The Hungarian Public Health Product Tax

Brussels, June 20th 2019

Ministry of Human Capacities, State Secretariat for Health
National Institute of Pharmacy and Nutrition
“Sugar, rum and tobacco are commodities which are nowhere necessities of life, which are become objects of almost universal consumption, and which are therefore extremely proper subjects of taxation.”

Death from IHD

(standardized death rate per 100,000 inhabitants)

Source: Eurostat (tps00119)
Death from cancer
(standardized death rate per 100 000 inhabitants)

Source: Eurostat (tps00116)
Public health data of the Hungarian population

Prevalence of obesity among adults, 2010 (or nearest year)

28.5%
National trends in overweight and obesity

![Graph showing prevalence of overweight and obesity in men and women from 1985-1988 and 2009.](image-url)
Distribution of the WHO/COSI sample by weight status, 2010

Every 5th boy and every 4th girl are overweight or obese!
Energy drink consumption among children 2012

- 86% consumed energy drink
- 63% regular consumer

N=13 059
10-18 y
On 19\textsuperscript{th} July 2011 Hungary passed the law “Act CIII of 2011 on the Public Health Product Tax” (that came into effect on 1\textsuperscript{st} September 2011) about the tax on food and drink components with high risk for health.
The introduction of the Public Health Product Tax (PHPT) aims at:

• promoting healthier nutrition among the Hungarian population,

• encouraging food reformulation,

• taxing such products that carry proven health risks when consumed, thus directly reducing consumption of these products,

• enhancing the health status of the population from the income this tax produces (revenue earmarked to Public Health).
Public Health Product Tax

- Excise tax (paid when the product is purchased)
- Applies to re-packed
- non-staple foods only
- Paid on a per unit measure (Kg, Liter)
- Based on sugar, salt and methylxantine (caffeine) content of products
- Classification based on customs tariff headings (Commission Regulation (EU) No 861/2010)
- Sugar sweetened drinks; energy drinks; salty snacks; condiments; sweets (chocolate, ice cream etc.); alcopops, flavoured beer; fruit jams
PHPT amendments

- **September 1, 2011.**
  - PHPT

- **2011. XI. 30.**
  - Energy drinks
  - Tax rate

- **2012. IV. 14.**
  - Fruit jams

- **2013. January 1.**
  - Energy drinks
  - Tax rate

- **2014. January 1.**
  - Cordials
  - Tax rate

- **2015. January 1.**
  - Alcoholic drinks (exceptions!)

- **2017. January 1.**
  - Flavored beer
  - Alcopops

- **2018. January 1.**
  - Public health programs 10%

- **2019. January 1.**
  - All alcoholic beverages
<table>
<thead>
<tr>
<th>Product category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugar sweetened beverages (&gt; 8g/100 ml)</td>
</tr>
<tr>
<td>Sugar -Syrups, concentrates for soft drinks</td>
</tr>
<tr>
<td>Sweetened cocoa powder</td>
</tr>
<tr>
<td>Pre-packaged sweetened product (&gt; 25g/100 g)</td>
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<tr>
<td>Fruit preserves</td>
</tr>
<tr>
<td>Flavored beer</td>
</tr>
<tr>
<td>Alcopops</td>
</tr>
<tr>
<td>Salty snacks (&gt; 1g/100 g )</td>
</tr>
<tr>
<td>Condiments (&gt;5g/100 g)</td>
</tr>
<tr>
<td>Energy drinks</td>
</tr>
<tr>
<td>1 mg metil-xantin/100 ml or taurin &gt; 100 mg/100 ml</td>
</tr>
<tr>
<td>Metil-xantin &gt; 15 mg/100 ml</td>
</tr>
<tr>
<td>Alcoholic drinks</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Ft/liter</td>
<td>5</td>
<td>7</td>
<td>7</td>
<td>15 (5c)</td>
</tr>
<tr>
<td>Ft/liter</td>
<td>-</td>
<td>200</td>
<td>200</td>
<td>250 (77c)</td>
</tr>
<tr>
<td>Ft/kg</td>
<td>-</td>
<td>70</td>
<td>70</td>
<td>85 (26c)</td>
</tr>
<tr>
<td>Ft/kg</td>
<td>100</td>
<td>130</td>
<td>130</td>
<td>160 (49c)</td>
</tr>
<tr>
<td>Ft/kg</td>
<td>-</td>
<td>500</td>
<td>500</td>
<td>600 (1.8€)</td>
</tr>
<tr>
<td>Ft/liter</td>
<td>-</td>
<td>20</td>
<td>20</td>
<td>25 (8c)</td>
</tr>
<tr>
<td>Ft/liter</td>
<td>-</td>
<td>20</td>
<td>20</td>
<td>25 (8c)</td>
</tr>
<tr>
<td>Ft/kg</td>
<td>200</td>
<td>250</td>
<td>250</td>
<td>300 (92c)</td>
</tr>
<tr>
<td>Ft/kg</td>
<td>200</td>
<td>250</td>
<td>250</td>
<td>300 (92c)</td>
</tr>
<tr>
<td>Ft/liter</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>300 (92c)</td>
</tr>
<tr>
<td>Ft/liter</td>
<td>-</td>
<td>-</td>
<td>40</td>
<td>50 (15c)</td>
</tr>
<tr>
<td>Ft/liter</td>
<td>-</td>
<td>-</td>
<td>20-900</td>
<td>25-1100</td>
</tr>
</tbody>
</table>
Who pays the tax?

• products are produced in Hungary - the manufacturer,
• in case of imported products - the first domestic seller,
• this also applies when the product is not directly sold to the final consumer,
• Tax basis: the distributed amount of the taxable product
Administrative issues

• The taxpayers must keep a register of the taxable products.
• The duties of the tax authority are performed by the National Tax and Customs Authority.
• The public health tax is part of the central budget’s revenue, from 1\textsuperscript{st} January - Health Insurance Fund
1st Impact Assessment of the Public Health Product Tax, 2012

The studies that form the basis of the impact assessment were carried out in the framework of the WHO Biannual Collaborative Agreement with the support of the WHO Regional Office for Europe. The project was managed by the National Institute for Health Development, and it was implemented in collaboration with the National Institute for Food and Nutrition Science.
Focus of the impact assessment

- Survey on the population’s awareness about the law and changes in consumption patterns
- Survey on manufacturers’ views and opinion on PHPT
- Relationship of the predicted and realized revenue
- Analysis of balance sheet data of companies paying the major part of PHPT
Features of the impact assessment

- Population survey with questionnaire
  representative sample of population (n=1000) in form of personal interviews
- On-line manufacturers’ survey
- Analysis of macroeconomic data
  Studied period: 1st September 2011 – 31st August 2012
Key results of the impact assessment

Based on the manufacturers’ survey
40% of the responding manufacturers changed the formula

30% of them totally removed the harmful ingredient

70% of them decreased the quantity of the harmful ingredient

The manufacturers’ sales of products subject to NETA decreased by 27%

25-35% of people who consumed products subject to NETA consumed less than one year before

The odds ratio of decreasing the consumption of pre-packed sweets and salted snacks was twice as high in case of people with poor self reported health as in case of people with good self reported health

The average price of manufacturers’ products subject to NETA increased by 29%
### Development of budget estimate and realization of revenue from the Public Health Product Tax in 2012

![Bar chart showing budget estimate and realization of revenue from the Public Health Product Tax in 2012. The budget estimate was 20 billion HUF, while the realization was 19.05 billion HUF.]

### 35 companies paying the major part (approximately 80-90%) of NETA

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Net sales revenue (billion HUF)</td>
<td>1,776.6</td>
<td>1,878.4</td>
<td>+101.8 (+5.7%)</td>
</tr>
<tr>
<td>Profit or loss after taxation (billion HUF)</td>
<td>-31.1</td>
<td>-29.7</td>
<td>+1.4 (+4.7%)</td>
</tr>
<tr>
<td>Average statistical headcount (persons)</td>
<td>51,423</td>
<td>51,601</td>
<td>+178 (+0.3%)</td>
</tr>
</tbody>
</table>

The population did not know exactly which products were subject to NETA, approximately 27% of them have not heard about the introduction of NETA.
Key conclusions of the impact assessment

1. NETA achieved its public health aims

- After the introduction of NETA the supply and sales of products containing ingredient(s) proved to be harmful to health decreased.
- The population reduced the consumption of products containing ingredient(s) proved to be harmful to health.
- The decrease in the consumption of „unhealthy” food was not only caused by price increase, but also by positive changes in the population’s attitude.
Key conclusions of the impact assessment

2. NETA is also successful at macroeconomic level

- The estimated tax revenue was almost fully realized (less than 5% deviation)

- Balance sheet data of „large NETA payers” improved from 2010 to 2011

3. More effective public communication could improve the efficiency of NETA
The tax was evaluated 4 years after its introduction, as review and assessment of its impact were among the tasks outlined in the national “Healthy Hungary 2014–2020” strategy.

More and more countries are introducing taxes on foods to improve the diet of the population.

As complex evaluations based on real data over several years are not widely available at international level, sharing the Hungarian experience could be of considerable interest.

The WHO Regional Office for Europe provided financial support for this impact assessment.
The objectives of the second impact assessment

- to assess whether the impact found earlier among adults on the consumption of taxed products has been sustained,

- to study how consumption has changed in population groups with different health risks and socioeconomic status,

- to determine the economic consequences of the tax paid by companies.
Features of the second impact assessment

It was conducted in 2014 as part of the National Diet and Nutritional Status Survey (OTÁP2014) of the National Institute for Food and Nutritional Science on a subsample of the population covered by the European Health Interview Survey performed by the Hungarian Central Statistical Office.
Was the impact on consumption sustained? (2014)

- Energy drinks: 5% already back, 73% same, 22% reduced
- Sugar-sweetened soft drinks: 12% already back, 68% same, 19% reduced
- Pre-packaged sweets: 7% already back, 63% same, 30% reduced
- Salty snacks: 6% already back, 59% same, 35% reduced
- Powdered soup, salty condiments: 0% already back, 64% same, 36% reduced

Data from National Institute of Pharmacy and Nutrition (OGYÉI)
Most frequent reasons for decreasing consumption, 2012 and 2014

<table>
<thead>
<tr>
<th>Product</th>
<th>Price increase</th>
<th>Learnt that unhealthy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2012</td>
<td>2014</td>
</tr>
<tr>
<td>Energy drinks</td>
<td>61%</td>
<td>67%</td>
</tr>
<tr>
<td>Sugar-sweetened soft drinks</td>
<td>67%</td>
<td>51%</td>
</tr>
<tr>
<td>Pre-packaged sweets</td>
<td>81%</td>
<td>66%</td>
</tr>
<tr>
<td>Salty snacks</td>
<td>81%</td>
<td>56%</td>
</tr>
<tr>
<td>Powdered soup, salty condiment</td>
<td>–</td>
<td>69%</td>
</tr>
</tbody>
</table>
Associations between reduced consumption and weight category, 2014

<table>
<thead>
<tr>
<th>Consumption Category</th>
<th>Odds Ratio</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy drinks</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>Sugar-sweetened soft drinks</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>Pre-packaged sweets</td>
<td>1.9*</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Salty snacks</td>
<td>3.8*</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Powdered soup, salty condiments</td>
<td>4.3*</td>
<td>&lt;0.05</td>
</tr>
</tbody>
</table>

* indicates significance at p<0.05.
Proportions of people who substituted PHPT products with other products as a proportion of all substitutes, 2014

- **Energy drinks**
  - Mineral water: 63%
  - Coffee: 63%
  - Tea: 55%
  - Sugar-sweetened soft drinks: 52%

- **Sugar-sweetened soft drinks**
  - Mineral water: 61%
  - Tap water: 43%
  - Home-made limonade, syrup: 39%
  - Fruit juice (50-100%) : 37%
  - Low-calorie soft drinks: 18%
  - Syrup, concentrate in retail: 15%
Overall and daily consumption of PHPT products by educational level, 2014

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Higher Education</th>
<th>Secondary Education</th>
<th>Primary Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy drinks*</td>
<td>10%</td>
<td>17%</td>
<td>20%</td>
</tr>
<tr>
<td>Sugar-sweetened soft drinks*</td>
<td>2%</td>
<td>12%</td>
<td>19%</td>
</tr>
<tr>
<td>Pre-packaged sweets*</td>
<td>15%</td>
<td>15%</td>
<td>24%</td>
</tr>
<tr>
<td>Salty snacks</td>
<td>3%</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>Powdered soup, salty condiments*</td>
<td>12%</td>
<td>23%</td>
<td>34%</td>
</tr>
</tbody>
</table>

* *p<0.05

Overall consumption

Daily consumption
Proportions of people who reduced their consumption of specific product groups, by educational level, 2014

- **Energy drinks**
  - Higher education: 4%
  - Secondary education: 16%
  - Primary education: 23%

- **Sugar-sweetened soft drinks**
  - Higher education: 7%
  - Secondary education: 10%
  - Primary education: 10%

- **Pre-packaged sweets**
  - Higher education: 4%
  - Secondary education: 9%
  - Primary education: 5%

- **Salty snacks**
  - Higher education: 7%
  - Secondary education: 10%
  - Primary education: 9%

- **Powdered soup, salty condiments**
  - Higher education: 6%
  - Secondary education: 5%
  - Primary education: 4%
Proportions of people who bought cheaper products after introduction of the PHPT, by educational level, 2014

- Energy drinks: Higher education 13%, Secondary education 13%, Primary education 25%
- Sugar-sweetened soft drinks: Higher education 4%, Secondary education 10%, Primary education 24%
- Pre-packaged sweets: Higher education 3%, Secondary education 7%, Primary education 13%
- Salty snacks: Higher education 3%, Secondary education 6%, Primary education 22%
- Powdered soup, salty condiments: Higher education 2%, Secondary education 7%, Primary education 14%

*p<0.05
Proportions of total tax revenue paid by top tax-paying companies, (2014)

The top 35 companies that pay the PHPT accounted for 83% of the revenue.

The revenue generated by the PHPT made it possible to raise the wages of 95,000 health care workers.
Recommendations

- Targeted health communication and other policies could be used to extend the impact of the food tax to other population groups, especially those with lower educational levels.
- In order to reach these people, local, targeted awareness-raising and educational programmes and complementary measures should be conducted.
- Consideration should also be given to introducing price subsidies for healthy food products, such as fruits and vegetables.
- It is recommended that the PHPT be raised on certain products, such as sugar-sweetened soft drinks. The additional revenue could be used for public health programmes, targeted health communication.
- The impact of the PHPT should continue to be monitored and evaluated.
Lessons learnt

- PHPT is a good example showing that a fiscal instrument can be an effective tool to improve nutrition behaviour and habits of the consumers, and can also serve as a good trigger for food reformulation (and not lastly an alternative financing mechanism for public health funding).

- Adequate information to consumers and continuous communication with the food industry is essential for
  - maintenance of the PHPT,
  - measurable effects,
  - prevention of tax avoidance.

- Principles and logic of the tax should be as simple as possible for easy explanation and digestion to and by consumers (strong basis for justification).

- Affected product categories must be well defined for clear and uniform application of the provisions (number of exceptions as low as possible).

- Must be capable of inducing effect on food consumption (importance of communication and monitoring!).

- Flexibility and rapid finding of solutions are crucial for improvement and handling critics.
Thank you for your attention!

GOOD PRACTICE BRIEF

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

Summary

In 2011, the Hungarian Parliament passed legislation creating the public health product tax, which taxed high-sugar, high-salt, and other high-calorie products in an effort to reduce their consumption, promote healthy eating, and create an additional mechanism for financing public health services. Four years since the tax was introduced, consumption of taxable consumption has decreased. Many food manufacturers have reduced or eliminated unhealthy ingredients in their products, population awareness of healthy eating has increased, and approximately HUF 59 million in revenues has been earned and invested in health-promoting initiatives.

Responding to a public health crisis

Noncommunicable diseases are the leading cause of morbidity and mortality worldwide. The rate of deaths from noncommunicable diseases, diabetes, stroke, and cancer are among the highest in the world. Hungary is known for having the highest average expenditure on consumption in the European Union and approximately two-thirds of the adult population is either overweight or obese. In recent years, the Hungarian government has taken several steps to improve population nutrition, including a law to tax unhealthy food products, promoting the use of healthy food in schools, and introducing a public health product tax.

The public health product tax

In 2011, Hungary introduced the public health product tax...