

POLICY AND PREVENTION

Decline in Alcohol Consumption in Estonia: Combined Effects of Strengthened Alcohol Policy and Economic Downturn

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Abstract — **Aims:** To describe alcohol policy changes in parallel to consumption changes in 2005–2010 in Estonia, where alcohol consumption is among the highest in Europe. **Methods:** Review of pertinent legislation and literature. **Results:** Alcohol consumption decreased since 2008, while alcohol excise tax, sales time restrictions and ad bans have increased since 2005. An economic downturn started in 2008. **Conclusion:** The precise roles of policy changes and the economic downturn in the decline of alcohol consumption, and whether the decrease will be sustained, are still unclear.

INTRODUCTION

Harmful alcohol consumption has become a global health threat and calls for worldwide coordinated action have resulted in adoption of global alcohol strategy in WHO World Health Assembly in 2010 (WHO, 2010). A strategy to reduce alcohol-related harm in the European Union (EU) was adopted already in 2006 (European Commission, 2006), because the proportion of the burden of disease attributable to harmful alcohol consumption being very high in Europe and especially in central and eastern Europe (Mathers *et al.*, 2009). Estonia has been a member of the EU since 2004 and ~10% of the burden of disease is attributable to harmful alcohol consumption (Lai *et al.*, 2004). Estonia ranked fifth in alcohol consumption per capita among 53 countries of the WHO European region in 2003 directly after Germany and before Ireland and has had an increasing trend contrary to most other countries (WHO Regional Office for Europe, 2010). By 2007, the Estonian population consumed 12.6 l of pure alcohol per capita, a 7 l increase since 1997 (Fig. 1; Estonian Institute of Economic Research, 2010a). These increases in alcohol consumption were accompanied by corresponding increases in alcohol-related diseases as indicated by the example of liver cirrhosis (Parna and Rahu, 2010). During 2008–2009, a slight decrease in alcohol consumption per capita occurred. The first major changes to the alcohol policy since the early 1990s were introduced in 2005.

The aim of this paper is to describe recent (2005–2010) changes of the alcohol policy in Estonia in parallel to alcohol consumption trends of the period and to discuss options for further development of alcohol policy.

COUNTRY CONTEXT

Since regaining independence in 1991, the Estonian political environment has been stable and economic development rapid. The latter is illustrated among other things by 8% average increase of gross domestic product (GDP) per capita in real terms during 1996–2006 (Statistics Estonia, 2010a). Developments in the health system have been fast and systematic (Koppel *et al.*, 2008) and have continued until now

(Habicht and van Ginneken, 2010). The pace of improvement of the population's health is shown in the life expectancy, which increased from 66.5 years in 1994 to 75.0 years in 2009. However, health inequalities and (alcohol-related) premature mortality have been of major concern (Kunst *et al.*, 2002; McKee and Shkolnikov, 2001; Paasma *et al.*, 2007, 2009; Parna *et al.*, 2010; Rahu *et al.*, 2009). In 2008, the Estonian economy saw a 14% reduction in real terms (Bank of Estonia, 2010) accompanied by an increase of unemployment to 13.8% (Statistics Estonia, 2010b). Current estimates predict a 2% growth of the economy in 2010 (Ministry of Finance, 2010).

Alcohol consumption in Estonia has historically been high similar to other post-Soviet countries (Stickley *et al.*, 2009) while regular intake of strong spirits and binge drinking is still common. Even though the market share of light mixed alcoholic drinks and beer has increased, strong spirits still account for over 50% of pure alcohol consumed (Estonian Institute of Economic Research, 2010a). The adolescent population in Estonia shows a higher proportion of harmful alcohol consumers and higher volumes consumed compared with European averages (Hibell *et al.*, 2009). Simultaneously, the affordability of alcohol in Estonia has increased significantly during the last 10 years—the average salary in 2008 could buy 62 litres of strong spirits compared with 28 in 2000 (Estonian Institute of Economic Research, 2010a), and the increase of affordability was one of the highest in the EU (Rabinovich *et al.*, 2009).

Alcohol policy in Estonia during the 1980s saw both widespread introduction of restrictions as part of Gorbachev's 'perestroika' and ensuing restoration of rather loose policies soon afterwards, as an example, a reduction of the alcohol sales age-limit from the former 21 to 18 years. In comparison, during 1990–2004 changes in alcohol policy were minor and without clear directionality, e.g. while alcohol sale to minors was criminalized, the average excise tax of alcoholic beverages was slightly reduced. While all these factors were designed to affect alcohol consumption in Estonia, they probably also affected alcohol policies and consumption in neighbouring countries such as Finland with Estonia becoming a target for 'alcohol tourism' (Makela and Osterberg, 2009; Rabinovich *et al.*, 2009).

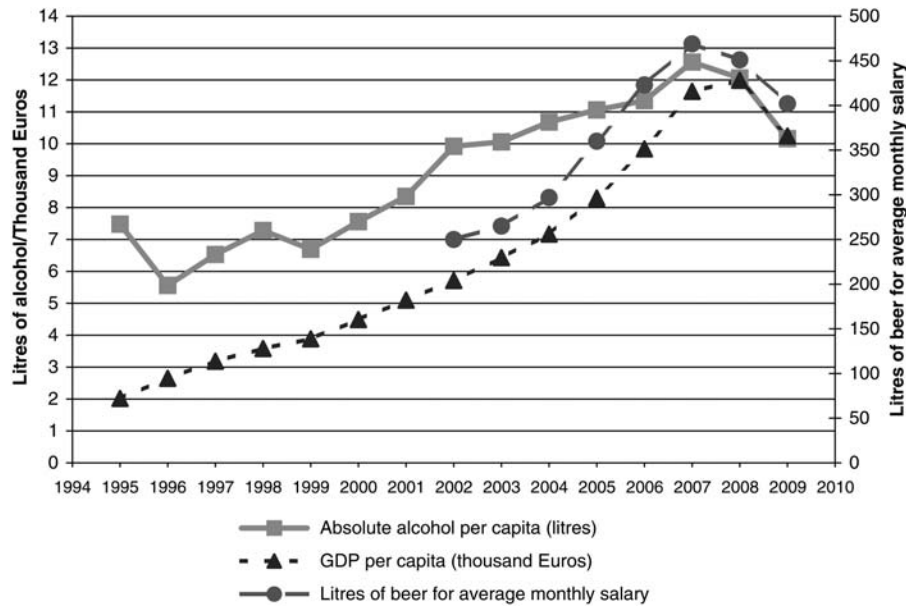


Fig. 1. Alcohol consumption (litres of absolute alcohol) and GDP (thousands of Euros) per capita, by litres of beer purchasable per average monthly salary in Estonia, 1995–2009 (Bank of Estonia 2010; Estonian Institute of Economic Research 2010a; Statistics Estonia 2010a).

International research has identified many effective and cost-effective interventions for reducing harmful alcohol consumption and negative health outcomes caused by it (WHO Regional Office for Europe, 2009). The Estonian Ministry of Social Affairs commissioned a study in 2004 to find the most appropriate interventions for strengthening Estonian alcohol policy (Lai *et al.*, 2007). The study found that the combination of interventions in place was neither the most effective nor cost effective. Suggestions for strengthening alcohol policy included increase of alcohol taxation by 50%, a complete ban of alcohol advertising, wider restrictions on alcohol sales (both on time and place), increased frequency of random breath testing on roads and initiation of brief counselling in primary health care.

CHANGES TO ALCOHOL POLICY 2005–2010

There is no comprehensive alcohol policy document to coordinate action against harmful alcohol consumption in Estonia. Nevertheless, action has been taken to strengthen the alcohol policy even though for some of the changes the primary argumentation was mostly related to national fiscal policy objectives or adaptation of EU agreements, and to public health concerns only secondarily. Still, the latter were taken into account indicating a positive cross-sector influence of work done by the Ministry of Social Affairs, institutions under its supervision and public organizations. As part of the cross-sector work, the Ministry of Social Affairs established a special taskforce in 2006 that consisted of specialists from various Ministries, external specialists and representatives of non-governmental organizations active in the field. This resulted in a position paper for a comprehensive alcohol policy that was presented in a Government hearing.

Excise tax on alcohol has been increased on four occasions since 2005 for all alcoholic beverages except wine (additionally, see the Supplementary material online,

Appendix for the timeline of all pertinent legislative changes). Compared with the 2004 level, excise tax increased 45% by the beginning of 2010. As indicated before, previous research suggested an even higher taxation increase from 2004 levels. The highest tax increases (30% altogether) occurred in 2008 when the economic crisis started to affect the Estonian economy. This was the first occasion when affordability of alcoholic beverages decreased after many years as exemplified for beer in Fig. 1. Changes in alcohol taxation had mainly fiscal and tax policy objectives arising from the economic crisis and a general preference for consumption taxation over income taxation. Nevertheless, expected positive influences of these taxation effects on health behaviour were also considered.

In 2009, value added tax was increased from 18 to 20% also for budgetary objectives. It would be expected that because these tax types appear to be regressive (Võrk *et al.*, 2008), low-income groups would be most affected. We cannot know this for certain because although there is information collected about beverage preferences and frequencies in different income groups (2008 currently the latest), information on amounts that individuals consume is not recorded. Wine consumption, because wine is favoured by higher income groups, might not be expected to be much affected. It is likely that the effects of taxation increases were strengthened by the economic downturn in its own right as both income and employment decreased at the time further reducing affordability of alcoholic beverages. Unfortunately, there are not yet enough data to distinguish between the roles of taxation changes and the economic downturn in the reduction of alcohol consumption.

A nation-wide restriction on the time of off-premise sales of alcoholic beverages was introduced in the summer of 2008. Before 2008, application of such restrictions was wholly in the jurisdiction of local municipalities. There are more than 200 municipalities in Estonia, and thus, it was relatively easy to obtain alcoholic beverages from a nearby

municipality without a sales restriction. This rendered the existing municipality-based restrictions ineffective. Currently, off-premise sale of alcoholic beverages is prohibited from 10 p.m. to 10 a.m. throughout Estonia. On the other hand, there is still wide availability of alcohol sales outlets: there were 195 alcohol retail shops per 100,000 inhabitants in Estonia in 2007, while Sweden had 4.5/100,000 in the same year (Estonian Institute of Economic Research, 2010a).

Since 2008 advertising of alcoholic beverages on television and radio has been prohibited in Estonia from 7 a.m. to 9 p.m. Before, prohibition of TV advertisement ended at 8 p.m. for alcoholic beverages other than spirits. However, time allocation studies of Estonian adolescents show that at 9 p.m. 37% of this age group is still watching TV and thus exposed to alcohol advertising while at midnight only 10% of adolescents would be exposed (TNS Emor, 2008). Thus, advertising restrictions could be strengthened and could also extend to the print media or even a comprehensive ban on alcohol advertising as suggested by previous research in Estonia (Lai *et al.*, 2007).

Additionally, measures against drink-driving such as random breath testing on roads are widely applied. The legal blood alcohol concentration (BAC) limit for motor vehicle drivers in Estonia is 0.02% of blood volume (or 0.1 mg/l in breath). These levels were established in 2000 when drink-driving became a criminal offence. (From the mid-1980s until 2000, the allowed level was zero, but even though the BAC limit is not zero any more, public discussion, communication of the legislation, etc. still maintain that no (measurable) levels of alcohol are allowed while driving.)

Enforcement of alcohol policies has been strengthened in other areas as well, especially, in tackling import and production of illegal alcohol and improving tax collection. Public awareness campaigns on the inadmissibility of drink-driving, hazards associated with alcohol, thresholds of harmful alcohol consumption and other topics have increased both in frequency and volume in recent years. These interventions in combination with other measures described in this paper have been associated with a fall in the proportion of drivers tested who were over the limit from 3.5% in 2002 to 0.8% in 2009 (Estonian Road Administration, 2010). The proportion of car accidents, where a person was injured and in which a drink-driver was involved, has declined as well—from 22.9% in 2001 to 16.5% in 2009. However, more than 50% of these were younger than 30 years in 2009 (Estonian Road Administration, 2010).

Interventions on a personal level such as alcohol counselling have had very low focus in Estonia. A new initiative for early identification and counselling of alcohol-related health problems was launched in primary health care in the beginning of 2010 to remedy this situation.

CONCLUSIONS

Alcohol consumption in Estonia has decreased moderately since 2008, while the alcohol policy has strengthened since 2005. Estonia lacks a comprehensive alcohol policy that could be used to coordinate action against harmful alcohol consumption. The need for such a policy is among other things underlined by the fact that some of the important alcohol policy changes were based on national fiscal policy concerns or

adaptation of EU agreements, and public health concerns were addressed only in second order. The need for a comprehensive alcohol policy is further highlighted by the fact that many of the interventions against harmful alcohol consumption have not reached levels suggested in 2004 (Lai *et al.*, 2007).

More importantly, it is currently unclear how much of the decline in alcohol consumption in Estonia was caused by policy changes and how much was an effect of the economic downturn. As the majority of policy changes affected the affordability of alcoholic beverages as did the economic downturn, it is fair to assume that these two factors strengthened the effects of each other. Thus, when economic growth is regained, there will be a clear need to further strengthen the alcohol policies in Estonia to compensate for the lost effect of the economic downturn. It has been shown that affordability of alcoholic beverages is one of the most important predictors of alcohol consumption in a population (Booth *et al.*, 2008; Seabrook, 2010).

Currently, no data are available on alcohol consumption in 2010, but preliminary data on alcohol production in Estonia show a decline, while price increases of beverages seem to be concentrated on high-end product categories leaving the prices of most common beverages relatively stable (Estonian Institute of Economic Research, 2010b). Hence, to prevent a future decline in the relative price of alcohol and therefore an increase of alcohol affordability, increasing excise taxation of alcohol still seems one of the priority options to sustain the decrease of alcohol consumption seen in the last 2 years. It is, however, essential to employ a comprehensive alcohol policy where price regulation is used in a systematic and synergistic combination with other effective and cost-effective measures against harmful alcohol consumption (Lai *et al.*, 2007; WHO Regional Office for Europe, 2009).

Examples of additional policy actions worth consideration in Estonia include the reduction of the density of alcohol outlets, more comprehensive ad bans that span all types of alcohol advertising (especially, those influencing young people), clearer separation of alcoholic beverages from other goods in retail stores and full implementation of brief alcohol interventions in primary health care. These need to be supported by improved enforcement of restrictions and public awareness campaigns.

AUTHORS' CONTRIBUTION

T.L. and J.H. both contributed to conception of the paper, data collection, data analysis and writing of the paper.

SUPPLEMENTARY MATERIAL

Supplementary material is available at *Alcohol and Alcoholism* online.

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