EKONOMICKÉ A PRÁVNÍ ASPEKTY ŘEŠENÍ OBEZITY VE SVĚTĚ

THE ECONOMIC AND LEGAL ASPECTS OF TACKLING OBESITY AROUND THE WORLD

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https://doi.org/10.33542/SIC2019-2-02

ABSTRAKT

S obezitou není přímo spojená pouze problematika zdravotní péče, jejích nákladů a kvality života populace, ale také ekonomické a právní aspekty. V tomto kontextu taktéž napadá myšlenka osobní svobody volby a aplikace jejích omezení stejně tak jako sociální odpovědnost za zdraví a spokojenost populace. Fiskální politiky s cílem zlepšení stravovacích návyků a prevence nemocí spojenými se stravou spolu s fiskálními intervencemi mohou hrát a hrají klíčovou roli v řadě ekonomik světa. Existují různorodé způsoby korekce tržních selhání tedy situací, kdy cena produktu plně a mnohdy ani částečně odráží její společenské náklady. Tento článek rozebírá různé přístupy k řešení obezity ve světě s důrazem na jejich ekonomické a právní aspekty a to za použití metod analýzy, syntézy, dedukce a indukce.

ABSTRACT

It is not only the question of health care, its costs and quality of life of the population that is directly connected with obesity but also the economic and legal aspects. The question of personal freedom of choice and applications of its limitations as well as social responsibility for the health and happiness of the population that come to mind. Fiscal policies to improve diets and prevent diet related diseases with fiscal interventions can and do play a key role in various world economies. These are various ways of corrections of market failures that is situations when the price of a product does not fully and quite often not even partially reflect its full social cost. The article discusses various approaches of tackling obesity around the world with the accent on their economic and legal aspects using the methods of analysis, synthesis, deduction and induction.

I. INTRODUCTION

Fiscal policies can be used to modify prices leading to a drop in sales and the consumption of food and drinks associated with the reduction of non-communicable diseases such as obesity. If there is a will for such a development, and in my opinion there certainly should be though there is no sign of any such development in the Czech Republic, it is needless to say that both health experts as well as finance policy makers need to work together as the end goal is the same. Thow¹ claims that policy makers in the health sector are mainly interested in the

THOW, A, M. et al., 2017. Fiscal policy to improve diets and prevent non-communicable diseases: from recommendations to action. Bull World Health Organ 2018, 96:201-210, doi:http://dx.doi.org/10.2471/BLT.17.195982.

effectiveness of policies for improving population health through changes to diets while policy-makers in the finance sector may want to know whether an excise tax would be better than a sales tax, how the tax could be administrated most effectively and the likely impact of the tax on government revenue, employment, industry and livelihoods. It should be said that both groups of policy-makers may also be concerned about whether the tax will disproportionately fall on lower-income individuals and how revenue from the tax is earned and spent. Quite understandably health policy-makers may prefer such revenue to be spent on further promoting health, whereas policy-makers in the finance sector may prefer to treat it as general revenue that can be spent without constraint.

Concerning overweight and obesity, it is necessary to bear in mind several facts. Firstly that it is easily preventable. With this fact the inevitable question that is so difficult to answer arises but that lies at the core of the matter and that is who should be in charge of the prevention. Individuals? Government or governments? Health care providing institutions? Education providing institutions? And what is the most effective method of prevention? Needless to say if it's the individuals who should be in charge of prevention what about the freedom of choice? Surely an introduction of for example a tax as a tool of prevention of specific behaviour – in this case to limit the intake of sugar leading to a rise in BMI² – is against the freedom of choice of the individuals as well as an intervention into the free market for goods (sweetened soft drinks for example). But should we consider that the market is experiencing a market failure, then it is surely a question for government to correct the price mechanism in the market so that it includes the social costs of the product? Secondly it needs to be remembered that it is not necessarily obesity and being overweight (though they no doubt effect the quality of life of the population in a negative way), it is more the secondary aspects of the raised body mass index that are the major cause for concern – both social as well as economical.

In connection with obesity and being overweight Thow³ lists the following connected illnesses: cardiovascular diseases (mainly heart disease and stroke), diabetes, musculoskeletal disorders, and some cancers (including endometrial; breast; ovarian; prostate; liver; gallbladder; kidney and colon).

As already stated being overweight and obese are largely preventable. I believe that the individual level is very important in forming choices. The social level is also important as it is needed to support the choices by policies that make possible for example regular physical activity or that make available, affordable and economically accessible healthier dietary choices.

II. VARIOUS FORMS OF INTERVENTIONS IN CONNECTION WITH OBESITY AROUND THE WORLD

1. The United Kingdom

In March, 2016, the UK Government proposed a tiered levy on sugar-sweetened beverages (high tax for drinks with > 8 g of sugar per 100 ml, moderate tax for 5-8 g, and no tax for < 5g).

BMI or so called Body mass index is a measure of body fat based on height and weight. The BMI is defined as the body mass divided by the square of the body height and is universally expressed in units of kg/m² resulting from mass in kilograms and height in meters. Commonly accepted BMI ranges are underweight – under 18,5 kg/m², normal weight – 18,5 to 25 kg/m², overweight 25 to 30 kg/m², obese – over 30 kg/m².

³ Same source of information.

Briggs⁴ estimates the effect of possible industry responses to the levy on obesity, diabetes and dental cavities. Three possible industry responses were formed that is to reduce sugar concentration, an increase in the product price and a change of the market share of high-sugar, mid-sugar and low-sugar drinks. A comparative risk assessment model to estimate the UK health impact of each scenario on the prevalence of obesity and incidence of dental cavities and type 2 diabetes was established. The findings show that the best modelled scenario for health was a sugar-sweetened beverages reformulation, resulting in a reduction of 144,383 of 15,470,813 adults and children with obesity in the UK, 19,094 fewer incident cases of type 2 diabetes per year, and 269,375 fewer decayed, missing or filled teeth annually.

The interpretation of the results is that the health impact of the soft drinks levy depends on the reaction of the producers that is the industry. The reactions are rather various. As found out by the above mentioned study the best result concerning health gains would be a product that has as low a sugar level as possible and yet is attractive for the consumers.

A recent study by Cornelsen⁵ analysed changes in the sales from a voluntary levy on sugary drinks implemented in a chain of 37 restaurants in the UK and found a large reduction in sales (9,3%) as a result of a modest increase in price (about 3,5%). However the levy was supported with different activities, including redesigned beverage menu with text explaining why the levy was introduced, new products on the drinks menu as well as numerous articles in press and a documentary screened on a national TV channel, so it is likely that these other activities also influence consumer behaviour.

From my point of view this study shows the enormous potential of the preventative tools that were mentioned and proves that the individuals are very prone to react to their health related issues. As long as the message gets to them. In that respect the reaction to a higher price is to be rather faster than any other in my opinion, in the short term no doubt, though the long term could lead to the above mentioned situation when it is the producers that actually help the individuals along the way of shaping their choices leading to healthier diets. On the other hand the reaction depends on many aspects such as age, social background, and economic background and so on. Certainly more research needs to be carried out in that area.

2. Mexico

The situation in Mexico was rather alarming as based on the evidence provided by WHO⁶ as being overweight and obesity reached 70% of adults and 30% of children in 2012 and a high prevalence of diabetes. In January 2014, Mexico implemented a tax on sugar-sweetened beverage purchases of 1 peso per litre to all sugar-sweetened beverages with added sugars. The tax excludes 100% fruit juices and all beverages with added artificial sweeteners.

In connection with Mexico, Colchero⁷ claims that several evaluations have shown reductions in the purchases of sales of sugar-sweetened beverages after the tax was implemented as well as increases in untaxed beverages or bottled water. Two studies revealed that reductions in the purchases of SSBs were larger among lower socioeconomic groups.

BRIGGS, A, et al. 2017. Health impact assessment of the UK soft drinks industry levy: a comparative risk assessment modelling study. Lancet Public Health 2017:2 e15-22. http://dx.doi.org/10.1016/S2468-2667(16)30037-8.

CORNELSEN et al., 2017. Change in non-alcoholic beverages sales following a 10-pence levy on sugar-sweetened beverages

within a national chain of restaurants in the UK: interrupted time series analysis of a natural experiment. J.Epidemiol. Community Health. http://dx.doi.org/10.1136/jech-2017-209947.

⁶ THOW, A, M. et al., 2017. Fiscal policy to improve diets and prevent noncommunicable diseases: from recommendations to action. Bull World Health Organ 2018, 96:201-210, doi:http://dx.doi.org/10.2471/BLT.17.195982.

COLCHERO et al. 2017. After Mexico Implemented a tax, purchases of sugar-sweetened beverages decreased and water Increased: difference by place of residence, household composition and income level. The Journal of Nutrition. doi: https://doi.org/10.3945/jn.117.251892.

Analysing how beverage purchases changed over time in household with children and adolescents is also highly important because the consumption of added sugars and caloric beverages in these age groups is high and has been increasing. An interesting results shows a 6,3% reduction in the observed purchases of SSBs in 2014 compared with expected purchases based on trends from 2008 to 2012. For bottled water, a 16,2% increase in 2014 was found and that was higher in low and middle income households and urban areas and among households with adults only. In addition to an increase in the amount purchased, the probability of purchasing bottled water increase by 3%. In conclusion SSB purchases decreased and water purchases increased after the SSB tax was imposed in Mexico. The magnitude of these changes was greater in lower-income and urban households.

The conclusions of these findings yet again prove the usefulness of a tax on sugary drinks as a tool and also add to the knowledge of possible effects on population based on the socioeconomic class. In my opinion it needs to be stated that though these findings no doubt prove that the higher price of the drink leads to lower purchases which is good, it does not go any further as actually connecting consumption with health related issues.

3. Hungary

Biro⁸ explains that the junk food tax of Hungary which was introduced in 2011 is a unique approach to improve population health. The policy is unique in terms of the range of food covered by the tax, the rate of the tax and the explicit aim of health improvement. The interest is in the overall effects and the effects by socioeconomic status. The study takes a broad approach in the sense that it does not focus on the consumption of particular items on which the tax was levied, but analyses broad consumption categories - it focuses on how the consumption of processed and unprocessed food changes after the introduction of the tax. As dietary guidelines generally recommend the consumption of more fresh food and less processed food, so as to reduce the consumption of sodium, solid fats, and added sugars. The consumption of unprocessed food is generally known to reduce the risk of cancer and heart diseases. Focusing on broad categories of food can reveal if the junk food tax leads to substantial changes in dietary patterns. If the taxed items are substituted with untaxed but also unhealthy products then the tax does not achieve its final aim.

From this point of view this could reveal the missing link that is whether the lower consumption of let's call it unhealthy food or drink actually can lead to the improvement of the health in the population.

Biro⁹ then concludes that some evidence was found that supports the idea that the junk food tax improved the dietary habits of the population in Hungary. After the introduction of the tax, the consumed quantities of processed food decreased significantly by 3.4% while the consumed quantities of unprocessed food increased insignificantly by 1.1%. The effects of the junk food tax became stronger after January 2012 when the tax rates were increased and the range of taxable items was extended.

4. Australia

Cobiac¹⁰ looks at the increasing number of countries that have been implementing taxes on unhealthy foods and drinks to address the growing burden of dietary-related disease, but the

BIRO, A. 2015. Did the junk food tax make the Hungarians eat healthier? Food Policy 54, 107-115. http://dx.doi.org/10.1016/j.foodpol.2015.05.003.

Same source of information.

¹⁰ COBIAC et al., 2017. Taxes and subsidies for improving diet and population health in Australia: A cost-effectiveness modelling study. PLOS medicine.DOI:10.1371/journal.pmed.1002232.

cost-effectiveness of combining taxes on unhealthy foods and subsidies on healthy foods, he claims, is not well understood. Hence using a population model of dietary-related diseases and health care costs and food price elasticities, he stimulated the effect of taxes on saturated fat, salt, sugar and sugar-sweetened beverages and a subsidy on fruits and vegetables, over the lifetime of the Australian population and then evaluated the cost-effectiveness of the interventions individually, then determined the optimal combination based on maximising net monetary benefits individually, then determined the optimal combination based on maximising net monetary benefit. Of the taxes evaluated, the sugar tax produced the biggest estimates of health gain, followed by the salt tax, the saturated fat tax and the sugar-sweetened beverage tax. The fruit and vegetable subsidy was a cost-effective addition to the package of taxes. However, it did not necessarily lead to a net health benefit for the population when modelled as an intervention on its own, because of the possible adverse cross-price elasticity effects on consumption of other foods.

The above mentioned study suggests that taxes and subsidies on foods and beverages can potentially be combined to achieve substantial improvements in population health and cost savings to the health sector.

With potentially large health benefits for the Australian population and large benefits in reducing health sector spending on the treatment of non-communicable diseases, the formulation of a tax and subsidy package should be given a more prominent role in Australia's public health nutrition strategy.¹¹

Veerman¹² suggests that a 20% additional tax on sugar-sweetened beverages would result in modest reductions in BMI and the proportion of Australians that are obese.

Cobiac¹³ studies the relationship between non-communicable diseases and consumption of unhealthy foods and drinks is well known, with dietary factors contributing almost 10% of the global disease burden. Price is a key driver of food purchasing and experimental studies in real world environments (e.g. canteens and vending machines) and virtual supermarket-type environments show that people reduce consumption of unhealthy foods when the price of these products is increased.

In my opinion the findings of Cobiac's study are very important and can be very beneficial for all policy makers around the world.

5. The United States

Penalvo¹⁴ and the research he led was in connection with the fiscal interventions that are promising strategies to improve diets, reduce cardiovascular disease and diabetes (CMD). The aim of the study was to estimate the impact of specific dietary taxes and subsidies. Using nationally representative data a comparative risk assessment was used to model the potential effects on total CMD deaths and disparities of price subsidies (10%, 30%) on fruits, vegetables, whole grains and nuts/seeds and taxes (10%, 30%) on processed meat, unprocessed red meats and sugar-sweetened beverages. The result was the finding that each price intervention would reduce CMD deaths. Overall, the largest proportional reductions were seen in stroke, followed by diabetes and coronary heart disease. Jointly altering prices of

VEERMAN, J. et al, 2016. The impact of a tax on sugar-sweetened beverages on health and health care costs: a study. PLoS ONE 11 (4). available at: http://doi:10.1371/journal.pone.0151460.

Same source of information.

¹³ COBIAC et al.,2017. Taxes and subsidies for improving diet and population health in Australia: A cost-effectiveness modelling study. PLOS medicine.DOI:10.1371/journal.pmed.1002232.

PENALVO et al. BMC Medicine. 2017. The potential impact of food taxes and subsidies on cardiovascular disease and diabetes burden and disparities in the United States. DOI 10.1186/s12916-017-0971-9.

all mentioned dietary factors (10% each with 18% greater price responsiveness in low versus high socioeconomic status) would prevent 3,1% of CMD deaths among Americans with a lower than high school education, 3,6% among high school graduates/some college and 2,9% among college graduates. In conclusion, modest taxes and subsidies for key dietary factors could meaningfully reduce CMD.

The findings of the research support the previous findings and it goes a bit further as to establish the effect it would have on the prevention of cardiovascular disease and diabetes.

6. The Czech Republic

Against a backdrop of growing obesity levels across the EU, the Czech Republic holds the unfortunate distinction of having one of the region's worst problems with excess weight. Studies suggest that over recent years the incidence of obesity has risen continuously. A 2010 research paper found that 23% of the adult Czech population was obese and 34% overweight, WHO predicts that by 2025 two-thirds of adults in the Czech Republic (67%) will be either overweight or obese, up from 61% in 2015. As is the case in other European countries, the Czech Republic has suffered from increasingly sedentary lifestyles and diets high in sugar and fat, contributing high rates of childhood obesity, in particular, but it is less advanced than some of its western neighbours when it comes to regulatory and legislative approaches to modifying diets or exercise. ¹⁵

What the country needs is a centrally co-ordinated obesity programme, based on the Ministry of Health and including patient organizations and specialist physicians and dieticians. Life-style programmes with long-term follow-up, greater encouragement of medical specialisation in obesity management and more capacity for bariatric surgery could also help to serve patients. ¹⁶

To my knowledge, there is no coordinated programme against obesity and being overweight. A healthy life style is generally being advocated by various actors, for example by health insurance companies in the form of the distribution of information, preventative programmes such as contributions towards various forms of physical exercise. To my knowledge these do not include any dietary preventative measures. If these are carried out it is done somehow without much coordination in my opinion by actors such as the stop obesity, various caloric calculators and so on. I certainly would not say that there is any action taken by the government which to me seems a pity hence I tried to look closely at the design of such an action in the form of a fiscal policy.

III. ECONOMIC ANALYSIS OF OBESITY

Possible impacts of a tax on sugar sweetened drinks on obesity

- an increase in the price of the product leading to the fact that people will not purchase hence ceteris paribus decrease in obesity level of the population
- decrease in manufacturer/seller margin
- decrease in demand by the consumers that has already been discussed
- increase in expenditures of consumers that is they will carry on buying the now dearer product but will have less money for other things.

 $^{^{15}}$ $\,$ Confronting obesity in the Czech Republic, available at:

 $https://www.janssen.com/emea/sites/www_janssen_com_emea/files/confronting_obesity_in_the_czech_republic_pdf.pdf.\\$

OECD, Health Policy in the Czech Republic, June 2016. Available at: http://oecd.org/health/health-systems/Health-Policy-in-Czech-Republic-June-2016.pdf.

- change of product composition which is the best outcome assuming that the sugar content of the drink will get lowered by the manufacturer leading to lower obesity levels
- a substitution of the product

It should be stated that a major problem in tackling obesity is the fact that the existence of compulsory health insurance does not permit the transfer of risk behaviour to the price of health insurance. This is a direct externality since obese citizens with BMI over 40 are almost 100% more expensive than the healthy citizens.

Economic analysis of obesity

Rising prevalence of obesity, health care cost burden, increasing morbidity rates and others makes it an important public health issue. An assessment of its costs may be useful in providing recommendations for policy and decision makers. It is important to assess the economic burden of obesity and identify, measures and describe the different obesity-related illnesses. Data about indicators such as the cost of illness, obesity burden or obesity related disease must be collected, analysed and processed.

In 2014 the global economic impact of obesity was established to be US \$2.0 trillion or 2.8% of the global gross domestic product. It Identified obesity related diseases were the following: diabetes, cardiovascular diseases, hyper tension, respiratory disorders, musculoskeletal disorders, mental disorders, cancer, digestive disease, others.

Various methods leading to establishing the costs attributable to obesity are for example population attributable fraction (PAF), population attributable risk (PAR) of population attributable prevalence (PAP). Tremmel¹⁸ claims that obesity is responsible for a large fraction of costs both for health care systems and for society.

IV. EVIDENCE-BASED POLICY DESIGN

Policy-makers¹⁹ in the health sector should consider three key aspects when identifying appropriate targets for taxes or subsidies. First, according to the available epidemiological evidence, which foods and nutrients are associated with poorer or better health outcomes. Second, the extent to which consumption of the relevant foods or nutrients is likely to impose negative externalities on society, and the extent to which consumption is likely to be affected by taxes and subsidies. Third, which targets are likely to be the most feasible, from an administrative perspective.

Thow²⁰ suggests that there is strong evidence indicating that the risk of developing dietrelated non-communicable diseases could be reduced by decreasing the consumption of added sugars, red and processed meats, refined grains, salt, sugar-sweetened beverages and/or transfat and/or by increasing the consumption of fish, fruits, legumes, minimally processed whole grains, non-starchy vegetables, nuts and vegetable oils that are high in unsaturated fats. Overall the evidence indicates that, if we are to reduce the risk of diet-related non-communicable diseases, we would be better altering overall diet rather than focussing on the consumption of individual food items. Thus the relative healthfulness of any nutrient needs to be adjusted in the context of the entire diet. Policy-makers also need to differentiate between so-called core foods, the consumption of which is recommended by government dieticians,

TREMMEL, M. et al., 2017. Economic burden of obesity: A systematic literature review. International Journal of Environmental Research and Public Health. ISSN: 1660-4601.

Same source.

¹⁹ THOW, A, M. et al., 2017. Fiscal policy to improve diets and prevent noncommunicable diseases: from recommendations to action. Bull World Health Organ 2018, 96:201-210, doi:http://dx.doi.org/10.2471/BLT.17.195982.

²⁰ Same source of information.

and non-core or discretionary foods that are generally considered to be less beneficial. Most tax-based policies to improve diets have focused on non-core foods or beverages, particularly sugar-sweetened beverages.

Thow also suggests that excise taxes, sales taxes and taxes on commercial production and the main options for taxation to improve diets. The benefit of targeted excise or production taxes is that such taxes are applied by volume of liquid or weight of food. In contrast, taxes as a percent of price create incentives for consumers to substitute toward cheaper products instead of healthier products. Excise or production taxes are also preferable because, compared with a sales tax, they are more likely to be built into the shelf price that consumers see when making their purchase. This is useful because, all else being equal, the more visible the tax, the greater the behavioural change made in response to it. The effectiveness of fiscal interventions may be enhanced through efforts to educate consumers and improve public awareness that the target has either been taxed, because it is an unhealthy product or subsidized because it is a healthy product. Policy makers must consider whether a proposed fiscal policy will result in any restriction of freedoms and/or exacerbate inequalities by disproportionately affecting some groups of individuals. Taxes of food and beverages are likely to be regressive because, compared with their richer counterparts, people on low income spend higher percentages of their incomes on such products. From an ethics perspective, these impacts on inequalities need to be balanced against the effectiveness of the intervention and whether the population group most affected by taxes on consumption receives any reciprocal benefit for their tax burden.

It is good to remember that various firms, including food manufacturers, distributors and retailers, are likely to play a critical role in determining the effects of food taxes. Well-designed taxes and subsidies can change the prices, purchase and consumption of target foods, although the effects on overall diet and health are less clear. To maximize the impact, the ideal tax needs to be implemented on a large geographical scale, to be designed with graduated thresholds for the nutrients of concern and should cover a broad range of non-core food items that are energy-dense and nutrient-poor. The most effective structure of such a tax is likely to be an excise tax that is applied on the basis of volume or weight and included in shelf prices.

V. JURISDICTIONS

This section contains examples of jurisdictions with health-related fiscal policies applied to foods or beverages²¹

1. Taxes on sugar-sweetened beverages

These are implemented nationally in Barbados, Belgium, Brunei Durassalam, Chile, Fiji, Finland, France, UK, Kiribati, Mauritius, Mexico, Norway, Samoa, Saudi Arabia, Spain, Tonga, Vanuatu and locally in British Overseas Territory Saint Helena and within the United States of America in Albany, Berkeley, Boulder, Oakland, Philadelphia and Navajo Nation.

2. Taxes on foods high in salt, fat and/or sugar

These are implemented nationally by the Dominican Republic, Hungary, Saint Vincent and the Grenadines and Tonga and locally, in French Polynesia and by the Navajo nation in the United States.

3. Subsidies to improve diets and health – targeted subsidies

THOW, A, M. et al., 2017. Fiscal policy to improve diets and prevent noncommunicable diseases: from recommendations to action. Bull World Health Organ 2018, 96:201-210, doi:http://dx.doi.org/10.2471/BLT.17.195982

These have been embedded into social welfare programmes within the United Kingdom of Great Britain and Northern Ireland and the United States, targeted to remote populations in Canada and provided by private health insurance programmes in South Africa. Implicit subsidies have been granted, through removal of import tariffs on fruit and vegetables, in Fiji and Tonga.

IV. CONCLUSION

As Cornelsen²² concludes there are numerous aspects surrounding fiscal interventions. Also to study the substitution effects in greater detail, using alternative approaches to demand analysis where the aggregation of products may mask important patterns in order to understand the mechanism of change in current, implemented taxes and the role of framing the taxes through media debates and its effects in combinations with price and changes. Conducting a wider analysis of both the direct and indirect costs and benefits on the economy arising from the taxes is also needed. Understanding the economic mechanisms and impacts of them has been scarce while the taxes are now being rapidly implemented without a real consideration of the likely casual and spill over effects in the food industry and economy. If this major economic intervention is to achieve its potential, then it urgently requires economists to be involved in grappling with these critical questions.²³

If the primary policy goal of a health tax is to reduce the consumption of unhealthy products, then evidence supports the implementation of taxes that increase the price of products by 20% or more. However where taxes are effective in changing health behaviours, the predictability of the revenue stream is reduced. Hence, policy actors need to be clear about the primary goal of any health tax and frame the tax accordingly – not doing so leaves taxes vulnerable to hostile lobbying. ²⁴

The concept of fiscal intervention in connection with tackling obesity as demonstrated has developed quite a colourful background. A lot has been learnt and taken into practice in various parts of the world. But as it has been shown there is still a lot to learn about the economic consequences for all the parties involved.

KĽÚČOVÉ SLOVÁ

obezita, intervence, fiskální politika

KEY WORDS

obesity, interventions, fiscal policy

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²² CORNELSEN L., Smith R.2018. Viewpoint: Soda taxes –Four questions economists need to address. Food Policy 138-142. https://doi.org/10.1016/j.foodpol.2017.12.003.

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