



POLICY BRIEF

Increasing fruit and vegetable consumption in Ireland

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Abstract

Context: Following recommended dietary guidelines, Ireland has since 2010 implemented a 0% Value Added Tax (VAT) on fruits and vegetables to increase consumption. Eleven years after policy implementation, the Irish still do not meet recommended intake for fruit and vegetable consumption, consuming 3.9 portions a day compared to 7 daily portions recommended.

Policy Options: Four alternatives for improvement were assessed and compared: 1) retain the status quo of reduced VAT for healthy foods, 2) VAT only for locally produced fruits and vegetables, 3) increased VAT for salty and sweet foods with a subsidy for fruits and vegetables, and 4) an education-based policy. Four evaluation criteria were applied for the comparison: economic feasibility, effectiveness, political feasibility, and equity.

Recommendations: The status quo remains the best option for Ireland. However, further assessment of this 0% VAT policy on fruits and vegetables is warranted, pending the availability of additional data to enable an in-depth understanding of policy implementation.

Keywords: *Tax and Nutrition Policy, Dietary Guidelines, Global Health Policy Analysis, Nutrition Policy Analysis*

Introduction

The current state of affairs

Based on the current situation described in the Healthy Ireland report (1), consumption of fruits and vegetables - which are essential for a healthy diet (2) - is suboptimal in Ireland. According to the Bord Bia Thinking House study (3) from 2017 to 2020, daily consumption of fresh vegetables increased by 7% to 58% in Ireland. The Irish are still only eating 3.9 portions of fruits and vegetables per day, on average. This falls short of recommendations of the Healthy Eating Guidelines (4), the Irish FBDG, of up to 7 daily servings. Moreover, only 51% of Irish eat fruits daily, and 58% eat daily servings of vegetables (3).

Currently, consumption of fruits and vegetables is encouraged with a financial incentive of 0% Value Added Tax (VAT) on purchases of fruits and vegetables, as stated in VATCA2010 (5). With regards to the effects of VAT policy on diet, it is essential to mention that whereas VATCA2010 incentivises fruit and vegetable consumption, it does not simultaneously discourage consumption of commonly consumed unhealthy foods such as cakes and biscuits (1, 6), which are taxed at a standard rate (23%) (7).

The current VAT policy falls short in successfully increasing fruit and vegetable consumption. When looking at the VATCA2010 policy in the context of the Bardach policy framework (8), it appears to lack an important component necessary for understanding whether or not the policy achieves its intended goal. There is no publicly available information on the evaluation of the performance of the policy. Thus the effectiveness of the policy itself is unknown. Additionally, consultations with relevant stakeholders were not feasible within the timeframe of the study, and no

data were available to assess the level of public awareness of the policy. Overall, more data are needed to enable a full assessment and recommendations for policy improvement.

Fruits and vegetables are included within food-based dietary guidelines (FBDGs) as essential to healthy diets (2) because of their vitamin, mineral and fibre contributions. Low consumption of fruits and vegetables increases human health risks and indirectly harms the environment when people eat proportionately more foods of animal origin. Low-quality diets with insufficient plant matter promote micronutrient deficiencies, such as vitamin and mineral deficiencies, excessive intakes of salt, sugar, animal fats and animal protein, and decreased intakes of health-supporting phytochemicals and dietary fibre, with a concomitant increase in morbidity and mortality (9).

Broader consequences

The production of animal products may adversely impact the environment due to high emissions of greenhouse gasses and land modifications (9). Research from Willett et al. (9) shows that plant-based foods, in contrast, produce the lowest environmental impact per serving. Therefore, the promotion of greater consumption of plant foods is needed.

The urgent need for action is related to global demographic trends. Population growth will require greater food production (9). Unhealthy lifestyles and ageing populations (10) are increasing the prevalence of non-communicable diseases (NCDs) (11). The current situation is already concerning, as 88.41% of the DALYs in the European Union are NCD-related (12). Public health strategies to increase fruit and vegetable consumption are in line with the Sustainable Development Goals (SDGs) of the United

Nations (9). Those most relevant include SDG 3, development of good health and well-being, SDG 11 construction of sustainable cities and communities and SDG 13 climate action (13). In addition, there may be indirect benefits for goal 8 (13), increasing decent work and economic growth in agriculture.

In Ireland, a 0% VAT policy has been in place for fruits and vegetables since 2010. The intended effect is to lower consumer prices for these foods, providing an economic nudge encouraging beneficial behaviour change and greater consumption of fruits and vegetables (11). As VAT is included in every stage of food production and distribution, it presents a cumulative effect on all the services involved in food production (9). This policy brief describes the existing policy and potential options to strengthen it.

Context

Ireland has a population of 4.977 million people (14), with a GDP of 95 513 USD per capita (15) of which 22.66% is tax revenue (16). 39% of Irish are overweight, and 23% are classified as obese (1). Currently, fewer than 40% of Irish people meet the recommended daily intakes of fruits and vegetables (1). Irish initiatives such as Healthy Ireland (17) and Sláintecare (18) seek to improve national health status, and healthcare systems.

In Ireland, the Parliament, and the Taoiseach, also known as the head of state, are important policy keepers. Parliament consists of two houses: the Senate and the House of Representatives. The House of Representatives (Dáil Éireann) have the

power to initiate or revise legislation, and the Senate (Seanad Éireann) can reject proposed legislation or amendments. The Taoiseach consists of the prime minister, or Tanáiste (19), and divisions (20). Taxation is organised by the Irish Tax and Customs Office, called Revenue (21).

Fruit and vegetable consumption is financially incentivised in Ireland, with the most recent VAT regulation enacted in 2010 (5, 22). Fruits have a 0% VAT, with glazed or crystallised fruits taxed at the standard rate (5). Fresh and frozen vegetables also enjoy a 0% VAT in Ireland (5). Statistics on fruit and vegetable consumption in Ireland before and after the VATCA2010 are not readily available.

Policy Options

Four potential policy alternatives (modifications) were assessed by applying four evaluation criteria consistently. Each was rated from 1 (+) worst to 5 (+++++) best based on likely outcomes, as it is shown in Table 1, and further described in Appendix A. The criteria were defined as follows: 'Economic feasibility' refers to the estimated impact on the Irish economy of implementation of the policy option. 'Effectiveness' refers to the estimated success of the policy option in modifying purchasing behaviour with regard to fruits and vegetables. 'Political feasibility' refers to the estimated willingness of stakeholders to support the option. Lastly, 'Equity' regards the ethical and societal concerns in the implementation of each option. Comparisons among the options are shown in Table 1.

Table 1. Policy alternatives assessment.

Policy alternatives	Economic feasibility	Effectiveness	Political feasibility	Equitability
(1) Status quo: Reduced VAT for healthy foods i.e. fruits and vegetables and not for unhealthy foods (Ireland)	+++	+	+++	++++
(2) Super VAT reduction for Local fruits & vegetables	++++	++	++++	+
(3) VAT increase for salt and sugar and subsidy for fruits & vegetables	++++	+++	+	++
(4) Health promotion by education	++++	+++	++++	+++

Policy option 1: Status quo

“Do nothing” is one potential option for policy change. With regards to assessing the functioning of the current policy, VATCA2010 in Ireland, fruit and vegetable consumption statistics are not readily available, and no evaluation of the policy was found. The high rates of overweight and obesity in Ireland (1) demonstrate a

need for policies that support healthy dietary choices. The current policy, as implemented, appears to have not done enough to encourage sufficient consumption of fruits and vegetables (1).

Had they been available, stakeholder consultations about the VATCA2010 policy may have provided additional information and insights about opportunities to refine and improve the current policy. Additionally, the

effectiveness of the current VAT policy remains unclear due to an apparent lack of publicly available evaluation data. The effect of the policy on changing behaviour over time remains uncertain, as does an understanding of what aspects of the VAT reduction result in a difference in fruit and vegetable consumption and/or production consumption.

Lastly, as mentioned earlier, the most commonly consumed unhealthy foods amongst the Irish - ‘cakes and biscuits’ (if not covered in or decorated with chocolate or similar products) (1) - belong to a reduced VAT tax category. Other sweets have a standard VAT (22). At present, there is no VAT disincentive for cakes and biscuits to reduce their consumption.

Policy Option 2: Locally produced fruit and vegetable VAT reduction

In Latvia, the standard rate of VAT is 21% with a reduced rate of 12% applied to some goods and services. From 1 January 2018, a 5% VAT applies to supplies of fresh fruits, berries and vegetables that are locally grown. The aim of this policy was to reduce the level of VAT avoidance and share of the informal economy in the sector and to support local producers in terms of financial flows. Initially, for a period of three years, the policy has been extended in 2021. The consumption of local fruit and vegetables has grown by 10% in 2018 and 9% in 2019 (23). This reduction encourages local production so sustainability with a lower footprint.

Policy Option 3: Fruit and vegetable VAT reduction in combination with unhealthy food taxation policy.

Fruit and vegetable VAT reduction policy combined with unhealthy food taxation policy have shown influence in

consumption behaviours (24). Indeed, Fruits and vegetables are a great option to eat between meals, instead of sweets, cakes and biscuits or salty snacks, which are the unhealthiest foods consumed as analysed in the Ipsos MRBI (1). Products can be perceived as cheaper when other options increase their cost (11). Sugar and salt taxation will increase the price of unhealthy alternatives. Therefore, economic incentives and disincentive effects on the prices will increase motivation and accessibility to choose fruit and vegetables.

Policy Option 4: Education on healthy and sustainable diets and awareness about the VAT reduction for fruits and vegetables.

According to Willet et al. (9) consumption behaviour change could be reinforced by increasing awareness about nutrition and knowledge about the VAT reduction for fruits and vegetable policy and its intention to increase the intake of these goods. Despite the implementation of reduced VAT in Ireland since 2010, the policy is unknown by a big part of the population. Through mass public information campaigns from the Government, the general population can be informed. Moreover, the integration of nutrition and sustainability in schools by programmes and workshops with the parents' involvement may increase concern in the moment of life when it is easier to modify habits during childhood.

Recommendations

Status quo is the best option for now, as it has been resilient to change over time

The current policy has remained unchanged for more than 10 years. This may demonstrate the policy's acceptability politically and socially. However, it must be recognised that there may have been

calls or attempts for revision of the policy which failed.

Outcome data are needed to document the impact of 0% VAT on fruits and vegetables in Ireland

An integral part of any policy is an evaluation of its impact. In order to understand the impact of this policy on the consumption of fruits and vegetables amongst the Irish, outcome data should be made publicly available.

Conclusion

Assessment of the current VAT reduction policy and alternatives to promote greater consumption of fruits and vegetables resulted in our recommendation to retain the status quo. The conclusion is a preliminary finding in light of the lack of data that would make a more nuanced assessment possible. However, there is good reason to support a 0% VAT policy for fruits and vegetables in Ireland.

The strongest point is the guarantee of affordability of fruits and vegetables, hence accessibility to these essential goods in a healthy diet. The policy implementation since 2010 without modifications has confirmed its political feasibility. Regardless of 11 years of decreased tax revenue from the VAT reduction, the government budget remains unaffected, demonstrating the economic feasibility of the policy in Ireland. Because neither evaluations nor consultations are available, the weakest aspect of the status-quo alternative is its effectiveness with regards to shaping behaviours towards higher fruit and vegetable intake.

In conclusion, 0% VAT for fruit and vegetables should be maintained to promote a healthier and more sustainable food system in Ireland. However, a consistent policy evaluation system may address the impact of the policy

and the possibility if not already to establish a clear objective.

Conflicts of interest

The authors declare no conflict of interest.

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Appendices

Appendix A: Rationales of rating policy options

Policy alternatives	Economic feasibility	Effectiveness	Political feasibility	Equitability
<p>1 Status quo = Reduced VAT for healthy foods i.e. fruits & vegetables and not for unhealthy foods (Ireland)</p> <p>(15/20)</p>	<p>This is economically feasible as it has been shown by the previous 11 years, after the financial reform in 2019 it was not changed. However, reduced VAT decreases tax revenues for governmental budgets, and no other VAT is raised to compensate.</p> <p>3/5</p>	<p>There is no data available on the current effectiveness of the policy on increasing fruits and vegetable consumption upon implementation. Under half of the population are consuming 5 portions of fruits and vegetables per day, but it is hard to say which other factors contribute to this.</p> <p>1/5</p>	<p>it was implemented and it remains in effect. However, stakeholders' consultation on VATCA2010 were not readily available for assessment, thus some stakeholders' perspectives may be dismissed.</p> <p>3/5</p>	<p>Reduction of VAT for fruits and vegetables is ethically valid, as it promotes access to healthy foods. However, unhealthy foods, such as cakes and biscuits have normal VAT, so there are no financial disincentives, but no financial incentive either.</p> <p>4/5</p>
<p>2 Super VAT reduction for Local fruits & vegetables (Latvia)</p> <p>(11/20)</p>	<p>VAT reduction for local production is narrower than option 1. Impact on the budget is lower. May decrease incentive for national producers.</p>	<p>With regards to the main objective stated, it is not clear if this policy positively or negatively impacts consumption. However, it would help lower gas emissions, so this would be a good policy in regard to sustainability and sustainable food systems.</p>	<p>Give incentive to local production = national protectionism. This promotes different food sources / production (food system diversification driver) in the long term, which increases domestic food system resilience.</p>	<p>Not having the 0% VAT for non-domestic fruits and vegetables (sometimes available at low price point e.g. bananas) may mean low income family consumption of fruits and vegetables is reduced by this option. VAT reduction should apply to F&V regardless of their origin to ensure affordability of these goods, hence accessibility regardless of the financial status.</p>

	4/5	2/5	4/5	1/5
3 VAT increase for salt and sugar + subsidy for fruits & vegetables (evidence-based) (10/20)	Yes. Revenue from salt and sugar taxation. It is important to come up with a detailed strategy to respond to the likely concerns of the industry.	Yes. Taxation and subsidies affect prices, which influence consumers' behaviour. However, existing VAT policy has not necessarily guaranteed meeting suggested fruits and vegetables consumption in Ireland.	Suboptimal. Sugar and salt taxation present difficulties to be implemented because of the number of stakeholder's opposition.	Suboptimal. Ethically low-income groups may consume salty snacks to ensure sufficient caloric intake. Population acceptance may be low: high willingness to consume unhealthy foods & maybe lack of nutrition knowledge. However, the health promotion nature of these efforts would make this more acceptable.
	4/5	3/5	1/5	2/5
4 Health promotion (evidence-based) (14/20)	Yes. There are already ongoing projects to promote healthy lifestyles. Although money and resources are needed to develop communication and education campaigns, this approach can be integrated into the ongoing projects.	Yes. Previous studies associated increasing awareness as the first step to bring about change. However, whether this translates to behaviour cannot be assured. The audience needs to be studied to accurately deliver the message for all demographics.	Yes. The policy proposal may benefit how politicians are perceived as they promote healthy dietary patterns.	Yes. The measure is ethical if the communication reaches all the groups of the society and not only privileged richer areas. Social feasibility would depend on previous background and the individual willingness to learn, as well as adequate design of the communication materials.



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	4/5	3/5	4/5	3/5
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