Alcohol in Europe: Health, social and economic impact

Peter Anderson and Ben Baumberg

At the time when the European Commission has been preparing its own strategy on alcohol to cover the full range of activity that takes place at a European level,1 it also called for an analysis of the health, social and economic impact of alcohol in Europe. The report, Alcohol in Europe,2 published by the Commission at the beginning of June 2006, views alcohol policy as “serving the interests of public health and social well-being through its impact on health and social determinants”, itself embedded in a public health framework, a process to “mobilise local, state, national and international resources to ensure the conditions in which people can be healthy”. The main findings of the report are reproduced here.

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Alcohol and the economy of Europe

Europe plays a central role in the global alcohol market, acting as the source of a quarter of the world’s alcohol, and over half of the world’s wine production. Although the majority of EU alcohol trade is between EU countries, the trade in alcohol contributes around €9 billion to the goods account balance for the EU as a whole.

The economic role of the alcoholic drinks industry is also considerable in many European countries. Alcohol excise duties in the older EU-15 countries amounted to €25 billion in 2001, excluding sales taxes and other taxes paid within the supply chain – although €1.5 billion is given back to the supply chain through the Common Agricultural Policy. Due to the relative inelasticity of the demand for alcohol, the average tax rates are a much better predictor of a government’s tax revenue than the level of alcohol consumption in a country.

Alcohol is also associated with a number of jobs, including over three-quarters of a million in drinks production (mainly wine). Further jobs are also related to alcohol elsewhere in the supply chain, for example, in pubs or shops. However, the size of the industry is not a good guide to the economic impact of alcohol policies – for example, trends in alcohol consumption show no crude correlation with trends in the number of jobs in associated areas such as hotels, restaurants and bars, suggesting that the effect of changes in consumption may be relatively weak.

Based on a review of existing studies, the total tangible cost of alcohol to EU society in 2003 was estimated to be €125 billion as illustrated in Figure 1. This is equivalent to €650 per household per year. If a value was placed on alcohol-related pain, suffering and life itself, then these costs would be much higher still.

The use of alcohol in Europe

The EU is the heaviest drinking region of the world, although the eleven litres of pure alcohol drunk per adult each year is still a substantial fall from a peak of fifteen litres in the mid-1970s. The last forty years has also seen a harmonisation in consumption levels, with rises in central and northern Europe between 1960 and 1980, met by a consistent fall in southern Europe. Most Europeans drink

Peter Anderson is an international public health consultant and is the alcohol policy advisor to Eurocare, the European Alcohol Policy Alliance.

Ben Baumberg is Policy and Research Officer, Institute of Alcohol Studies, London, England.

Email: PDAnderson@compuserve.com

References

alcohol, but fifty-five million adults (15%) abstain; taking this and unrecorded consumption into account, the consumption per drinker reaches fifteen litres per year.

Drinking to drunkenness varies across Europe, with fewer southern Europeans than others reporting getting drunk each month. This difference is reduced when ‘binge-drinking’, a measure of drinking beyond a certain number of drinks in a single occasion, is instead investigated, suggesting that there are systematic differences in people’s willingness to report being intoxicated. Summing up across the older EU-15 countries, adults report getting drunk five times per year on average but binge-drink (5+ drinks on a single occasion) seventeen times. This is equivalent to 40 million EU-15 citizens ‘drinking too much’ monthly and 100 million (one in three) binge-drinking at least once a month.

While 266 million adults drink alcohol up to 20 grammes (g) (two drinks for women) or 40g (four drinks for men) per day, over 58 million adults (15%) consume above this level, with 20 million of these (6%) drinking over 40g (women) or 60g (six drinks for men) per day. Some 23 million Europeans (5% of men, 1% of women) are dependent on alcohol in any one year.

Nearly all 15–16 year old students (over 90%) have drunk alcohol at some point in their life, on average beginning to drink at 12.5 years of age, and getting drunk for the first time at 14 years old. The average amount drunk on a single occasion by 15–16 year olds is over 60g (six drinks) of alcohol. Over one in eight (13%) of 15–16 year olds have been drunk more than twenty times in their life, and more than one in six (18%) have ‘binged’ (5+ drinks on a single occasion) three or more times in the last month. Most countries show a rise in binge drinking for boys between 1995 or 1999 and 2003, and nearly all countries show this for girls.

The impact of alcohol on individuals
Harms done by someone else’s drinking range from social nuisances, such as being kept awake at night, through more serious consequences such as marital harm, child abuse, crime, violence and homicide. Generally the higher the level of alcohol consumption, the more serious is the crime or injury.

Apart from being a drug of dependence, alcohol is a cause of some sixty different types of diseases and conditions, including injuries, mental and behavioural disorders, gastrointestinal conditions, cancers, cardiovascular diseases, immunological disorders, lung diseases, skeletal and muscular diseases, reproductive disorders and pre-natal harm, including an increased risk of prematurity and low birth weight. For most conditions, alcohol increases the risk in a dose dependent manner, with the higher the alcohol consumption, the greater the risk. The frequency and volume of episodic heavy drinking are of particular importance for increasing the risk of injuries and certain cardiovascular diseases (coronary heart disease and stroke).

A small dose of alcohol consumption reduces the risk of coronary heart disease, although the exact size of the reduction in risk and the level of alcohol consumption at which the greatest reduction occurs are still debated. Better quality studies that account for other influences find less of a reduced risk than poorer quality studies and find that the reduced risk occurs at a lower level of alcohol consumption. Most of the reduction in risk can be achieved by an average of 10g of alcohol (one drink) every other day. Beyond 20g of alcohol (two drinks) a day – the level of alcohol consumption with the lowest risk – the risk of coronary heart disease increases. In very old age, the reduction in risk is less. It is alcohol that mainly reduces the risk of heart disease rather than any specific beverage type.

The impact of alcohol on Europe
Looking from a social perspective, seven million adults reported being in fights when drinking over the past year, with the economic cost of alcohol-attributable crime estimated to be €32 billion in the EU in 2003. Based on our review of national costing studies, lost productivity due to alcohol-attributable absenteeism and unemployment has been estimated to cost €23 billion in 2003.

Looking from a health perspective, alcohol is responsible for 12% of male and 2% of female premature death and disability, after accounting for health benefits. This makes alcohol the third highest of twenty-six risk factors for ill-health in the EU, ahead of overweight/obesity and behind only tobacco and high blood pressure.

This health impact includes 17,000 deaths per year due to road traffic accidents (one in three of all road traffic fatalities), 27,000 accidental deaths, 2,000 homicides (four in ten of all murders and manslaughters), 10,000 suicides (one-sixth of all suicides), 45,000 deaths from liver cirrhosis, 50,000 cancer deaths, of which 11,000 are female breast cancer deaths, and 17,000 deaths due to neuropsychiatric conditions as well as 200,000 episodes of depression. Young people shoulder a disproportionate amount of this burden, with over 10% of youth female mortality and around 25% of youth male mortality being due to alcohol.

Figure 1: Social Cost of Alcohol to Europe

Source: Anderson P, Baumberg B, 2006.2
Between countries, alcohol plays a considerable role in the lowered life expectancy in the EU-10 compared to the EU-15, with the alcohol-attributable gap in crude death rates estimated at 90 (men) and 60 (women) per 100,000 population. Within countries, many of the conditions underlying health inequalities are associated with alcohol, although the exact condition may vary (for example, cirrhosis in France, violent deaths in Finland).

Many of the harms caused by alcohol are borne by people other than the drinker, including 60,000 underweight births, 16% of cases of child abuse and neglect, and seven million children living in families adversely affected by alcohol. Moreover, 10,000 deaths in drink-driving accidents occur to people other than the drinker.

Natural experiments and time-series analyses show that the health burden from alcohol is related to changes in consumption. These changes reflect the behaviour of the heaviest drinkers more than lighter drinkers (given that for example, the top 10% of drinkers account for one-third to one-half of total consumption in most countries), but also tap into the wider tendency for populations to change their levels of consumption collectively.

**The impact of alcohol policy options**

The drinking-driving policies that are highly effective include random breath testing, lowered blood alcohol concentration (BAC) levels, license suspension, and lower BAC levels for young drivers. The limited evidence does not find an impact from designated driver and safe drive programmes. Alcohol locks can be effective as a preventive measure, but as a measure with drink driving offenders, they only work as long as they are fitted to a vehicle.

The impact of policies that support education, communication, training and public awareness is low. Although the reach of school-based educational programmes can be high because of the availability of captive audiences in schools, the population impact of these programmes is small due to their current limited, or lack of, effectiveness. On the other hand, mass media programmes have a particular role to play in reinforcing community awareness of the problems created by alcohol use and also in preparing the ground for specific interventions.

There is very strong evidence for the effectiveness of policies that regulate the alcohol market in reducing the harm done by alcohol. Alcohol taxes are particularly important in targeting young people and the harms done by alcohol in all countries. If alcohol taxes were used to raise the price of alcohol in the EU-15 by 10%, over 9,000 deaths would be prevented during the following year and approximately €13 billion of additional excise duty revenues would also be gained. The evidence shows that if opening hours for the sale of alcohol are extended, then more violent harm results.

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Restricting the volume and content of commercial communications of alcohol products is likely to reduce harm. Advertisements have a particular impact in promoting a more positive attitude to drinking amongst young people. Self-regulation of commercial communications by the beverage alcohol industry does not have a good track record for being effective.

There is growing evidence for the impact of strategies that alter the drinking context in reducing the harm done by alcohol. However, these strategies are primarily applicable to drinking in bars and restaurants, and their effectiveness relies on adequate enforcement. Passing a minimum drinking age law, for instance, will have little effect if it is not backed up with a credible threat to remove the licenses of outlets that repeatedly sell to the under-aged. Such strategies are also more effective when backed up by community based prevention programmes. There is extensive evidence for the impact of brief advice, particularly in primary care settings, in reducing harmful alcohol consumption.

**European and global alcohol policy**

The ability of countries to implement effective alcohol policy is greatly affected by the trade law of the European Union (EU). Most of the cases relating to alcohol stem from the ‘national treatment’ rule on taxation, which means that states are forbidden from discriminating – either directly or indirectly – in favour of domestic goods against those from elsewhere in the EU. In contrast, the increasingly influential European Court of Justice (ECJ) has unambiguously supported advertising bans in Catalonia and France, accepting that “it is in fact undeniable that advertising acts as an encouragement to consumption”.

Standardised excise duties are a long-standing goal of the EU in order to reduce market distortions, where large differences in tax rates between nearby countries lead to large amounts of shopping abroad. This leads to lost revenue for the high-tax government, as well as creating pressure to lower taxation rates, as has occurred in some of the Nordic countries. The production of alcoholic drinks in the form of wine receives €1.5 billion worth of support each year through the Common Agricultural Policy (CAP). The economic and political importance of these subsidies, and in particular, the problems of wine producers, makes it hard to progress from a public health perspective.

**Member State alcohol policy**

Every country in the EU has a number of laws and other policies that set alcohol apart from other goods traded in its territory, often for reasons of public health. When the different policy areas are combined into a single scale, the overall strictness of alcohol policy ranges from 5.5 (Greece) to 17.7 (Norway) out of a possible maximum of 20, with an average of 10.8 (See Figure 2). This picture of alcohol policy is very different from the one visible fifty years ago, with the overall levels of policy now much closer together, largely due to the increased level of policy in many countries, particularly in the area of drink-driving where all countries have a legal limit. Marketing
controls, minimum ages to buy alcohol, and public policy structures to deliver alcohol policy are also much more common in 2005 than in 1950.

Recommendations

The full report makes eighteen general recommendations to support alcohol policy, followed by thirty-four specific alcohol policy recommendations. Key recommendations to support alcohol policy include:

- An alcoholic beverage could be defined as any beverage with more than 0.5% alcohol by volume.
- A European Alcohol Monitoring Centre (EAMC) should be established and financed.
- Action plans on alcohol with clear objectives, strategies and targets should be formulated and implemented.
- Studies should be undertaken to determine how comity* of countries in relation to alcohol policy can be strengthened.

In terms of specific alcohol policy five key recommendations can also be outlined:

- A maximum blood alcohol concentration limit of 0.5g per litre should be introduced throughout Europe; countries with existing lower levels should not increase them.
- Media campaigns should be used to inform and raise awareness among citizens on implementation of policy initiatives.
- Containers of alcoholic products should carry warnings describing the harmful effects of alcohol when driving or operating machinery, and during pregnancy.
- Minimum tax rates for all alcoholic beverages should be increased in line with inflation, and should be at least proportional to the alcoholic content of all beverages that contain alcohol.
- Adequate policing and enforcement of alcohol sales and licensing laws should be implemented.
- Resources should be made available to ensure the widespread availability and accessibility of identification and advice programmes for hazardous and harmful alcohol consumption and alcohol dependence.

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