POLICY AND PRACTICE

Paving the way to a sugar-sweetened beverages tax in Estonia

Authors: Kristina Köhler[1], Marge Reinap[2]

[1]Ministry of Social Affairs of Estonia, Tallinn, Estonia

[2] WHO Country Office in Estonia, Tallinn, Estonia

Corresponding author: Kristina Köhler (email: kristina.kohler@sm.ee)

ABSTRACT

One in three children in Estonia aged 6–13 is overweight or obese. Pricing policies, including the taxation of sugar-sweetened beverages (SSBs), has been recommended by WHO as one policy measure that can lower the consumption of SSBs and reduce obesity and the burden of obesity-related diseases. 89.2% of Estonian school children drink SSBs and it is known that the average daily energy consumption of school children who consumed SSBs was higher than those who did not. The consumption of SSBs is associated with increased energy intake, higher risks for poor oral health, weight gain and increased risks for various noncommunicable diseases. Therefore, Estonia is planning to reduce the consumption of SSBs through implementing a series of measures, including trying to establish a tax on SSBs. The WHO Regional Office for Europe was providing policy advice and technical assistance to Estonia in order to improve and strengthen the actions planned to tackle the problem. This article describes: the tools and activities that opened the door for discussions about the taxation of SSBs in Estonia; the subsequent adoption of the law proposing a three-tiered tax scheme on SSBs by the Government and Parliament until the President decided not to announce the tax and returned it to Parliament; as well as lessons learned from this process.

Keywords: PUBLIC HEALTH POLICY, SUGAR-SWEETENED BEVERAGES, NUTRITION, PRICING POLICIES, OBESITY

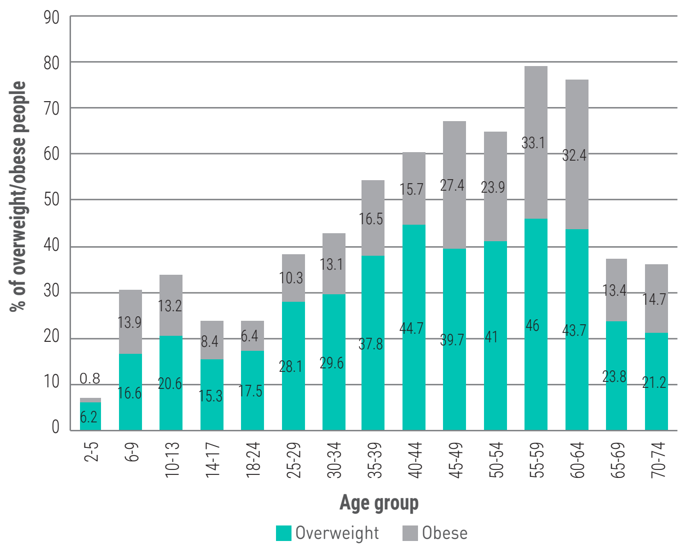
BACKGROUND AND POLICY CONTEXT

More than half of Estonians, or 52%, aged 16–64 are overweight and obese and the rate has been increasing since 2000 at which time it was 41.9% *(1)*. The obesity rate in Estonia is one of the highest in the European Union, with only Malta (25%), Latvia (20.8%) and Hungary (20.6%) having higher rates *(2)*. The situation among children is worrisome: for the age groups of 6–9, 10–13 and 14–17, the rates of overweight and obesity are 29.9%, 33.8% and 23.7% respectively *(1)* (see Fig. 1).

Consequently, the numbers of new cases of overweight- and obesity-related diseases in Estonia have also increased rapidly, including other hyper-alimentation diseases and type 2 diabetes *(1)*.

The targets and the policy measures to reduce obesity in Estonia are planned and implemented under the multisectoral National Health Plan (NHP) 2009–2020 *(3)*. Previously, Estonian actions mainly focused on awareness-raising measures. The National

FIG. 1. OVERWEIGHT (BMI[1] 25.0-29.9) AND OBESITY (BMI 30.0 OR HIGHER) BY AGE



Source: reproduced from the National Institute for Health Development *(1)*.

[1] BMI (body mass index) is calculated by dividing the body weight (kg) with height (m) squared.

Institute for Health Development (NIHD) has conducted campaigns to promote the consumption of fruit and vegetables five times per day, and to raise awareness about the impact of salt and energy drinks on health. The NIHD has also developed webpages, such as nutridata.ee and toitumine.ee, for the public and caterers and has conducted competitions for the best school canteens. The Ministry of Culture has conducted campaigns about physical activity as well as different running and walking events to promote physical activity. It has also financed initiatives that support local governments to develop infrastructure that promotes physical activity, such as health trails. In addition, in schools and kindergartens, there are fruit, vegetable, milk and school lunch programmes that provide free lunch for children; these must comply with health regulations for content and nutritional value.

The mid-term performance review of the NHP for 2009–2012 drew attention to the growing problem of obesity and the need for implementing additional measures *(4)*. Therefore, in 2014, the Ministry of Social Affairs (MoSA) established a working group consisting of representatives from non-governmental organizations (NGOs), industry, involved ministries and WHO, as well as researchers, physicians and public health specialists, to give advice to MoSA for developing a national, government-level, multisectoral green paper on policy options for tackling overweight and related health problems along the life-course. From 2014–2015, under the leadership of MoSA, the working group discussed measures to increase awareness, change attitudes and enhance skills, as well as to ensure that an environment exists for supporting healthy eating and physical activity, such as through the reformulation, labelling and marketing of food and drink products, and the use of price policies. During the working group discussions, the private sector clearly and strongly protected their own interests, favouring only those measures that did not conflict with their economic activities. Consequently, the process of developing the green paper did not reach a consensus with the representatives of the private sector; the imposition of taxes and voluntary front-of-package labelling was particularly opposed. While consensus is not officially needed for introducing a green paper, it was still decided that it should have stronger footing before introducing it to the Government: as a result, it was put on hold. Nonetheless, despite this lack of consensus and the stalled development of a comprehensive diet and physical activity policy, there were several other parallel developments that supported the advancement of nutrition policies, which are described in the next section.

PROCESS

PROVIDING POLICY ADVICE AND SCIENTIFIC EVIDENCE

In the area of nutrition, the WHO Regional Office for Europe has provided strong support for the development of the green paper on policy options since 2013, in the form of:

- mentoring and policy advice for drafting the policy document;
- capacity building for health experts on implementing multisectoral policies, such as for marketing, labelling and pricing;
- technical assistance in using the tools developed by WHO technical programmes, such as the nutrient profiling model; and
- providing data and evidence, such as organising data collection on childhood obesity rates and developing an evidence for policy brief (EBP) on measures to reduce the consumption of SSBs under the WHO Evidence-informed Policy Network (EVIPNet) umbrella.

In hindsight, the EBP proved to be especially instrumental in paving the way for the establishment of an SSB tax. The original topic for the EBP was selected from the Government's programme for 2015–2019 which requested an assessment of hazardous energy drink sale restrictions for children *(5)*. After some discussions in June 2015 among government-related stakeholders and politicians, the topic was widened to SSBs, as the underlying concern was increasing overweight prevalence, especially among children. Restricting the sale of energy drinks to children was not the correct solution because the overuse of caffeine and other central nervous system stimulants used in energy drinks is not a problem in Estonia. However, the use of SSBs, including energy drinks, among children in Estonia is high. 89.2% of Estonian school children drink SSB *(1)*. Data from a 2014 population-based food intake survey indicated that 10.5% of boys and 6.3% of girls aged 6–9 years and 4.5% of boys and 3% of girls aged 10–17 years had drunk SSB in the two days before completing the survey, with average quantities consumed of 491 g for boys and 352 g for girls *(6)*. It is known that the consumption of SSBs is associated with increased energy intake, weight gain, overweight and obesity *(7–10)*. SSB consumption is also associated with the development of obesity-related, chronic metabolic diseases, such as metabolic syndrome and type 2 diabetes *(11–15)*, as well as cardiovascular disease *(16)*, certain types of cancer *(17)*, poor oral health *(18–20)* and other illnesses *(21–24)*.

In the end, the topic for EBP was defined as: *Reducing the consumption of SSBs and their negative health impact in Estonia (25)*. EBP addressed four policy options which were selected based on the factors that influence the consumption of SSBs. They were: 1) regulation of food advertising; 2) labelling of foods and drinks and raising awareness about their health effects; 3) school interventions and nutrition policies; and 4) imposing taxes on SSBs, and/or subsidizing other food groups and/or alternative beverages.

As the EBP approached finalization in June–September 2016, it was presented and discussed widely among different stakeholders including: MoSA, the working group for the green paper, secretary generals from other ministries, the State Secretary, and the Cabinet of Ministers. Policy discussions were organised by MoSA among some of the above-mentioned stakeholders. The EBP and modelling study (see below) were also communicated through media and MoSA's blog. Public debate on national television allowed stakeholders to participate and state their opinions about the tax and its potential impacts. MoSA also presented the results of the EBP *(25)* and the SSB tax modelling study *(26)* through a number of national television and radio programmes as well as journals.

In September 2016, based on the EBP, the Government decided to integrate three of the policy options – for advertising, labelling and raising awareness – into the green paper that is expected to be adopted by the Government in upcoming years. In addition, a decision was made to integrate some school-based interventions, including bans on the sale of products high in saturated fats, trans fats, free sugars and/or salt, into the Public Health Act, which was sent for consultation to other ministries in June 2017. Other, less regulatory, school-based interventions were integrated into the green paper. At that time, the Government was not ready to advance with the taxation of SSBs: its action was limited to assigning MoSA and the Ministry of Finance (MoF) to provide further analysis. However, with the change in government in November 2016, the topic of SSB taxation was again addressed. The new governing coalition added the tax on SSBs to their programme and estimated the revenues of the new tax in the prognoses of their state budget, thereby advancing the tax at a quicker pace than the other proposed measures.

INDUSTRY RESPONSE AND ADVOCACY

Estonia is an EU Member State with a liberal market economy and powerful local food industry. The industry has been very active in policy discussions and media, strongly voicing its positions, many of which seem to derive from European umbrella food industry organisation. During the development of the green paper and the tax debates that followed, Estonia's industry representation organized seminars where they actively and strongly lobbied against the tax and expressed false claims, such as: EU law does not allow taxes on food; the price of local food products will increase more than that for imported products; Finland plans to abolish its so-called soda tax; and there is no reason to implement a measure that has failed elsewhere. The industry also used tactics to deliberately confuse the public, such as framing their media messages to appear as if they were fighting against the Government's plan to tax sugar in all foods, which was not, in fact, the Government`s intention. Initially, while the industry's main claim was that the tax does not decrease the consumption of SSBs, this was reformulated in a later stage of the tax discussions with industry stating that the tax may decrease consumption but would not decrease overweight and obesity, and that there is no evidence for decreasing overweight and obesity. Industry further claimed that obesity and overweight in Estonia result mainly from low physical activity. Furthermore, they conducted their own study about the potential impacts from the SSB tax on Estonia's food industry which showed how harmful the tax would be for the industry and the number of jobs that would be lost. Additional support for the industry also came from a number of vocal and opinionated law firms, doctors and nutritionists. However, during the discussions over the SSB tax, there were also stakeholders who supported the idea and talked about its potential positive influence on health, including dentists, a cardiologist, a paediatrician and nutritionist, and some public health specialists.

CALCULATING THE IMPACT

The industry's reaction to the potential tax on SSBs led to a search, during the debates, for additional support for more evidence by the ministry. In addition, the legislative process required an estimation of the potential impacts of the measures. In response, the WHO Country Office for Estonia proposed to MoSA the need for a modelling exercise to explore several possible tax scenarios; it then commissioned the study *(26)*. The modelling exercise *(26)* used Estonian data, where available and appropriate, and was built on prior research and models *(27)*. The work was conducted by Australia's Cancer Council NSW and supported by the Regional Office. The study found that the tax would: have the desired impact on consumption; contribute to a reduction in obesity and overweight; deliver health gains via reductions in the number of new cases of type 2 diabetes, ischaemic heart disease and stroke; and prevent mortality from these causes *(26)*. Specifically, after a few years, the selected tax rates in the draft law would prevent more than 2000 obesity cases, including 570 among children. Over 25 years, it would prevent 1600 new cases of diabetes, more than 200 new cases of ischaemic heart disease, and nearly 100 new stroke cases: all together, it would save at least 3700 disability-free life years *(26)*.

LEARNING FROM OTHER COUNTRIES

The experience and evidence from other countries, such as the evaluation of the public health tax in Hungary *(28-29)*, has been especially useful to estimate the potential impact that the tax will have on product reformulation and people's behaviour. Personal contact with experts from the Ministry of Social Affairs and Health in Finland, facilitated by the Regional Office, provided useful information on the experiences, plans and law provisions for the Finnish tax *(30)* that were used as a starting point for drafting the law in Estonia, as well as cutting through the false claims made by Estonian industry that the Finnish tax on SSBs be abolished. The Finnish definition of SSB from their tax law was useful for developing the Estonian definition, as the products in the Finnish law were defined using customs codes that are the same in every European Union country. In addition, treasury documents and materials related to the SSB taxes in the United Kingdom and Ireland were used for setting Estonia's tax rates: specifically, to set the exact amount of sugar content, and to explain the rationale behind this amount, or threshold.

WORKING WITH THE MINISTRY OF FINANCE (MOF)

In Estonia, tax law is the responsibility of the Ministry of Finance (MoF). Therefore, active collaboration between the MoF, MoSA and WHO Country Office for Estonia took place during the process. MoSA and the WHO Country Office provided relevant and related materials about the SSB tax to the MoF and had several face-to-face meetings to discuss the analysis that MoF and MoSA were asked to conduct by the Government, and the draft law itself. MoF and MoSA both conducted their own studies about the SSB tax and its potential influence – on health by MoSA *(26)* and on the state budget by MoF – while agreeing on the results and methods used. In a later stage, collaboration was also needed to address the significant amount of media attention that had accumulated and how to communicate messages about the SSB tax to the public.

RELEVANT CHANGES

It is evident that the EBP *(25)* and modelling study *(26)*, as well as other country experiences, significantly supported the adoption of the law on taxing SSBs in Estonia. The tax rate in the current draft law was selected based on the findings of the EBP and WHO recommendation which, according to the WHO meeting report on fiscal policies *(31)*, stated: in order to have health-related effects, the price of SSBs must increase by at least 10–20% for the consumer. On 19 June 2017, the Parliament accepted the law. However, the President did not announce it, and sent it back to Parliament, as she found it to be against constitutional law and in need of further detailed clarifications, especially regarding implementation. This was followed by the parliamentary constitution committee finding the draft law not to be against constitutional law but still in need of some improvement. In addition, in September 2017, the Government decided that the SSB tax law would not be in effect from 2018; therefore, it remains unknown when it will be put into force.

From the start, it was clear from MoF's side that the only way to tax SSBs in an acceptable way was to implement a specific excise tax, which is applied at a uniform rate to a wide range of products. There was only one tax rate for all products with SSBs but, during the discussions, it was decided more rates were needed, depending on a specific product's sugar content, to motivate producers to reformulate their products. As the tax rates changed constantly during the process, the modelling study consisted of four different tax rate options from which to choose. There were discussions between MoSA, MoF and industry about the impact of the tax on health and the state budget, after which the tax rate for the draft law was selected. In the draft law, the tax rates for non-alcoholic beverages, including carbonates, non-carbonates, 100% juice drinks and sweetened milk drinks, are as follows, per litre:

1. 10 euro cents on products containing only artificial sweeteners or with a sugar content of 5–8 g per 100 ml;
2. 20 euro cents on products containing artificial sweeteners and with a sugar content of 5–8 g per 100 ml; and
3. 30 euro cents on products with a sugar content above 8 g per 100 ml.

These three tax rates are based on the sugar content of SSBs in the Estonian market and the need to promote a reformulation of products. As the average and most common SSB bottle size sold in Estonia is 500 ml, products containing less than 5 g of sugar per 100 ml are free from tax. This is based on the logic that up to 25 g of free sugar per day is the maximum amount that is recommended for consumption. The third rate, of 8 g or more, is based on the average sugar content in products sold in Estonia, taking into account the fact that there is an opportunity for improvements through product reformulation. Artificial sweeteners are not included in the third tax rate because there are no products on the market that contain 8 g or more sugar per 100 ml in combination with artificial sweeteners. However, they are included in the first two rates in order to avoid the partial or full substitution of sugars with artificial sweeteners, as a precautionary measure to protect health.

In the later stage of discussions, it was agreed that the highest tax rate would be introduced gradually to motivate producers to reformulate products. Beginning from the first year that the tax is implemented, the highest tax rate of 30 euro cents per litre will be imposed on products containing more than 10 g of sugar per 100 ml, and will gradually reach 8 g per 100 ml in the third year of the tax in order to stimulate product reformulation over time. Regarding 100% juice drinks and sweetened milk drinks, Estonia will ask for prior approval from the European Commission to ensure that exempting these products from the tax does not fall under State aid: otherwise, these products would have an advantage on a selective basis.

In addition to the potential impact of the upcoming tax, the numerous articles and debates in the media have increased public awareness of the adverse effects of excessive free sugar intake as presented by many different experts, physicians, politicians and dentists. However, not all of these participants in the debate, including doctors, were on the side of public health. In addition, the National Institute for Health Development launched a public campaign aimed at reducing sugar consumption.

The milestones for the preparations for and implementation of the tax are schematically shown in Fig. 2.

LESSONS LEARNED

Key lessons to consider when introducing a tax on SSBs include:

- The preparation of solid evidence is crucial; when well-prepared, it disarms the industry from their claims. It is also important to share and present evidence widely in order to reach the broadest possible audience, including politicians, potential supporters and the public.

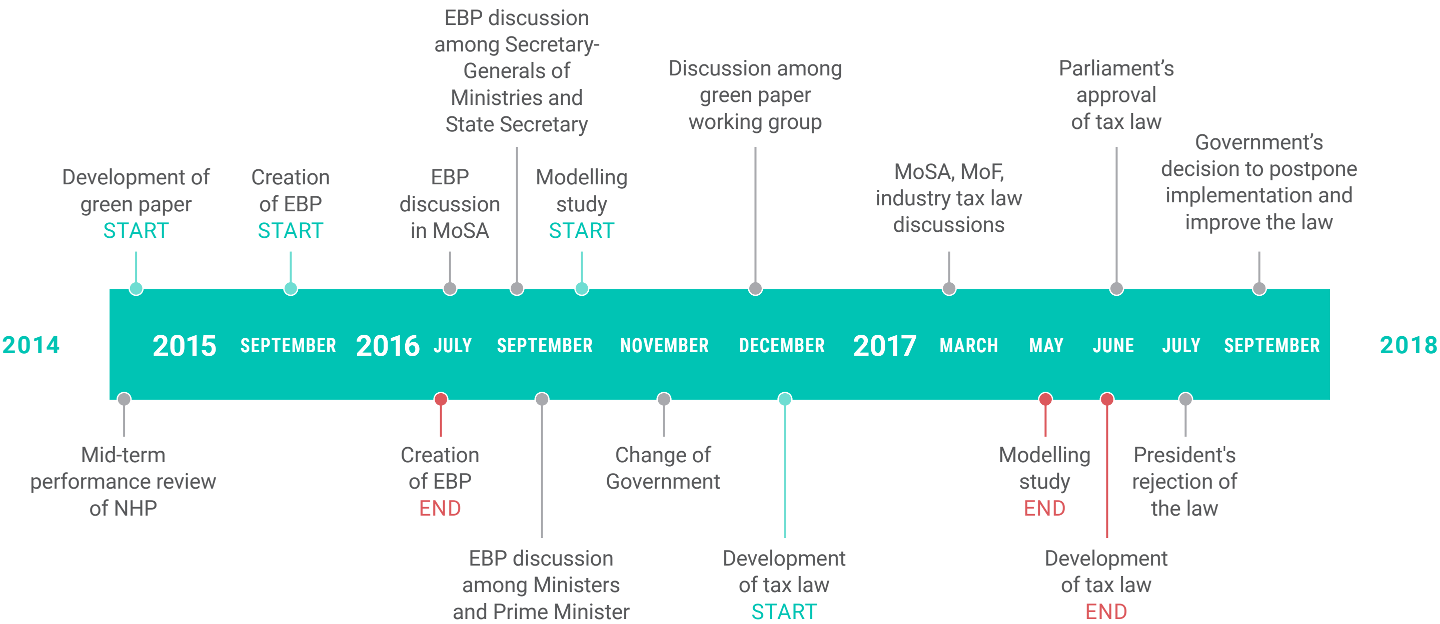
- A good communication strategy is necessary; it should be developed in the early stages of introducing a tax on SSBs and amended in response to industry tactics. It helps to send clear messages and react quickly to industry counter-messaging. When possible, work proactively to counterbalance industry's claims and to correct their flawed statements.

- Build support from local stakeholders, dentists, dieticians and others, and engage early with the MoF. It is especially crucial to engage the MoF, as much as possible, in discussions about tax technicalities because the MoF usually has the most knowledge of fiscal measures and is responsible for implementing measures.

- Learn from other countries and build on their experience. There are countries which have taxed SSBs; knowing their implementation struggles and concerns can help to overcome or even avoid them in your own country.

- Use Regional Office support for policy advice or technical assistance. The WHO EVIPNet Secretariat can provide support for EBP development and policy dialogue through face-to-face

FIG. 2. MILESTONES FOR TAX PREPARATION AND IMPLEMENTATION



Source: Kristina Köhler, Marge Reinap.

or web-based trainings, manuals or contacts with other EVIPNet members who can review and improve the draft EBP.

- It is extremely important for policy-makers to have a modelling study of the potential impact on the preferred policy option when policy option(s) have been selected in order to have evidence-informed decision-making. In Estonia, such a study helped to select the tax rate, disarm the industry and clearly demonstrate the effects of the tax for the Estonian context. This is key for ensuring widespread stakeholder agreement for the tax.

Acknowledgements: The authors are grateful to João Breda and Jo Martin Jewell of the Division of Noncommunicable Diseases and Life-course at the WHO Regional Office for Europe for their technical assistance and support related to the topic of obesity and nutrition, and to Tanja Kuchenmüller, coordinator of the EVIPNet Europe Secretariat, for her guidance and technical support to EVIPNet in Estonia. The authors wish to thank Tomas Pantoja and Cristián Mansilla of EVIPNet Chile for training and guidance in developing the EBP. The authors thank Lennert Veerman from Cancer Council NSW and Thi Thai from The University of Queensland for conducting the modelling study about the potential health effects of taxing sugary drinks in Estonia. The authors also thank Sirpa Sarlio-Lähteenkorva and Taru Koivisto from the Finnish Ministry of Social Affairs and Health for sharing experiences and information from Finland.

Sources of funding: The EBP's development, training workshops to support preparation of an EBP, policy advice, capacity building, and the modelling study about the potential health effects of taxing sugary drinks in Estonia were funded by the WHO Country Office in Estonia through the biennial collaborative agreements for 2012–2013, 2014–2015 and 2016–2017.

Conflicts of interest: None declared.

Disclaimer: The authors alone are responsible for the views expressed in this publication and they do not necessarily represent the decisions or policies of the World Health Organization.

REFERENCES

1. Health statistics and health research database [database]. Tallinn: National Institute for Health Development (http://pxweb.tai.ee/PXWeb2015/index_en.html, accessed 18 October 2017).
2. Eurostat database. European Commission (http://ec.europa.eu/eurostat/data/database, accessed 18 October 2017).
3. National Health Plan 2009–2020. Tallinn: Ministry of Social Affairs of Estonia; 2015 (http://sm.ee/sites/default/files/content-editors/eesmargid_ja_tegevused/Tervis/Aruanded/rta_2009-2020_2012_eng.pdf, accessed 18 October 2017).
4. National Health Plan 2009–2020 performance report for 2009–2012. Tallinn: Ministry of Social Affairs of Estonia; 2015 (http://www.sm.ee/sites/default/files/content-editors/eesmargid_ja_tegevused/Tervis/Aruanded/first_period_2009-2012_performance_report.pdf, accessed 18 October 2017).
5. Eesti Reformierakonna, Sotsiaaldemokraatliku Erakonna ning Erakonna Isamaa ja Res Publica Liit kokkulepe valitsuse moodustamise ja valitsusliidu tegevusprogrammi põhialuste kohta [The agreement of the Estonian Reform Party, Social Democratic Party and Pro Patria and Res Publica Union for forming the government and the principles of the coalition programme]. Tallinn; 2015 (https://valitsus.ee/sites/default/files/content-editors/failid/re-sde-irl-valitsusliidu-lepe-2015.pdf, accessed 18 October 2017 ; in Estonian).
6. Sokmann S. Consumption of sugar sweetened-beverages in relation to the socioeconomic factors among 10–17-year-old Estonian adolescents [dissertation]. Tartu: Faculty of Medicine, University of Tartu; 2016 (http://rahvatervis.ut.ee/bitstream/1/6436/1/Sokmann2016.pdf, accessed 18 October 2017).
7. Malik VS, Schulze MB, Hu FB. Intake of sugar-sweetened beverages and weight gain: a systematic review. Am J Clin Nutr. 2006; 84:274–288.
8. Morenga LT, Mallard S, Mann J. Dietary sugars and body weight: systematic review and meta-analyses of randomised controlled trials and cohort studies. BMJ. 2013; 346:e7492.
9. Avery A, Bostock L, McCullough F. A systematic review investigating interventions that can help reduce consumption of sugar-sweetened beverages in children leading to changes in body fatness. J Hum Nutr Diet. 2015; 28(Suppl.1):52–64.
10. Malik VS, Pan A, Willett WC, Hu FB. Sugar-sweetened beverages and weight gain in children and adults: a systematic review and meta-analysis. Am J Clin Nutr. 2013; 98:1084–1102.
11. Malik VS, Popkin BM, Bray GA, Despres JP, Willett WC, Hu FB. Sugar-sweetened beverages and risk of metabolic syndrome and type 2 diabetes: a meta-analysis. Diabetes Care. 2010; 33:2477–2483.
12. Vartanian LR, Schwartz MB, Brownell KD. Effects of soft drink consumption on nutrition and health: a systematic review and meta-analysis. Am J Public Health. 2007; 97:667–675.
13. Apovian CM. Sugar-sweetened soft drinks, obesity, and type 2 diabetes. J Am Med Assoc. 2004; 292:978–979.
14. Montonen J, Järvinen R, Knekti P, Heliövaara M, Reunanen A. Consumption of sweetened beverages and intakes of fructose and glucose predict type 2 diabetes occurrence. J Nutr. 2007; 137:1447–1454.

15. Imamura F, O'Connor L, Ye Z, Mursu J, Hayashino Y, Bhupathiraju SN et al. Consumption of sugar sweetened beverages, artificially sweetened beverages, and fruit juice and incidence of type 2 diabetes: systematic review, meta-analysis, and estimation of population attributable fraction. BMJ. 2015; 351:h3576.
16. Fung TT, Malk V, Rexrode KM, Manson JE, Willett WC, Hu FB. Sweetened beverage consumption and risk of coronary heart disease in women. Am J Clin Nutr. 2009; 89:1037–1042.
17. Noncommunicable diseases, Fact sheet. In: WHO/Media Centre [website]. Geneva: World Health Organization; 2015 (http://www.who.int/mediacentre/factsheets/fs355/en/, accessed 18 October 2017).
18. Sheiham A. Dietary effects on dental diseases. Public Health Nutr. 2001; 4:569–591.
19. Touger-Decker R, van Loveren C. Sugars and dental caries. Am J Clin Nutr. 2003; 78:881S–892S.
20. Tahmassebi JF, Duggal MS, Malik-Kotru G, Curzon ME. Soft drinks and dental health: a review of the current literature. J Dent. 2006; 34:2–11.
21. The Surgeon General's call to prevent and decrease overweight and obesity. Rockville, Maryland: Department of Health and Human Services, Public Health Services; 2001.
22. Ouyang X, Cirillo P, Sautin Y, McCall S, Bruchette JL, Diehl AM et al. Fructose consumption as a risk factor for non-alcoholic fatty liver disease. J Hepatol. 2008; 48:993–999.
23. Choi JW, Ford ES, Gao X, Choi HK. Sugar-sweetened soft drinks, diet soft drinks, and serum uric acid level: the third National Health and Nutrition Examination Survey. Arthritis Rheumatol. 2008; 59:109–116.
24. Choi HK, Curhan G. Soft drinks, fructose consumption, and the risk of gout in men: prospective cohort study. BMJ. 2008; 336:309–312.
25. Köhler K, Eksin M, Peil E, Sammel A, Uuetoa M, Villa I. Evidence brief for policy: Reducing the consumption of sugar-sweetened beverages and their negative health impact in Estonia (World Health Organization Evidence-Informed Policy Network EVIPNet initiative). Copenhagen: World Health Organization Regional Office for Europe; 2017 (http://www.euro.who.int/__data/assets/pdf_file/0016/324205/EBP-1-Web.pdf?ua=1, accessed 18 October 2017).
26. Veerman JL, Thai T. The potential health effects of taxing sugary drinks in Estonia. Cancer Council NSW; 2017 (http://www.sm.ee/sites/default/files/content-editors/Ministeerium_kontaktid/Uuringu_ja_analuusid/Tervisevaldkond/the_potential_health_effects_of_taxing_sugary_drinks_in_estonia_0.pdf, accessed 18 October 2017).
27. Veerman JL, Sacks G, Antonopoulos N, Martin J. The impact of a tax on sugar-sweetened beverages on health and health care costs: a modelling study. PLoS One. 13 April 2016; 11(4):e0151460. doi:10.1371/journal.pone.0151460.
28. Assessment of the impact of a public health product tax. Budapest: WHO Regional Office for Europe; 2016 (http://www.euro.who.int/__data/assets/pdf_file/0008/332882/assessment-impact-PH-tax-report.pdf?ua=1, accessed 18 October 2017).
29. Using price policies to promote healthier diets. Copenhagen: WHO Regional Office for Europe; 2015 (http://www.euro.who.int/en/publications/abstracts/using-price-policies-to-promote-healthier-diets-2015, accessed 18 October 2017).
30. Hallituksen esitys [Government proposal] HE 137/2016 vp. In: Eduskunta Riksdagen. Government of Finland; 2016 (https://www.eduskunta.fi/FI/vaski/HallituksenEsitys/Sivut/HE_137+2016.aspx, accessed 18 October 2017; in Finnish).
31. Fiscal policies for diet and prevention of noncommunicable diseases [technical meeting report, 5–6 May 2015]. Geneva: World Health Organisation; 2015 (http://apps.who.int/iris/bitstream/10665/250131/1/9789241511247-eng.pdf?ua=1, accessed 18 October 2017). ■