements exist for developing and implementing a robust SSB tax across countries and local jurisdictions.

The lessons learned from countries and local jurisdictions around the world show that SSB taxes are often, but not always, met with significant opposition, and even interference, from stakeholders whose interests conflict with the SSB



“You need movers and shakers. But first of all, do good research – that is extremely important. What is happening in other countries? How are they addressing their issues?”

Premila Deo (Fiji Consumer Council, Fiji)

tax. Therefore, a robust tax design is crucial in order to ensure the implementation of the tax can withstand strong anti-tax campaigning. A robustly designed tax, based on lessons learned from other governments, can increase the chance of successfully implementing an SSB tax.



“Understanding economic, political, legal, social and cultural factors are essential in developing an advocacy strategy, mobilising society, convincing decision makers and facing the interference of industry. Industry and its diverse strategies must also be thoroughly known. In the same way, the media should be investigated – who are they? To whom do they belong?”

Dr Esperanza Cerón (Educar Consumidores, Colombia)



Evidence as a foundation

Evidence must be at the heart of policy design. In order to design and implement an SSB tax, policymakers should utilise evidence for SSB taxes and their effect on price, purchasing behaviour and consumption.



For more information on this type of evidence, see the WCRF International evidence table available online at www.wcrf.org/buildingmomentum

In order to design an SSB tax that is fit-for-purpose and context appropriate, and to increase public and political support for the tax, it is common practice for governments to draw on the following types of evidence:

- The severity of the overweight and obesity problem in the country or local jurisdiction;
- Evidence showing the amount of sugar in SSBs;
- Evidence of the link between sugar consumption, weight gain, overweight and obesity;
- Evidence of household purchases or sales per capita of SSBs;
- SSB consumption in the country or local jurisdiction, including highest consumers;
- Evidence on the price elasticity of demand for SSBs;
- The health effects associated with SSB consumption, including diet-related NCDs;
- The cost of diet-related NCDs to the health care system;
- The projected fiscal revenue that will be collected from the tax;
- Modelling the effects of SSB taxes on the contribution of diet as a risk factor for developing NCDs;
- Modelling the impact of SSB taxes on different socio-economic groups;
- The WHO Guideline on Sugars intake for adults and children;
- National and regional dietary guidelines;
- Evidence that SSB taxes are recommended at an international level by the WHO, through the updated Appendix 3 of the WHO NCD Global Action Plan; and
- Evidence that SSB taxes are effective at influencing consumer behaviour (e.g. purchases and consumption).

A well-documented example of a country that utilised many types of evidence when designing their SSB tax is [Estonia](#).^(18,26) However, some governments do not have the resources to carry out this research themselves, in which case evidence from other jurisdictions can be used provided consideration is given to the applicability of that evidence to their domestic context.⁽²⁷⁾ Evidence demonstrating the effects of SSB taxes is increasing, which is useful for other governments seeking to implement similar taxes.



“Get your science and research correct, get academics behind you before you start pushing and identify your opponents if you can. Ultimately you need to be ready for serious battles and pushbacks and you need strong advocacy to fight opposition quickly and with the right kind of facts in answer to their arguments. You’ve got to know the arguments and know the answers. You need sophisticated advocacy – people that know media, know advocacy, know lobbying and know how to find groups to do it and help fund them.”

Prof Barry Popkin (University of North Carolina, US)

Policy Objectives

As standard practice, policymakers must set overall objectives at the outset for a specific policy. In the case of an SSB tax, objectives tend to be health-related and/or revenue-related. Our qualitative research shows that setting clear objectives is an important first step in designing a robust SSB tax. In order to withstand challenges, the stated objectives of the SSB tax need to be supported by independent and robust evidence.(27)

Monitoring and evaluation

A framework for monitoring and evaluating an SSB tax should be developed prior to implementation. This requires dedicated resources and appropriate skill sets, as well as the availability of baseline data, with the opportunity to collect follow-up data.

Generally, a good monitoring system will identify whether the implementation of the SSB tax is on course and performing as expected. Monitoring compliance is also important for enforcement purposes. Policy evaluation assesses the tax's design, implementation and outcomes. Having clear pathways of effects is important for policy evaluation to ensure the appropriate outcomes are being assessed. For an SSB tax, it is not appropriate to solely evaluate the effectiveness of the tax based on obesity rates, as this is a long-term outcome in the pathways of effects.

Implemented policies can have unintended positive, negative or neutral impacts. This further demonstrates the importance of monitoring and evaluating SSB taxes to determine whether they are having the anticipated impact and if not, why, so that the policy can be adjusted. To do so, high-quality research designs, with reliable indicators, are necessary to ensure relevant outcomes are measured.(28) For example, [Hungary](#) undertook iterative refinement of their tax after implementation to ensure it was the most effective.(29) This helped remove any loopholes in the definition of the tax that producers and manufacturers had exploited to avoid the tax.(29)

It is also important that policymakers assess the context in which the SSB tax is being implemented and look at other policies and practices that could be amended to support the effectiveness of the SSB tax. For example, price promotions are often used for SSBs, which could affect the overall impact of a tax if they were used frequently.

Evaluations should be high quality, independent and free from conflicts of interest (regarding the findings). Some countries or local jurisdictions have created independent advisory committees to provide oversight of the evaluation (e.g. [Mexico's](#) Evaluation Advisory Committee for SSB and 'junk food' taxes). Advisors provide input on the data and methods used for the evaluation, review preliminary results and interpretation of the results, review final papers and provide credibility and transparency to the evaluation. Mexico's Evaluation Advisory Committee developed seven core principles to guide their work and ensure a high degree of quality in the evaluations (see [Appendix](#)).(30)

At a global level, World Cancer Research Fund International's NOURISHING policy database can be used to track implemented SSB taxes in different countries and local jurisdictions, with links to published evaluations.(31)

Tax design

Taxes are shaped by context and vary by country and local jurisdiction. The following questions should be considered when designing an SSB tax:

- What types of [products](#) should be taxed?
- What [type](#) of tax should be used?
- How [high](#) should the tax be?
- [Who](#) should the tax be levied on?
- Should it be a [general](#) or an [earmarked](#) tax?

What types of products should be taxed?

Governments that have designed an SSB tax that has been successfully implemented have carefully considered what products will fall under the tax, with some using a nutrient profile to define taxed products.(8,32) It is important to be transparent about what products are subject to and not subject to the tax and the rationale for

the distinction. Governments have found that it is important to use standard criteria (e.g. sugar content) to determine what beverages are subject to the tax. For example, with specific content-based excise taxes, a threshold of a certain quantity of sugar or added caloric sweeteners in a product is established, and any product, regardless of its origin or type, will be subject to the tax.⁽⁵⁾ However, not all governments will have the resources to carry out extensive analysis of sugar content in SSBs, which is an important consideration when deciding what type of tax to implement (see [Type of tax](#)).

Mexico's SSB tax has defined the subject of their tax as all beverages with added sugar, excluding milks and yoghurts.

Chile's taxed beverages include all non-alcoholic beverages with added sweeteners, including energy drinks and waters, and the tax applies at varying rates depending on quantity of sugar per 100ml. **France** and **India's** taxes apply to beverages with added sugar and non-caloric sweeteners.

The Philippines taxes products (at different rates) that use purely caloric sweeteners and purely non-caloric sweeteners or high-fructose corn syrups or a mixture of these products. **Portugal** taxes non-alcoholic beverages with a sugar content of less than 80 grams per litre at a lower rate than beverages with a sugar content that exceeds 80 grams per litre.

Products that require special consideration include milk beverages, non-caloric sweetened beverages and 100% fruit and vegetable juices. Some countries and local jurisdictions have chosen to add those products to the definition of taxed beverages (particularly non-caloric sweetened beverages), and others have not. More research is needed on non-caloric sweetened beverages and their impact on obesity and NCDs. This additional research will be helpful for policymakers in defining which beverages should be included in an SSB tax.

What type of tax should be used?

Excise taxes are most commonly used by countries and local jurisdictions when implementing an SSB

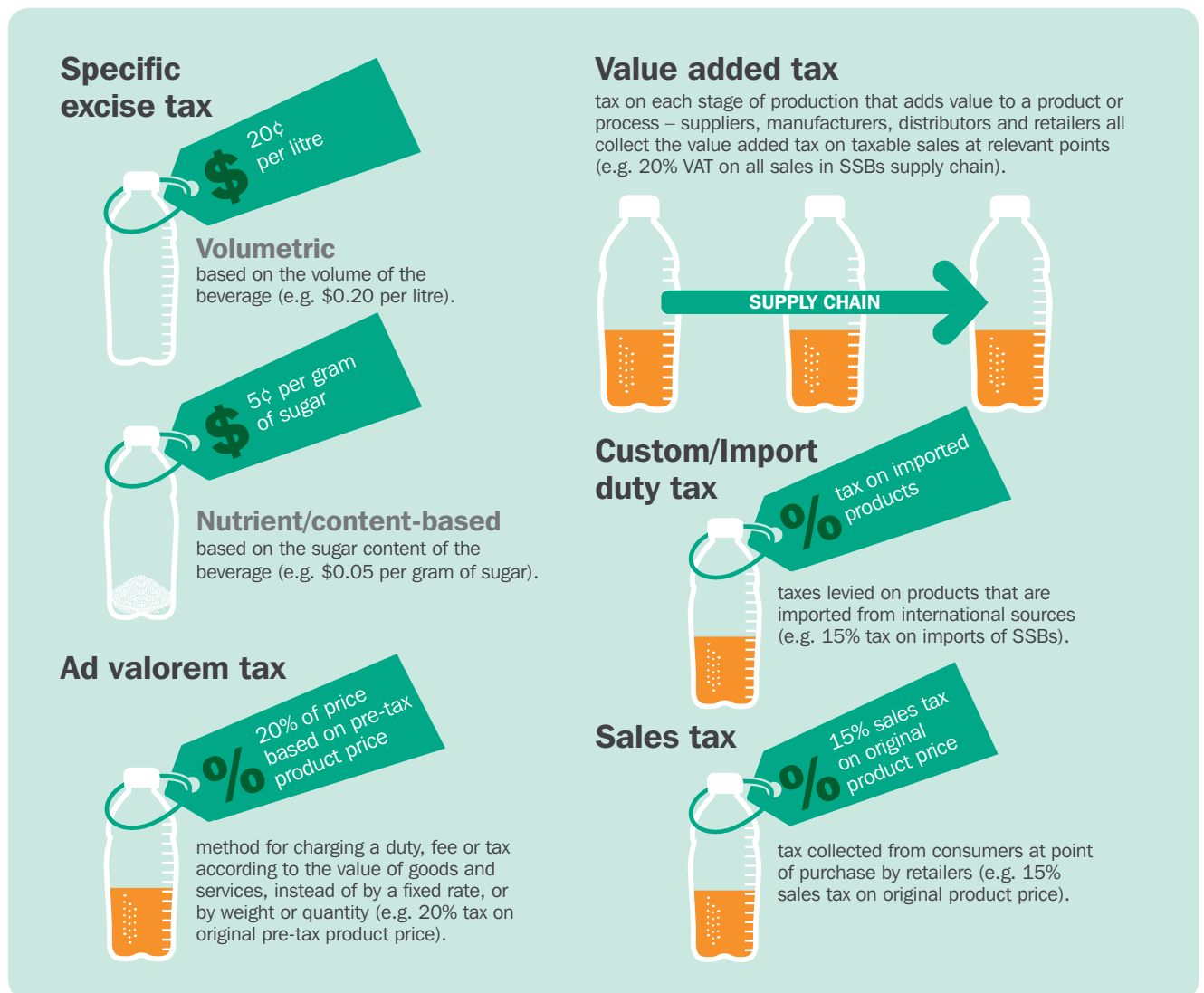
tax. Both content-based and volumetric excise taxes are recommended because they create a higher relative price increase in cheaper goods, which discourages consumers from choosing less costly but equally unhealthy products (substitution effect).^(8,18,33,34) Nutrient/content-based excise taxes have the advantage of targeting the amount of sugar in a product, which can encourage industry product reformulation.⁽⁸⁾ The WHO recommends specific excise taxes calculated based on nutrient content in jurisdictions that have strong tax administration because such taxes will have a greater impact.⁽⁸⁾

Ad valorem excise taxes and sales taxes have the advantage of being easily adjusted for inflation. In countries and local jurisdictions with limited tax infrastructure or resources, taxes that apply a fixed rate to a product price are also more easily applied, and therefore less likely to face complications in implementation and enforcement. ⁽⁵⁾ Building on existing tax infrastructure is important to ensure effective implementation of taxes.⁽³⁵⁾

Mexico has an excise tax of one peso per litre of sugary beverage; **Barbados** has a 10% excise tax on local and imported products; **various US cities** have a one to two penny per ounce excise tax on SSBs; **Fiji** has an excise duty on locally produced beverages of \$0.35 Fijian dollars per litre and an ad valorem excise duty on imported products of 15%; and **Chile** has an 18% ad valorem tax on SSBs that contain more than 6.25g of sugar per 100ml and a 10% tax on beverages with less than 6.35g of sugar per 100ml.

Some countries choose to use custom or import duty taxes in their SSB tax design. However, it is important to note that using only customs or import duties, which tax international products, will make the tax susceptible to challenge, as under international trade law countries cannot tax international products differently from similar domestic products. For more information see [Defending SSB taxes](#).

Figure 2: Types of Tax



Thailand has a graded excise tax where the tax increases over time. Introduced in 2017, it taxes beverages with different sugar contents at different levels (0.10 baht per litre for beverages containing between 6-8 grams of sugar per 100ml of sugar, and one baht per litre for beverages containing over 14 grams of sugar per 100ml). The tax then increases every two years and by 2023 the tax will be 1 baht per litre for beverages with 6-8 grams of sugar per 100 ml and 5 baht per litre for beverages with more than 10 grams of sugar per 100ml. This graded tax has the benefit of encouraging industry product reformulation to avoid the tax increases, and also normalises the tax among the public as the increases happen incrementally.

In the Pacific, in countries like **Fiji** and **Samoa**, the relevant Ministries of Revenue or Customs implemented domestic excise taxes and import duties on international products so not to discriminate between ‘like’ products. (35,36)

How high should the tax be?

When designing an SSB tax, it is important to carefully consider the amount of the tax. The aim is to ensure that the tax is high enough to impact the purchasing behaviour of consumers. Governments that have implemented an SSB tax have found that increasing the price of SSBs by a minimum of 10% has an effect on the purchasing behaviour of their populations.(4,34,37) Studies reviewing modelling of SSB taxes and other health taxes have shown that an increase of 20% is the most effective rate for reducing consumption of SSBs and other unhealthy foods.(25,34,37) Where possible, it is advised to carry out research on how price elastic SSBs are in the specific country or local jurisdiction to help set the value of the tax (see [Evidence as a foundation](#)).(4,8,32) The tax should also be adjusted in line with inflation and economic growth to ensure that it maintains the effect on purchasing behaviour. (8,33)

To further reduce consumption, [France](#) is considering increasing the rate of their existing SSB tax and some countries including [Fiji](#) and [Norway](#) have already implemented increases on their existing SSB taxes.(37)

Who should the tax be levied on?

“Tax as high up in the chain as you can, it makes tax collection easier and puts the burden on the manufacturers or distributors instead of consumers.”

Dr Lynn Silver
(Public Health Institute, US)

Excise taxes are paid by producers, who can respond by passing the costs on to consumers, by absorbing the costs, or by reformulating the product so that less tax is due. The majority of producers do pass an SSB excise tax on to consumers at varying rates (see [WCRF International evidence table](#)), but it can also lead to a higher rate of product reformulation to reduce the sugar content in the products.

Administratively, it can be easier to collect a tax that is levied at the producer level, as governments already collect taxes from such

entities. It is less onerous on retailers if the tax has already been collected before the product reaches the shelves, unlike a sales tax that is administered and collected by the retailer from consumers.

Should it be a general or an earmarked tax?

Governments sometimes also choose to earmark the tax, although few constitutions allow earmarking. An earmarked tax is where revenue generated from the SSB tax is allocated to a specified aim, such as reducing child obesity or NCDs, or funding a specific government programme like an education project. The funds from a general SSB tax are channelled into the government’s general revenue and used as general tax revenue by the government. Evidence suggests that taxes that are earmarked for a social or public good increase public and political support for the tax.(38,39) See [Earmarking](#).

Stakeholder engagement

Ensuring a broad base of support for the tax from a wide range of stakeholders, including civil society organisations (CSOs), as well as a multi-sectoral approach within government, is recommended to increase the chance of successfully passing and implementing a tax. Industry is another major stakeholder in the policy process, and managing their involvement will be discussed further below.

“Industry will hit hard no matter what you do. So you need to start early, start quietly and build a strong base of support that’s as broad as possible. Try and bring on influential stakeholders in your community, city and country to add their support before the industry has a go at them. This includes community activists and leaders, civil society organisations and researchers. Most people will be supportive when they understand the size of the problem.”

Dr Lynn Silver
(Public Health Institute, US)

Whole-of-government approach

Taking a whole-of-government approach helps build political and public support for an SSB tax. Taking such an approach enables the government to ensure that the tax is feasible and implementation is possible within the country's or local jurisdiction's tax infrastructure. It also helps to increase political support for the tax, which will increase the chance of the tax being passed and help defend against industry challenge. (8,33,34,40–42)



“The idea of the relationship between tax and behaviour was not new to the Ministry of Finance because we work very closely with them on things like tobacco and alcohol tax.”

Prof Melvyn Freeman (National Department of Health, South Africa)

Evidence shows that early engagement between health and other government departments, particularly finance departments, allows for priorities to be set and cross-departmental coalitions to be established. (18,33–35) Experts recommend designing an SSB tax through engaging the health, finance, agriculture, trade and commerce departments/ministries, as well as the legislative and executive branches of government to increase the likelihood of passing and implementing the tax. (8,41) Our qualitative research shows that continued internal communication throughout the policy process is imperative to ensure that all stakeholders are engaged and kept informed.

Pacific: The Ministries of Health, Finance and Revenue in four Pacific countries interacted early on and throughout the process, leading to successfully implemented SSB taxes that used existing taxation mechanisms. (35)

Hungary: *“Inter-sectoral action enabled accurate problem definition, development of an appropriate policy solution, and effective implementation.[...] Public health experts from the Ministry of Health, National Institute for Health Development, National Institute for Food and Nutrition Science, the Ministry of Finance, and WHO worked closely together to formulate the final version of the tax and to see the legislation through a number of revisions.”* (29)

Barbados: While the Barbados tax was successfully enacted and implemented, one criticism was that the tax policy process was mainly led by the Ministry of Finance, with very little engagement with other government departments. The Healthy Caribbean Coalition considers this to be a missed opportunity as the tax could have formed part of a wider and more comprehensive public health campaign to reduce SSB consumption in Barbados. (41)

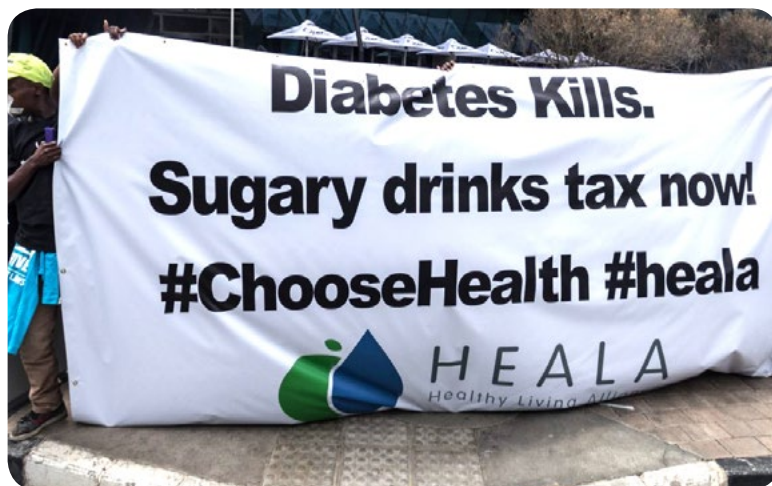


“It will be challenging to convince your government to implement a tax, but it must be done.”

Ateca Kama (National Food and Nutrition Centre, Ministry of Health and Medical Services, Fiji)

Mobilisation of civil society organisations

Civil society organisations can play a pivotal role in rallying communities around an SSB tax, providing the necessary support to increase public and political support for the tax. When CSOs are mobilised, they can create a strong coalition to help withstand challenges from industry.(33) [Berkeley](#) and [Mexico's](#) success in the implementation of their SSB taxes, for example, is credited to the strong mobilisation of CSOs, who helped to increase public and political support for the taxes.(33)



Pro-tax campaigners from the Healthy Living Alliance in South Africa

Credit: South Africa Health E-News.

Mexico: Three organisations played a large part in influencing the development and implementation of the SSB tax. Each organisation had a different but important function. The National Institute of Public Health generated scientific evidence and analysis, convened experts and assisted with knowledge translation; El Poder del Consumidor improved public awareness through media campaigns; and an organisation called Polithink analysed the political context, lobbied and linked decision-makers. Additional advocacy was undertaken through the creation of the Nutrition Health Alliance integrating a significant number of civil society organisations from different areas. These organisations continue to work together.(33)

Berkeley: “When efforts for sugary-drinks taxes are driven and supported by community coalitions that build public awareness early on, they are better able to withstand industry attacks. Strong coalitions are vital both to adopt new taxes and to ensure they remain to curb consumption and generate funds for public health programs. In Berkeley, the industry waged a \$2 million anti-tax campaign. We credit the success of the tax effort there to a broad-based community coalition — a united front of the local N.A.A.C.P. [National Association for the Advancement of Colored People], Latinos Unidos, teachers’ unions and many more groups. This compact was strong enough to withstand the industry’s onslaught. We won decisively, with 76 percent of the vote. Community engagement is key.” (43)

“12 Spoonfuls of Sugar” campaign in Mexico City subway station (May - August 2013) asks “Would you drink 12 spoonfuls of sugar?” Soda is sweet, diabetes isn’t.



Credit: Alianza por la Salud Alimentaria. Photo: Dzilam Méndez.

Colombia: Even though the tax was not passed and implemented, CSOs, such as Educar Consumidores, played a large part in getting the tax onto the political agenda and raised awareness of the issue with the general public.(44)

CSOs can help raise the importance of an SSB tax on the political agenda, carry out grassroots advocacy work garnering support from politicians, academics, members of the public and other CSOs, as well as organise and help finance public awareness campaigns that educate the public on the need for the tax and bolster public support for the tax. The success or failure of an SSB tax can depend on public campaigns carried out by pro-tax and anti-tax campaigners, underlying the importance of mobilising a strong civil society movement. Governments should engage with CSOs to capitalise on these potential benefits.

In 2016, in **Fiji**, the Healthy Living Alliance comprising of the Fiji Consumer Council, Diabetes Fiji and National Food and Nutrition Centre, carried out research to gather evidence for an SSB tax and submitted a proposal to the Fijian government for a tax design. This research was taken on-board by the government and the evidence and initial proposal submitted by the Alliance was used in the development of the SSB tax policy. The Alliance also ran the public awareness campaign that contributed to a successfully implemented tax.

Industry engagement

The role of industry in policy design and implementation is a contentious issue given the inherent conflict of interest the food and beverage industry has in ensuring their business and profit margins are not impacted by government regulation.



“Although we did not manage to get the tax passed, without a doubt we placed the issue on the public agenda, which until a few months ago had never been discussed, and many opinion mobilisers continue to discuss the topic.”

Dr Esperanza Cerón
(Educar Consumidores, Colombia)

Many governments carry out public consultation when they are developing new laws. In these cases, stakeholders, including industry can provide comments on tax proposals. However, industry should not have a seat at the policy table due to inherent and unavoidable conflicts of interest. Following the public consultation process, governments then finalise tax design and proceed with implementation. It is up to the government’s discretion whether to incorporate industry comments to ensure that the tax will be enforceable and that any loopholes are addressed. In reality, many countries struggle with the presence of strong and influential industry actors. In order to assist governments to sufficiently manage the influence of industry, the WHO and leading academics recommend that governance mechanisms should be put in place to manage conflicts of interest.(45–48)

Framing

The majority of SSB tax campaigns have had three main framings, social good (such as health promotion) (**Hungary, Nauru, French Polynesia, Berkeley, Fiji, Mexico** and the **UK**), revenue raising (**Finland, France** and **Samoa**) or a combination of both (**Philadelphia**). (32)

Lessons learned from the **Pacific** suggest that highlighting both the health and revenue implications of health-promoting taxes can increase public and political support.(35,36) Research showed, in the context of the **Pacific**, that both the public and politicians responded to the double framing of the tax improving health outcomes and generating revenue.(35)

Governments commonly frame the argument for introducing an SSB tax using the types of evidence discussed above (see Evidence as a foundation). Framing the SSB tax as a mechanism that will help control the obesity epidemic and reduce the economic burden caused by diseases related to overconsumption of SSBs is a popular approach.(49)

Earmarking

The most successful way to frame an SSB tax in order to gain more public and political support has been to state that the funds raised by the tax are earmarked for a social good.(38) One study found that while governments are primarily interested in raising additional funds from the taxes, framing the tax as a tool to increase spending on a social good (e.g. funding health promotion or social programmes) at the same time as creating health benefits leads to the highest likelihood of the tax passing.(38)

A qualitative study was carried out on the framing of the 2017 **Philadelphia** SSB tax. The study found the following:

“The mayor’s administration deliberately framed the SSB tax as a strategy to finance universal pre-kindergarten and improvements to recreational facilities – not as a health intervention. Interviewees expressed that the non-health frame shifted the policy debate away from contentious arguments about government involvement in individual behavior to discussions about how to finance investments in youth and communities – goals for which broad support existed. Interviewees cited a poll conducted during the policymaking process that found that 84% of Philadelphians felt that universal pre-kindergarten was “very important”. The non-health frame also allowed a wide range of research findings to enter the policy debate. Interviewees and news articles cited research about the long-term benefits of pre-kindergarten on education outcomes and associated cost savings. This contributed to the SSB tax proposal being perceived as an evidence-based education policy that would increase levels of educational attainment and improve the social and economic trajectories of low-income Philadelphia youth.”(51)



Credit Matt Rourke/AP/
REX/Shutterstock

**Anti-tax (above)
and pro-tax (right)
campaigners in
Berkeley California**



Credit Matt Rourke/AP/REX/Shutterstock

*“A poll of **New York City** residents found that 52% supported a “soda tax,” but the number rose to 72% when respondents were told that the revenue would be used for obesity prevention.”(50)*

Earmarking the tax for a social or public good, in particular providing for low income populations, can also help governments counter arguments that the SSB taxes are regressive in nature.(33,34,40,42)

Cook County: *“The measure was pitched largely as a means to plug a \$1.8 billion budget gap, and secondarily as a means to improve public health by discouraging the consumption of drinks linked to obesity and other conditions.”(52)*

Our qualitative research shows that one of the factors in the repeal of the newly implemented SSB tax in Cook County was that the tax was not earmarked for a social good, and therefore had less public support because it was perceived as solely a revenue raising mechanism.

The government’s role in protecting and promoting public health

Framing that asserts that government intervention is necessary in order to counter the power imbalances caused by industry influence can help increase political and public support for an SSB tax. (32,38,44,53). It is argued that it is the government’s responsibility to protect and promote the health of their citizens against strong negative influences and products that have no nutritional value. Our qualitative research found

“12 Spoonfuls of Sugar” campaign, Mexico (May - August 2013) asks “Would you give them 12 spoonfuls of sugar? Why give them soda?”

Credit: Alianza por la Salud Alimentaria.

United Kingdom: *“[...] celebrity chef Jamie Oliver was at the centre of the debate as an SSB tax advocate. Oliver consistently accused food industry [of] ‘damaging children’s health’ and advocated for a tax as a matter of ‘parental responsibility of the government for children’s health’. [The] UK government framing follows similar logic, as the tax is named the ‘soft drinks industry levy’ and the government mentions the tax will incentivize industry to reformulate their products by reducing sugar amounts.”(32)*

that some pro-tax campaigns, for example in the UK, Mexico and Philadelphia, have successfully used a human rights angle to counter the anti-tax arguments. Focusing on the negative impacts of industry influence (for example, marketing of SSBs) and the obesogenic environments people live in can increase both public and political support for an SSB tax.(32,38,44,53) Using a human rights lens can rebut the arguments that obesity and SSB consumption is a matter of personal responsibility and not a place for governments to interfere.(32,38,44,53) This framing approach links with CSO mobilisation, discussed above, because the role of CSOs is to act as an advocate for the rights of citizens they represent.

The WHO’s position in encouraging governments to introduce such fiscal policies through the updated Appendix 3 of the NCD GAP establishes an international norm that encourages governments to take responsibility for progressively recognising their citizens’ right to health.(53)



Defending SSB taxes

Most governments who have proposed an SSB tax have encountered opposition. This has occurred in the political and public space, often driven by industry. Evidence developed during the design of an SSB tax can be used to help defend the tax against opposition (see [Evidence as a Foundation](#)).

Public campaigns

While a limited number of SSB taxes are challenged in the courts, the debate surrounding an SSB tax is often played out in the public domain by pro-tax and anti-tax campaigners. Strategies used by successful pro-SSB tax campaigns have included using billboards, TV advertisements and social media; preparing reports and evidence to counter false reports and evidence proffered by the opposing side; and mobilising communities through organising town hall meetings, flyer drops and door knocking. Public awareness needs to be sustained after the implementation to ensure continued support for the tax.

Finding funding for such campaigns or using volunteers as much as possible can increase the effectiveness of the campaigns.



Pro-tax campaigners in South Africa

Credit: South Africa Health E-News.



“Every campaign is different, you can’t take one campaign model and apply it to every community. You have to understand what are the drivers? Who are the influencers?”

Jim O’Hara (Center for Science in the Public Interest, US)

Common challenges to an SSB tax

SSB taxes can be **legally** challenged by third parties for the following reasons:

Challenge 1: Discriminatory – taxes only apply to certain products and not others (i.e. based on country of origin or product type, e.g. SSBs versus other sugar-sweetened products);

Challenge 2: Jurisdictional issues – no mandate or jurisdiction to introduce a tax;

Challenge 3: Unconstitutional – restricts or impinges on rights to trade/commerce or rights of consumer; or

Challenge 4: Unenforceable – the tax drafting is unclear and/or illogical.



Campaign in Colombia: Don’t hurt yourself by drinking sugary drinks. It’s better to drink water. Take care of your life. Take it seriously.

Credit: Alianza por la Salud Alimentaria

SSB taxes are also challenged by third parties using the following arguments:

Challenge 5: Regressivity – an SSB tax is regressive because it is a tax that takes a larger percentage of income from low-income earners (largest consumers of SSBs) than from high-income earners.(54,55)

Challenge 6: Economic reality – an SSB tax will impact the local economy (54,55) because it will result in:

- job losses at local SSB production/manufacturing companies
- it will hurt small business owners who will lose customers
- industry will move their production out of that country

Challenge 7: Individual responsibility – individuals are responsible for their own actions and governments should not intervene.(54,55)

Addressing challenge 1: Discriminatory – taxes apply to certain products and not to others

SSB taxes can be subject to threats of litigation if the tax discriminates against products from a certain country, or because the taxes target SSBs instead of other sugary products or products high in other unhealthy components like saturated fat.(27)

Mexico's 2004 tax measures targeting SSBs containing non-cane sugar sweeteners were found to be inconsistent with international trade law because taxes imposed on imported products were not equally imposed on domestic 'like' products.(56) However, countries in the **Pacific** researched their regional and bi-lateral trade agreements and where countries had a domestic sugar market, excise duties were implemented on domestic products and import duties were implemented on international products so as not to discriminate against imported products.(35)



“You need to design a coherent, logical tax that treats different products fairly.”

Aaron Schwid (Global Health Advocacy Incubator, US)

To ensure that the SSB tax is not considered inconsistent with existing law, countries such as **Hungary** designed the tax so that the tax liability depends on the composition of the product, independent of where the product originates from or the type of product.(29)

Addressing challenge 2: Jurisdictional issues – no mandate to implement a tax



“Every country has the right to tax and every country has the right to have a fiscal policy in their constitution”

Prof Barry Popkin (University of North Carolina, US)

Governments are sometimes challenged for implementing taxes that they do not have the jurisdiction to introduce.(57) This is particularly relevant to local governments who are considering implementing SSB taxes. Local governments need to closely consider the delegated authority they have when introducing an SSB tax, either as a sales tax or an excise tax.(57) Local governments also need to monitor any changes to state or federal level legislation that may change their ability to enact an SSB tax.

National governments have a sovereign right to introduce taxes and our qualitative research found that a challenge to the legitimacy of the government to introduce an SSB tax is unlikely to be successful.

Addressing challenge 3: Unconstitutional – breach of rights

SSB taxes are also challenged on the grounds that they are unconstitutional because they restrict the rights of trade/commercial enterprise/free movement of goods or consumer rights. However, introducing an SSB tax as part of a wider suite of policies with a clear public health objective aimed at reducing obesity rates or NCDs, can help defend the SSB tax against challenges to its constitutional legitimacy. The SSB tax would then be considered as a ‘complementary’ measure used to achieve a wider goal, and any infringements on the rights of other parties would need to be weighed up in light of the wider aim to reduce obesity rates or NCDs.

It is also important to note that the courts are increasingly protecting governments’ sovereign right to protect their populations’ health and upholding the public health measures in legal decisions on other public health issues such as alcohol and tobacco.(58)

Addressing challenge 4: Unenforceable – unclear, illogical drafting

Clearly defining the products that are subject to the tax is important to ensure that the tax can be effectively implemented. Policymakers will be less likely to have to defend the tax against claims that it is unclear or too vague to enforce or implement if it is clearly drafted, if the rationale for the design of the tax is explicitly stated and if there is no ambiguity regarding what will be taxed.(57) [Ecuador](#) faced challenges with their tax: it was difficult to implement due to the lack of standard criteria outlining what products to tax.(8) Some jurisdictions have resources available that include model legislation to help with the drafting of an SSB tax.(59)

Addressing challenge 5: Regressivity

While SSB taxes are regressive in nature, obesity and diet-related NCDs are also regressive and disproportionately impact lower-income populations.(54,55,60) Studies have found that the effects of an SSB tax and the health costs saved are progressive.(61,62) SSBs are not a necessary part of a diet and deliver little or no

nutritional value.(54,55) SSB taxes can also generate revenue that can be spent on reducing health inequalities and improving population health and educational outcomes.(54,60)

Addressing challenge 6: Economic reality

Studies have shown that local or national economies are not negatively impacted by the introduction of an SSB tax.(63–65) Furthermore, there is no evidence that job losses occurred after the introduction of a tax or that small businesses have suffered.(63–65) However, this is a common argument used against the implementation of an SSB tax, and one that needs to be countered carefully, addressing the local context and including international evidence.(54,55) It can also be argued that the rising costs in health expenditure because of NCDs poses a bigger threat to a country’s economy.

Addressing challenge 7: Individual responsibility

Evidence indicates that overweight and obesity are associated with an obesogenic environment beyond an individual’s control.(66–68) Industry marketing and the wide availability of SSBs manipulates individual decision-making.(17) It is a government’s responsibility to protect and promote the right to health of its citizens (see [The government’s role in protecting and promoting public health](#)).



Lessons learned: advice on designing an SSB tax

Be prepared with evidence

- Get evidence in line as early as possible. Use international evidence where necessary, but tailor it to the specific country or local jurisdiction. See [Evidence as a foundation](#) for a list.

Carefully consider the local context

- Have a thorough understanding of the local/country context, tax system and the needs of the public before starting. Understand what framing will resonate in that particular community or country, e.g. from a social, economic or child health perspective.



Credit: Berkeley vs. Big Soda campaign.

Be strategic

- Carefully consider a strategy and tax design; don't rush it.
- Use the media (paid or earned) strategically. Be honest and transparent about the tax.



“Let the debate start! The more public support you can get the better. This means starting your public debates and education efforts early and before developing the tax proposal.”

Prof Melvyn Freeman (National Department of Health, South Africa)

- To garner as much public support as possible for the tax, start public debates and education early.
- Ground the SSB tax as part of a broader strategy to address obesity and NCDs.



Credit: South Africa Healthy Living Alliance.



“We tend to win these fights in the public and not behind closed doors.”

Aaron Schwid (Global Health Advocacy Incubator, US)

Develop a broad base of support

- Get CSOs engaged so they can push the process. Build a broad base of support as soon as possible. Get backing from scientists, academics, community advocates and medical professionals. Use this base to gather the evidence needed and to design a campaign to increase public awareness and support for an SSB tax.



Credit - Juan Arredondo / The New York Times / Redux / eyevine

- Engage with ministries/departments responsible for taxation (e.g. finance or treasury) as soon as possible and get them on board. Ministries of health can help drive the tax up the agenda, but ministries in charge of tax are crucial stakeholders who will ultimately design and implement the tax.
- Get a strong and influential champion in government on board, i.e. an advocate on the inside. Examples – Mayor Kenney (Philadelphia), Député Véran (France).

Scrutinise the tax design

- Agree on the objectives of the tax with all stakeholders (health and finance policymakers). Clearly define objectives and set targets, e.g. reducing SSB consumption, generating revenue, reducing health costs, reformulation, etc.
- Scrutinise the tax design from the industry's perspective and from the viewpoint of those responsible for implementation. Locate any loopholes, correct them, and make the tax clear and enforceable.



“A lot of the time, these aren't impossible hurdles to get over. But people are rushed or they're working in bubbles and they're not talking to each other, and so they miss things. Then, it's too late.”

Aaron Schwid (Global Health Advocacy Incubator, US)

Prepare for push back

- Prepare in advance for push back against the tax by having counter arguments ready to respond to any resistance to the SSB tax. Have as much evidence and data available to support these counter arguments.



“Get your arguments together for your unique situation around issues like job losses and economic implications, both from a health and business point of view. Do that before you start and have as much data and information available as you can supporting your arguments. That way, for every argument opponents are going to have, you know that you've got your argument in your back pocket, ready to pull out easily.”

Prof Melvyn Freeman (National Department of Health, South Africa)

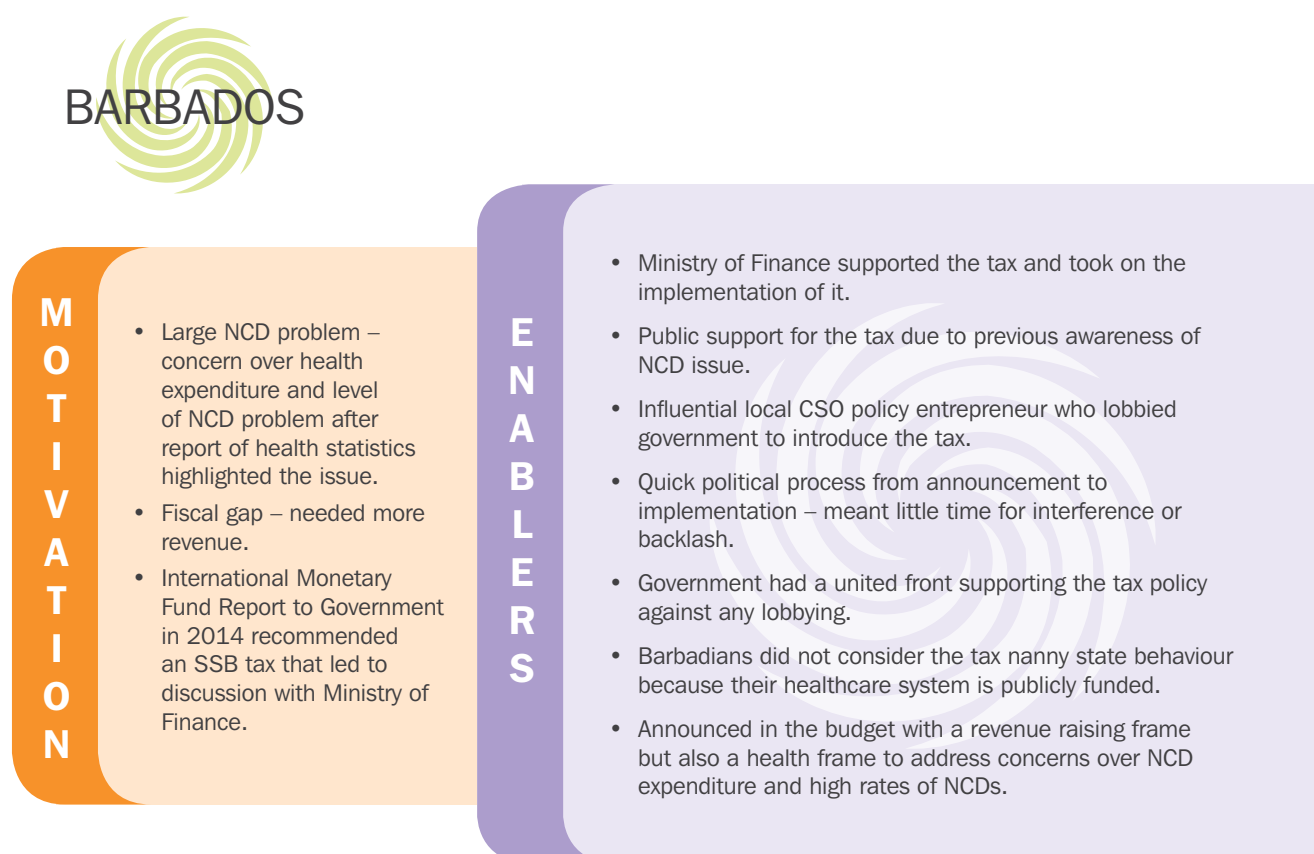
Perfect storm

The circumstances and series of events that lead to the successful implementation of SSB taxes are context specific and involve many different factors, but common elements exist. Many theories of policy process help explain how certain policies make it onto the political agenda and become implemented.(51–53) The implementation of health policies to prevent and control NCDs is a political process. Therefore, an exploration of the motivations and enablers of various implemented SSB taxes can allow for an analysis of that political process in order to understand the common

elements that create a ‘perfect storm’ of political and public will to successfully introduce and implement an SSB tax.

Examples are presented below that outline the motivations and enablers that supported SSB tax implementation in Barbados, Fiji, Mexico, Philadelphia and South Africa. These case examples illustrate the elements that led to the ‘perfect storm’ in each country or local jurisdiction to help explain the political process in each case.

Figure 3: Examples of ‘perfect storms’





MOTIVATION

- Large NCD issue. Concerns with the increasing rates of NCDs and the resulting health expenditure needed.
- Aimed to create awareness of SSB consumption and NCD prevention, generate revenue, increase product reformulation and prevent childhood obesity.
- Fiji had Regional NCD strategies in place and had committed to NCD targets.

ENABLERS

- NCD problem well known in the public domain.
- The Prime Minister and Minister of Health attended the 2011 High Level Meeting on NCDs and the Minister of Health attended the 2014 High Level Meeting on NCDs that led to the establishment of the Technical Advisory Group on Nutrition.
- Fiji Consumer Council, a leading CSO, mobilised other stakeholders including the Ministry of Health and Medical Services, Diabetes Fiji and the National Food and Nutrition Centre and formed the Alliance for Healthy Living who carried out research, gathered evidence and formulated an SSB tax policy proposal to take to the government. The Alliance ran three workshops with CSOs, community members and the private sector to engage people and raise awareness on the impact of SSBs and how SSB consumption can be controlled through tax. The Consumer Council ran the public awareness campaign.
- The Centre of Prevention of NCDs (CPOND) at the Fiji National University helped with research and evidence gathering.
- The proposal put forward by the Alliance for Healthy Living was taken onboard in the National Budget Submission by the Ministry of Finance, who ultimately designed and implemented the tax.
- The Ministry of Industry and Trade also supported the tax due to the evidence of anticipated health expenditure costs caused by NCDs. This was an important ministry to have supporting the tax.
- The tax was framed as one part of a wider strategy to reduce NCDs and had a health framing even though it was driven by the Ministry of Finance. It was also framed from the perspective of the consumer, which helped increase public support of the tax.



MOTIVATION

- Large NCD problem.
- Reduction in government revenue due to a substantial fall in oil prices. As a result, new government in place needed to increase revenue.
- Strong pressure from civil society groups to implement the tax after a senator had tried to champion the tax in the previous government.

ENABLERS

- The National Institute of Public Health carried out evidence gathering and research in the six years prior to the tax being adopted, which was an important driver for an SSB tax being selected as a policy option. CSOs carried out stakeholder mapping to identify key actors to influence and also ran the public campaigns.
- Both national and international academics supported the tax.
- Access to drinking water was used in the public campaign as a human rights framing.
- Civil society coalition led a very strong, award-winning media campaign that tapped into Mexican popular culture to build public awareness.
- CSOs successfully argued that obesity was regressive, a popular argument with the public.
- Support from Bloomberg Philanthropies and the Pan American Health Organization.
- The tax formed one part of a wider fiscal reform.



MOTIVATION

- Economic motivations – revenue raising for key public-sector programmes (pre-kindergarten, community schools, investing in public infrastructure).
- Mayor elected on a platform that he would increase investment in the city by implementing three specific policies – an SSB tax was identified as a viable source of revenue.
- Due to budgetary constraints, limited resources were available to fund the programmes, making an SSB tax a feasible option. Other kinds of taxes (property, parking, use and occupancy – had already been raised in the past).
- Two previous attempts to implement an SSB tax had failed in previous years under the previous mayoral administration. However, this increased public awareness of SSB taxes.

ENABLERS

- New mayor – new administration with new agenda. Mayor Kenney acted as a policy entrepreneur driving the tax and gaining political support.
- Philadelphians for a Fair Future (an influential CSO coalition made up of a diverse group of parents, pre-kindergarten providers, medical professionals, local businesses, community leaders, etc.) supported the city council's priorities including an SSB tax as a funding source.
- Multiple government departments were fully engaged and involved in supporting the campaign – including communications, revenue and health – as this was the biggest piece of legislation being passed in the first six months of the new administration.
- Legislative body (decision-making body) was made up of 14 Democrats and three Republicans.
- Some city council members expressed support from the outset.
- Tax was framed as an investment in the city to pay for pre-kindergarten, improve the school system and reinvest in parks and recreation facilities.
- Philadelphia had been in the media because of its high poverty rate. Philadelphia is the fifth largest city in the US and among large US cities its poverty rate is the highest. The tax was framed as an investment in the community to address the poverty, which resonated with elected officials and the constituencies they represented.
- The tax was framed as a fair tax. Options not subject to the tax were still available to price conscious consumers. This helped combat industry challenges.
- Philanthropic funding and private donors supported the tax including Bloomberg Philanthropies.



MOTIVATION

- Large NCD problem.
- NCD prevention necessary to reduce the risk of rising health expenditure caused by NCDs.
- The Ministry of Health had two strategic plans in place, one to prevent and control NCDs, and the other to control obesity, and both included fiscal policies.

ENABLERS

- Academic advocates collected and prepared strong evidence and data supporting the tax in the years leading up to the proposed tax and met with the Ministry of Treasury.
- Other NCD civil society groups became involved, such as the South Africa NCD Alliance, Heart and Stroke South Africa and Diabetes South Africa.
- Treasury supported and led the tax implementation because of the evidence put forward by 'academic advocates' and CSOs, supported by the Ministry of Health's strategic plans focused on NCDs and obesity.
- A large and successful media campaign, supported by Bloomberg Philanthropies, was carried out by CSOs, including behavioural change specialists, which increased public support for the tax.
- The WHO supported the tax and presented evidence in parliament.
- The tax was framed as a health issue based on facts, data and evidence.
- The tax is not formally earmarked, but a small proportion of the tax revenue will be given to the Ministry of Health – this helped to increase support for the tax.
- Global evidence and examples were used including the effects of Mexico's SSB tax.
- The government promised to evaluate the tax after implementation, which also increased political and public support.

Conclusion

More action is urgently needed to reach the global NCD targets. SSB taxes are recommended by the WHO as an effective intervention to reduce sugar consumption and address NCDs. Results from rigorous monitoring and evaluation research on the effects of implemented SSB taxes are encouraging policymakers from around the world to take action. Continued monitoring and evaluation is important as new taxes with diverse designs are being implemented in different contexts. Sharing lessons learned is critical to making progress in reducing NCDs.

The policy process is context specific and non-linear, involving many actors and different factors. Countries and local jurisdictions seeking to implement an SSB tax should be strategic, carefully consider their local context, equip themselves with different types of evidence, develop a broad base of support, scrutinise their tax design and be prepared for push back. SSB taxes have been shown to be effective and should be a key component of a comprehensive approach to prevent and control diet-related NCDs.

Appendix

Seven core principles for evaluating SSB taxes (30)

1. Findings of the evaluations must be based on rigorous and well-accepted statistical methodologies.
2. Best practice methods must be used. Standard procedures in epidemiology and economics must be followed to allow for a reasonable baseline control period (e.g. ensure the pre-tax trends for products are known and evaluate how the tax affects this trend line). Interrupted time series analyses/ difference-in-difference analyses are examples of well-established methods. Experimental designs, while desirable when circumstances permit, are generally not feasible as there is no meaningful control. Analyses should adjust for variables at the individual or household level, as well as contextual variables that change over time and could be associated with the outcome of interest (e.g. demographic composition and inflation rates); this is particularly important in the absence of a true experimental design.
3. Data utilised in the evaluation must be of acceptable quality and representative of a meaningful population or subpopulations. National representativeness is ideal, but this must be balanced with what is available.
4. All studies should provide detailed descriptions of the methods used, sources of information, materials that describe the sample and the estimations (adjusted and unadjusted in tables or figures) and impact on minorities and/or lower income populations when possible.
5. The way in which the intermediate and final outcomes could change after a policy is implemented (e.g. change in prices or a change in marketing) must be clearly described and assessed. Intermediate measures of behaviour, such as food purchasing behaviour, should be assessed. Health impacts will take more years to achieve, so intermediate outcomes such as food purchases or dietary outcomes are critical.
6. All studies must have a description of the advantages as well as limitations of the datasets used, variables included, non-observable factors and the methods used. There must also be transparency requirements in the evaluation process, including funding sources and explanation of the source and treatment of the data. Source of funding matters: peer review by independent peers is critical but cannot prevent conflicts of interest from affecting results as has been shown.
7. Studies submitted for peer review and publication in established scientific journals must follow specific reporting guidelines (e.g. STROBE for observational studies and PRISMA for systematic reviews), as part of the Enhancing the QUALity and Transparency Of Health Research network.

References

1. Te Morenga L, Mallard S, Mann J. Dietary sugars and body weight: systematic review and meta-analyses of randomised controlled trials and cohort studies. *BMJ*. 2012 Jan 15;346:e7492.
2. Malik VS. Sugar sweetened beverages and cardiometabolic health. *Curr Opin Cardiol*. 2017 Sep;32(5):572–9.
3. Malik VS, Popkin BM, Bray GA, Després J-P, Willett WC, Hu FB. Sugar-Sweetened Beverages and Risk of Metabolic Syndrome and Type 2 Diabetes: A meta-analysis. *Diabetes Care*. 2010 Nov 1;33(11):2477–83.
4. Backholer K, Martin J. Sugar-sweetened beverage tax: the inconvenient truths. *Public Health Nutr*. 2017;20(18):3225–7.
5. World Cancer Research Fund International NOURISHING Policy Database - Use economic tools to address food affordability and purchase incentives. <http://www.wcrf.org/NOURISHING>. 2018.
6. “Best buys” and other recommended interventions for the prevention and control of noncommunicable diseases [Internet]. Geneva: World Health Organisation; [cited 2018 Feb 12]. Available from: <http://apps.who.int/iris/bitstream/10665/259232/1/WHO-NMH-NVI-17.9-eng.pdf>
7. World Health Organisation. Non communicable diseases: Progress Monitor 2015 [Internet]. Geneva: World Health Organisation; [cited 2018 Feb 23]. Available from: http://apps.who.int/iris/bitstream/10665/184688/1/9789241509459_eng.pdf?ua=1.
8. Fiscal policies for diet and prevention of noncommunicable diseases: technical meeting report, 5-6 May 2015, Geneva, Switzerland. [Internet]. Geneva: World Health Organisation; 2016 [cited 2018 Jan 18] p. 36. Available from: <http://www.who.int/iris/handle/10665/250131>
9. Lassale C, Tzoulaki I, Moons KGM, Sweeting M, Boer J, Johnson L, et al. Separate and combined associations of obesity and metabolic health with coronary heart disease: a pan-European case-cohort analysis. *Eur Heart J*. 2018 Feb 1;39(5):397–406.
10. Continuous Update Project Expert Report 2018: Diet, Nutrition, Physical Activity and Cancer: a Global Perspective. [Internet]. World Cancer Research Fund/ American Institute for Cancer Research; 2018. Available from: www.dietandcancerreport.org.
11. Ng M, Fleming T, Robinson M, Thomson B, Graetz N, Margono C, et al. Global, regional and national prevalence of overweight and obesity in children and adults 1980-2013: A systematic analysis. *Lancet Lond Engl*. 2014 Aug 30;384(9945):766–81.
12. Global Nutrition Report 2017. Nourishing the SDGs - Report Summary [Internet]. [cited 2018 Feb 23]. Available from: https://www.globalnutritionreport.org/files/2017/11/Report_Summary_2017.pdf
13. World Health Organisation. WHO | Obesity and overweight [Internet]. WHO. [cited 2018 Mar 27]. Available from: <http://www.who.int/mediacentre/factsheets/fs311/en/>
14. World Cancer Research Fund/American Institute for Cancer Research. Diet, Nutrition, Physical Activity and Cancer: a Global Perspective. Continuous Update Project Expert Report 2018. Available at dietandcancerreport.org
15. Guidelines: Sugars intake for adults and children [Internet]. Geneva: World Health Organisation; 2015 [cited 2018 Feb 23]. Available from: http://apps.who.int/iris/bitstream/10665/149782/1/9789241549028_eng.pdf?ua=1
16. Popkin BM, Hawkes C. Sweetening of the global diet, particularly beverages: patterns, trends, and policy responses. *Lancet Diabetes Endocrinol*. 2016 Feb 1;4(2):174–86.
17. Taylor AL, Jacobson MF. Carbonating the world: The marketing and health impact of sugar drinks in low and middle-income countries [Internet]. Centre for Science in Public Interest; 2016 [cited 2018 Feb 12]. Available from: <https://cspinet.org/sites/default/files/attachment/Final%20Carbonating%20the%20World.pdf>
18. Lennert Veerman, Thi Thai. The potential health effects of taxing sugary drinks in Estonia [Internet]. Cancer Council New South Wales; 2017 May [cited 2018 Feb 8]. Available from: https://www.sm.ee/sites/default/files/content-editors/Uudised_pressinfo/the_potential_health_effects_of_taxing_sugary_drinks_in_estonia.pdf
19. 2015 - Call for sugar - sweetened soft drink manufacturers to set global sugar reduction targets to help halt worldwide obesity epidemic set to reach 1.12 billion by 2030 - Action on Sugar [Internet]. 2015 [cited 2018 Mar 16]. Available from: <http://www.actiononsugar.org/news-centre/surveys/2015/call-for-sugar---sweetened-soft-drink-manufacturers-to-set-global-sugar-reduction-targets-to-help-halt-worldwide-obesity-epidemic-set-to-reach-112-billion-by-2030.html>
20. Alvarado M, Kostova D, Suhrcke M. Trends in beverage prices following the introduction of a tax on sugar-sweetened beverages in Barbados. *Prev Med*. 2017 Dec 1;105:S23–5.
21. Colchero MA, Rivera-Dommarco J, Popkin BM, Ng SW. In Mexico, Evidence Of Sustained Consumer Response Two Years After Implementing A Sugar-Sweetened Beverage Tax. *Health Aff (Millwood)*. 2017 Mar 1;36(3):564–71.
22. Falbe J, Thompson HR, Becker CM, Rojas N, McCulloch CE, Madsen KA. Impact of the Berkeley Excise Tax on Sugar-Sweetened Beverage Consumption. *Am J Public Health*. 2016 Aug 23;106(10):1865–71.
23. Shukman HP David. Sugar tax is already producing results. *BBC News* [Internet]. 2018 Mar 12 [cited 2018 Mar 15]; Available from: <http://www.bbc.co.uk/news/health-43372295>

24. Briggs ADM, Mytton OT, Kehlbacher A, Tiffin R, Elhussein A, Rayner M, et al. Health impact assessment of the UK soft drinks industry levy: a comparative risk assessment modelling study. *Lancet Public Health*. 2017 Jan 1;2(1):e15–22.
25. Backholer K, Blake M, Vandevijvere S. Have we reached a tipping point for SSB taxes? *Public Health Nutr*. 2016 Dec 1;19(17):3057–61.
26. Kohler K, Reinap M. Policy and practice - paving the way to sugar-sweetened beverages tax in Estonia [Internet]. World Health Organisation Regional Office for Europe; 2017 Dec [cited 2018 Feb 23]. (Public Health Panorama). Report No.: Volume 3, Issue 4. Available from: <http://www.euro.who.int/en/publications/public-health-panorama/journal-issues/volume-3,-issue-4,-december-2017/policy-and-practice4>
27. George A. Not so sweet refrain: Sugar-sweetened beverages taxes, industry opposition and four key lessons learned from tobacco control legal challenges : McCabe Centre for Law & Cancer [Internet]. [cited 2018 Jan 18]. Available from: <http://www.mccabecentre.org/blog/not-so-sweet-refrain-ssb-taxes-and-lessons-learned-from-tobacco-control.html>
28. Coglianese C. Measuring regulatory performance: Evaluating the impact of regulation and regulatory policy. 2012 Aug 1; Available from: . https://www.oecd.org/gov/regulatory-policy/1_coglianese%20web.pdf
29. Public Health Product Tax in Hungary: An example of successful intersectoral action using a fiscal tool to promote healthier food choices and raise revenues for public health, [Internet]. World Health Organisation Regional Office for Europe; [cited 2018 Jan 18]. Available from: http://www.euro.who.int/__data/assets/pdf_file/0004/287095/Good-practice-brief-public-health-product-tax-in-hungary.pdf?ua=1
30. Hawkes C, Alderman H, Chaloupka F, Harris J, Kumanyika S, Smed S, et al. Principles behind evaluations of national food and beverage taxes and other regulatory efforts. *Obes Rev Off J Int Assoc Study Obes*. 2017 Nov;18(11):1374–5.
31. World Cancer Research Fund International NOURISHING Policy Database.
32. Hageaars LL, Jeurissen PPT, Klazinga NS. The taxation of unhealthy energy-dense foods (EDFs) and sugar-sweetened beverages (SSBs): An overview of patterns observed in the policy content and policy context of 13 case studies. *Health Policy Amst Neth*. 2017 Aug;121(8):887–94.
33. Meeting Report - Technical workshop on sugar-sweetened beverages; Manila 21-22 September 2016 [Internet]. World Health Organization Regional Office for the Western Pacific; 2017 Jan [cited 2018 Jan 18]. Available from: <http://iris.wpro.who.int/bitstream/handle/10665.1/13549/RS-2016-GE-42-PHL-eng.pdf>
34. Pan American Health Organization. Taxes on Sugar-sweetened Beverages as a Public Health Strategy: The Experience of Mexico [Internet]. Mexico DF, Mexico: World Health Organisation Regional Office for the Americas; 2015 [cited 2018 Jan 18]. Available from: http://iris.paho.org/xmlui/bitstream/handle/123456789/18391/9789275118719_%20eng.pdf?sequence=1&isAllowed=y
35. Thow AM, Quested C, Juventin L, Kun R, Khan AN, Swinburn B. Taxing soft drinks in the Pacific: implementation lessons for improving health. *Health Promot Int*. 2010 Aug 25;26(1):55–64.
36. Snowdon W, Thow AM. Trade policy and obesity prevention: challenges and innovation in the Pacific Islands. *Obes Rev Off J Int Assoc Study Obes*. 2013 Nov;14 Suppl 2:150–8.
37. Wright A, Smith KE, Hellowell M. Policy lessons from health taxes: a systematic review of empirical studies. *BMC Public Health*. 2017 19;17(1):583.
38. Jou J, Niederdeppe J, Barry CL, Gollust SE. Strategic messaging to promote taxation of sugar-sweetened beverages: lessons from recent political campaigns. *Am J Public Health*. 2014 May;104(5):847–53.
39. Studdert DM, Flanders J, Mello MM. Searching for Public Health Law's Sweet Spot: The Regulation of Sugar-Sweetened Beverages. *PLoS Med*. 2015 Jul;12(7):e1001848.
40. Barquera S, Campos I, Rivera JA. Mexico attempts to tackle obesity: the process, results, push backs and future challenges. *Obes Rev Off J Int Assoc Study Obes*. 2013 Nov;14 Suppl 2:69–78.
41. A Closer Look: The Implementation of Taxation on Sugar-Sweetened Beverages by the Government of Barbados: A Civil Society Perspective [Internet]. Healthy Caribbean Coalition; 2016 Jul [cited 2017 Dec 21]. Available from: <https://www.healthycaribbean.org/wp-content/uploads/2016/07/HCC-SSB-Brief-2016.pdf>
42. Cullerton K, Donnet T, Lee A, Gallegos D. Playing the policy game: a review of the barriers to and enablers of nutrition policy change. *Public Health Nutr*. 2016 Oct;19(14):2643–53.
43. How to Win Against Big Soda - The New York Times [Internet]. [cited 2018 Jan 18]. Available from: <https://www.nytimes.com/2017/10/15/opinion/soda-tax-chicago-sugar.html?partner=rss&emc=rss&smid=tw-nytimes&smtyp=cur>
44. Garcia M., Vilar Uribe M, Iunes R. The Political Economy of the 2016 Tobacco and Proposed Sugar-Sweetened Beverage Tax Increases in Colombia. [Internet]. Washington, DC: World Bank; 2017 [cited 2018 Jan 18]. Available from: <https://openknowledge.worldbank.org/handle/10986/28569>
45. Public health and the food and drinks industry: The governance and ethics of interaction. Lessons from research, policy and practice. London: UKHF: UK Health Forum; 2018.

46. Addressing and Managing Conflicts of Interest in the Planning and Delivery of Nutrition Programmes at Country Level. Technical Report [Internet]. Geneva: World Health Organisation; 2016 [cited 2018 Mar 15]. Available from: <http://www.who.int/nutrition/publications/COI-report/en/>
47. Safeguarding Against Possible Conflicts of Interest in Nutrition Programmes. [Internet]. World Health Organisation; 2017 [cited 2018 Mar 15]. Available from: http://apps.who.int/gb/ebwha/pdf_files/EB142/B142_23-en.pdf?ua=1
48. Framework of Engagement with Non-State Actors. Report by the Secretariat. [Internet]. World Health Organisation; 2015 [cited 2018 Mar 15]. Available from: http://apps.who.int/gb/ebwha/pdf_files/EB136/B136_5-en.pdf
49. Roache SA, Gostin LO. The Untapped Power of Soda Taxes: Incentivizing Consumers, Generating Revenue, and Altering Corporate Behavior. *Int J Health Policy Manag.* 2017 Jun 14;6(9):489–93.
50. Brownell KD, Frieden TR. Ounces of prevention--the public policy case for taxes on sugared beverages. *N Engl J Med.* 2009 Apr 30;360(18):1805–8.
51. Purtle J, Langelier B, Lê-Scherban F. A Case Study of the Philadelphia Sugar-Sweetened Beverage Tax Policymaking Process: Implications for Policy Development and Advocacy. *J Public Health Manag Pract JPHMP.* 2018 Feb;24(1):4–8.
52. Chicago's soda tax fizzled after two months — what it means for the anti-soda movement - The Boston Globe [Internet]. [cited 2018 Jan 18]. Available from: <https://www.bostonglobe.com/news/nation/2017/10/10/chicago-soda-tax-fizzled-after-two-months-what-means-for-anti-soda-movement/02robKNeqF7Ev6oLIXmR4L/story.html>
53. Rodriguez Garavito C, Diana Guarnizo, Valentina Roza. Marco legal del impuesto a las bebidas azucaradas en Colombia [Internet]. *Dejusticia*; 2017 Oct [cited 2018 Jan 18]. Available from: https://www.dejusticia.org/wp-content/uploads/2017/04/fi_name_recurso_868.pdf
54. Friedman RR, Brownell KD. SUGAR-SWEETENED BEVERAGE TAXES An Updated Policy Brief [Internet]. Yale Rudd Center for Food Policy & Obesity; 2012 Oct [cited 2018 Jan 18]. Available from: http://www.uconnruddcenter.org/files/Pdfs/Rudd_Policy_Brief_Sugar_Sweetened_Beverage_Taxes.pdf
55. Taxation and price of sugary drinks: countering industry claims. Global Food Research Program University of North Carolina; 2017.
56. Mexico – Tax Measures on Soft Drinks and Other Beverages WT/DS308/AB/R adopted 24 March 2006 [Internet]. World Trade Organisation; 2006 [cited 2018 Jan 18]. Available from: https://www.wto.org/english/tratop_e/dispu_e/cases_e/1pagesum_e/ds308sum_e.pdf
57. Mosier SL. Cookies, Candy, and Coke: Examining State Sugar-Sweetened-Beverage Tax Policy from a Multiple Streams Approach. *Int Rev Public Adm.* 2013 Apr 1;18(1):93–120.
58. Not so sweet refrain: Sugar-sweetened beverages taxes, industry opposition and four key lessons learned from tobacco control legal challenges : McCabe Centre for Law & Cancer [Internet]. [cited 2018 Jan 18]. Available from: <http://www.mccabecentre.org/blog/not-so-sweet-refrain-ssb-taxes-and-lessons-learned-from-tobacco-control.html>
59. Model Sugar-Sweetened Beverage Tax Legislation | ChangeLab Solutions [Internet]. [cited 2018 Mar 16]. Available from: <https://www.changelabsolutions.org/publications/ssb-model-tax-legislation>
60. World Health Organisation Regional Office of Europe. Using Price Policies to Promote Healthier Diets. [Internet]. 2015. Available from: http://www.euro.who.int/__data/assets/pdf_file/0008/273662/Using-price-policies-to-promote-healthier-diets.pdf
61. Lal A, Mantilla-Herrera AM, Veerman L, Backholer K, Sacks G, Moodie M, et al. Modelled health benefits of a sugar-sweetened beverage tax across different socioeconomic groups in Australia: A cost-effectiveness and equity analysis. *PLoS Med.* 2017 Jun;14(6):e1002326.
62. Backholer K, Sarink D, Beauchamp A, Keating C, Loh V, Ball K, et al. The impact of a tax on sugar-sweetened beverages according to socio-economic position: a systematic review of the evidence. *Public Health Nutr.* 2016 Dec;19(17):3070–84.
63. Powell LM, Wada R, Persky JJ, Chaloupka FJ. Employment Impact of Sugar-Sweetened Beverage Taxes. *Am J Public Health.* 2014 Apr;104(4):672–7.
64. Guerrero-López C, Colchero M. Employment changes associated with the implementation of the sugar-sweetened beverage and the nonessential energy dense food taxes in Mexico. *Cuemevaca.* 2016;
65. Nomaguchi T, Cunich M, Zapata-Diomedes B, Veerman JL. The impact on productivity of a hypothetical tax on sugar-sweetened beverages. *Health Policy.* 2017 Jun 1;121(6):715–25.
66. The global obesity pandemic: shaped by global drivers and local environments - The Lancet [Internet]. [cited 2018 Feb 12]. Available from: [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(11\)60813-1/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(11)60813-1/fulltext)
67. Hawkes C, Smith TG, Jewell J, Wardle J, Hammond RA, Friel S, et al. Smart food policies for obesity prevention. *The Lancet.* 2015 Jun 13;385(9985):2410–21.
68. Swinburn B, Kraak V, Rutter H, Vandevijvere S, Lobstein T, Sacks G, et al. Strengthening of accountability systems to create healthy food environments and reduce global obesity. *The Lancet.* 2015 Jun 20;385(9986):2534–45.
69. Sabatier PA. Policy Change and learning: an advocacy coalition approach (theroretical lenses on public policy). 2006.
70. Kingdon J, Thurber J. Agendas, alternatives, and public policies. Boston: Brown Little; 1984.
71. Shiffman J, Smith S. Generation of political priority for global health initiatives: a framework and case study of maternal mortality. *The Lancet.* 2007 Oct 13;370(9595):1370–9.

BUILDING MOMENTUM: LESSONS ON IMPLEMENTING A ROBUST SUGAR SWEETENED BEVERAGE TAX

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