Comparing the World Health Organization's "best buy" alcohol control policies in Hungary and Romania.

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Why do countries with similar alcohol per capita consumption have vastly different prevalences of alcohol use disorders (AUDs)?

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Abstract

This thesis investigates the striking disparity in the prevalence of alcohol use disorders (AUDs) between Hungary and Romania, despite similar levels of alcohol consumption. With 21,2% of the total population having alcohol use disorders, Hungary has the highest prevalence in all of Europe, whereas in Romania it is only 2,8%. This cross-case study delves into the various environmental factors influencing AUDs, such as economic development, early drinking, family, social and cultural norms, additional elements and alcohol control policies drawing on the body of academic literature, data sources as well as empirical evidence. With the usage of the World Health Organization's (WHO) "best buy" alcohol control policies, this research employs a most similar system design to evaluate the effectiveness of these alcohol control measures in Hungary and Romania. Findings indicate that while both nations have similar regulations and restrictions regarding availability and pricing, the regulations on the advertisement and product placements on alcohol are more stringent in Romania. This thesis emphasises the necessity of international organizations in offering guidelines and policy recommendations for tackling the harmful use of alcohol and consequently alcohol use disorders.

Introduction

There is a long tradition of alcohol consumption worldwide. In the past, for example, grape and cereal production was a prerequisite for the consumption of wine and beer, and people drank low-alcohol level beverages not just for enjoyment but for the absence of reliable clean water sources (Balázs, 2022). Alcohol is still consumed all over the world in all its forms. In developed countries, up to 80% of men and 60% of women drink at some time during their lives and between half and two-thirds of those who ever drunk are likely to do so again in any given year (Teesson et al., 2006). While alcohol use in Europe has consistently fallen over the last two decades (EMCDDA, 2017; WHO, 2018), it remains a great health concern, as it is causally linked to over 60 different diseases (Connor et al., 2016). In figures, the average alcohol per capita consumption (also known as APC) in the WHO European Region fell from 12,3 to 9,8 litres between 2005 and 2016 (WHO, 2018). According to the World Health Organization (2022), 3 million people died in 2016 as a result of harmful use of alcohol (or roughly 5,3% of all fatalities) in the world, and the proportion of all deaths attributed to alcohol consumption was the highest in the European region (10,1%). Alcohol is a unique risk factor for morbidity and mortality as it has two dimensions of exposure – the average level of consumption and patterns of drinking – that need to be taken into consideration when estimating attributable harm (WHO, 2018; WHO, 2010). Additionally, mortality resulting from alcohol consumption is higher than from diseases such as tuberculosis, HIV/AIDS and diabetes (WHO, 2018). It is also known that developing AUDs at least doubles the risk of depression and suicide (Boden & Fergusson, 2011). Furthermore, the impact of harmful use of alcohol reaches beyond direct health-related consequences of alcohol consumption. There are additional social costs associated with alcohol abuse, such as aggression, criminal damage, and decreased productivity at work (Anderson, 2009). According to estimates of the economic burden of alcohol consumption — which also include expenses related to lost productivity and the cost of the

criminal justice system other than the burden of disease associated with alcohol — accounts for more than 1% of GDP-PPP (gross domestic product controlled for purchasing power parity) in high- and middle-income nations (Casswell et al., 2009). The next paragraph will highlight the key role of international organizations, specifically the World Health Organization, in shaping alcohol control policies to tackle the harmful use of alcohol.

International organizations like the WHO are greatly concerned about alcohol-related issues, which is demonstrated in their influence over alcohol policies worldwide and the number of publications and guidelines they provide to combat this problem (Casswell et al., 2009). Their first example of establishing a collective action plan was in the 1990s when the regional office encouraged 53 countries to embrace goals for reducing alcohol consumption and its related health issues. As a result, many of those nations improved their alcohol regulations and laws (Casswell et al., 2009). This marked the start of an era with more regional activity and non-governmental organizations (NGOs) increasingly key role in influencing alcohol control policies. The WHO also underscored in 2001 that nations should recognize that a primary asset of a nation is its health, as higher levels of health are associated with greater overall well-being and productivity (Casswell et al., 2009). Another keystone was the Western Pacific region's initiative for a regional strategy to reduce alcohol-related harm in 2006 which demonstrated the WHO's impact beyond guidelines (Casswell et al., 2009). 37 countries endorsed this strategy in the region and requested the WHO to provide technical support for establishing these policies with the collaboration of member states and international agencies, academics, and civil societies. This highlights that the WHO’s influence regarding policies related to alcohol and its associated harm goes beyond guidelines and status reports (WHO, 2018; WHO, 2019) to implementation and even assessment of these policies over time. However, the shortage of funding significantly limits NGO involvement in the field of alcohol policy. The case of the tobacco industry demonstrated how funding for non-governmental organizations may spur and

encourage national action, therefore more resources should be allocated to this area as well (Casswell et al., 2009). In order to effectively reduce alcohol-related harm, focus on alcohol needs to be expended and non-governmental advocacy to be increased both internationally and domestically (WHO, 2018). Moreover, an effective national and international response is required from governments and non-governmental organizations both to support and hold government agencies accountable (Caswell et al., 2009). This is especially crucial when governments enact necessary but unpopular policies like raising the price of alcohol. International cooperation also plays a key role in harmonising laws and enforcement in a broader region, for instance in reducing the amount of unrecorded alcohol consumption related to smuggling or cross-border marketing (WHO, 2019).

The Global strategy to reduce alcohol (WHO, 2010: 5) defines harmful use of alcohol as drinking leading to adverse health and social consequences for the consumer, others and society, as well as patterns of drinking that increase the risk of negative health effects. In the strategy presented (WHO, 2010), harmful use of alcohol covers, for example: hazardous drinking, single episode of harmful use of alcohol, harmful patterns of drinking, and alcohol dependence – the most severe form of alcohol use disorders (Schukit, 2009). Alcohol use disorders (AUDs) are quite common yet often untreated mental health conditions linked to significant morbidity and mortality (Schuckit, 2009; Connor et al., 2016). AUDs are common in all developed countries, with lower but still significant rates in developing nations (Schuckit, 2006; Teesson et al., 2006). While the rates of these disorders are higher in northern and eastern Europe (such as Russia and Lithuania) and lower in Mediterranean countries such as Italy (Table I), they account for a significant amount of the healthcare burden in nearly all populations. Men are also more likely to have alcohol use disorders in general, for instance, a report in Hungary (Paksi & Demetrovics, 2021) found a four-fold increase in the risk of developing these disorders for men. The WHO (2018) estimates that approximately 283 million people suffer worldwide from

alcohol use disorders with the European (18,3%) and the American (16,6%) regions having the highest rates. It is clear that although there is a correlation, "alcohol use disorders" and "harmful use of alcohol" are two different concepts. Alcohol use disorders are mental health conditions caused by alcohol consumption – and more significantly, the pattern of drinking – whereas harmful use of alcohol comprises the various ways of drinking that cause harm or damage (WHO, 2018). Those who develop AUDs struggle to manage their alcohol intake and continue to consume it despite the detrimental effects it has on their health as well as the lives of their family, friends and coworkers (Connor et al., 2016). The distinction between concepts is vital since the policy measures recommended by the WHO target harmful use of alcohol in general, not alcohol use disorders directly. Thus, a causal relationship can only be explicitly established between these policy measures and harmful use of alcohol. However, reducing the harmful use of alcohol and its associated burden would arguably decrease the prevalence of AUDs as well.

While it would seem reasonable to assume that APC consumption and the prevalence of alcohol use disorders are tightly associated, this is not the case. Hungary (HU) leads the world in the prevalence of alcohol use disorders, with 21,2% of the total population identified as having AUDs in 2016 followed by Russia (RU) with 20,9%, and Belarus (BY) comes in third at 18,8% (Table I). When examining these nations, it appears that while their populations have extremely high rates of AUDs, they do not appear to be the highest alcohol-consuming countries in Europe. This suggests that there are underlying factors that impact the prevalence of AUDs other than alcohol consumption and that the relationship between alcohol consumption and AUDs is not as strong as some may believe. Thus, the question arises, why do some nations have remarkably similar levels of alcohol consumption while having drastically varied prevalences of alcohol use disorders? The academic literature fortunately offers explanations which I will discuss now.

Theory

It has been established and accepted by scholars (Schuckit, 2009; Connor et al., 2016; Verhulst, 2015) that about 40-60% of the risk of having alcohol use disorders is due to genes and the rest can be explained by environmental causes. These studies concluded that the strongest genetic association is with a genotype that reduces the chance of developing such disorders (Connor et al., 2016). Without delving into details, carriers of the ALDH2*2 allele within the ALDH2 genotype (with a single copy of the allele) have impaired metabolism of alcohol. Thus, when these people drink alcohol, they experience sweating, nausea, vomiting and headache, which prevent them from heavy drinking and developing alcohol use disorders in the future (Connor et al., 2016). This occurrence is much more common in Asian countries than in Europe (Li et al. 2012), meaning that genes should not account for the different prevalences of AUDs experienced by ethnically homogenous countries. To put it another way, although there could be a difference in the percentage of people having the ALDH2*2 allele in between countries where the distribution and type of ethnicities are very similar, this fact alone cannot account for the vastly various levels of AUDs across the European continent. Moving forward in this research, I will focus on the environmental factors for AUDs development and will break down the most important causes.

Economic development. In all WHO regions (except for the African and Western Pacific regions), the prevalence of drinkers and overall consumption is greater in higher-income countries and fewer people abstain, while the burden of disease associated with alcohol is much higher in low-income countries (WHO, 2018). While this is certainly interesting, the most important finding concerning this research is that alcohol use disorders are more common in high-income countries (for more information see Figure 4.21 in WHO, 2018: 84). Unfortunately, neither the WHO nor the available literature on the topic provides a clear explanation of the cause behind this pattern. **Family.** In a survey of over 17,000 adults, AUDs

were linked to environmental factors such as verbal, physical and sexual violence and household instability – for example, substance use in the family and incarceration of household members (Dube et al., 2002). Further studies (Chartier et al., 2010) corroborated this finding and supplemented it by using the deviance prone model. They tested possible relationships among the various risk factors that lead to early adolescent alcohol use and found that other than parental or family histories of alcoholism, peer and other social relations are one of the strongest predictors of adolescent alcohol use (Chartier et al., 2010). It also seems that just as the use of alcohol by family members can influence teenage alcohol consumption, a family history of early-onset alcohol use disorders also impacts the risk of developing AUDs later in life (Magnusson, et al., 2010). As part of the family, marital status also influences the prevalence of alcohol use disorders; it is the highest among singles, followed by those who are separated, divorced or widowed. Married and cohabiting partners are the least affected (Grant et al., 2015).

Early drinking. Regardless of family, the average age of first drinking is about 15 years, which varies across cultures (Schuckit, 2009). Earlier studies found no difference in age between those who go on to develop AUDs and those who do not (Schuckit, 2006), although they established that early onset of regular drinking was related to a higher risk of experiencing health problems later in life, in general (Schuckit, 2009). Later studies confirmed that early initiation and reckless alcohol consumption in adolescence indicate an increased chance of AUDs as an adult as well (Connor et al., 2016). This finding has been further strengthened with a survey conducted in the United States among people ages 26 or older (Center for Behavioral Health Statistics and Quality, 2022). This study showed that those who began drinking before the age of 15 have a threefold risk of having AUDs as opposed to those who start drinking at the age of 21 (Center for Behavioral Health Statistics and Quality, 2022). **Culture and social norms**. In cultures where drinking into intoxication is encouraged for adults, alcohol use disorders are more common (Connor et al., 2016). These cultures typically provide cheap, easy access to

alcohol, allow it to be consumed in everyday social settings, and foster an environment where alcohol intoxication is accepted and endorsed by constant alcohol advertisements. While cultural norms and beliefs are strong predictors of the frequency of heavy drinking as well as drinking patterns (Caetano and Clark, 1999; LaBrie et al., 2012), studies mainly focus on the differences between major ethnic groups (Sudhinaraset et al., 2016). For example, when it comes to drinking, a study found that African Americans and Latinos report being more conservative than White people (Center for Behavioral Health Statistics and Quality, 2015). As mentioned, few studies have examined the diversity within racial and ethnic groups such as Latinos or Black people; and there is effectively no study on the differences in drinking habits or risks of developing alcohol use disorders among white ethnic groups (Sudhinaraset et al., 2016). Thus, it can be concluded that – while there can be slight cultural differences concerning alcohol within these closely related nations as well – the differences should not account for significant differences in rates of alcohol use disorders between countries with remarkably similar ethnic populations. The following are additional causes and potential new risk factors of AUDs.

The National Institute on Alcohol Abuse and Alcoholism (2020) states that mental conditions and a history of trauma, such as depression, post-traumatic stress disorder (PTSD), and attention deficit hyperactivity disorder (ADHD) are also associated with an increased risk of AUDs. Nonetheless, it is important to note that the causal relationship between these conditions (for example depression) and the development of alcohol use disorders is not clear. While heavy drinking and harmful use of alcohol (potentially leading to the development of AUDs) can cause depression, depression can also influence the risk of AUDs development. Recently the WHO (2022b) also raised concern over the increasingly widespread digital marketing's effect across national borders, since reports show that young people and heavy drinkers are increasingly targeted by these alcohol advertisements. Their worry stems from the gap in regulations of

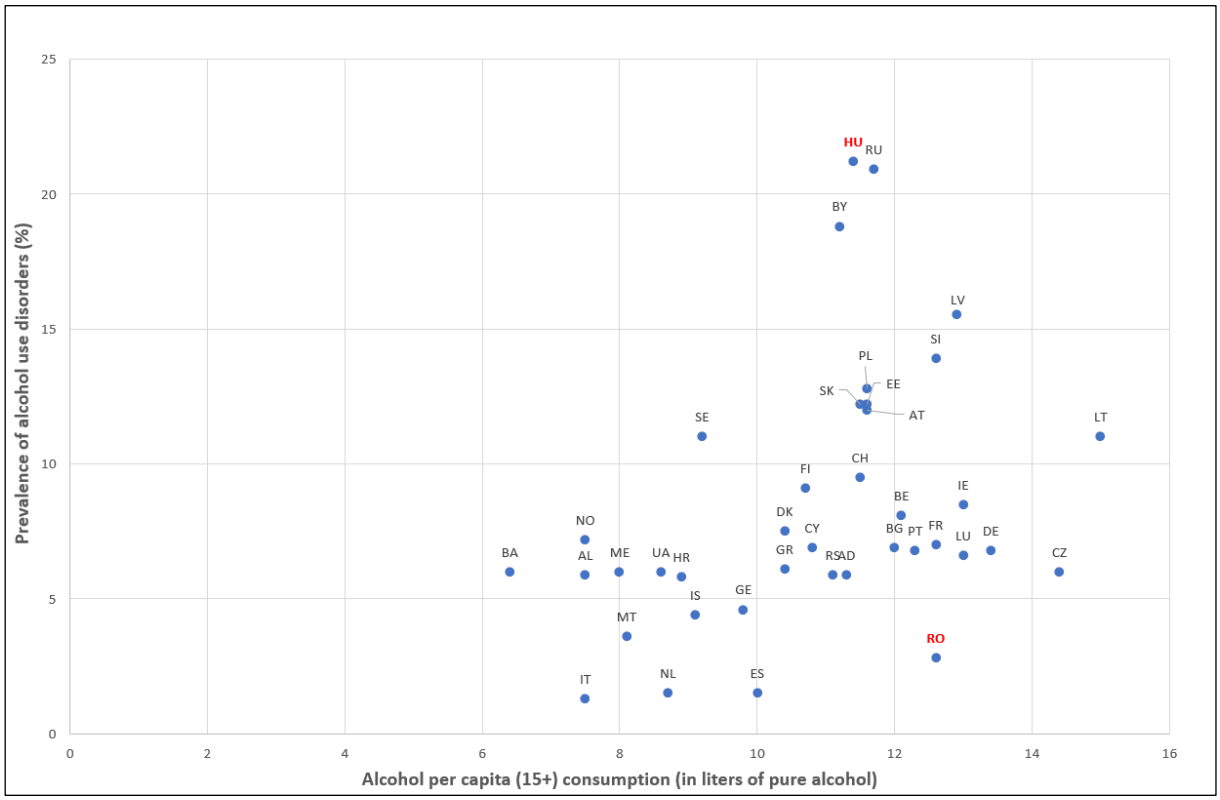
alcohol markets across borders since the spread of online marketing of alcohol poses challenges for nations to successfully enforce their own alcohol control policies and regulations. According to their report, 70% of media spending of US-based alcohol marketers in 2019 was through promotions, product placement and online advertisement in social media (WHO, 2022b). Since studies have shown that early drinking is a predictor of hazardous drinking (Connor et al., 2016) and given that this group is the most vulnerable to online marketing of alcohol (WHO, 2022b), their concern is rightly justified.

An alternative perspective on the high prevalence of alcohol use disorders is that, although investigating the causes and risk factors for these conditions is crucial, it is also critical to examine the identification process and treatment of those affected. In other words, if the healthcare system fails to identify these individuals or if available treatments are inadequate it may contribute to a nation's high incidence of alcohol use disorders. Schuckit (2009) reinforces this argument by stating that people with AUDs are hard to recognize since they are regular people having regular jobs and families and they usually present with general complaints such as insomnia, anxiety or sadness. Despite the availability of screening methods, a study showed that merely 1 in 6 American adults and 1 in 4 participants who admitted to binge drinking reported that a health professional had ever questioned them about their drinking habits (McKnight-Eily et al., 2014). Furthermore, the 2015 National Survey on Drug Use and Health report revealed that in America, only 8,3% of the 15,8 million adults received speciality alcohol treatment despite reporting they needed treatment for alcohol problems (Center for Behavioral Health Statistics and Quality, 2015). The results of these studies all confirm the observation of Connor and colleagues (2016) that alcohol use disorders are among the most undertreated conditions. The most important environmental factors influencing AUDs based on the academic literature have been presented, and in the following paragraph, I will take a closer look at the WHO’s categorization.

The World Health Organization (2022a) categorizes alcohol consumption patterns and the degree of alcohol-related problems (alcohol use disorders included) at the individual and societal levels. Societal factors include 1) level of economic development, 2) culture and social norms, 3) availability of alcohol and 4) implementation and enforcement of alcohol policies (WHO, 2022a). This categorization leaves some room for debate as availability of alcohol (3) is a separate category, but in the country report section of the Global status report on alcohol and health (WHO, 2018) "availability" is seen under "policies and interventions". Furthermore, the Preventing Harmful Alcohol Use report by the OECD (2021) also puts "availability" under the policies section, so it makes more sense for it to be considered under the implementation and enforcement of alcohol policies (4). On the other hand, individual variables include “age, gender, family circumstances and socioeconomic status” (WHO, 2022a). In both levels, low-income societies and individuals alike experience greater health and social harm from alcohol consumption (WHO, 2018). While acknowledging that individual factors should not be ignored from the risk of the development of alcohol use disorders, this research scrutinises and expands upon societal issues. The reason is that individual variables are already well-established and researched (Dube et al., 2002; Chartier et al., 2010; Magnusson, et al., 2010; Schuckit, 2009; Schuckit, 2006) compared to societal issues. To sum up, the three main categories of environmental risk factors for the development of alcohol use disorders are: **economic development, culture and social norms and implementation and enforcement of alcohol policies**.

Research Design

Table I: Prevalences of alcohol use disorders in terms of alcohol per capita consumption in Europe.



Source: Own table, data from the Global status report on alcohol and health (WHO, 2018).

I made this table using data from the World Health Organization (2018) to highlight the differences between AUDs levels in European countries. It seems clear that alcohol per capita consumption is not the lead cause in the prevalence of alcohol use disorders in a country. Based on the data (Table I), a most-similar case study design seems appropriate for testing the hypotheses with correspondence to the established theory (Seawright & Gerring, 2008). While Hungary (HU) is the leader in the proportion of people (21,2%) – with more than 1/5th of the total population – having alcohol use disorders, most nations in Europe do not experience this extreme level at all. With the most similar system design, Romania (RO) comes to light for comparison. Hungary and Romania are geographically close to each other (neighbours), their

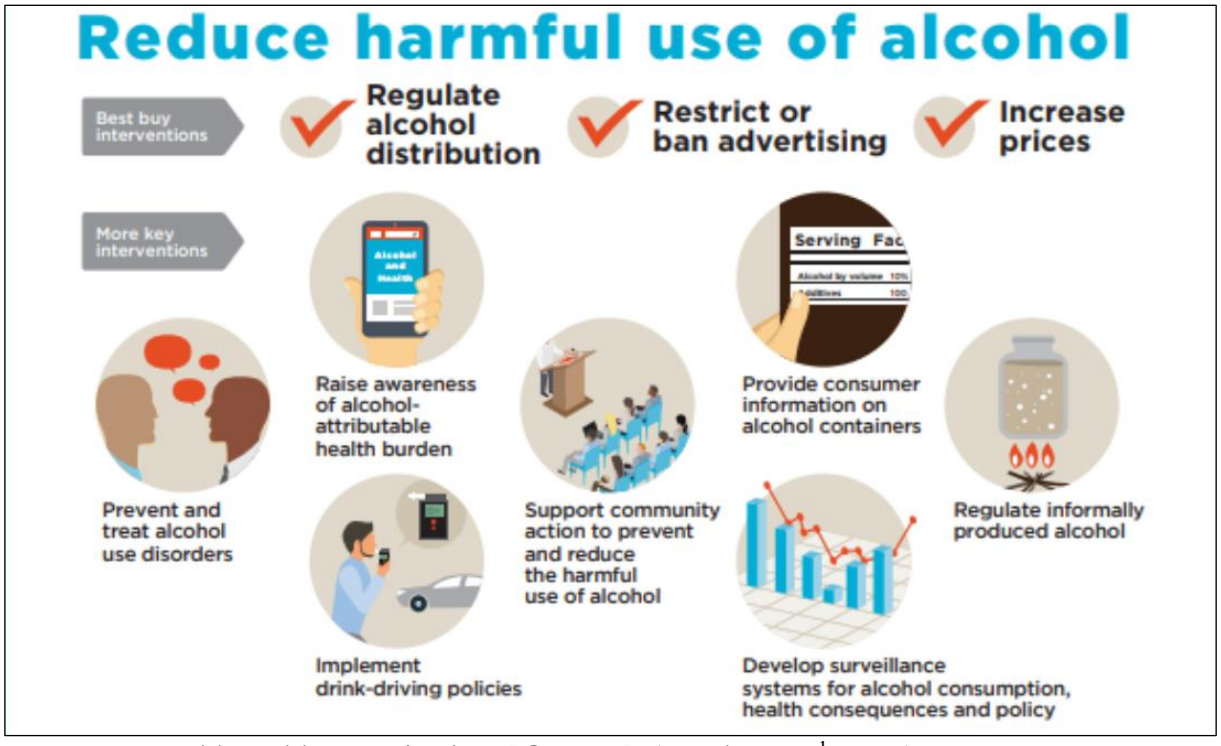
size and population density are comparable and their populations are considered ethnically (and culturally) homogenous. The most similar system design (Seawright & Gerring, 2008) is used in cross-case analyses, where cases (in this research countries) share remarkably similar attributes that might be relevant to the outcome (high level of alcohol use disorders). However, the cases differ, on one causal variable and the outcome. Therefore, it can be assumed that variance in the outcome is caused by the presence or absence of this specific variable (Seawright & Gerring, 2008). Since I established the three main environmental components (economic development, culture and social norms and implementation and enforcement of alcohol policies) that impact the development of AUDs, there is still some work to do before the analysis. Two out of the three core environmental causes (culture and social norms, and economic development) for AUDs can be held constant, meaning that they are still part of what is similar about the cases, but do not vary significantly.

The disparities between the two nations regarding the "culture and social norms" category should not account for significant differences in rates of alcohol use disorders between countries with similar ethnic populations, as I have demonstrated earlier (Center for Behavioral Health Statistics and Quality, 2022; Sudhinaraset et al., 2016; Caetano and Clark, 1999; LaBrie et al., 2013). In addition to that, since the cases are very similar in terms of economic development as well, it makes logical sense to focus and delve into alcohol control policy measures. This argument is further reinforced by the fact Connor et al. (2016) found that developing AUDs is more common in cultures where alcohol is "cheap, readily available, and heavily promoted" (Connor et al., 2016: 988). While Connor et al. discuss these factors in relation to culture, this research instead will focus on the alcohol control policies in the cases. While culture certainly can influence the establishment and enforcement of these policies, the space and time limit of this research do not allow for further discussion of this topic, which future research can resolve. Economic development here is understood by per capita gross domestic product at purchasing

power parity (GDP-PPP) (WHO, 2018; WHO, 2019) Based on data from the World Bank, in 2022 the GDP-PPP in Hungary was 43,660$ with Romania (43,240$) essentially being almost identical to its neighbour (World Bank, 2022). This reconfirms that the conditions are right for a most similar system design analysis, as the only variable being different across cases is the implementation of alcohol control policies (or simply just alcohol policies). While I acknowledge that there might be other factors as well, holding these variables constant (culture and social norms and economic development) allows the research to zoom in on the effects of different alcohol control policies.

The World Health Organization's (2018) Global status report on alcohol and health offers guidelines for action at all levels. It includes ten recommended target areas for policy options and interventions for national action aimed at reducing alcohol harm, as well as the main elements of global action intended to supplement and support national efforts in this regard. It is important to remember that, despite appearances, these regulations' primary aim is not to reduce the overall levels of alcohol consumption but rather to alter the harmful drinking habits that are inextricably linked to an increased risk of developing alcohol use disorders (WHO, 2018). In other words, I cannot state explicitly whether or not these alcohol control policies, if implemented well, decrease the prevalence of alcohol use disorders. However, reducing the harmful use of alcohol in a population by strengthening alcohol control policies, may subsequently affect the prevalence of alcohol use disorders (AUDs) (Babor, 2010; WHO, 2010).

Figure I. The WHO's 10 recommended policy areas to reduce the harmful use of alcohol.



Source: World Health Organization. [@WHO]. (October 22nd, 2018).

The categories are the following: (a) leadership, awareness and commitment, (b) health services' response, (c) community action, (d) drink-driving policies and countermeasures, (e) availability of alcohol, (f) marketing of alcoholic beverages, (g) pricing policies, (h) reducing the negative consequences of drinking and alcohol intoxication, (i) reducing the public health impact of illicit alcohol and informally produced alcohol, (j) monitoring and surveillance (WHO, 2010). Among these, raising taxes on alcoholic beverages (g), imposing comprehensive bans or restrictions on exposure to alcohol advertising across media (f), and imposing restrictions on the availability of retailed alcohol (e) are the most cost-effective measures, or so-called "best buys" (WHO, 2022a; WHO, 2010). These 3 policy measures have been extensively tested and have demonstrated strong empirical evidence of their effectiveness in reducing the negative effects of alcohol use – such as alcohol use disorders (WHO, 2018). Furthermore, the space limitations of this study do not allow for all 10 policy areas to be examined extensively. Instead, delving into the already well-established and evaluated best buy

policies, this study would potentially arrive at relevant and more importantly feasible implications for policy changes in the cases. Therefore, the research will focus on these three major categories and draw hypotheses from them, which are the following: 1) Raising taxes on alcoholic beverages decreases the harmful use of alcohol and subsequently decreases the likelihood of developing AUDs.; 2) imposing comprehensive bans or restrictions on exposure to alcohol advertising across media decreases the harmful use of alcohol and consequently decreases the risk of AUDs development; and 3) imposing restrictions on the availability of retailed alcohol lowers the use of alcohol in harmful ways, which decreases the prevalence alcohol use disorders. The research's added value is in its ability to identify particular policy measures that account for the striking disparity between the prevalence of AUDs in Hungary and Romania. Moreover, by potentially highlighting policy measures that could reduce the prevalence of alcohol use disorders among the countries studied, policy recommendations can be made on how to tackle this problem. Furthermore, since as many as 80% of alcohol-dependent people are regular smokers (Schuckit, 2009), lowering the number of alcohol use disorders can also reduce further health problems, not to mention other co-occurring mental illnesses and the societal costs associated with AUDs (Connor et al., 2016).

In this research, I will base my analysis on the contribution of (Connor et al., 2016, Schuckit, 2006, Schuckit, 2009; Anderson, 2009) with major intergovernmental publications and data sources (WHO, 2022a; WHO, 2010; WHO 2018; WHO, 2019; OECD, 2021) and empirical examinations of the impacts of alcohol control policies regarding Hungary and Romania. The measurement of these policies has to be discussed as well, in other words, how do I see (in practice) if a policy is adopted for reducing the risk of developing alcohol use disorders in a country? An observable implication of this would be, for instance, if one of the cases has a strict pricing policy for alcohol, and the other has looser regulations. Adopting regulations on alcohol sales by day and hour would be another implication in the category of availability (WHO,

2018). For a thorough understanding of the efficacy of these policy measures, it would be imperative to examine the specific laws and regulations as well as the degree of strictness and enforcement of the measures in both countries. Unfortunately, this is out of the scope of this research in terms of resources.

Analysis

1) Availability

Restricting physical access to alcohol is identified as a WHO "best buy," known for its effectiveness, cost-effectiveness and feasibility in not just high-, but in low- and middle-income countries as well (WHO, 2018). The literature shows that effective strategies to combat alcohol-related harms or harmful use of alcohol are for instance, regulations of hours, days and densities of alcohol outlets or raising the national legal age for consumption of alcohol (Anderson, 2009; Campbell et al., 2009; Popova et al., 2009; Sherk et al., 2018; Chisholm et al., 2018). Limiting the accessibility of alcohol lowers alcohol consumption and associated harm, especially in the case of vulnerable and high-risk groups, such as minors (WHO, 2019). Monopolies and licencing systems – in most cases a combination of both (WHO, 2018) – are the two models used for this limitation (Babor, 2010). Research found that monopolies are effective at reducing the amount of alcohol consumed by restricting the number of outlets as well as their opening hours while eliminating the incentive to maximize sales (Babor, 2010; Anderson, 2009). Governments that have complete control over all or a portion of the alcohol market – including import, manufacture, distribution, sales and export can be considered alcohol monopolies.

Table II. Monopolies

Monopolies (beer/wine/spirits)		
Policy/Country	**Hungary**	**Romania**
exports of alcoholic beverages	no/no/no	yes/yes/yes
imports of alcoholic beverages	no/no/no	no/no/no
production	no/no/no	yes/yes/yes
retail sales	no/no/no	yes/yes/yes

Source: World Health Organization. (2018). Global status report on alcohol and health.

Examining Hungary and Romania regarding availability sheds light on some differences between the approaches to tackling alcohol-related issues. Romania adopted monopolies on the export, production and retail sales of alcoholic beverages (beer, wine and spirits), with the exemption of import (Table II). On the other hand, Hungary has no governmental monopolies in any of these areas (WHO, 2018). This is a crucial difference, since government monopolies – although not total monopoly in Romania either – are an effective strategy to combat the harmful use of alcohol; and research shows that privatisation brings a higher density of outlets with longer hours, changes in the price of alcoholic beverages and an increase in overall consumption (Huckle et al., 2008).

Table III. Licensing requirements

Licensing requirements (beer/wine/spirits)		
Policy/Country	**Hungary**	**Romania**
exports of alcoholic beverages	no/no/no	no/no/no
imports of alcoholic beverages	no/no/no	no/no/no
production	no/no/no	yes/yes/yes
retail sales	no/no/no	yes/yes/yes
wholesale/distribution of alcoholic beverages	no/no/no	no/no/no

Source: World Health Organization. (2018). Global status report on alcohol and health.

While Romania has monopolies, they also implemented several licensing requirements regarding the sale of alcohol. Although, just as in the case of monopolies for the import of alcoholic beverages, it is not required to have a license for the import of alcohol in the country. Moreover, neither of these countries have licensing systems in place for export either. What is striking, is that Hungary has neither monopolies nor licencing systems implemented for the production and retail sale of beer, wine or spirits, while Romania does (Table II and Table III). Romania in this category seems to be more advanced with relatively tight control of both government monopolies and licensing systems, while Hungary lags in both areas. An increased density of alcohol outlets is also associated with increased amounts of alcohol consumption among young people, and since it has been established earlier in this research that the younger people start drinking, the more likely is for them to develop harmful patterns of drinking and possibly alcohol use disorders in the future (Anderson, 2009; Center for Behavioral Health

Statistics and Quality, 2022). It is important to recognize that even without government monopolies established, licensing systems for the sale and production of alcohol allow for control since these licenses can be revoked in the case of infringements (Anderson, 2009). However, the fees gained from licensing systems can lead to the proliferation of licensed establishments as a means to increase income for jurisdictions, which in turn increases overall alcohol consumption and its associated harm as well (Andreson, 2009).

Additionally, based on the findings of Wagenaar & Toomey (2000) there has been a noticeable decline in the number of fatal drunk driving accidents and other alcohol-related harm since laws requiring legal drinking age reductions have gone into effect. This argument was later supported by Anderson (2009), stating that raising the legal drinking age in the country lowers the negative effects of alcohol consumption, especially for young people and drivers who are intoxicated. The minimum age requirement for purchasing alcohol has been 18 in both Romania and Hungary for a long time, therefore this should not explain the variation in overall consumption, harmful patterns of drinking and the prevalence of AUDs between the two cases. While the WHO (2018) tried to gather information on the number of licenses issued since 2010 for production, retail sale and distribution, data is not available for either country. The next version of the "Global status report on alcohol and health" could offer some insights into this in the future, which would greatly benefit this topic and research.

Table IV. Selling on- and off-premise

Selling on- and off-premise (beer/wine/spirits)		
Policy/Country	**Hungary**	**Romania**
sales restrictions on days	no/no/no	no/no/no
sales restrictions on hours	no/no/no	no/no/no
sales restrictions on outlet density	no/no/no	no/no/no
sales restrictions on places	yes/yes/yes	no/no/no
sales restrictions at specific events	yes/yes/yes	yes/yes/yes
sales restrictions to intoxicated persons	yes/yes/yes	yes/yes/yes

Source: World Health Organization. (2018). Global status report on alcohol and health.

Regulating the hours, days and density of alcohol outlets further restricts physical availability (WHO, 2018; Anderson, 2009). However, when taking a closer look at how these countries control on-premise and off-premise alcohol sales (Table IV), it shows neither control for either restriction on days, hours and outlet density (WHO, 2018). Both Romania and Hungary placed restrictions on sales at specific events and serving intoxicated persons, and Hungary also initiated restrictions on places, while Romania lacks control in this category. Overall, regarding on- and off-premise alcohol sale control, Hungary has a slight edge over Romania, but both of them would benefit from more comprehensive measures.

2) Marketing Restrictions

A cost-effective way to minimise consumption and the harm it causes is to introduce bans or partial restrictions on advertisements (Anderson, 2009; Chisholm, 2018; WHO, 2018). One of the most effective ways to limit alcohol use, especially in youth, is to regulate the marketing of alcoholic beverages, including their content and volume (WHO, 2019). This is acknowledged as another WHO "best buy" policy action to lower noncommunicable illnesses, such as alcohol use disorders (WHO, 2019). In 2016, the Global Survey on Alcohol and Health requested that countries report on their national bans on the promotion of three categories of alcoholic beverages: beer, wine, and spirits. These bans apply to ten different media categories, including print, billboards, point-of-sale, movies, the Internet, and social media. The number of responding nations reporting "mid" or "very high" degrees of restriction has grown linearly since 2008, which is indicative of development in this area (WHO, 2018). If more nations move towards imposing limits, it further demonstrates the effectiveness of the strategy and the impact of the WHO. Countries reported on how they regulate alcohol marketing, including product placement on television and during sporting events, in addition to their prohibitions on alcohol advertising. Longitudinal studies repeatedly find that young people who are exposed to alcohol marketing are more likely to start drinking or, if already drinking, to drink more in harmful patterns (Anderson et al., 2009; Jernigan et al., 2016; WHO, 2019). These results are further supported by experimental studies (Rutger et al., 2009).

Table V. Advertising restrictions

Advertising restrictions		
Policy/Country	**Hungary**	**Romania**
national television/cable television (beer and wine)	Partial restriction content	Partial restriction content
national television/cable television (spirits)	Partial restriction content	Partial restriction place/content
national radio/local radio (beer and wine)	Partial restriction content	Partial restriction content
national radio/local radio (spirits)	Partial restriction content	Partial restriction place/content
in print media (beer)	Partial restriction content	Partial restriction place/content
in print media (wine and spirits)	Partial restriction content	Partial restriction place/content
on billboards (beer/wine/spirits)	Partial restriction place	Partial restriction content
at point-of-sale (beer/wine/spirits)	No restriction	Partial restriction content
on the internet (beer/spirits)	Partial restriction place/content	Partial restriction content
on the internet (wine)	Partial restriction place	Partial restriction content
on social media (beer/wine/spirits)	Partial restriction content	Partial restriction content

Source: World Health Organization. (2018). Global status report on alcohol and health.

While both countries have relatively strong laws regarding advertising limits and product placement restrictions (Table V and VI) in several categories, Romania seems to have stronger control over some of them. Highlighting the most significant differences, in terms of advertising restrictions on television, radio and print media for beer and wine, they both implemented partial restrictions; but for spirits, Romania also strengthened it by placing restrictions based on places as well. Interestingly, Hungary has no restrictions on advertisements at point-of-sale (bars or retail stores) while Romania does have partial bans on content at least. This could potentially be a major difference in the prevalence of alcohol use disorders since this policy affects people who are already (heavy) drinkers more, which in turn can influence the harmful patterns of consumption and the likelihood of developing AUDs (WHO, 2018; WHO, 2019; Anderson, 2009). Also important to mention that both cases have detection systems and penalties for marketing infringements in place, although it would be equally crucial to examine the enforcement of these policies in order to rate how effective these countries are in this policy area.

Table VI. Restriction on product placement

Restriction on product placement		
Policy/Country	**Hungary**	**Romania**
national television/cable television (beer/wine/spirits)	No restriction	Partial restriction content
in films/movies (beer/wine/spirits)	No restrictions	Partial restriction content

Source: World Health Organization. (2018). Global status report on alcohol and health.

Although Hungary has a tighter grip in terms of internet advertisements (place and content), they lack any restrictions on product placement on television and in films/movies compared to Romania, where they use partial restrictions of contents. In the Hungarian case, there seems to be a double standard since they implemented restrictions on alcohol advertisements on TV, but it has not been extended to product placements, which can be counterproductive and easily circumvented by the alcohol industry.

Table VII. Sponsorship

Sponsorship (beer/wine/spirits)		
Policy/Country	**Hungary**	**Romania**
sporting events	no restriction	partial restriction
youth events	no restriction	Ban

Source: World Health Organization. (2018). Global status report on alcohol and health.

A noticeable gap in policy strategies can be observed in the sponsorship (Table VII) of alcohol at events between the cases. While Hungary has no restrictions on sponsorship of sporting events or youth events, Romania banned all alcohol sponsorships regarding events for young

people and uses a partial restriction when it comes to sporting events. Young people are highly susceptible to such advertisements, and early drinking can increase the risk of developing AUDs later in life (Connor et al., 2016; Center for Behavioral Health Statistics and Quality, 2022), making this a significant distinction. Additionally, sporting events also attract youth, so it is equally important to tightly regulate them as well.

Table VIII. Sales promotion

Sales promotion (beer/wine/spirits)		
Policy/Country	**Hungary**	**Romania**
Restrictions on sales promotion from owners of pubs and bars	no restriction	Voluntary or self-restricted/no restriction/no restriction
Restrictions on sales promotion from producers (parties, events)	no restriction	Partial restriction/no restriction/no restriction
Restrictions on sales promotion from retailers (sales below cost) (beer/wine/spirits)	no restriction	Voluntary or self-restricted/no restriction/no restriction

Source: World Health Organization. (2018). Global status report on alcohol and health.

It is clear that in the case of Hungary, there is zero restriction for either sales promotion from owners of pubs and bars (2-for-1 sales, alcohol for free sales etc.), from producers (parties, events) or retailers (sales below cost) for beer, wine nor spirits (Table VIII). Romania is slightly ahead of Hungary in this regard as well, although they mainly focus on just beer. They

implemented a partial restriction on sales promotion from alcohol producers and bar owners as well as retailers voluntarily self-restrict but once again, only regarding beer. This is a major difference since it has been established in a systematic review of 13 countries that promotions increased heavier drinking and more harmful patterns of drinking among current users (Anderson, 2009b). Nevertheless, it is important to note that a study (Jones et al., 2008) indicates that these voluntary methods are ineffective in stopping marketing content that has an impact on young people.

3) Pricing

One of the best methods to cut down on the harmful use of alcohol is raising the price of alcohol (WHO, 2018; Chisholm, 2018). Increasing the price of alcoholic beverages is the third "best buy" strategy as considerable evidence demonstrates that the regulation of alcohol prices (taxation) or other policies such as minimum unit pricing decreases overall consumption and associated harm (WHO, 2019; Anderson 2009). Additionally, some research indicates that rising alcohol costs are associated with higher chances of completing secondary education and enrolling in and graduating from post-secondary education (WHO, 2010; Wagenaar, Salois & Komro, 2009; Elder et al., 2010; Xu & Chaloupka, 2011). The World Health Organization (2010) recommends that member states develop a system for targeted domestic taxation which takes into account the alcohol content of the beverage with an effective enforcement system in place. Furthermore, they urge nations to set minimum pricing for alcohol where appropriate, prohibit or restrict sales below cost and other price promotions, and frequently adjust their prices in response to inflation and income levels (WHO, 2018). Given that alcohol taxes are typically lower than their maximum potential for revenue generation and well below the social cost of alcohol (Anderson, 2006), raising taxes not only lowers alcohol consumption and the harm associated with it but also increases government revenue. In 2024, the total revenue of alcoholic drinks was 3210 million US dollars in Hungary, whereas in Romania it reached just

above 4,5 billion US$ (Statista, 2024). Anderson (2009) notes that because the demand for alcohol is somewhat inelastic to price, a rise in price causes a decrease in consumption that is less than the price increase. This also implies that it takes longer for these policy adjustments to take effect.

Table IX. Taxation measures

Taxation measures		
Policy/Country	**Hungary**	**Romania**
Excise tax on alcoholic beverages (beer/wine/spirits)	yes/yes/yes	yes/yes/yes
Level of taxation adjusted for inflation (beer/wine/spirits)	no/NA/no	yes/yes/yes
Duty paid or excise stamp on alcohol container (beer/wine/spirits)	no/no/yes	no/no/no
Value-added tax (VAT) on alcohol (%)	27%	20%
Taxation of ethanol production	no	yes
Ethanol tax deducted from excise tax	yes	no
Tax incentives for production of low/no alcohol content beer	no	no
Tax incentives for production of other alcoholic beverages	no	yes

Source: World Health Organization. (2018). Global status report on alcohol and health.

Price regulation aims to reduce overall alcohol consumption and it also plays a significant role in preventing alcohol-related risks by impacting consumer choices and halting the upward trend of heavy episodic drinking (WHO, 2019). Although almost all of the nations in the world impose excise taxes on alcohol, they fall short in terms of minimum prices, inflation-adjusted pricing, and bans and limitations (WHO, 2018). While both countries analysed have an excise tax on alcoholic beverages, Romania also implemented inflation-adjusted taxations compared to Hungary (Table IX). Although none of them have duty paid or excise stamps on alcoholic containers in terms of wine and beer, Hungary does with spirits. On the other hand, the Hungarian government did not implement a taxation of ethanol production, while Romania opted to do so. They are similar as well in value-added tax (VAT) on alcohol, with Romania having 20% and Hungary 27%. Neither of them has incentives for low or no alcohol content beer, however, Romania uses tax incentives for the production of other alcoholic beverages (e.g. locally produced beer like craft beer, wine or spirits). Nonetheless, the WHO does not explain how this would benefit (decrease) the overall consumption levels or its associated harm.

Findings and conclusion

This research aimed to answer the puzzling question of why there are significant disparities in terms of the prevalence of alcohol use disorders among countries with similar alcohol per capita consumption levels. With the use of the World Health Organization's "best buy" alcohol control policies and the contribution of the academic literature, this study examined availability, pricing, and marketing restrictions in Hungary and Romania, providing insight into the disparities between policies in the two countries (WHO, 2018). Concerning availability, Romania demonstrated more rigid regulations around both licensing requirements and government monopolies. While they had similar laws concerning on- and off-premise availability of alcohol with Hungary, the latter also had limits on certain places where alcoholic beverages could be sold. On the contrary, Romania is ahead of Hungary in terms of marketing

advertisements and product placement control, especially in sales promotion and product placement constraints. Point-of-sale restrictions (e.g. bars or retail stores) – in which Romania adopted some measures while Hungary lacks any – are seemingly not that important but can have a profound impact on regular and heavy drinkers, which in turn can affect alcohol use disorders. Romania also emphasises more on content and place restrictions both implemented together in some categories, while Hungary usually regulates one or the other. Another crucial difference can be found here regarding sponsorships, in which Hungary lacks control, whilst Romania adopted bans on youth, and partial restriction on sporting events. Young people are the most vulnerable to such advertisements and early drinking can increase the risk of developing AUDs later in life, which makes this a key difference (Connor et al., 2016). Pricing policies were similar between the two countries, although Hungary imposed higher VAT taxes and adopted additional regulations on spirits compared to Romania.

With that being said, it can be concluded based on the findings of this research that overall, Romania has a more comprehensive approach with a bit tighter control in terms of availability, and a much more stringent policy on marketing restriction, and the two countries are very similar in pricing policies. This is supported by the ranking of the OECD (2021), where Hungary has 2 and Romania has 4 points out of 5 regarding restrictions on the availability of alcohol and in the pricing policy category, both countries received the mark 3. For marketing restrictions, Romania got 3 points, while Hungary only scored 1. (OECD, 2021). The results illustrate that countries following the WHO's 'best buy' recommendations, such as stringent marketing restrictions, bear less burden associated with alcohol use. Adopting these regulations not only decreases the immediate health risks associated with alcohol but also – based on the findings of this paper – lowers the prevalence of alcohol use disorders. Moreover, since alcohol consumption brings further social costs (e.g.: criminal damage, and decreased productivity at work) with an additional economic burden of 1% of GDP-PPP in high- and middle-income

countries (Anderson, 2009; Casswell et al., 2009), the effectiveness of these guidelines and the indispensable contribution of international organizations in national policy-making is further validated.

The differences in the best buy policy areas examined – especially marketing restrictions – account for a significant amount of the disparity between the prevalences of alcohol use disorders in Hungary and Romania. In the best-buy policies, while in theory they should all be crucially important, some have greater effect than others. While pricing policies are remarkably similar with small differences and availability restrictions are more stringent in Romania, Hungary lacks crucial measures when it comes to marketing and product placement restrictions. Thus, it can be concluded that regulating the marketing and product placement of alcoholic beverages significantly reduces the harmful use of alcohol and subsequently, the level of alcohol use disorders between the two cases. However, the remaining 7 recommended policy areas would be equally important to deeply analyse to get the full picture of whether policy interventions are effective in tackling harmful use of alcohol and alcohol use disorders in the two countries studied. For example, closer attention would be crucial regarding the regulation of informally produced alcohol (i), since out of all alcohol consumed worldwide, one quarter (25,5%) accounts for unrecorded alcohol. While the WHO estimates only 12,4% of the total APC for the EU+, between 2010 and 2016, the relative increase of unrecorded alcohol consumption was +22,3% in the region (WHO, 2019). Illicit and informally produced alcohol are argued (Babor, 2010) to pose greater health risks than commercial alcohol and can lead to lost tax revenue and compromised alcohol control policies. Its low cost encourages binge and heavy drinking, which can potentially further increase the prevalence of alcohol use disorders in a nation (Babor, 2010; WHO, 2018).

The greatest limitation of this study is that it only examines the 3 "best buy" policies out of the 10 recommended areas for tackling the harmful use of alcohol due to the lack of resources. Additionally, the majority of the literature focuses on the harmful use of alcohol, and they do not look at how those regulations and laws affect the prevalence of alcohol use disorders specifically. This is due to the fact that it is difficult to isolate alcohol use disorders in the harmful use of alcohol and also control for them since they are greatly misconceptualized both professionally and in public settings (Morris, 2023). For this reason, while 2 hypotheses (availability and marketing regulations) formulated in the research are confirmed in terms of their effect on tackling the harmful use of alcohol, it cannot be explicitly proved that it has significant effects on the prevalence of alcohol use disorders. However, as mentioned previously in this study, since alcohol use disorders and harmful use of alcohol are deeply connected, it can be implied that a decline in harmful use of alcohol also presents a decreased likelihood of developing AUDs in the two countries presented. Also, to deeply evaluate these nations' effectiveness regarding these policy areas, it would be equally important to look at how these policies are enforced and what the laws and regulations state exactly in both cases. This requires much more resources, which may be further explored in future studies.

References

Agrawal, A., & Lynskey, M. T. (2008). Are there genetic influences on addiction: Evidence from family, adoption and twin studies. *Addiction*, *103*(7), 1069–1081. https://doi.org/10.1111/j.1360-0443.2008.02213.x

Anderson, P., & Baumberg, B. (2006). Alcohol in Europe - Public Health Perspective: Report summary. *Drugs: Education, Prevention & Policy, 13*(6), 483–488. https://doi.org/10.1080/09687630600902477.

Anderson, P., Chisholm, D., & Fuhr, D. C. (2009). Alcohol and Global Health 2 Effectiveness and cost-effectiveness of policies and programmes to reduce the harm caused by alcohol. *The Lancet (British Edition), 373*(9682), 2234–2246. https://doi.org/10.1016/S0140-6736(09)60744-3

Anderson, P., de Bruijn, A., Angus, K., Gordon, R., & Hastings, G. (2009). Impact of Alcohol Advertising and Media Exposure on Adolescent Alcohol Use: A Systematic Review of Longitudinal Studies. *Alcohol and Alcoholism (Oxford), 44*(3), 229–243. https://doi.org/10.1093/alcalc/agn115

Balázs, Zs. (2022). A középkorban víz helyett, a világégések idején stresszre, azóta minden ellen isszák az alkoholt Magyarországon. Qubit. Retrieved 1st of June, 2024 from: https://qubit.hu/2022/03/25/a-kozepkorban-viz-helyett-a-vilagegesek-idejen-stresszre-azota-minden-ellen-isszak-az-alkoholt-magyarorszagon

Casswell, S., & Thamarangsi, T. (2009). Reducing harm from alcohol: call to action. *The Lancet (British Edition), 373*(9682), 2247–2257. https://doi.org/10.1016/S0140-6736(09)60745-5

Center for Behavioral Health Statistics and Quality. (2016). 2015 National Survey on Drug Use and Health: Detailed Tables. Substance Abuse and Mental Health Services Administration, Rockville, MD.

Center for Behavioral Health Statistics and Quality. (2022). 2022 National Survey on Drug Use and Health: Detailed Tables. Substance Abuse and Mental Health Services Administration, Rockville, MD.

Caetano, R., & Clark, C. L. (1999). Trends in situational norms and attitudes toward drinking among whites, blacks, and hispanics: 1984–1995. *Drug and Alcohol Dependence, 54*(1), 45–56. https://doi.org/10.1016/S0376-8716(98)00148-3

Campbell, C. A., Hahn, R. A., Elder, R., Brewer, R., Chattopadhyay, S., Fielding, J., Naimi, T. S., Toomey, T., Lawrence, B., & Middleton, J. C. (2009). The Effectiveness of Limiting Alcohol Outlet Density As a Means of Reducing Excessive Alcohol Consumption and Alcohol-Related Harms. *American Journal of Preventive Medicine, 37*(6), 556–569. https://doi.org/10.1016/j.amepre.2009.09.028

Chartier, K. G., Hesselbrock, M. N., & Hesselbrock, V. M. (2010). Development and Vulnerability Factors in Adolescent Alcohol Use. *Child and Adolescent Psychiatric Clinics of North America*, *19*(3), 493–504. https://doi.org/10.1016/j.chc.2010.03.004

Chisholm, D., Moro, D., Bertram, M., Pretorius, C., Gmel, G., Shield, K., & Rehm, J. (2018). Are the "Best Buys" for Alcohol Control Still Valid? An Update on the Comparative Cost-Effectiveness of Alcohol Control Strategies at the Global Level. *Journal of Studies on Alcohol and Drugs, 79*(4), 514–522. https://doi.org/10.15288/jsad.2018.79.514

Connor, J. P., Haber, P. S., & Hall, W. D. (2016). Alcohol use disorders. *The Lancet (British Edition), 387*(10022), 944–944. https://doi.org/10.1016/S0140-6736(15)00122-1

Dube, S. R., Anda, R. F., Felitti, V. J., Edwards, V. J., & Croft, J. B. (2002). Adverse childhood experiences and personal alcohol abuse as an adult. *Addictive Behaviors, 27*(5), 713–725. https://doi.org/10.1016/S0306-4603(01)00204-0

European Monitoring Centre for Drugs and Drug Addiction. (2017). European Drug Report 2017: Trends and Developments, *Publications Office of the European Union,* Luxembourg.

Elder, R. W., Lawrence, B., Ferguson, A., Naimi, T. S., Brewer, R. D., Chattopadhyay, S. K., Toomey, T. L., & Fielding, J. E. (2010). The Effectiveness of Tax Policy Interventions for Reducing Excessive Alcohol Consumption and Related Harms. *American Journal of Preventive Medicine, 38*(2), 217–229. https://doi.org/10.1016/j.amepre.2009.11.005

Huckle, T., Huakau, J., Sweetsur, P., Huisman, O., & Casswell, S. (2008). Density of alcohol outlets and teenage drinking: living in an alcogenic environment is associated with higher consumption in a metropolitan setting. *Addiction (Abingdon, England), 103*(10), 1614–1621. https://doi.org/10.1111/j.1360-0443.2008.02318.x

Jernigan, D., Noel, J., Landon, J., Thornton, N., & Lobstein, T. (2017). Alcohol marketing and youth alcohol consumption: a systematic review of longitudinal studies published since 2008. *Addiction (Abingdon, England), 112*(S1), 7–20. https://doi.org/10.1111/add.13591

Jones, S. C., Hall, D., & Munro, G. (2008). How effective is the revised regulatory code for alcohol advertising in Australia? *Drug and Alcohol Review, 27*(1), 29–38. https://doi.org/10.1080/09595230701499175

LaBrie, J. W., Atkins, D. C., Neighbors, C., Mirza, T., & Larimer, M. E. (2012). Ethnicity specific norms and alcohol consumption among Hispanic/Latino/a and Caucasian students. *Addictive Behaviors, 37*(4), 573–576. https://doi.org/10.1016/j.addbeh.2012.01.007

Li, D., Zhao, H., & Gelernter, J. (2012). Strong protective effect of the aldehyde dehydrogenase gene (ALDH2) 504lys (2) allele against alcoholism and alcohol-induced medical diseases in Asians. *Human Genetics, 131*(5), 725–737. https://doi.org/10.1007/s00439-011-1116-4

Magnusson, Å., Göransson, M., & Heilig, M. (2010). Early onset alcohol dependence with high density of family history is not "male limited." *Alcohol (Fayetteville, N.Y.), 44*(2), 131–139. https://doi.org/10.1016/j.alcohol.2010.01.001

Mayfield, R. D., Harris, R. A., & Schuckit, M. A. (2008). Genetic factors influencing alcohol dependence. *British Journal of Pharmacology, 154*(2), 275–287. https://doi.org/10.1038/bjp.2008.88

McKnight-Eily, L. R., Liu, Y., Brewer, R. D., Kanny, D., Lu, H., Denny, C. H., Balluz, L., & Collins, J. (2014). Vital Signs: Communication Between Health Professionals and Their Patients About Alcohol Use — 44 States and the District of Columbia, 2011. *MMWR. Morbidity and Mortality Weekly Report, 63*(1), 16–22.

Morris, J., Boness, C. L., & Burton, R. (2023). (Mis)understanding alcohol use disorder: Making the case for a public health first approach. *Drug and Alcohol Dependence, 253*, 111019–111019. https://doi.org/10.1016/j.drugalcdep.2023.111019

National Institute on Alcohol Abuse and Alcoholism. (2020). Alcohol's Effects on Health - Understanding Alcohol Use Disorder. Retrieved 1st of June, 2024 from: https://www.niaaa.nih.gov/publications/brochures-and-fact-sheets/understanding-alcohol-use-disorder

OECD. (2021). Preventing harmful alcohol use. In OECD Health Policy Studies Preventing Harmful Alcohol Use. OECD Publishing.

Paksi, B. & Demetrovics, Zs. (2021). Addiktológiai problémák Magyarországon. Helyzetkép a lakossági kutatások tükrében. RendszerTan - Addiktológiai elméletek és kutatások, ELTE PPK - LHarmattan Kiadó, Budapest.

Park, S. H., & Kim, D. J. (2020). Global and regional impacts of alcohol use on public health: Emphasis on alcohol policies. *Clinical and Molecular Hepatology, 26*(4), 652–661. https://doi.org/10.3350/cmh.2020.0160

Popova, S., Giesbrecht, N., Bekmuradov, D., & Patra, J. (2009). Hours and Days of Sale and Density of Alcohol Outlets: Impacts on Alcohol Consumption and Damage: A Systematic Review. *Alcohol and Alcoholism (Oxford), 44*(5), 500–516. https://doi.org/10.1093/alcalc/agp054

Seawright, J., & Gerring, J. (2008). Case Selection Techniques in Case Study Research: A Menu of Qualitative and Quantitative Options. *Political Research Quarterly, 61*(2), 294–308. https://doi.org/10.1177/1065912907313077

Schuckit, M. A. (2006). Drug and Alcohol Abuse: *A Clinical Guide to Diagnosis and Treatment* (6. Aufl.). Springer Science + Business Media.

Schuckit, M. A. (2009). Alcohol-use disorders. *The Lancet (British Edition),* 373(9662), 492–501. https://doi.org/10.1016/S0140-6736(09)60009-X

Sherk, A., Stockwell, T., Chikritzhs, T., Andréasson, S., Angus, C., Gripenberg, J., Holder, H., Holmes, J., Mäkelä, P., Mills, M., Norström, T., Ramstedt, M., & Woods, J. (2018). Alcohol Consumption and the Physical Availability of Take-Away Alcohol: Systematic Reviews and Meta-Analyses of the Days and Hours of Sale and Outlet Density. *Journal of Studies on Alcohol and Drugs, 79*(1), 58–67. https://doi.org/10.15288/jsad.2018.79.58

Statista. (2024). Alcoholic Drinks – Hungary. Retrieved 3rd of June, 2024 from: https://www.statista.com/outlook/cmo/alcoholic-drinks/hungary

Statista (2024). Alcoholic Drinks – Romania. Retrieved 3rd of June, 2024 from: https://www.statista.com/outlook/cmo/alcoholic-drinks/romania

Sudhinaraset, M., Wigglesworth, C., & Takeuchi, D. T. (2016). Social and Cultural Contexts of Alcohol Use: Influences in a Social-Ecological Framework. *Alcohol Research, 38*(1), 35–45.

Teesson, M., Baillie, A., Lynskey, M., Manor, B., & Degenhardt, L. (2006). Substance use, dependence and treatment seeking in the United States and Australia: A cross-national comparison. *Drug and Alcohol Dependence, 81*(2), 149–155. https://doi.org/10.1016/j.drugalcdep.2005.06.007

Babor TF, Babor T, Caetano R, Casswell S, Edwards G, Giesbrecht N et al. (2010). Alcohol: no ordinary commodity: research and public policy (2). New York (NY): Oxford University Press

Verhulst, B., Neale, M. C., & Kendler, K. S. (2015). The heritability of alcohol use disorders: a meta-analysis of twin and adoption studies. *Psychological Medicine, 45*(5), 1061–1072. https://doi.org/10.1017/S0033291714002165

Wagenaar, A. C., & Toomey, T. L. (2000). Alcohol Policy: Gaps between Legislative Action and Current Research. *Contemporary Drug Problems, 27*(4), 681–733. https://doi.org/10.1177/009145090002700402

Wagenaar, A. C., Salois, M. J., & Komro, K. A. (2009). Effects of beverage alcohol price and tax levels on drinking: a meta-analysis of 1003 estimates from 112 studies. *Addiction (Abingdon, England), 104*(2), 179–190. https://doi.org/10.1111/j.1360-0443.2008.02438.x

World Bank. (2022). GDP per capita, PPP. Retrieved 15th of May, 2024 from: https://data.worldbank.org/indicator/NY.GDP.MKTP.CD

World Health Organization (2010). Global strategy to reduce the harmful use of alcohol. Geneva: World Health Organization.

World Health Organization. (2018). Global status report on alcohol and health. Geneva: World Health Organization.

World Health Organization. [@WHO]. (2018, October 22.). Proven, cost-effective actions to reduce the health and social costs of the harmful use of #alcohol incl. increasing taxes on alcoholic drinks. [Tweet]. X. Available at: https://x.com/WHO/status/1043285557441441794 (Accessed 6th of June 2024).

World Health Organization. (2022). Reducing the harm from alcohol by regulating cross-border alcohol marketing, advertising and promotion A technical report. Geneva: World Health Organization.

World Health Organization Regional Office for Europe. (2019). Status report on alcohol consumption, harm and policy responses in 30 European countries 2019. Geneva: World Health Organization.

World Health Organization. (2022a). Alcohol. Retrieved 5th of May, 2024 from: https://www.who.int/news-room/fact-sheets/detail/alcohol

World Health Organization (WHO). (2022b). WHO highlights glaring gaps in regulation of alcohol marketing across borders. Retrieved 5th of May, 2024 from: https://www.who.int/news/item/10-05-2022-who-highlights-glaring-gaps-in-regulation-of-alcohol-marketing-across-borders

Xu, X., & Chaloupka, F. J. (2011). The effects of prices on alcohol use and its consequences. *Alcohol Research: Current Reviews, 34*(2), 236–245.