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TECHNICAL REPORT

Reducing alcohol harm

International benchmark

Lila Rabinovich, Jan Tiessen, Barbara Janta,
Annalijn Conklin, Joachim Krapels, Christian van Stolk

Prepared for the UK National Audit Office

The research described in this report was prepared for the UK National Audit Office.

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Preface

The National Audit Office (NAO) of the United Kingdom commissioned RAND Europe to examine the structure and effectiveness of healthcare interventions aimed at preventing and reducing alcohol harm in a selected number of countries. The countries selected were Australia, Canada, Germany, the Netherlands and the United States.

The objective of the research is to inform the work of the NAO in the area of the prevention and reduction of alcohol harm in healthcare interventions in England. Through this research, the NAO aims to understand the effectiveness of the interventions used in England and identify interesting and effective practices in other countries that could be transferable to the English context and inform the country's alcohol strategy.

This report contains four main sections. In Chapter 2, this report sets out the main international statistics on alcohol harm, including comparative data on alcohol consumption, the prevalence of heavy and binge drinking, and data on alcohol-related mortality and morbidity. In Chapter 3, the study describes the main features of the healthcare systems and strategies of the selected countries. In Chapters 4 and 5, the report describes international evidence of the effectiveness of healthcare and non-healthcare interventions aimed at alcohol harm, respectively. In order to come to the conclusions in this report, we used a document review of the available information on the organization of the healthcare system and interventions aimed at alcohol harm in the selected countries; analysed the data on alcohol harm; and reviewed the international evidence on the effectiveness of interventions aimed at preventing alcohol harm. We also undertook telephone interviews and e-mail exchanges with a variety of experts in the area of alcohol harm in the selected countries.

This report is likely to be of interest to other Supreme Audit Institutions (SAI), public health officials, and officials and academics involved in alcohol policy and strategy.

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Contents

Preface.....	iii
Table of Figures.....	vii
Table of Tables.....	ix
Executive summary.....	xi
Acknowledgments.....	xv
CHAPTER 1 Introduction	1
1.1 Context and objectives of the study	1
1.2 Structure of the report.....	4
CHAPTER 2 International comparative data on alcohol consumption and harm	5
2.1 Introduction.....	5
2.2 Alcohol consumption	5
2.3 Heavy and binge drinking	7
2.4 Morbidity and mortality.....	13
2.5 Social and economic cost of alcohol harm.....	17
2.6 Conclusions.....	20
CHAPTER 3 Healthcare systems and national alcohol strategies	21
3.1 Introduction.....	21
3.2 Healthcare systems	21
3.3 National strategies	22
3.4 The provision of services to reduce alcohol harm	25
3.5 Funding interventions to reduce alcohol harm.....	32
CHAPTER 4 Prevention and treatment of alcohol problems in healthcare systems	37
4.1 Introduction.....	37
4.2 Screening.....	37
4.3 Brief interventions.....	39
4.4 Specialist services for the treatment of alcohol problems	42
4.5 Education and awareness campaigns.....	45
4.6 Other relevant initiatives	46

CHAPTER 5	Non-health interventions to prevent and reduce alcohol harms	49
5.1	Pricing and taxation.....	49
5.2	Regulating physical availability of alcohol.....	50
5.3	Minimum legal drinking age.....	52
5.4	Drink-driving counter-measures.....	53
5.5	School-based interventions.....	56
5.6	Advertising bans and counter-advertising.....	57
CHAPTER 6	Comparative analysis – Lessons for alcohol policy from international evidence.....	59
REFERENCES.....		63
Reference list.....		64
Appendices.....		71
Appendix A: Methodology.....		72
Appendix B: Data extraction template.....		74

Table of Figures

Figure 1: Total average alcohol consumption per person per year (in litres of alcohol) for selected OECD countries.....	6
Figure 2: National alcohol strategies.....	23
Figure 3: Locations where ‘past year substance use treatment’ was received by people aged 12 or older: 2006 in the USA	43

Table of Tables

Table 1: Percentage of heavy drinking among men and women in selected countries	8
Table 2: Percentage of binge drinking among men and women in selected countries	9
Table 3: Percentage of alcohol consumers among the young people of selected countries	11
Table 4: Percentage of binge drinking among the young people of selected countries.....	12
Table 5: Alcohol dependency in selected countries (current)	14
Table 6: Alcohol-related total deaths and hospitalizations in selected countries	15
Table 7: Acute and chronic mortality 2004 SDR (age-standardized death rates) per 100,000 in selected countries.....	16
Table 8: Social and economic costs of alcohol abuse in selected countries	18
Table 9: Direct and indirect costs of alcohol-associated diseases in Germany.....	19
Table 10: Key features of healthcare systems	22
Table 11: Common alcohol-screening instruments in medical settings.....	38
Table 12: Minimum legal drinking age, selected countries	53
Table 13: Legal blood alcohol levels, selected countries	54

Executive summary

The National Audit Office (NAO) is undertaking a value for money (VfM) study to examine alcohol-harm prevention and treatment services that are supported by the Department of Health and the NHS in England, focusing specifically on NHS services for alcohol misusers. To supplement the evidence from England, the NAO has commissioned an international benchmark with the aim of identifying areas of good policy and practice which may be transferrable to England. Five countries, broadly comparable to England in terms of alcohol trends and other socioeconomic indicators, have been examined for this project: Australia, Canada, Germany, the Netherlands and the United States.

This report describes alcohol prevention and treatment interventions in the US, Canada, the Netherlands, Germany and Australia, placing them in the context of each country's healthcare system. The report does not consider the provision of alcohol harm prevention and treatment services in England itself, although it does compare some relevant statistics for England and the UK as a whole against the countries named above.

This executive summary presents the main findings of the study.

Alcohol harm is a significant public health issue in all countries examined in this report

All of the countries studied in this report incur significant social and economic costs due to heavy and problematic use of alcohol in the general population. All of these countries have significant rates of heavy drinkers, binge drinking and alcohol dependency. Chapter 2 gives an overview of the comparative consumption of alcohol and associated alcohol harm between countries. Alcohol use in all countries is a leading cause of mortality and morbidity, both in terms of primary and secondary diagnosis. In general terms, men and young people misuse alcohol more than women and older age groups respectively. Consumers from higher socioeconomic status tend to use more alcohol than those from a lower socioeconomic class, though lower-income groups tend to drink more in one sitting. The UK tends to have higher rates of alcohol misuse (heavy and binge-drinking) than the European Union and World Health Organization averages.¹

¹ We could not always disaggregate data for England, Scotland, Wales and Northern Ireland. Most international studies produce data for the whole of the United Kingdom.

Healthcare systems in the countries examined use a similar set of interventions to tackle alcohol harms, but have different funding and delivery structures and systems

We studied health and non-health interventions to tackle alcohol harms in five countries which differ considerably in the institutional set up of their health services. Some are tax financed and offer universal coverage, like the National Health Service (NHS) in England, others rely heavily on private funding and do not cover sizeable proportions of the population, as in the US. However, these countries use similar interventions to tackle alcohol problems and harms. These include awareness campaigns to prevent alcohol misuse, and treatment for the alcohol dependent as well non-health measures such as drink-driving limits. Nonetheless, there are considerable differences in the combinations of policies used and in the funding and provision of services. The ways in which different delivery and funding structures alter the effectiveness of alcohol policies is unclear from existing research.

Decentralized funding and provision of services makes assessments of cost-effectiveness difficult

The decentralized funding and provision of interventions to tackle alcohol harms does not allow for comparison of expenditure levels on alcohol-related interventions and of cost-effectiveness between countries. In most countries, services are provided at the regional or local level and funding is integrated into general healthcare expenditure. Central governments are often only responsible for coordination, research and national awareness campaigns. We only found limited information on the costs of, and spending on, services to reduce the impacts of alcohol harm. This information is provided in Chapter 3.

Screening and brief interventions for alcohol misuse are effective but not widely used in healthcare settings

Screening tests developed and used in the US and elsewhere have demonstrated acceptable levels of reliability in the identification of people with alcohol problems. Similarly, brief interventions² in primary care settings have been shown to have positive outcomes in reducing alcohol consumption and its attendant harms. Screening and brief interventions (SBI) have become an increasingly important tool in the prevention and treatment of alcohol problems, as they target people whose alcohol consumption is not diagnosable as abuse or dependence, but whose drinking pattern is or can be hazardous and result in harms. International evidence has also shown them to be cost-effective. However, evidence suggests that SBI are not widely used in healthcare settings. Barriers to their dissemination and use amongst healthcare professionals include lack of knowledge and skills to use the interventions, limited time with patients, and lack of financial incentives. The lack of governance structures to incentivize healthcare professionals to use SBI is common to all the countries examined in this report.

² Brief interventions are short interventions undertaken by a health professional to establish whether the patient has an alcohol problem and to give the patients some advice on how to address issues associated with alcohol consumption.

Specialist treatments for alcohol problems are not prominent elements of national alcohol strategies

Despite their central role in treating alcohol problems, specialist treatments do not feature prominently in the alcohol strategies of the countries studied here. Alcohol treatment within the healthcare system is considered a medical rather than a public health concern. This is compounded by the fact that, given the limited availability of treatment facilities and the significant proportion of problem drinkers who do not seek treatment, specialist treatment is unlikely to have an impact on aggregate mortality and morbidity at the national and even local levels. In the light of this evidence, one may make the case that closer coordination between specialist services and other services to reduce alcohol harm within the health system is desirable.

Many population-wide, non-health policies to reduce alcohol harms are effective if given adequate enforcement

Many population-wide, non-health policies have been shown to be effective in reducing alcohol harms. Pricing and taxation, for example, have consistently shown effectiveness in reducing alcohol harms. However, real prices of alcohol have decreased in the countries examined here, partly as a result of alcohol taxation not keeping up with inflation rates. Taxation is not normally used as a public health policy to reduce alcohol harm, with very few exceptions (such as the tax on alcopops in Germany). In general, taxation levels tend to be too low to have a substantial impact on alcohol consumption. However, there is strong evidence of the effectiveness of other policies, particularly restrictions on the availability of alcohol; drink-driving counter-measures; and minimum legal drinking ages (MLDA). There are significant differences in how these are implemented and enforced in the countries studied in this report. For example, the MLDA varies from 16 to 21 in the five countries included here, although research shows that raising the MLDA reduces alcohol harms. There is some indication of a trend towards more stringent drink-driving policies in most of the countries examined, particularly through decreases in legal limits for blood-alcohol concentration in drivers, and zero tolerance measures for new drivers. In some of the countries, there are increasing calls to raise the MLDA.

A comprehensive strategy is required to reduce alcohol harms but there is no research about the optimal policy mix

Many public health writers conclude that an effective policy mix – combining taxation, restrictions in alcohol availability, drink-driving counter-measures, and serious investment in prevention and treatment within healthcare settings – is necessary to reduce alcohol harms. However there has been little research into what the optimal mix of policies and resources would need to be to achieve the greatest reductions in alcohol harms. While extensive research has been conducted on the effectiveness of individual policies (or, at most, combinations of a small set of them such as MLDA and zero tolerance laws for under-age drivers), there is extremely limited understanding of how different interventions affect each other, and how to optimize their mix to obtain improved outcomes.

There is a need for continued investment in the improvement of alcohol prevention and treatment services within healthcare settings

The evidence in this report clearly indicates that screening and brief interventions (SBI) and specialist treatments provide services that are necessary for many people and

unavailable in many places. In view of the strong evidence of their efficacy, resources should be devoted to the effective promotion of the use of SBI in medical settings. Moreover, given not only the risk of relapse by existing patients but also the reluctance of many problem drinkers to seek treatment, it is crucial that continued resources are devoted to improving the design, delivery and accessibility of specialist treatments. While as discrete measures, SBI and specialist treatment only have a limited impact on overall alcohol harms, their contribution to a wider, comprehensive alcohol strategy is fundamental to ensuring that the social and economic harms from alcohol misuse are minimized.

Acknowledgments

We would like to acknowledge the assistance of Han de Vries and Michael Hallsworth from RAND Europe in reviewing the draft report and providing many helpful suggestions. The project also benefited from a collaborative working relationship with the National Audit Office (NAO) project team: Grace Beardsley, Elizabeth Bishop, Mark Davies and Will Palmer.

1.1 **Context and objectives of the study**

Alcohol misuse is the third-leading risk factor for death and disability in the European Union (EU). Total alcohol consumption has declined in the EU and UK³ since 1970 but harmful drinking patterns are increasing; binge drinking is particularly high (19%) among younger Europeans aged 15-24⁴. Over seven million people in Britain misuse alcohol (i.e. drinking in excess of Department of Health recommendations). Consumption by young people (under 25) is especially problematic. Fewer young people in England are drinking (5% decrease since 2001) but those who do drink are consuming more (10.4 units per week in 2000 to 11.4 in 2006 among secondary school children)⁵ and 39% of UK teenagers binge drink.⁶ Of these, 60% admitted involvement in criminal and disorderly behaviour during or after consumption.⁷ There is concern in the UK regarding not only chronic alcoholics but also hazardous or harmful drinkers, who are not dependent drinkers but who misuse alcohol on a relatively regular basis.

³ Though this study seeks to inform a wider one led by the National Audit Office on value for money of the healthcare interventions in England, much of the data available to us is for the UK. We found little disaggregated data for England, Wales, Scotland and Northern Ireland. Where we did, we included these in the report.

⁴ Advertising Standards Authority, *Compliance report: Alcohol survey – September 2007* (UK: ASA, 2007).

European Union Health & Consumer Protection Directorate-General, *Alcohol-related harm in Europe: Key Data*, Factsheet, October (2006).

⁵ UK NHS: The Information Centre, *Latest figures on smoking, drugs and alcohol consumption among young people* (<http://www.ic.nhs.uk/news-and-media/press-releases/august-2007/latest-figures-on-smoking-drugs-and-alcohol-consumption-among-young-people-published>, last accessed April 2008).

⁶ While uses of the term 'binge drinking' vary, one of the most widely used definitions is 'drinking over twice the recommended daily guidelines'. This definition is used for the term 'binge drinking' in this report unless specified (The Information Centre (2007) *Statistics on alcohol: England 2007*, NHS, UK (<http://www.ic.nhs.uk/webfiles/publications/alcoholeng2007/Statistics%20on%20Alcohol-England%202007v6.pdf>, last accessed May 2008).

⁷ UK NHS: The Information Centre, *Statistics on Alcohol: England 2007* (<http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles/alcohol/statistics-on-alcohol:-england-2007-%5Bns%5D>, last accessed May 2008).

Misuse of alcohol results in serious health, social and economic harms. In England alone, alcohol abuse and its related harms kill more than 3,000 people a year and, of those dying from alcoholic liver disease, two-thirds are men.⁸ Alcohol contributes to 60 different diseases and conditions like liver cirrhosis, heart and lung disease, mental and behavioural problems, foetal and reproductive disorders.⁹ Drink-driving also causes significant numbers of injuries and deaths.¹⁰

Alcohol misuse also generates high costs for the healthcare systems. It is estimated that the cost to the NHS of alcohol misuse is around £1.7 billion each year.¹¹ According to recent figures, the number of alcohol-related hospital admissions has more than doubled in the last 10 years.¹² Apart from the cost of medical care, the cost of alcohol use can also be associated with absenteeism and property damage. Alcohol-related harms cost British industry approximately £2 billion a year¹³ and the NHS about £1.7 billion a year¹⁴. Alcohol affects labour and productivity, with up to 17m working days estimated to be lost every year through alcohol-related absence.¹⁵ Harms to society from alcohol misuse include violence, crime, antisocial and risky behaviours, unemployment, family breakdown and social isolation. About half the violent incidents and a third of the domestic violence reported in England are linked to alcohol misuse.¹⁶

Interest in alcohol treatment and prevention services supported by, and provided within, healthcare systems is growing. In particular, following the 1980 World Health Organization (WHO) call for the development of effective mechanisms for the early detection of alcohol misusers, the role of health services in the prevention and treatment of dependent and hazardous drinkers began to attract growing attention amongst researchers and policy-makers. The effectiveness and efficiency of health services in dealing with

⁸ A. Richardson, T. Budd, R. Engineer, A. Philips, J. Thompson and J. Nichols *Drinking, crime and disorder*. Home Office Study No. 185. (London: Home Office, 2003)

⁹ Institute of Alcohol Studies Fact Sheet, “Alcohol consumption and harm in the UK and EU” http://www.ias.org.uk/resources/factsheets/harm_ukeu.pdf (accessed April 2008).

¹⁰ National Statistics: “Casualties from road accidents involving illegal alcohol levels” (available at: <http://www.statistics.gov.uk/STATBASE/xsdataset.asp?vlnk=1476>, accessed March 2008).

¹¹ The Information Centre, “Statistics on alcohol: England 2006”. http://www.ic.nhs.uk/webfiles/publications/alcoholeng2006/StatisticsOnAlcohol300606_PDF.pdf (accessed April 2008). Also: Prime Minister Strategy Unit, *Alcohol Harm Reduction Strategy for England* (UK: Cabinet Office, 2004).

¹² The Information Centre, “Alcohol related hospital admissions double in last ten years according to latest official figures” <http://www.ic.nhs.uk/news-and-media/press-releases/june-2007/alcohol-related-hospital-admissions-double-in-last-ten-years-according-to-latest-official-figures> (accessed April 2008).

¹³ P. Anderson and B. Baumberg *Alcohol in Europe* (UK: Institute of Alcohol Studies, 2006).

¹⁴ European Union Health & Consumer Protection Directorate-General, *Harmful drinking*, Factsheet, June (2007).

¹⁵ “Absenteeism due to drink”, *Healthcare Today Magazine*, September 19th, 2007. (Accessed on 19/09/07, at <http://www.hc2d.co.uk/content.php?contentId=4106>).

¹⁶ “Absenteeism due to drink”, *Healthcare Today Magazine*, September 19th, 2007. (Accessed on 19/09/07, at <http://www.hc2d.co.uk/content.php?contentId=4106>).

alcohol misusers is of concern given international evidence, for example, that primary care workers often fail to identify people at risk of becoming systematic alcohol misusers¹⁷, while other research suggests that advice delivered in primary care settings is effective in reducing hazardous alcohol consumption and harm.¹⁸

In this context, the National Audit Office (NAO) has undertaken a value for money (VfM) study to examine alcohol harm prevention and treatment services that are supported by the Department of Health and the NHS in England, focusing specifically on NHS services for alcohol misusers. To supplement the evidence from England, the NAO commissioned RAND Europe to undertake an international benchmark study on services to reduce alcohol harm in five countries that are broadly comparable to England on alcohol trends and a range of socioeconomic indicators. These were Australia, Canada, Germany, the Netherlands and the United States.

The specific objectives of this study are to gain an understanding of:

- the scale and nature of alcohol misuse and alcohol-related harms in selected countries
- the national health frameworks for the provision of alcohol harm prevention and treatment services
- the effectiveness of the public policy instruments in tackling alcohol problems in selected countries.

The international comparison seeks to provide insights into the effectiveness of health services for alcohol misusers and that of other interventions to reduce alcohol harms in a number of countries, and enable the identification of lessons which might inform policy in this area in England.

This report bases its conclusions on a review of evidence from existing studies and meta-analyses, on a review of statistical data on alcohol consumption and harms from the World Health Organisation and other sources, and on ten key informant interviews conducted with alcohol policy experts and practitioners in the five countries which are the focus of this study. The report provides an overview of international data on alcohol consumption and harms; briefly describes the aspects of the healthcare systems of the selected countries that are most relevant to the implementation of measures to reduce alcohol harms; and outlines alcohol prevention and treatment interventions and their effectiveness in the selected countries. The report does not consider the provision of alcohol harm prevention and treatment services in England itself, although it does compare some relevant statistics for England and the UK as a whole against the countries named above.

¹⁷ T. Babor and J. Higgins-Biddle, "Alcohol screening and brief intervention: dissemination strategies for medical practice and public health", *Addiction* 95:5 (2000).

¹⁸ P. Anderon, *Binge drinking and Europe*, (London: Institute for Alcohol Studies, 2007).

1.2 **Structure of the report**

This report consists of four substantive chapters. In Chapter 2 we present comparative international data on alcohol consumption and alcohol harms from available sources, including the Organization for Economic Cooperation and Development (OECD) and WHO, and information published by specific countries. Chapter 3 discusses the institutional structure of healthcare systems and how alcohol policy is delivered in the selected countries. Chapters 4 and 5 look at the international evidence, and evidence specifically from the selected countries, on the effectiveness of healthcare and non-healthcare interventions aimed at preventing and reducing alcohol harm respectively. A final chapter presents the key messages emerging from the research and possible lessons for UK alcohol policy.

CHAPTER 2 **International comparative data on alcohol consumption and harm**

2.1 **Introduction**

This chapter presents data on international alcohol-consumption patterns, breaking this consumption down in terms of overall consumption and specific types of alcohol consumption such as heavy drinking, binge drinking and youth drinking. In addition, this chapter will look at the effects of alcohol consumption in terms of mortality and morbidity and the economic and social costs of alcohol consumption. This information will provide baselines that indicate the extent of problems related to alcohol harm in specific countries. Overall, the data suggests that while average alcohol consumption has been declining in the last 15 years in many industrialized countries, harmful patterns of drinking continue, with rates of heavy and binge drinking being higher in countries with the highest levels of average alcohol consumption, such as the UK. It is important to note that most countries have imperfect data for the categories of consumption and harm. There are a number of reasons for this, ranging from the different definitions of units to differences in the way data is collected and estimated.

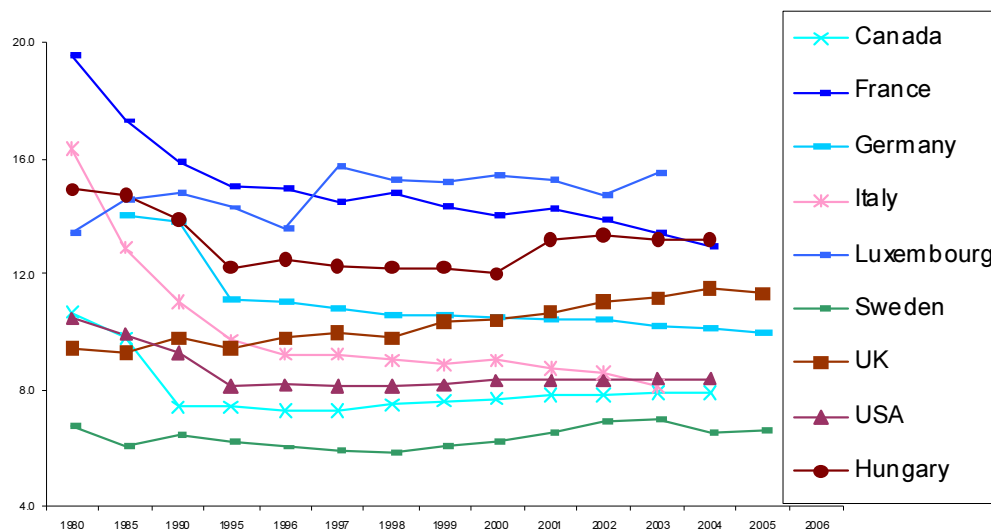
2.2 **Alcohol consumption**

Alcohol consumption varies widely across the globe. The highest consumption in Europe, and simultaneously the world's second highest, can be found in Luxembourg; with an estimated average of 17.54 litres of pure alcohol per person per year.¹⁹ Figure 1 provides a more elaborate overview of alcohol consumption over the last two decades for a selection of OECD countries.

Alcohol consumption patterns vary greatly between countries as well as regions. WHO's global report on alcohol, from 2004, distinguishes 14 regions on the basis of the amount of alcohol consumed and according to the dominant type of beverage. The highest total consumption can be found in the group 'Europe C', which mainly contains eastern European countries.²⁰

¹⁹ World Health Organization, *Global Status Report on Alcohol 2004* (Geneva: WHO, 2004).

²⁰ World Health Organization, *Global Status Report on Alcohol 2004* (Geneva: WHO, 2004).



SOURCE: OECD Health Division

Figure 1: Total average alcohol consumption per person per year (in litres of alcohol) for selected OECD countries

As figure 1 shows, alcohol consumption has fallen slightly in most of the countries over the time period considered, with the exception of countries such as Luxembourg and the UK. Alcohol consumption has also remained stable in Sweden. The most recent levels of alcohol consumption in the UK are slightly higher than those for Germany, the Netherlands and Finland, but lower than for France and Luxembourg.

Various patterns of alcohol consumption can be discerned on the basis of different criteria, ranging from socioeconomic status to gender. In Western countries, alcohol consumption is consistently higher for men than for women. In the (former) EU-25, 84% of men reported that they had consumed alcoholic beverages at one time or more over a one-year period; as opposed to 68% of women.²¹ In the UK, 19% of respondents reported abstaining from alcohol compared to 7% of respondents in Denmark and 40% in Italy. The numbers for the UK were equivalent to Germany and Luxembourg at 19%; and similar to France at 21%. If one looks at alcohol consumption in the EU-25 during its last 30 days, 87% of those respondents who are alcohol consumers stated that they consumed alcohol in that period, a number that is mostly consistent across countries and across socio-demographic variables.²² Of these respondents, 21% drank four or more times a week and 48% drank once a week. Figures from North America are quite similar in terms of the difference in the level of abstinence between sexes as, in the US, the percentage of

²¹ European Commission, *Attitudes towards Alcohol*, Special Eurobarometer 272b / Wave 66.2 (2007).

²² European Commission, *Attitudes towards Alcohol*, Special Eurobarometer 272b / Wave 66.2 (2007).

abstainers was 29.3% for men and 38.2% for women.²³ Overall, Americans abstain more than Europeans.

With regards to socioeconomic status, the relationship with total alcohol consumption is not straightforward and clear. Overall, lower socioeconomic groups in the EU are more likely to abstain from alcohol. However, this relation is complicated by the fact that men with lower levels of education are more likely to be heavy drinkers than others; a relationship which does not hold for women. In the case of women, most studies show that higher socioeconomic groups also tend to consume larger amounts of alcohol, more often.²⁴

2.3 Heavy and binge drinking

Heavy and binge drinking are of policy interest as they constitute harmful patterns of alcohol consumption which, as noted before, often lead to significant individual, social and economic harms. This section presents international data on the incidence of heavy and binge drinking in various industrialised countries, including those on which this study focuses.

Box 1: Heavy and binge drinking

Binge drinking (or heavy episodic drinking) can be distinguished from heavy drinking by the fact that heavy drinking is based on everyday consumption of alcohol, as opposed to the episodic nature of binge drinking. In this sense heavy drinking relates to average alcohol consumption, whereas binge drinking refers to individual episodes of heavy drinking. It is usually understood as drinking in excess or with the intention to get drunk. The most accurate measure for binge drinking is drinking over twice the daily recommended guidelines.

Tables 1 and 2 list percentages of adults engaging in heavy and in binge drinking respectively for a selection of countries reported in the 2004 WHO report on alcohol.²⁵ The data for heavy drinking stems from datasets with fairly similar definitions (see Table 1) and age groups. Data can therefore be compared relatively well, although the different age ranges, and different years in which studies were conducted should be taken into account. On the basis of the data, the UK shows similar rates of heavy drinking to Germany; higher rates than the Netherlands and Sweden; and lower rates than the Czech Republic, which has some of the highest rates of heavy drinking.

²³ World Health Organization, *Global Status Report on Alcohol 2004* (Geneva: WHO, 2004).

²⁴ P. Anderson and B. Baumberg, *Alcohol in Europe* (London: Institute of Alcohol Studies, 2006).

²⁵ World Health Organization, *Global Status Report on Alcohol 2004* (Geneva: WHO, 2004).

Table 1: Percentage of heavy drinking among men and women in selected countries

	Year	Source – Age range	Men	Women
Australia^a	2001	National Survey – 14+ years	6.7	7.2
Canada	-	-	-	-
Czech Republic ^{b, c}	2002	WHO GENACIS – 20-64 years	25.7	12.5
Finland ^{b, c}	2000	WHO GENACIS – 20-64 years	5.8	3.4
France ^{b, c}	1999	WHO GENACIS – 20-64 years	16.6	7.8
Germany^{b, c}	2000	WHO GENACIS – 20-64 years	11.2	11.3
Hungary ^b	2001	World Health Survey – 18+ years	16.9	9.3
Italy ^d	2001/02	National Survey – 15+ years	9.8	2.0
Netherlands^{b, d}	1999	WHO GENACIS – 20-64 years	10.7	9.4
Spain ^b	2003	WHO GENACIS – 20-64 years	12.9	8
Sweden ^{b, c}	2002	WHO GENACIS – 20-64 years	4	3.3
UK^{b, c}	2000	WHO GENACIS – 20-64 years	12.1	10.5
USA^{b, c}	1995/96	WHO GENACIS – 20-64 years	6.4	5.0

^a Consumption of more than 40g pure alcohol/day for men and more than 20g pure alcohol/day for women.

^b Consumption of 40g or more pure alcohol/day for men and 20g or more pure alcohol/day for women.

^c Among drinkers only

^d Regional study

Note: Our selected countries are in bold.

Source: WHO 2004

Box 2: Heavy drinking in Northern Ireland (1999), Scotland (2003) and Wales (2004)²⁶

National surveys on drinking patterns in Northern Ireland, Scotland and Wales use different measures to determine heavy drinking from those in Table 1. Heavy drinking is regularly defined as exceeding a sensible level of drinking per day or per week. For Northern Ireland and Scotland, these levels are set at 21 units (one unit of alcohol is 10 ml or 8 gr) per week for men and 14 units for women. The percentage of men exceeding this level is 27% in Scotland and 37% in Northern Ireland; for women the percentages are 14% and 20% respectively. The Scottish figures represent the entire population, whereas the Northern Irish figures are percentages among drinkers.

In Wales, heavy drinking is defined as exceeding the daily average guideline of 4 drinks for men and 3 drinks for women. Of the entire sample of adults, 47% of men and 32% of women exceed this guideline often when they drink.

Figures on binge drinking are more difficult to compare due to a wide range of definitions, which introduces many subtleties in the interpretation of the data. Besides the differences in age range and the years in which studies were conducted, the definition of binge drinking should also be taken into account and differs mostly in the amount of alcohol

²⁶ Source for Northern Ireland: Health Promotion Agency, *Adult drinking patterns in Northern Ireland* (Belfast: Health Promotion Agency, 2002); Source for Wales: Statistics Wales, *Welsh Health Survey 2004/05* (Cardiff: Statistics Wales, 2005); Source for Scotland: NHS Scotland, *Alcohol Statistics Scotland 2007* (Edinburgh: ISD Scotland, 2007).

consumed in one sitting that is considered to constitute binge drinking (fourth column in Table 2). All definitions do share the condition that the consumption should occur at least once a month over the last year, in order to constitute binge drinking.

The prevalence of heavy and binge drinking appears to be related to a certain extent, as countries with a higher percentage of heavy drinking (i.e. the UK and France) also appear to have a higher incidence of binge drinking. The higher occurrence of binge and heavy drinking in these countries is further reflected in the higher total per capita alcohol consumption for these countries.

Table 2: Percentage of binge drinking among men and women in selected countries

	Year	Source – Age range	Consumption (drinks or grams per sitting)	Men	Women
Australia	2001	Nat. Survey – 14y and above	for men: 7 or more for women: 5 or more	15.3	11.6
Canada ^a	2000/01	Nat. Survey – 12y and above	5 or more	28.3	11.2
Czech Republic ^a	2002	WHO G. – 20-64 years	5 or more	28.8	9.9
Finland ^a	2001	WHO G. – 20-64 years	6 or more	49.1	14.1
France ^a	2000	WHO G. – 20-64 years	75 grams or more	27.9	9.7
Germany ^a	2000	WHO G. – 20-64 years	75 grams or more	42.1	12.7
Hungary	2003	World Health Survey – 18+	5 or more	18.9	1.9
Italy ^a	2001/02	WHO G. – 20-64 years	75 grams or more	23.0	14.9
Netherlands ^a	1999	WHO G. – 20-64 years	6 or more	36.6	11.6
Northern Ireland ^a	2002	Nat. Survey – 18-75 years	for men: 10 or more for women: 7 or more	48.0	35.0
Scotland ^a	2003	Nat. Survey – 16+	for men: 8 or more for women: 6 or more	37.0	28.0
Spain	2003	World Health Survey – 18+	5 or more	8.5	1.6
Sweden ^a	2002	WHO G. – 20-64 years	6 or more	19.4	4.1
UK	2000	Nat. Survey – 16-74 years	6 or more	24	9.0
USA^a	1995/96	WHO G. – 20-64 years	5 or more	29.1	6.9
Wales	2004/05	Nat. Survey – 18+	for men: 8 or more for women: 6 or more	27.0	12.0

^a Among drinkers
Source: WHO 2004

Note: Our selected countries are in bold.

A recent Eurobarometer survey asked Europeans how much they drank in one sitting. Binge drinking in this case was defined as five or more drinks on occasions when alcohol is consumed. In total, 10% of European reported that they drank this amount on occasions when consuming alcohol. Ireland (34%) and Finland (27%) had the highest rates of reported binge-drinking, followed by the UK at 24%. Italy and Greece at 2% had some of the lowest reported rates, with France (9%) and the Netherlands (12%) having rates closer to the European average. Males are much more likely to engage in binge drinking (13% of total male respondents); and those in the age group 15-24 were most likely to engage in

binge drinking according to the survey (19% of respondents). These observations were similar across countries.

The Eurobarometer survey also comments on the incidence of binge drinking. In the UK, 12% of those who reported engaging in binge drinking did so several times a week compared to the EU-leading 24% (Austria) and EU average of 13%; 19% reported engaging in binge drinking once a week compared to the EU-leading 37% (Ireland) and EU average of 15%; 16% engaged in it once a month compared to the EU-leading 21% (Finland) and EU average of 16%; and 24% less than once a month compared to the EU-leading 37% (Denmark) and EU average of 24%. The incidence of binge drinking across the different time frames in the UK is thus relatively close to the EU averages. Overall in Europe, the level of binge drinking seems to have remained quite stable at 10% compared to a similar study in 2003.²⁷ However, the incidence of regular drinkers had decreased slightly from 2003-2006, leading the survey analysts to observe that binge drinking rates are going up. These survey numbers are slightly different from those in the reports of the WHO and underline some of the difficulties in producing definitive and robust statistics on comparative binge drinking.²⁸

Youth drinking

Regarding differences among age groups, various differences in the prevalence of youth drinking can be observed. Although a wide variety of definitions of 'youth drinking' exist and a range of methods are used to measure alcohol consumption among younger age groups, Table 3 provides an overview of the prevalence of drinking among young people in a range of selected countries. The prevalence of young people consuming alcohol varies greatly between countries. However, comparative information regarding the amount of alcohol consumed by young people is not available, which makes the figures more difficult to interpret. Alcohol consumption among young people is most prevalent within European countries, such as the Netherlands, Germany and the UK; and much lower in Scandinavian countries, the US and Canada.

²⁷ European Commission, *Attitudes towards Alcohol*, Special Eurobarometer 272b / Wave 66.2 (2007).

²⁸ The use of different definitions, age groups, sampling sizes, years, and survey instruments can account for some of these differences.

Table 3: Percentage of alcohol consumers among the young people of selected countries

	Year	Age range – Definition	Men	Women
Canada	2001/2002	15 – drink at least weekly	33.6	22.7
Czech Republic	2001/2002	15 – drink at least weekly	32.3	25.8
Finland	2001/2002	15 – drink at least weekly	18.1	15.5
France	2001/2002	15 – drink at least weekly	22.7	11.1
Germany	2001/2002	15 – drink at least weekly	45.7	33.3
Hungary	2001/2002	15 – drink at least weekly	33.7	18.7
Italy	2001/2002	15 – drink at least weekly	48.3	28.1
Netherlands	2001/2002	15 – drink at least weekly	55.6	47.3
Spain	2001/2002	15 – drink at least weekly	31.7	25.3
Sweden	2001/2002	15 – drink at least weekly	23.2	16.8
UK	1999	15 to 16 – lifetime use of 40 times or more Frequency of alcohol use by a specific age	51	43
USA	2001/2002	15 – drink at least weekly	21.3	11.4

Source: WHO 2004

In Scotland, 46% of 15-year-old pupils reported to have consumed alcohol in the week before a survey conducted in 2002.²⁹ This is almost similar to the figure for the entire population for the UK, and data from Wales and Northern Ireland show similar patterns. In Wales, 53% of boys and 48% of girls aged 15 and 16 years old reported that they consume alcohol frequently; in Northern Ireland, 45% of 11 to 16 year olds reported that they occasionally or frequently consume alcohol.³⁰

Binge drinking among young people is reported in Table 4. Similar to the data for adults in previous tables, the data should be interpreted carefully, as a wide range of definitions are used for different age groups. In addition to Table 4, a survey conducted in 2003 in Northern Ireland among young people in the age range of 11 to 16 years old revealed that 22% of young people reported to have been drunk four or more times.³¹ As the following chapters indicate, in many countries such as Australia, the Netherlands, and Germany, binge drinking among the young is seen as the most pressing issue in respect of alcohol harm reduction.

²⁹ Institute of Alcohol Studies (2007) Factsheet: “Alcohol and Adolescents”, <http://www.ias.org.uk/resources/factsheets/adolescents.pdf> (accessed April 2008).

³⁰ Health Promotion Agency, *Drinking behaviour among young people in Northern Ireland: Secondary analysis of alcohol data from 1997 to 2003* (Belfast: Health Promotion Agency, 2005); Statistics Wales, *Welsh Health Survey 2004/05* (Cardiff: Statistics Wales, 2005).

³¹ Health Promotion Agency, *Drinking behaviour among young people in Northern Ireland Secondary analysis of alcohol data from 1997 to 2003* (Belfast: Health Promotion Agency, 2005).

Table 4: Percentage of binge drinking among the young people of selected countries

	Year	Age group	Consumption (drinks per sitting)	Male	Female
Australia	2001	14-19	for men: 7 or more for women: 5 or more	9.6	11.8
Canada ^{a, b}	2000-2001	15-19	5 or more	35.2	22.1
Czech Republic ^c	2003	18-24	5 or more	32.7	9.0
Finland ^d	1999	15-16	5 or more	21	15
France ^d	1999	15-16	5 or more	16	7
Hungary ^e	2003	15-16	5 or more	39.2	22.2
Scotland ^{a, e}	2002	15	5 or more	56	59
Spain ^c	2003	18-24	5 or more	15.1	3.2
Sweden ^d	1999	15-16	5 or more	22	13
UK ^d	1999	15-16	5 or more	33	27
USA ^b	2002	12-17	5 or more	11.4	9.9

^a Among drinkers

^b At least once a month in the last year

^c At least once a week

^d At least three times in the last month

^e In the last month

Source: WHO 2004; IAS 2007

Box 3: Patterns of alcohol consumption in Australia and the United States of America^{32 33}**Australia**

There has been a 24% decline in alcohol consumption between 1980 and 2004. Since 2004, the pattern has remained relatively unchanged. Over 85% of the general population drink alcohol at least occasionally. On average, Australians consumed 7.8 litres of pure alcohol per person in 2001. Binge drinking was most common among young people (aged 14-19), with 94% of males and 78% of females drinking to intoxication (46% did this less than weekly, 24% weekly and 0.6% daily). Among indigenous Australians, 68% of those who drink alcohol do it at harmful levels.

USA

Per-capita alcohol consumption in America has declined over the last 30 years, from 2.52 gallons of ethanol per person per year, to 2.24. Slightly more than half of all Americans aged 12 or older reported being current drinkers of alcohol in the 2006 survey (50.9%). This translates to an estimated 125m people. About 10.8m people aged 12 to 20 (28.3% of this age group) reported drinking alcohol in the past month. Approximately 7.2m (19%) of drinkers were binge drinkers, and 2.4m (6.2%) were heavy drinkers. These figures have remained essentially the same since 2002. Whites and Hispanics were more likely to binge drink than Blacks. Interestingly, among adults aged 18 or older, the 'rate of use of alcohol in the past month' increased with increasing levels of education.

2.4 Morbidity and mortality

The countries to which extra attention has been paid all share a fairly similar burden of disease attributable to alcohol. Western countries share a somewhat similar burden in terms of percentage of DALYs³⁴, those of 4 to 7.9%. Globally the burden of alcohol is highest in the eastern European former communist countries and in Latin America, while the lowest

³² Sources for the Australian case study were: C. Schlesinger, J.B. Saunders and E. Proude, "Australia", in *WHO Collaborative Project on identification and management of alcohol-related problems in primary health care. Report on Phase IV, Development of country-wide strategies for implementing early identification and brief interventions in primary health care*, ed. N. Heather, (Geneva: WHO Department of Mental Health and Substance Abuse Management, 2006) Chapter 3; Australian Institute of Health and Welfare, *National Drug Strategy Household Survey 2001: First results*. AIHW cat. no. PHE 35. (Canberra: AIHW, 2002) (Drug Statistics Series No. 9); Ministerial Council on Drug Strategy, *National Alcohol Strategy 2006-2009. Towards Safer Drinking Cultures* (Commonwealth of Australia, 2006). Sources for the United States case study were: Substance Abuse and Mental Health Services Administration, "2006 National Survey on Drug Use and Health: National Results", <http://www.oas.samhsa.gov/nsduh/2k6nsduh/2k6results.cfm#Ch3> (accessed April 2008); Centers for Disease Control and Prevention, "Indicators for chronic disease surveillance", *Morbidity and Mortality Weekly Report* 53, No. RR-11, (2004): 1-89.

³³ It is important to note that a decrease in alcohol consumption is not likely to produce an equivalent decline in the burden of disease. Part of the explanation for declining alcohol consumption in developed countries could be attributed to an ageing population.

³⁴ Disability-Adjusted Life Years.

burden is found in the Middle East and North Africa. Patterns of the burden of disease correlate to figures on total alcohol consumption per capita listed at the start.

Alcohol dependency

Dependency upon alcohol and addiction is defined by the WHO following the ICD-10 measurement system as “a cluster of physiological, behavioural, and cognitive phenomena in which the use of alcohol takes on a much higher priority for a given individual than other behaviours that once had greater value”.³⁵ Alcohol dependency ranges greatly between countries and regions. Comparisons are complicated, however, by the lack of a single definition or measurement. Different diagnostic instruments and tools are used to measure alcohol dependency, of which the most commonly used are Statistical Manual of Mental Disorders Third Edition Revised (DSM-III-R), the Diagnostic and Statistical Manual of Mental Disorders Fourth Edition (DSM-IV) and the ICD-10. Table 5 provides an overview of alcohol dependency in selected countries. Comparisons can be made between countries using similar measurement systems. Here, alcohol dependency in the UK appears higher than in Australia but slightly lower than in the Slovak Republic.

Table 5: Alcohol dependency in selected countries (current)

	Year	Total %	Male %	Female %	Measure
Australia	1997	3.5	5.2	1.8	ICD-10
Canada	2002	9.3	14	4.5	mixed
Finland	2000	4.0	6.5	1.5	DSM-IV
France	2000	N.A.	13.3	4.1	DETAf
Germany	2000	3.8	6	1.5	DSM-IV
Japan	1997-1999	4.1	8.4	0.7	DSM-III-R
Netherlands	1996	5.5	9	1.9	DSM-III-R
Slovak Republic	2001-2002	4.8	9.4	1.1	ICD-10
South Africa	1998	N.A.	27.6	9.9	CAGE
UK	N.A.	4.7	7.5	2.1	ICD-10
USA	2002	7.7	10.8	4.8	DSM-IV

Source: WHO

Chronic and acute mortality and morbidity

In order to provide an initial overview of alcohol-related deaths and hospitalizations, Table 6 lists the available figures for selected countries. In 2003, it was estimated that harmful alcohol consumption in the EU was responsible for 195,000 deaths, a large proportion of which were young men aged 15-29 years.³⁶ The type of data reported in the table differs quite strongly across countries and makes comparisons difficult. Nevertheless, the data provided does allow some generalizations to be made on the extent of hospitalizations and deaths in a range of countries.

³⁵ World Health Organization, *Global Status Report on Alcohol 2004* (Geneva: WHO, 2004).

³⁶ P. Anderson and B. Baumberg, *Alcohol in Europe* (London: Institute of Alcohol Studies, 2006).

Table 6: Alcohol-related total deaths and hospitalizations in selected countries

	Total deaths	Hospitalizations
Australia	3,290 alcohol-caused deaths	43,032
Canada	6,700 / 4,528 (2007 report)	86,000
EU	195,000	-
Finland	2,507	33,156
France	43,963 deaths resulting from own alcohol consumption	383,381 (total)
Germany	42,000 alcohol-related deaths	-
Italy	42,000 deaths attributed to alcohol	-
Netherlands	1,774 deaths resulting from alcohol-related illness	16,099 hospitalizations 36,334 patients in addiction programmes
UK	Alcohol-related deaths England and Wales: 6,567 Northern Ireland: 246 Scotland: 2,372	150,000 hospital admissions as a result of acute or chronic alcohol use Northern Ireland: 8,233 Scotland: 284,469 hospital days
USA	75,000	Over 2m hospitalizations; over 4m Emergency Room visits

Source: WHO

The mortality effects of alcohol can be separated into two categories: acute mortality and chronic mortality. Acute mortality involves a wide array of direct incidents such as traffic accidents and poisoning, and is often the result of, or mediated by, intoxication. Chronic mortality stems from diseases associated with the adverse effects of (excessive) alcohol use, such as liver cirrhosis, and the effects are thereby less direct than in acute mortality cases. The data presented in Table 7 lists the occurrence of acute and chronic mortality for selected countries and represents all deaths occurring in a country irrespective of whether alcohol was a direct or indirect contributor.

Table 7: Acute and chronic mortality 2004 SDR (age-standardized death rates) per 100,000 in selected countries

	Acute mortality				Chronic mortality			
	Falls	Intentional injuries	Traffic casualties	Accidental poisoning	Alcohol-use disorders	Liver cirrhosis	Mouth and oropharynx cancer	Ischaemic heart disease
Australia	2.27	13.63	8.91	3.05	0.99	3.77	2.69	85.46
Canada	3.08	12.09	8.45	2.73	1.61	5.24	2.06	82.97
Czech Rep.	12.18	14.31	8.65	2.76	0.76	12.36	4.04	141.13
Finland	10.84	23.2	7.77	9.12	3.63	9.6	1.82	122.98
France	8.69	15.01	13.06	0.79	3.37	11.45	5.85	39.12
Germany	4.4	11.15	8.05	1.14	4.01	13.36	3.77	95.74
Hungary	18.67	25.96	11.69	1.4	2.87	45.79	12.64	179.07
Italy	7.48	6.38	11.76	0.37	0.22	10.73	2.9	57.2
Netherlands	2.66	9.54	6.59	0.74	1.39	4.44	2.47	70.17
Spain	2.31	7.49	13.98	2.03	0.52	8.45	3.75	49.94
Sweden	18.45	21.1	5.84	1.49	2.47	3.97	1.69	89.28
UK	14.8	14.62	5.62	1.91	0.87	7.36	2.15	112.41
USA	6.78	20.21	15	0.58	1.9	7.47	2	112.4

Source: WHO

The most common cause of acute mortality varies across countries; however in almost all countries intentional injuries appear as the largest contributor to acute mortality, including in the UK. Several interesting figures can further be discerned, such as the high rate of falls in Sweden, the high rate of traffic casualties in France and the US. The largest contributor to chronic mortality by far is ischaemic heart disease, accounting for as many as 112 deaths per 100,000 inhabitants in both the UK and the US. Interesting to note in this respect is the relatively low incidence of ischaemic heart disease in France, especially when compared to those countries with higher rates.³⁷

³⁷ It is necessary to treat the data with some caution, as mortality data in the UK has shown to have been strongly influenced by changes to the rules on how coroners report deaths.

Box 4: Alcohol-related mortality and morbidity in the Netherlands and Australia³⁸**Netherlands**

There has been a steady rise in the number of clients in addiction care (outpatient) since 2001. There were 31,000 in 2005, an increase of 45% from 1996. The number of alcohol-related admissions in hospital has not increased at 4,553, of which 29% are for alcohol use and 28% for alcoholic liver disease. Admissions where alcohol use is a secondary diagnosis has increased year on year by about 14% to 11,000 in 2005. The number of alcohol-related deaths and injuries in traffic has stabilized (about 10% of all fatal accidents). The total number of deaths due to alcohol-related illnesses has not increased further and has stabilized. A total of 1,003 people died of secondary causes related to alcohol use in 2005 compared to 771 deaths due to primary causes linked to alcohol use. Alcohol is in the fourth leading cause of death.

Australia

Approximately 5% of all reported deaths are related to alcohol, translating to an average of 15.2 years of life lost per death. The alcohol-related mortality level is higher for men than for women (7% and 4% respectively), while for those aged less than 30 years alcohol misuse is the primary cause of death for 18% of males and 10% of females.

The two top causes attributable to male alcohol-related deaths are alcoholic liver cirrhosis (23%) and road cash injuries (17%), while stroke (35%) and fall injuries (15%) are the main causes among women. In 1998 there were 43,032 hospital episodes attributed to alcohol, with alcoholism and alcoholic liver cirrhosis given as the main reasons for admission. Alcohol is also an important factor contributing to many chronic health problems, such as liver cirrhosis, cancer, cardiovascular disease, foetal alcohol syndrome and mental disorders.

2.5 Social and economic cost of alcohol harm

Monetary costs stemming from alcohol harm and misuse are not easily calculated due to the wide range of direct and indirect costs involved as well as the wide range of possible effects stemming from alcohol harm and misuse. These range from the costs of hospitalizations to costs of domestic abuse, working days lost, and drink-driving. Some of these categories are different between countries. Hence various methodologies are employed in order to estimate the total cost of alcohol misuse and harm to society. Estimations of the economic costs of alcohol harm are more common in English-speaking countries, such as the US, Canada and Australia, though several estimates for European countries exist. An overview of various estimations is provided in Table 8, yet these

³⁸ Source for the Netherlands case study was: Trimbos Instituut, "Nationale Drugmonitor: Jaarbericht 2006" (2007).

Sources for the Australia case study were: National Expert Advisory Committee on Alcohol, *Alcohol in Australia: issues and strategies* (Canberra: Commonwealth Department of Health and Medical Research Council, 2001).

Ministerial Council on Drug Strategy, *National Alcohol Strategy 2006-2009: Towards Safer Drinking Cultures*, (Commonwealth of Australia, 2006).

estimations are difficult to compare due to the wide range of methodologies used. That costs can be quite substantial is underlined by the fact that, where available, costs accrue to one or more per cent of GDP.

Table 8: Social and economic costs of alcohol abuse in selected countries

	Year	Total cost estimate	% of GDP
Australia	1998-1999	A\$ 7,560.3 million	1.09^A
Canada	1992	\$7.52 billion	1.1
EU	2003	€125 billion	1.3
Finland	1990	\$3.351-5.738 billion	0.63-1.07 ^A
France	1997	115 420.91 FF	1.42
Germany	2002	€20 billion	0.93^A
Italy	2003	€26-66 billion	5-6
Netherlands	2001	€2.577 billion	0.58^A
Scotland	2002-2003	£1.13 billion	1.5
Sweden	2002	30-120 billion Swedish kronor	2-8
UK	2002	£15.4 billion	1.47^A
USA	1998	\$184.6 billion	2.1^A

Source: WHO 2004

A = RAND Europe calculations with the use of UN Statistics on GDP

In the course of this research, we have identified a number of specific studies that have aimed to establish the direct and indirect costs of alcohol harm and the treatment of alcohol harm. In Germany, the Robert Koch Institute conducted a study in 2002 into the direct and indirect costs of alcohol-associated diseases, estimating the total annual cost to be around €20 billion. The different cost factors are presented in Table 9.

Table 9: Direct and indirect costs of alcohol-associated diseases in Germany

Direct costs	€m	Indirect costs	€m
Hospital treatment	1,919	Mortality	7,018
Ambulatory treatment	1,604	Early retirement	3,106
Inpatient rehabilitation	318	Rehabilitation	247
Outpatient rehabilitation	10	incapacity for work	1,283
Preventive measures and counselling services	1,779	Occupational and travel accidents	695
Education and research	84		
Administrative and investment costs	730		
Ambulance transport (only statutory insurance)	79		
Death benefit	40		
Material damage	999		
Occupational and travel accidents (double counting)	971		
Direct costs total	7,883³⁹	Indirect costs total	12,350
	Total costs	20,233	

SOURCE: (Bergmann and Horch, 2002)

In the US, the cost of alcohol abuse alone was estimated in 1998 to be close to \$185 billion.⁴⁰ These costs include: about \$18.9 billion in medical expenditures to treat the medical consequences of alcohol abuse and alcoholism, \$134.2 billion due to lost earnings, \$31.6 billion for other impacts to society (for example specialty alcohol services such as alcohol abuse treatment, crime costs and social welfare administration).⁴¹ Other estimates indicate that alcoholism and alcohol abuse cost about \$100 billion annually.⁴²

In the Netherlands and Canada, there have been some studies on the costs of treatment of alcohol abuse. In the Netherlands, the costs of hospital treatment in 1996 were estimated by KPMG to be €125m and for general practitioners to be €10m.⁴³ KPMG, in a more recent report, estimates these costs to be at least double the initial 1996 amount based on

³⁹ Please note the difference between the sum of the direct costs and the total. The total has been adjusted to avoid double counting of occupational and travel accidents.

⁴⁰ National Institute on Alcohol Abuse and Alcoholism, "Estimated Economic Costs of Alcohol Abuse in the United States, 1982 and 1998(a)" <http://www.niaaa.nih.gov/Resources/DatabaseResources/QuickFacts/EconomicData/cost8.htm> (accessed April 2008).

⁴¹ World Health Organization, *Global Status Report on Alcohol 2004* (Geneva: WHO, 2004).

⁴² National Institute on Alcohol Abuse and Alcoholism, "Executive Summary: Improving the Delivery of Alcohol Treatment and Prevention Services: A national plan for alcohol health services research" <http://pubs.niaaa.nih.gov/publications/exsum.htm#intro> (accessed April 2008).

⁴³ KPMG (2001) *Kosten en Baten van Alcoholzorg en Preventie: Eindrapport*, report produced for the NIGZ and GGZ.

increased hospital admissions and the cautious initial approach of measurement. These numbers are to some extent confirmed by information by local health providers at the municipal level. In Canada, there have been some province-based estimations of the costs of drug treatment including alcohol.⁴⁴

2.6 Conclusions

This chapter provides baseline data to draw comparisons between countries. Though the different definitions used for commonly used terms (such as binge drinking) can make direct comparisons problematic, several WHO and European Commission studies have tried to overcome these difficulties. Their data allow us to arrive at some tentative conclusions. In general, alcohol consumption has been falling slightly in most of the OECD countries over the time period considered, with the exception of countries such as Finland, Luxembourg and the UK. The most recent levels of alcohol consumption in the UK are slightly higher than in Germany, the Netherlands and Finland, but lower than in France and Luxembourg. Heavy drinking and binge drinking tends to be higher in the UK compared to most other European countries. This seems especially the case for youth drinkers in Scotland, Wales and Northern Ireland. However, the incidence of binge drinking is close to the European average. In most of the countries studied, men and young people misuse alcohol more than women and older people respectively. Consumers from higher socioeconomic status tend to use more alcohol than those from a lower socioeconomic class, though lower-income groups tend to drink more in one sitting.

It is much more difficult to compare levels of alcohol-related morbidity and mortality. Nonetheless, the number of alcohol-related hospitalizations and deaths means that in most countries there appear to be significant costs to the health system. This problem is reported on and shared between all countries. For instance, in the UK there are 150,000 alcohol-related admissions. In terms of overall social and economic costs, the WHO reports that these range from 1.1% of GDP in Canada to 2-8% in Sweden. The UK reports alcohol-related social and economic costs of £15.4 billion, with the EU reporting €125 billion in 2003.

⁴⁴ Given that alcohol is part of the overall drug and addiction strategy, these costs are not broken down specifically for alcohol-related interventions.

CHAPTER 3 **Healthcare systems and national alcohol strategies**

3.1 **Introduction**

Having established the prevalence of alcohol consumption and discussed morbidity and mortality in an international context, this chapter compares national strategies to tackle the harmful effects of alcohol consumption. Such a comparison has to take into account the considerable differences between national healthcare systems. Thus, this section provides key facts about the healthcare systems under study before providing an account of the national alcohol strategies and the institutions set up to implement this strategy. This section ends with an account of the funding arrangements for different policy measures.

3.2 **Healthcare systems**

The countries studied vary considerable in the organization of their healthcare systems. Healthcare systems differ, among other things, in how they are funded, in the provision of services, in their degree of centralization of decision-making, as well as in their coverage and costs. Table 10 provides an overview of the key features of the health systems examined in this study. The countries included cover three main types of healthcare systems: tax financed (national) health services (Australia, Canada, England), systems financed by statutory health insurance (Germany and the Netherlands) and systems which predominately rely on private funding (US).

Table 10: Key features of healthcare systems

	Australia	Canada	Germany	Netherlands	USA	England
Type	National health service	National health service	Statutory health insurance/ Private insurance	Statutory health insurance/ Private insurance	Private insurance, Health service for young and old	National health service
Primary source of funding	Tax funding	Tax funding	Statutory health insurance	Statutory health insurance	Private and tax funding	Tax funding
Health insurance coverage for a core set of services, (% of population)	Public 100%	Public 100%	Public 89.6% Private 10.2%	Public 62.1% Private 35.8%	Public 27.3% Private 59.2%	Public 100%
Providers of primary care			Private/self-employed GPs ⁴⁵			
Providers of secondary and tertiary care	Public hospitals 70% (of beds) Private for profit 30%	Not-for-profit 95%, Private for profit 5%	Public 54% Private, not-for-profit 38%; Private for profit 8%	Public university hospitals 10% Private not-for-profit hospitals 90%	Private for profit 10% Private not-for-profit 70% Public (county- or municipality-run) 20%	(90%+ of healthcare in Britain provided by the State through the NHS) ⁴⁶
Total health expenditure as % of GDP (2004)⁴⁷	9.2%	9.9%	10.9%	9.2%	15.3%	8.3%

Sources: HiT country profiles⁴⁸, OECD Health Data 2007, Taylor, D. (2002) What price for-profit hospitals? *Canadian Medical Association Journal* 28.

3.3 National strategies

All the countries we studied have policies in place to tackle the harmful effects of alcohol consumption. However, not all countries have comprehensive national alcohol strategies in place, that is, specific strategies encompassing healthcare and non-healthcare policies. While we can see a trend towards specific strategies across the sample of countries, no statements on the

⁴⁵ GPs often work as salaried employees in GP-led practices, see e.g. the Netherlands.

⁴⁶ British Council (http://elt.britishcouncil.org.pl/elt/h_what.htm#NHS, accessed April 2008).

⁴⁷ OECD, “OECD Health Data 2006” (Paris: OECD, June 2006) <http://ocde.p4.siteinternet.com/publications/doi/files/012006061T02.xls> (accessed April 2008).

⁴⁸ European Observatory on Health Systems and Policies, “Health Systems in Transition, HiT Summary Germany” (2002). <http://www.euro.who.int/observatory/Hits/TopPage> (accessed April 2008).

European Observatory on Health Systems and Policies, “Health Systems in Transition, HiT Summary Australia” (2006). <http://www.euro.who.int/observatory/Hits/TopPage> (accessed April 2008).

European Observatory on Health Systems and Policies, “Health Systems in Transition, HiT Summary The Netherlands” (2005). Available at <http://www.euro.who.int/observatory/Hits/TopPage> (accessed April 2008).

European Observatory on Health Systems and Policies, “Health Systems in Transition, HiT Summary Canada” (2005). <http://www.euro.who.int/observatory/Hits/TopPage> (accessed April 2008).

effectiveness of the different approaches can be made. In general, we can distinguish three groups of alcohol strategies (see Figure 2).

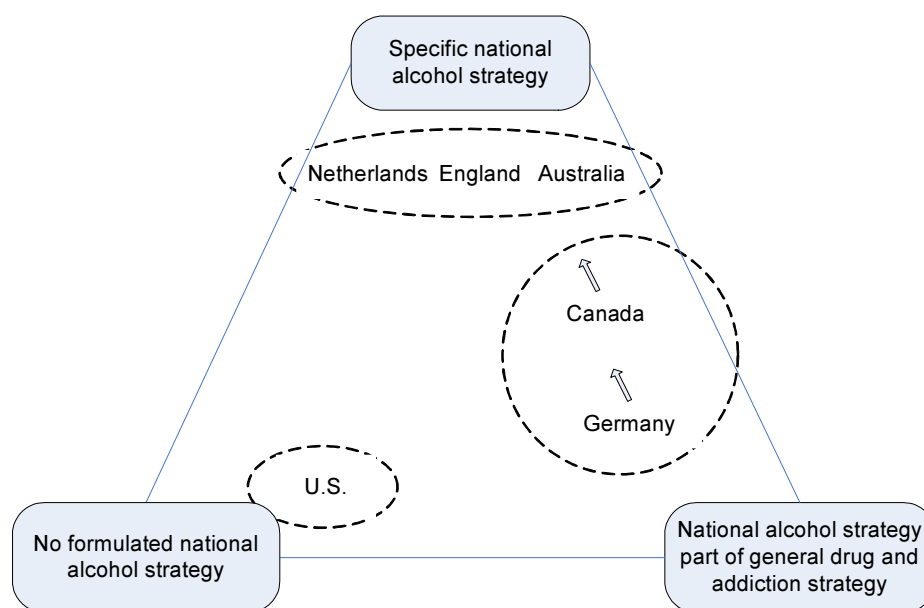


Figure 2: National alcohol strategies

A first group of countries, including Australia, the Netherlands and England, has specific national alcohol strategies in place encompassing a wide range of health and non-health interventions. In Australia, such a strategy has been in place since the late 1980s. Initially, national strategies relating to alcohol use have been developed under the *National Drug Strategy*, a cooperative venture between the Commonwealth, State and Territory governments, and the non-government sector. The strategies were based on a concept of balance between demand reduction, supply reduction and harm reduction. Previous policy documents also include a *National Health Policy on Alcohol in Australia* adopted in 1989, which drew on a range of evidence to describe the harms associated with the inappropriate use of alcohol. With a focus on the “social drinkers”, this document paid particular attention to three aspects of alcohol-related problems, those of underage drinking, binge drinking and drink-driving; and highlighted the need for a comprehensive national approach to these harms. The development of a *National Alcohol Action Plan* in 1995, outlining the breadth and diversity of alcohol reduction initiatives, served as a tool to target the harm associated with the misuse of alcohol and to identify the gaps in coverage to be addressed in future national policy documents. A strategy specifically focusing on harms caused by alcohol was introduced in 2001 in a document entitled *National Alcohol Strategy 2001 to 2003-04*. This policy document drew on existing alcohol plans, with the aim to facilitate cooperation by establishing a coordinated national policy on alcohol. This goal has also been voiced in the latest strategy, *National Alcohol Strategy 2006-2009: Towards safer drinking cultures*, published in 2006. This document outlines priority areas for coordinated action to prevent and minimize alcohol-related harm to individuals, families and communities in Australia.⁴⁹

⁴⁹ National Expert Advisory Committee on Alcohol, *Alcohol in Australia: issues and strategies* (Canberra: Commonwealth Department of Health and Medical Research Council, 2001); Ministerial Council on Drug Strategy,

In the Netherlands, the government sets out its priorities for an alcohol strategy in a policy note approved by the cabinet (*Hoofdlijnenbrief Alcoholbeleid*). The most recent version was published in November 2007 and devolved more authority to local government to tackle the issue of alcohol harm.⁵⁰ Some of the devolved legal powers include allowing municipalities to ban ‘happy hours’, raise the minimum legal drinking age to 18, close non-compliant licensees, and change the opening hours of bars. The Dutch government is committed to allowing local government to tackle the problem in the local context and allowing innovative approaches taken by municipalities to become embedded. The central government will provide additional resources for municipalities, though the exact distribution of resources is dependent on how pro-active municipalities are and is not pre-determined.⁵¹ The main focus of the new strategy is to reduce alcohol harm among young people. In addition, the Ministry of Health, Welfare and Sport introduced the national Alcohol Action Plan in 2003 aimed at providing additional services to these with heavy and problematic use.

In England, the first national, joined-up alcohol strategy was announced in 2004⁵² and has been followed up and revised in 2007.⁵³ In the revised strategy, the government announced a wide range of measures to be implemented across departments and levels of government. The revised “Safe. Sensible. Social” strategy lists a wide range of measures: such as introducing more systematic screening and brief intervention schemes, and improved court procedures for alcohol-related offending; and better enforcing of regulations on the sale of alcohol.

The second group of countries consist of Germany and Canada. In both countries, national alcohol strategies are still part of wider drug and addiction strategies, which are mainly designed around the fight against illegal drugs. Both countries are currently moving towards specific national alcohol strategies however, which reflects the increasing recognition of alcohol problems as a growing and specific problem.

In Germany, alcohol is included in the national policy to combat drugs and addiction (*Drogen- und Suchtpolitik*), drafted by the Federal Ministry of Health and the Federal Commissioner for Drug and Addiction.⁵⁴ This policy is based on four “pillars”:

1. Prevention: “Act before addiction occurs” – e.g. media campaigns for responsible drinking.
2. Counselling, advice, rehabilitation: “help is possible” – e.g. in- or outpatient.

National Alcohol Strategy 2006-2009. Towards Safer Drinking Cultures (Commonwealth of Australia, 2006); WHO, “Western Pacific Region: Substance Abuse Country Studies Australia” (2004), www.who.int/substance_abuse/publications/en/australia.pdf, (accessed April 2008).

⁵⁰ Ministerie van Volksgezondheid, Welzijn en Sport, *Hoofdlijnenbrief Alcoholbeleid* (Den Haag, 2007), <http://www.minvws.nl/kamerstukken/vgp/2007/hoofdlijnenbrief-alcoholbeleid.asp> (accessed April 2008).

⁵¹ Interestingly, the devolution of authority has led stakeholders to comment that more reliance on local government should not come at the expense of national initiatives and fear that the coherence and consistency of national policy might be undermined (Stichting Alcoholpreventie (STAP), “Kabinet Schuift Verantwoordelijkheid Alcoholbeleid naar Gemeenten” (2007), <http://www.allepersberichten.nl/persbericht/603/1/Kabinet-schuift-verantwoordelijkheid-alcoholbeleid-naar-gemeenten/> (accessed April 2008).

⁵² Cabinet Office, *Alcohol Harm Reduction Strategy for England, 2004*.

⁵³ Department of Health, *Safe. Sensible. Social. The next steps in the National Alcohol Strategy, 2007*.

⁵⁴ See: Die Drogenbeauftragte der Bundesregierung, *Aktionsplan Drogen und Sucht*, Bonn: Bundesministerium für Gesundheit und Soziale Sicherung, 2003. Die Drogenbeauftragte der Bundesregierung, *Drogen und Sucht - ein Plan in Aktion*, Bonn: Bundesministerium für Gesundheit, 2006.

3. Help for survival and damage reduction: “ensure survival” – e.g. case manager for people with alcohol dependence.
4. Repression and reduction of supply: “cutting off the supply” – e.g. tax on “alcopops” (flavoured alcoholic beverages).

Currently, a new national action plan on alcohol is being discussed within the Drug and Addiction Council, an advisory body of the federal government consisting of key stakeholders.

In Canada, alcohol policy currently sits within a drug and addiction policy, but they are also currently working towards a national alcohol action plan for alcohol. This new strategy, which has been drafted through a wide stakeholder consultation, is scheduled to be adopted in spring 2008. It lists 41 recommendations in four strategic areas of actions.⁵⁵

1. Health promotion, prevention and education – which aims to raise public awareness about responsible alcohol use.
2. Health impacts and treatment – which aims to reduce the negative health impacts of alcohol consumption and address its contribution to injury and chronic disease.
3. Availability of alcohol – which aims to implement and enforce effective measures that control alcohol availability.
4. Safer communities – which aims to create safer communities and minimize harms related to intoxication.

The third group of countries, those that do not have a single, comprehensive alcohol strategy at the national (federal) level, consists only of the US in our country sample. Although the US has various policies and organizations at federal and state level to tackle different aspects of alcohol harm, it appears not to have an overarching strategy to address alcohol harm at the national level. Nevertheless, federal agencies such as the Substance Abuse and Mental Health Services Agency and the National Institute for Alcohol Abuse and Alcoholism conduct a wide range of activities – including research – on alcohol misuse prevention and treatment.

Specific targets, rather than political objectives, are not common in the alcohol strategies in the five countries studied here. The German action plan on drug and addiction, for example, does not contain specific targets, and the draft Canadian alcohol strategy formulates only broad policy aims. The Australian National Alcohol Strategy⁵⁶ breaks down the priority areas into more fine-tuned actions to be undertaken, but without defining performance targets. In the US and the Netherlands, no specific targets are formulated. In the Dutch strategy, targets are not explicitly mentioned. In England, a first set of performance targets will come into effect in 2008.

3.4 The provision of services to reduce alcohol harm

The provision of services to reduce alcohol harm varies between countries, but is best described as very decentralized in the four federal states (Australia, Canada, Germany, the US), although most of these countries do have central government agencies working on alcohol use and harms (such as the American National Institute for Alcohol Abuse and Alcoholism, which conducts research

⁵⁵ National Alcohol Strategy Working Group, *Reducing Alcohol-Related Harm in Canada. Toward a Culture of Moderation* (Ontario, 2007).

⁵⁶ Ministerial Council on Drug Strategy, *National Alcohol Strategy 2006-2009. Towards Safer Drinking Cultures* (Commonwealth of Australia, 2006).

on the issues). In the Netherlands, the devolution of authorities by the central government means that the provision of services is embedded at the local level, even though several national players have a strong role in the provision of health-related services and the determination of the framework for the provision of these services, including contracts between those providing the services at the local level and the insurance funds.

Australia

In Australia, the health services aimed at reducing alcohol harm are delivered by public and private agencies. The most recent data on alcohol treatment in a 2005-2006 period show that 57% of services were delivered by non-government providers. One of the biggest independent alcohol-related service providers is AER Foundation, which was established in 2001. AER received a AU\$115m grant from the Australian Government to address prevention, treatment, research and rehabilitation for the misuse of alcohol and other drugs. The AER Government funding gradually decreases over a period to be replaced by private sector support. In 2005-2006, AER allocated over 600 grants to various organizations throughout Australia. This financial support involved a number of programmes, namely collaborative partnerships, prevention, rehabilitation, public education, research, scholarship, workforce development and treatment programmes. More specifically, out of \$95.1m allocated in 2005-2006 (92% of Trust Account Funds), 41% was spent on treatment and rehabilitation programmes, and the remainder was equally distributed between specific preventive programmes, public education programmes, and programmes focused on Indigenous people.⁵⁷ In addition, in 2005-2006, a national total of 664 government-funded alcohol and other drug treatment agencies provided services for patients. The majority of agencies (57%, or 379 out of 664) were non-government providers. In general, treatment agencies were mostly located in major cities (56%) and inner-regional areas (26%).⁵⁸

There are substantial variations across jurisdictions in the commissioning and delivery of alcohol-related services. In some states, such as Victoria, nearly all services are delivered by not-for-profit and private organizations. In other states, such as Western Australia, about a third of services are provided by public agencies; whereas in Southern Australia, a large proportion of the budget goes to government agencies.

In terms of service provision, when a new service need is identified, the government announces a call for tender, and all organizations can respond to that invitation. Once the services are established, the government tends to renew contracts so that agencies do not have to bid every year. This is a deliberate government approach (contract management and renewal on the bases of successful performance) for when they are satisfied with the level and quality of services provided by agencies. In addition, many of the service providers are small (local) and run on limited financial resources, therefore if they had to devote a lot of energy to tendering it would divert their focus and resources from direct services provision.⁵⁹ The alcohol services providers were (and still are) church- and welfare-based organizations. There are some national agencies, such as Turning Point, Salvation Army and Mission Australia among others; however, it is quite difficult to run a national service because of Australia's size. Most of the not-for-profit agencies are local; they may have several offices but usually operate only in one region or state.⁶⁰

⁵⁷ AER Foundation, "Annual Report 2005-2006", http://www.aerf.com.au/pages/images/AER%20AR%2006%20v5_singlepages.pdf (accessed April 2008).

⁵⁸ It should be noted that not all the alcohol and other drug treatment agencies are within the scope of AODTS-NMDS.

⁵⁹ Member (2) of Australian National Alcohol Strategy 2006-2009.

⁶⁰ Member (2) of Australian National Alcohol Strategy 2006-2009.

Some non-governmental organizations (NGOs) contribute substantially to the welfare of substance users and abusers, both through the provision of services and as lobby groups advocating change to government policies. Many of these organizations receive funding from state and territory governments or the Commonwealth government, or both. Non-government service providers run a range of mostly non-medical, residential and non-residential treatment services that are widely used by those who have already undergone detoxification in a hospital. The programmes run by NGOs offer outreach services, counselling, and community education and referral, and vary in the approaches they take with respect to the treatment modalities they employ.⁶¹

Canada

The responsibility for managing alcohol problems in Canada falls largely on the provinces and territories. It is the 11 provinces and 2 territories that are primarily responsible for regulating the sale of alcoholic beverages – which contribute to provincial and territorial revenues – and for providing health services, including treatment and prevention for alcohol-related problems. Private and public facilities deliver treatment services for alcohol problems. Voluntary organizations that deliver services for alcohol problems include Alcoholics Anonymous (AA), which is nation-wide. Some provinces have alcohol-specific volunteer-based services such as the unique designated driver programme in British Columbia, called Operation Red Nose, which is a campaign hosted by the Delta Gymnastics Society in partnership with Insurance Company of British Columbia, the RCMP, Delta Police and the BC Crime Prevention Association.

For most but not all of the provinces and territories, the Regional Health Authorities have the responsibility for commissioning services and they agree contracts with the providers for service delivery in the public facilities. The populations vary from 29,500 in Nunavut to over 12m in Ontario. In addition, the Federal Government is responsible for the commissioning of services for particular groups, including First Nations people living on Reserves, the Armed Forces and Veterans, and the National Correctional Services (for people incarcerated for two years or more). Correctional Service Canada operates a standardized programme to tackle alcohol dependence in the Federal prison system; but the programmes offered in the provincial and territorial prisons (where people are serving less than two-year sentences) vary widely in availability and structure, and in many cases are determined by partnerships available with community organizations such as AA.

In general, treatment and services for alcohol-related problems are provided by the specialist sector of addiction medicine but primary care, hospitals and community agencies are also involved. Some provinces, such as Québec, are working towards a needs-based delivery system, but alcohol-specific delivery targets or financial incentives are unknown in the provincial and territorial governments. In the province of Alberta, for example, the Alberta Alcohol and Drug Abuse Commission (AADAC) is an agency under the Department of Health and Wellness with special legislation to mandate the provision of treatment and services either by AADAC directly or by AADAC funding other organizations. A small proportion of private practitioners (such as social workers and psychologists) and community-based agencies provide services. However, the bulk of services and treatment (80-90%) are provided by AADAC and these include non-medically supported detoxification, medically supported detoxification, outpatient counselling, prevention on provincial and local levels and other services that do not require hospitalizations. As a new cross-ministerial initiative, AADAC is currently working with the government's Alberta

⁶¹ Taken from "Inquiry into Substance Abuse in Australian Communities", Chapter 4, <http://www.aph.gov.au/house/committee/fca/subabuse/report/chapter4.pdf> (accessed April 2008).

Gaming and Liquor Commission to develop a provincial alcohol strategy and the initiative includes a number of other players such as the Department of Education.

At the federal level, Health Canada, strengthened by the newly created Public Health Agency, plays a leadership and coordinating role to reduce the harm associated with alcohol through, for example, its National Anti-Drug Strategy; although the new conservative government has re-focused treatment within this strategy on illicit drug use only and excludes alcohol. Alcohol consumption and its effects also fall under the remit of the 2005 Integrated Pan-Canadian Health Living Strategy and, for alcohol-related road safety issues, the national strategy to Reduce Impaired Driving under the Canadian Council of Motor Transport Administrators. In the autumn of 2005, the National Framework for Action to Reduce the Harms Associated with Alcohol and Other Drugs and Substances in Canada identified alcohol as the number one priority. As a result of the publication of *Reducing Alcohol-Related Harm in Canada: Toward a Culture of Moderation – Recommendations for a National Alcohol Strategy* (April 2007), different levels of government, agencies, non-governmental organizations, the alcohol industry and the hospitality industry formed a partnership to implement the recommendations of the comprehensive and coordinated national alcohol strategy.

The links between different agencies working on alcohol issues include all three levels of government; the Canadian Centre on Substance Abuse; the municipal, provincial and national public health agencies; Aboriginal service organizations; the provincial substance abuse agencies; the Canadian Association of Liquor Jurisdictions representing 13 provincial and territorial liquor boards and commissions (retail); and the Association of Liquor Licensing Authorities of Canada, representing 13 provincial and territorial regulatory agencies. These organizations are linked through websites (for example, www.apolnet.ca, the web-based Alcohol Policy Network of Ontario Public Health Association site devoted exclusively to Canadian alcohol policy issues), conferences, knowledge exchange processes and through the Canadian Executive Council on Addictions.

Other agencies, such as the Canadian Medical Association, work on certain aspects of alcohol-related problems, particularly related to impaired driving. For example, CMA is developing a guide for the assessment of people's capacity to drive, and hence is interacting with organizations looking at establishing acceptable blood alcohol concentration levels such as the Council of the Chiefs of Police. Since 1977, a Road Safety programme in British Columbia, called CounterAttack, has made a significant contribution to reducing drinking and driving incidents in the province – the number of alcohol-related deaths in British Columbia has declined by more than half, while the population has increased nearly 60%. The impaired driving countermeasure is financially supported by the Insurance Corporation of British Columbia.

Germany

The Federal Ministry for Health (*Bundesministerium für Gesundheit, BMG*) is the main health policy-maker in the German system. It regulates and supervises the work of the sickness funds and prepares the legislation (the Social Code Books) that defines the basic level of service to be supplied by health insurances. Decisions on health infrastructure (e.g. number of hospital beds) are taken at the *Länder*⁶² level by the *Länder* governments.

In terms of alcohol policy the federal level has a largely coordinating role, as “public health” is predominately the remit of the *Länder* level. At the federal level, there are special bodies to coordinate, monitor and implement the federal drug and alcohol policy in Germany.

⁶² The German states are referred to as *Länder*.

- The Drug Commissioner of the Federal Government (*Die Drogenbeauftragte der Bundesregierung*) is responsible for coordinating the drug and alcohol policies of the different departments and communicates the federal government's drug policy to the public. The power and responsibility for implementing alcohol policy measures however still rests with the respective departments at the federal and Länder level.
- The Federal Centre for Health Education (*Bundeszentrale für gesundheitliche Aufklärung, BZgA*) is responsible for health education on behalf of the Federal Ministry of Health (BMG). BZgA develops educational campaigns and guidance and runs its own campaigns. In addition, the centre conducts research (e.g. into youth drinking) and evaluates existing interventions.
- The *Robert Koch Institut* (RKI) is the federal government's agency for disease control and prevention. The RKI provides scientific advice on public health issues, such as alcohol abuse, and is responsible for health monitoring.

The provision of services to reduce alcohol harm is very decentralized in Germany, with the exception of the prevention and information work done by the BZgA (and the work of a number of additional non-governmental national bodies such as the DHS, described below).

Counselling services and prevention initiatives in local communities are predominantly provided by non-profit organizations such as the church-based charities, the German Red Cross and the voluntary welfare organizations and funded by the states and the municipalities. Often local government also provides support for counselling on drug and alcohol problems by running own counselling practices or supporting local charities. In addition, self-help groups play an important part in counselling. The German Centre for Addiction Issues (DHS) (*Deutsche Hauptstelle für Suchtfragen*), financially supported by the federal government, is the umbrella organization for these various organizations combating addiction problems. The member organizations are responsible for more than 1,400 counselling centres, 160 specialized clinics and 7,500 self-help groups. DHS has predominantly a coordinating function for the providers of counselling and treatment; acts as a central information point for the public; and provides scientific advice.⁶³

Local GPs are often the first point of contact for people with alcohol problems, but treatment, such as detoxification, usually takes place in general hospitals' internal disease wards or in specialized clinics, which increasingly also offer out-patient treatment. In-patient rehabilitation mostly takes place in specialized clinics, but there are also out-patient rehabilitation facilities.

The organizational fragmentation leads to a strong need for coordination. On the federal level, the BZgA takes a leading role in coordinating the prevention and information work between the federal, the *Länder* level and the umbrella organizations of the providers, and there is a multitude of different regional and local coordination arrangements. At the local level, local government often organizes coordination activities.⁶⁴ In the area of treatment and rehabilitation, coordination takes place between the umbrella organizations of the health insurance, the pension insurance and the providers of services.

⁶³ Kraus, Ludwig, Petra Kümmler, Sven Jünger, Thomas Karlsson, and Esa Österberg, "Germany," in Esa Österberg and Thomas Karlsson, eds., *Alcohol Policies in EU Member States and Norway A Collection of Country Reports*, Helsinki: National Research and Development Centre for Welfare and Health (STAKES), 2003,

⁶⁴ Bettina Schmidt, Bettina, *Suchtprävention in der Bundesrepublik Deutschland*, Köln: Bundeszentrale für Gesundheitliche Aufklärung, 2004.

Netherlands

The responsibility for policy making on the prevention and treatment of alcohol abuse in the Netherlands lies with the Ministry of Health, Welfare and Sport.⁶⁵ A range of other ministries play a role in the reduction of alcohol harm, including the Ministry of Youth and Family, and the Ministry of the Interior and the Kingdom. On a national level, the government is supported by several independent organizations including: the Netherlands Institute for Health Promotion and Disease Prevention, which designs prevention measures, and the Trimbos Institute (Netherlands Institute for mental health and addiction), which provides the evidence base for health interventions.

On the local level, the Association of Municipal Health Services (Gemeentelijke Gezondheidsdienst [GGD]) handles the local implementation of the national alcohol strategy. Treatment in outpatient and clinical settings is the responsibility of the Ministry of Health, Welfare and Sport and the Association of Mental Health Providers (Vereniging Geestelijke Gezondheidszorg [GGZ] Nederland), which together represent most of the institutions involved in addiction care and counselling, the majority of which are voluntary, private and non-governmental organizations. There are also a small number of independent foundations and private providers that operate outside this framework.

The GGZ negotiates the arrangements for addiction services with the municipalities responsible for paying out some welfare payments; the Ministry of Health, Welfare and Sport; and the insurance funds. In practice, the regional components of the GGZ work very closely with the regional branches of the GGD. In the 2003 Alcohol Action Plan, the Ministry of Health, Welfare and Sport tasked the GGZ to increase the number of heavy alcohol users receiving interventions. As a result, more than 64,500 problem drinkers asked for help through GGZ-associated organizations. However, this has to be seen in the context of a possible 1.1m problem drinkers in the Netherlands.⁶⁶ GGZ also sets benchmarks for the performance and quality of its providers, allowing those seeking help to make an informed choice. However it is difficult to determine the actual spending on alcohol addiction services in the GGZ, as the services provided by its organizations cover other mental health issues such as problem gambling and other types of abuse; and also its organizations receive their funding from a variety of sources including municipalities, central government and insurance funds. In total, the GGZ employs 60,000 help providers, though numbers are not available for those working solely in alcohol care. Not all services require a referral from a general practitioner, such as for instance brief interventions and screening. In order to familiarise general practitioners with addiction problems, some regions and clinics require a number of general practitioners to work for a period of time in addiction care centres; recruit them on the basis of whether general practitioners have additional qualifications as counsellors or in addiction care; or use dedicated doctors specialized in addiction cases, that is, general practitioners with a specialisation in addiction care, general practitioners who received additional training, or mostly general practitioners with a Master's degree in addiction care.

United States

In the US, treatment for alcohol abuse has become increasingly provided by the private sector. Research has shown that there is a trend in the financing of alcohol treatment services towards an increasing coverage of alcohol treatment by private insurance, and of reimbursement strategies

⁶⁵ Twedde Kamer der Staten Generaal (2004), "Zorg voor Verslaafden", http://www.rekenkamer.nl/9282000/d/p342_tk29660_2.pdf (accessed May 2008).

⁶⁶ GGZ, "Jaarverslag GGZ Nederland 2006", (2006), http://741620.websites.xs4all.nl/Jaarverslag_GGZ_Nederland.pdf (accessed April 2008).

designed to contain costs in the public sector.⁶⁷ According to one estimate, 78% of managed behavioural health care (i.e. addiction and mental health specialist treatment) is provided by for-profit companies.⁶⁸ As with other health and human services – such as for people with mental illness, disabilities and employment training needs – those for people with alcohol and drug dependencies are contracted out extensively by Government agencies.⁶⁹ Private insurance cover for substance abuse, however, declines from 24% in 1991 to 13% in 2001, while financing by public payers – federal, state and local, Medicaid, and Medicare- grew by 6,9% annually in that period (from 68% in 1991 to 76% in 2001).⁷⁰

As a federal country, most decisions on alcohol policy are taken at the state level, and a significant proportion of funding for alcohol interventions is generated by the states themselves.⁷¹ Nonetheless, State provisions must comply with Federal law and regulations. For example, the Federal Minimum Legal Drinking Age Law enacted in 1984, and still in effect, requires that a portion of Federal highway funds be withheld from any States that do not prohibit persons under 21 years of age from purchasing or publicly possessing alcoholic beverages. The aim of adding such conditions to the receipt of Federal funds was to encourage uniformity in the States' minimum legal drinking ages. By 1988, every State had passed legislation to meet the Federal funding requirements.⁷² Another alcohol policy regulated through Federal statute is the mandatory placement of health warning labels on all alcoholic beverage containers. Policies on the retail and wholesale distribution of alcohol are, in contrast, regulated at the state level. For each type of alcohol (beer, wine and distilled spirits) each state may use a state-run distribution system, a system of private licensed sellers, or some combination of these at the wholesale level, the retail level or both. Taxes on alcoholic beverages are also set and levied by each state.

The Federal Government established a number of centres and institutes dealing with alcohol issues, through which funds are channelled for various activities in the field of alcohol research, treatment and prevention. The three most relevant entities are: the National Institute on Alcohol Abuse and Alcoholism (NIAAA), which conducts research on a wide range of areas relevant to alcohol consumption and harms; the Centre for Disease Control and Prevention (CDC), which provides a system of health surveillance to monitor and prevent disease outbreaks, implement disease prevention strategies, and maintain national health statistics; and the Substance Abuse and Mental Health Services Administration (SAMHSA), which administers block grants given to states to fund substance abuse prevention and treatment programmes across the country. At the state level, these grants are managed by the 'single state agency', an arm of the state executive

⁶⁷ National Institute on Alcohol Abuse and Alcoholism. <http://pubs.niaaa.nih.gov/publications/exsum.htm#intro> (accessed April 2008).

⁶⁸ C. Wesiner and L. Schmidt, "Rethinking access to alcohol treatment", in *Recent developments in Alcoholism, Volume 15: Services research in the era of managed care*, ed. M. Galanter (American Society of Addiction Medicine and Research Society on Alcoholism, 2001).

⁶⁹ J. Steven Ott, *Understanding nonprofit organizations: Governance, leadership and management* (UK: Westview Press, 2001).

⁷⁰ Substance Abuse and Mental Health Services Administration, *National Expenditures for Mental Health Services and Substance Abuse Treatment 1991-2001*, United States Department of Health and Human Services (<http://www.samhsa.gov/spendingestimates/chapter6.aspx>, last accessed May 2008).

⁷¹ In fact, each State may permit local jurisdictions to implement policies and impose requirements in addition to those mandated by State law.

⁷² It is worth noting that many states apply various statutory exceptions to the policy banning under-age possession of alcohol. For example, some states allow an exception for possession when a family member consents and/or is present. Others allow an exception for possession on private property.

office. In addition to this federal grant, the single state agency also administers any funds provided by the state itself and its counties.

In addition to the block grants, SAMHSA provides discretionary grants to states and counties for the provision of innovative services to tackle alcohol problems. These grants aim to address particular needs identified within the state or community, and to encourage systemic change by providing resources for the implementation of evidence-based, good practice initiatives.

SAMHSA also promotes good practice in alcohol prevention and treatment through other activities. For example, the agency developed a framework to assist communities in implementing measures to prevent and reduce alcohol misuse: the Communities That Care programme. Communities That Care aims to empower communities to use advances from ‘prevention science’ to guide their prevention efforts.⁷³ Only prevention programmes that have been evaluated using high-quality methodologies were selected for inclusion in this Strategy.⁷⁴ This exemplifies one of the ways in which SAMHSA promotes the use of evidence-based practice in the field of alcohol prevention and treatment.

According to experts in NIAAA and SAMHSA, the close working relationship between the two agencies ensures that research and evidence on effective alcohol policy and practice can be brought to bear in policy-making.⁷⁵ SAMHSA’s activities are informed by research conducted by NIAAA, which is trusted as an independent scientific organization.

3.5 Funding interventions to reduce alcohol harm

There are a number of reasons why it is difficult to provide a comprehensive account of funding arrangements and actual budgets of alcohol-related policy measures for the countries under study. First, four of the five countries under study have a federal structure and have very decentralized provision of services and preventive measures. Second, services aimed at tackling the harmful effect of alcohol consumption are often integrated into the normal provision of health services or wider addiction and drug policies. Finally, measures can cut across several policy areas (e.g. road safety, tax, and the hospitality sector). Even government officials in several countries pointed out that there are currently no overviews of all the relevant funding streams for alcohol-related measures.⁷⁶ Nevertheless, this section presents the available evidence on funding mechanisms and funding levels for alcohol policies.

Australia

The federal form of government in Australia has traditionally meant that spending on interventions to tackle harmful consumption of alcohol is the responsibility of three levels of government: federal, state/provincial and local. Historically, the federal government was

⁷³ Substance Abuse and Mental Health Services Administration accessed via website “US Department of Health and Human Services and SAMHSA’s National Clearinghouse for Alcohol & Drug Information” <http://ncadi.samhsa.gov/features/ctc/> (accessed April 2008). For *Communities That Care Prevention Strategy Guide* see: <http://download.ncadi.samhsa.gov/Prevline/pdfs/ctc/CTC%20Prevention%20Strategies%20Guide%20.pdf.pdf> (accessed January 2008).

⁷⁴ Substance Abuse and Mental Health Services Administration: *Communities That Care Prevention Strategy Guide* see: <http://download.ncadi.samhsa.gov/Prevline/pdfs/ctc/CTC%20Prevention%20Strategies%20Guide%20.pdf.pdf> (accessed January 2008).

⁷⁵ Interviews with officials from NIAA and SAMHSA, 19/02/08 and 22/02/08 respectively.

⁷⁶ Interviews with Member (1) of Australian National Alcohol Strategy 2006-2009 team (07/02/08) and official from Deutsche Hauptstelle für Suchtfragen (German Centre for Addiction Issues) (7/02/08).

responsible for revenue collection and policy setting; whereas state and territories governments, and local governments were responsible for direct service provision. Changes that have occurred in recent years mean that national governments have become involved in providing additional grants and programmes aimed at specific treatment services, making the picture of alcohol spending in Australia even more complex.⁷⁷ There is specific funding for primary (prevention) and secondary (brief interventions) strategies and initiatives; and specific in-patient, out-patient and tertiary funds. The majority of funding goes to tertiary and secondary care (in that order), with only a small proportion going to primary prevention services. The federal government also provides specific funding for non-government sector treatment and national prevention campaigns.⁷⁸

In 2004/5, spending on prevention of hazardous and harmful drug use constituted 13.5% of the total public health expenditure. Out of the total Au\$194.2m budget for tackling drug use problems, AU\$68m was spent by the Australian Government and AU\$126.2m by state and territories governments. It should be noted that this expenditure does not include drug prevention monies allocated to non-health state government departments undertaking drug and alcohol prevention activities, and therefore does not represent total expenditure in this area by the Government.⁷⁹

In addition to the core alcohol spending, the Australian Government provided AU\$55m in the form of Specific Purpose Payments (SPPs) to support state and territories governments' programmes aimed at achieving agreed public health outcomes in hazardous and harmful drug use.⁸⁰

Canada

Health Canada gives a block funding to those provinces and territories that hold the budget for delivering alcohol reduction programmes. Expenditure for public health and prevention was approximately 9% of total health expenditure in 2003.⁸¹ Constitutionally, the federal government does not have the policy levers to dictate to the provinces and territories how to use the block transfer. Thus, it is up to the discretion of the provinces and territories how they use the block funding, unless there are "specific agreements" with the federal government – and none exist for alcohol. Some governments have specific funding for specific initiatives; however in most others, funding for alcohol initiatives cannot be separated from funds allocated to other drug use and, in some areas where the two treatment fields have been linked, from mental health programmes. In tertiary care, there is routine funding for the specialist addiction sector. In Nova Scotia, for example, provincial mental health and addiction expenditure per capita for fiscal year 1999 to 2000 was C\$1.43. More recent estimates show that the Department of Health and Promotion budget to support the Nova Scotia Alcohol Strategy, C\$368,100 plus an additional C\$421,700 (totalling C\$789,800), is provided to District Health Authorities to hire five coordinators to support the community-based implementation of the Strategy. The total Addiction Services

⁷⁷ Member (1) of Australian National Alcohol Strategy 2006-2009 team, 07/02/08.

⁷⁸ Member (2) of Australian National Alcohol Strategy 2006-2009 team, 07/02/08.

⁷⁹ Australian Institute of Health and Welfare (AIHW), *National public health expenditure report 2004–05*. Health and welfare expenditure series no. 29. Cat. no. HWE 36. (Canberra: AIHW, 2007).

⁸⁰ Australian Institute of Health and Welfare (AIHW), *National public health expenditure report 2004–05*. Health and welfare expenditure series no. 29. Cat. no. HWE 36. (Canberra: AIHW, 2007).

⁸¹ *OECD health database*, (Paris: Organization for Economic Co-operation and Development, 2002). <http://www.oecd.org>

budget for Nova Scotia is C\$29m.⁸² In Alberta, the budget for AADAC in 2006/7 was C\$94.6m; while the revenues from alcohol, tobacco and gambling were more than C\$2.9 billion. Although the commission's budget has gradually increased over the past few years, it represents a fraction of the government revenue from alcohol, tobacco and legalized gambling and less than 1% of the total budget (C\$12.0 billion in 2007/8) for the Ministry of Health and Wellness.⁸³

At the federal level, there was an Alcohol and Drug Abuse funding programme (now re-focussed on illicit drug use only) but this was block funding to deal specifically with addiction treatment. In 2007, the budget to implement the Treatment Action Plan for illicit drug use was only C\$32m over the next two years. Nevertheless, there is a new funding envelope that is part of a government programme to provide additional funding at the national level for targeted treatment for alcohol and drugs use among young people.⁸⁴

Finally, the long-standing National Native Alcohol and Drug Abuse Program (NNADAP) is a comprehensive programme offered by Health Canada to First Nations people. It has a total of C\$24.9m to spend annually as contribution agreements, which is supplemented by funding provided by transfer agreements. The total funding for this prevention activity is therefore nearly C\$30m annually. In a review, most NNADAP centres were found to operate on an extremely cost-effective basis with an average per day cost of roughly C\$100 per client, representing good value for money.⁸⁵

Germany

In Germany, funding for measures to reduce the harm of alcohol principally originates from six sources: the federal government, general health insurance, national pension insurance, the *Länder*, municipalities and charities. The federal government finances the national prevention work, designating €500,000 in 2007 for the general alcohol prevention work of the BZgA and a further €850,000 specifically for youth-targeted measures.⁸⁶ In addition, the federal government supports specific research programmes and maintains the Robert-Koch-Institute which provides scientific advice. In- and outpatient treatment are funded by the general health insurance, while the national pension insurance finances rehabilitation measures aimed at bringing alcohol dependent patients back into work. The remainder of the non-medical prevention and counselling services are financed by the *Länder*, within their public health mandate, and the municipalities. While there is no aggregated data on prevention spending by the *Länder*, there are estimates that it currently employs around 500 staff to deal with prevention issues. At the local level, municipalities contribute to the funding; and charities, which run most of the counselling services, might also add some funding.⁸⁷

⁸² Interview with official from the Canadian Executive Council on Addictions, 21/02/2008.

⁸³ Alberta Alcohol and Drug Abuse Commission, *Alcohol, Other Drug and Gambling Problems in Alberta: Services and Perspectives* (September 2007).

⁸⁴ Interview with officials from the Drug Strategy and Controlled Substances Programme Health Canada and the Centre for Addiction and Mental Health (CAMH), 31/01/08 and 21/02/08 respectively.

⁸⁵ "National Native Alcohol and Drug Abuse Program (NNADAP) Review". http://www.hc-sc.gc.ca/fnih-spni/pubs/ads/nnadap_rev-pnlaada_exam/index_e.html (accessed April 2008).

⁸⁶ Interview with representative of the Federal Ministry for Health in Germany, on 01/02/08.

⁸⁷ Ludwig Kraus, Petra Kümmler, Sven Jünger, Thomas Karlsson, and Esa Österberg, "Germany," in Esa Österberg and Thomas Karlsson, eds., *Alcohol Policies in EU Member States and Norway A Collection of Country Reports* (Helsinki: National Research and Development Centre for Welfare and Health (STAKES), 2003). Kraus, Ludwig, Petra Kümmler, Sven Jünger, Thomas Karlsson, and Esa Österberg, "Germany," in Esa Österberg and Thomas Karlsson,

Netherlands

In the Netherlands, the cost of hospital treatment in 1996 was estimated by KPMG to be 100m guilders, approximately €45.4m.⁸⁸ In a more recent report, KPMG estimates these costs to be at least double the initial 1996 amount at around €106m; this estimate acknowledges the increased hospital admissions and the initially cautious approach to the measurement.⁸⁹ At the national level, ministries have allocated resources to tackle the issue of alcohol harm. This budget will be €17.7m in 2008, of which €10.3m is allocated to the Ministry of Health, Welfare and Sport, €4.4m to the Ministry of Transport, and €1.3m to the Ministry of Youth and Family.⁹⁰

There is, however, funding allocated specifically to prevention activities. Nevertheless, because the municipalities are responsible for the local implementation of the national strategy, the total amount of funding in the area of prevention is not known. The Ministry of Health, Welfare and Sport has an annual budget of €2.5m to spend specifically on prevention. An additional €400,000 is spent by the Ministry of Transport for drink-driving prevention activities. The incidental costs in 2007 consisted of small subsidies up to €200,000 for organizations tackling the issue of parenting and alcohol. From 2005, the Ministry of Health, Welfare and Sport has made an additional €680,000 available, which is targeted at tackling the issue of youth drinking below the age of 16. The campaign aims to educate and to develop a common national message on the issue.⁹¹ In addition, there are a number of one-time expenses including, in 2003, €1.4m for a national project on awareness raising and prevention undertaken by the Netherlands Institute for Health Promotion and Disease Prevention. Furthermore, the 'Consultation Bureaus for Alcohol and Drugs', which deal with care for the addicted, receive €6.64m for various projects. Finally, in order to enforce laws regulating the sales and purchase of alcohol and to conduct inspections in the hospitality sector, the Food Standards Inspection Authority (Voedsel en Waren Autoriteit) receives €1.73m.⁹²

United States

In the US, many healthcare services provided at the state level are funded by the Department for Health and Human Services, a federal agency. In addition, the Federal Government channels funds in the field of alcohol research, treatment and prevention through the three major national agencies: the National Institute on Alcohol Abuse and Alcoholism (NIAAA), the Centre for Disease Control and Prevention (CDC), and the Substance Abuse and Mental Health Services Administration (SAMHSA). In 2007, the total budgets for these organizations were approximately \$436,505,000 for the NIAAA; \$6 billion for the CDC; and \$3.3 billion for the SAMHSA (the federal block grant fund for states administered by SAMHSA was for \$1,758,727,939).⁹³

eds., *Alcohol Policies in EU Member States and Norway A Collection of Country Reports*, Helsinki: National Research and Development Centre for Welfare and Health (STAKES), 2003,

⁸⁸ KPMG, *Kosten en Baten van Alcoholzorg en –Preventie: Eindrapport*, report produced for the NIGZ and GGZ (2001).

⁸⁹ KPMG, *Excessive alcohol consumption in the Netherlands: trends and social costs*, report produced for the NIGZ and GGZ (2001).

⁹⁰ Ministerie van Welzijn, Gezondheid en Sport, *Hoodlijnenbrief Alcoholbeleid* (Den Haag, 2007) <http://www.minvws.nl/kamerstukken/vgp/2007/hoofdlijnenbrief-alcoholbeleid.asp> (accessed April 2008).

⁹¹ Busch MCM (RIVM), Kuunders MMAP (RIVM), "Wat zijn de kosten? In: Volksgezondheid Toekomst Verkenning, Nationaal Kompas Volksgezondheid" (Bilthoven: RIVM 2007) <http://www.nationaalkompas.nl>Preventie\ Gericht op gezondheidsdeterminanten\ Preventie gericht op leefstijl\ Alcohol> (accessed 25 september 2007).

⁹² E.W. de Bekker-Grob, J.J. Polder, K. Witte, J.P. Mackenbach and W.J. Meerding, "Kosten van preventie in Nederland 2003: Zorg voor euro's" (Bilthoven/ Rotterdam: RIVM/Erasmus MC, 2006).

⁹³ US Department for Health and Human Services, <http://www.hhs.gov/about/whatwedo.html> (accessed April 2008).

CHAPTER 4 **Prevention and treatment of alcohol problems in healthcare systems**

4.1 **Introduction**

Healthcare systems are the key providers of services for people with alcohol use problems. Interventions provided within healthcare settings (particularly screening and brief interventions and specialist treatment) can be considered a form of prevention: when the intervention occurs soon after the onset of alcohol problems it is called *secondary prevention* (screening and brief interventions fit within this category); when it is provided as a means to control the damage associated with chronic drinking, it is called *tertiary prevention* (specialist treatments are tertiary prevention).⁹⁴ As this chapter discusses, healthcare systems do not normally engage in systematic *primary prevention* of alcohol problems, i.e. activities that aim to prevent the onset of alcohol misuse and its attendant harms. The involvement of healthcare systems in primary prevention tends to be limited to alcohol awareness campaigns, which are not typically delivered within healthcare settings. These public education and awareness campaigns are most often designed, implemented and financed by governments' health departments.

The following sections briefly describe the different types of interventions to tackle alcohol misuse provided within healthcare systems in the countries examined in this report. It also presents evidence on their effectiveness – and where available, their cost-effectiveness – as measures for reducing alcohol problems and harms.

4.2 **Screening**

Screening for health conditions is a cornerstone of primary healthcare delivery. Screening tests developed and used in the US, for example, have demonstrated acceptable levels of reliability in the identification of people with alcohol dependence.⁹⁵ As the effectiveness of screening in the prevention of myriad conditions (including alcohol abuse) was demonstrated through studies and evaluations, their demand increased revealing barriers to

⁹⁴ T. Babor et al., *Alcohol: no ordinary commodity*, (Oxford: Oxford University Press, 2003).

⁹⁵ T. Babor and J. Higgins-Biddle, "Alcohol screening and brief intervention: dissemination strategies for medical practice and public health", *Addiction* 95:5 (2000) 677-86.

the provision of preventive care.⁹⁶ These barriers include “inadequate reimbursement by health insurance carriers to health professionals for providing preventive services, inconsistent or inadequate health care delivery across a range of care settings, and insufficient time for busy clinicians to provide the range of recommended preventive services to all patients”.⁹⁷ Even in settings where these problems are not present, “health professionals may fail to provide preventive services because they do not know which ones are most effective”.⁹⁸ In the UK, routine screening and management of alcohol misuse in primary and secondary care settings are not systematically used. For example, a survey of all accident and emergency departments in England found extremely low levels of use of formal alcohol screening tools (2.1%).⁹⁹ Similarly, statistics from Australia and elsewhere show that the alcohol-related problems of more than half of all general practice patients go undetected by health professionals.^{100 101}

Table 11: Common alcohol-screening instruments in medical settings

Measure	Population to be screened	Time to administer (Minutes)
Alcohol Use Disorders Identification Test (AUDIT)	Adults	2
CAGE Questionnaire	Adults and adolescents >16 years	<1
Michigan Alcoholism Screening Test (MAST)	Adults and adolescents	8
Self-Administered Alcoholism Screening Test (SAAST)	Adults	5

Source: Stewart, S. and Connors, G. (2004/2005) Screening for alcohol problems: what makes a test effective? *Alcohol Research and Health* 28(1).

Moreover, according to experts in the field interviewed for this project, even when a person with an alcohol dependence problem is identified through screening and referred to specialist services (rehabilitation, AA and so forth), these patients are very unlikely to act on this referral.¹⁰² That is, a patient with an alcohol dependence problem is unlikely to seek treatment if referred by a clinician – unless the patient sought to consult the clinician on their alcohol problem, rather than on other health complaints, in the first place.

⁹⁶ M. Russel, “Screening in General Health Care”, *Alcohol Research and Health* 28:1 (2004/2005).

⁹⁷ M. Russel “Screening in General Health Care”, *Alcohol Research and Health* 28:1 (2004/2005).

⁹⁸ M. Russel “Screening in General Health Care”, *Alcohol Research and Health* 28:1 (2004/2005).

⁹⁹ BMA Board of Science, *Alcohol misuse: tackling the UK epidemic* (UK: British Medical Association, 2008).

¹⁰⁰ F. Shand, J. Gates, J. Fawcett and R. Mattick, *The treatment of alcohol problems: a review of the evidence*, (Canberra: Commonwealth Department of Health and Ageing, 2003). [http://www.alcohol.gov.au/internet/alcohol/publishing.nsf/Content/1980DFD151B3287FCA257261000E0955/\\$File/alcproblems.pdf](http://www.alcohol.gov.au/internet/alcohol/publishing.nsf/Content/1980DFD151B3287FCA257261000E0955/$File/alcproblems.pdf) (accessed April 2008).

¹⁰¹ National Expert Advisory Committee on Alcohol, *Alcohol in Australia: issues and strategies* (Canberra: Commonwealth Department of Health and Medical Research Council, 2001).

¹⁰² Interview with official from the Substance Abuse and Mental Health Services Administration, 19/02/08.

A meta-evaluation in the Netherlands reports on the effectiveness and cost-effectiveness of self-screening through survey tools posted on websites. These tools allow alcohol users to establish whether they have an alcohol problem and give some options in terms of the need for further care. There is some evidence to suggest that, in general terms, such interventions are more effective in women than in men.¹⁰³

4.3 Brief interventions

Brief interventions for alcohol disorders, used typically in conjunction with screening, have also been the focus of extensive research. They typically consist of a small number of short sessions of counselling and education – most often one to three sessions – delivered by healthcare professionals to individual patients identified as high-risk drinkers.¹⁰⁴ They have become an increasingly important tool in the prevention and treatment of alcohol problems, as they target people whose alcohol consumption is not diagnosable as abuse or dependence, but whose drinking pattern is or can be hazardous and result in harms.¹⁰⁵

Brief interventions aim to reduce alcohol consumption from hazardous levels to non-hazardous ones, and to eliminate binge drinking, rather than insisting that the subject abstain from drinking altogether. While a common aim is to intervene early by targeting people whose alcohol consumption levels are hazardous (or at risk of becoming hazardous) but not dependent, brief interventions are also often used to motivate a harmful or dependent drinker to seek more intensive treatment.¹⁰⁶

Brief interventions in primary care settings have been shown to have positive outcomes in reducing alcohol consumption and its attendant harms. The cumulative evidence from the US (where numerous randomized controlled trials have been conducted assessing their effectiveness) and from other countries, shows that brief interventions can lead to significant effects on drinking behaviour and related problems.¹⁰⁷ A systematic review of their effectiveness has also shown that brief interventions in primary care settings lower alcohol consumption, with the effect being clear with men at one year of follow up, but not clear in women.¹⁰⁸ Nevertheless, there is limited evidence that brief interventions are

¹⁰³ S.A. Meijer, F. Smit, C. Schoemaker and P. Cuijpers, (2006), “Gezond Verstand: Evidence-Based Preventie van Psychische Stoornissen”, *RIVM Rapport 270672001*; *VTV Themaport* (Bilthoven/Utrecht: RIVM/Trimbos-Instituut, 2006).

¹⁰⁴ T. Babor et al., *Alcohol: no ordinary commodity* (Oxford: Oxford University Press, 2003).

¹⁰⁵ A. Moyer and J. Finney, “Brief interventions for alcohol problems: factors that facilitate implementation”, *Alcohol Research and Health* 28:1 (2004/2005).

¹⁰⁶ A. Moyer and J. Finney, “Brief interventions for alcohol problems: factors that facilitate implementation”, *Alcohol Research and Health* 28:1 (2004/2005).

¹⁰⁷ T. Babor and J. Higgins-Biddle, “Alcohol screening and brief intervention: dissemination strategies for medical practice and public health”, *Addiction* 95:5 (2000) 677-86.

¹⁰⁸ E.F.S Kaner, H.O. Dickinson, F. Beyer, E. Pienaar, F. Campbell, C. Schlesinger, N. Heather, J. Saunders, and B. Burnand, *Effectiveness of brief alcohol interventions in primary care populations* (UK: The Cochrane Collaboration, 2008).

beneficial for dependent drinkers (as opposed to those misusing alcohol without actually being alcohol-dependent).¹⁰⁹

Few studies, however, examine the cost-effectiveness of brief interventions. An example of a study of the economic benefits of brief interventions is a randomized controlled trial of screening and brief interventions in primary care setting in the US.¹¹⁰ The study revealed important economic benefits through reduced hospital and emergency department use, fewer criminal and legal events, and fewer motor vehicle incidents.¹¹¹ The evaluation measured the incidence of these amongst two groups of patients: one group who received the brief intervention and one that did not. In the first 12 months, the ‘intervention subjects’ reported fewer emergency department visits (107 visits compared to 132 visits by the 382 control subjects) and fewer days of hospitalization (126 vs. 326). The cost per intervention subject of emergency and hospital care was estimated at \$421 compared to \$943 per control subject. This resulted in a \$522 cost differential in the first 12 months following the intervention. Over 48 months, which was the follow-up period, the cost differential in emergency and hospital care increased to \$712 per patient, against a total cost per intervention subject of only \$205. Cost reductions were also experienced in legal and motor vehicle outcomes.¹¹² The difference in these costs – between the intervention and control subjects, measured against the cost of the intervention – indicates that the intervention is significantly cost-effective. If other outcomes were also taken into account (such as long-term healthcare costs, increases in productivity/reduced absenteeism from work), it is possible that the cost-effectiveness would be increased further.¹¹³

It is important to note, however, that the support for brief interventions found in the research is qualified by a number of caveats. First, a few studies suggest that the long-term efficacy of brief interventions is limited.¹¹⁴ Second, a recent meta-analysis indicates that study attrition lessens the strength of the findings; that is, the number of drop-outs in the studies, who are not typically accounted for, means that the effects of the brief

¹⁰⁹ T. Babor et al., *Alcohol: no ordinary commodity* (Oxford: Oxford University Press, 2003).

¹¹⁰ The intervention consisted of a total of four contacts: two 15-minute sessions with a clinician four weeks apart, and two follow-up calls with a nurse, each two weeks after the sessions with the physician (M. Mundt, “Analyzing the costs and benefits of brief interventions”, *Alcohol Research and Health* 29:1[2006]).

¹¹¹ M. Mundt, “Analyzing the costs and benefits of brief interventions”, *Alcohol Research and Health* 29:1 (2006).

¹¹² M. Mundt, “Analyzing the costs and benefits of brief interventions”, *Alcohol Research and Health* 29:1 (2006).

¹¹³ There are numerous other studies indicating that brief interventions in healthcare settings have positive outcomes for hazardous and harmful drinkers. See for example: R. Longabaugh, R.F. Woolard, T.D. Niremberg et al. “Evaluating the effects of a brief motivational intervention for injured drinkers in the emergency department”, *Journal of Studies on Alcohol* 62 (2001): 806–16; L.M. Gentilello, F.P. Rivara, D.M. Donovan et al. “Alcohol interventions in a trauma center as a means of reducing the risk of injury recurrence”, *Annals of Surgery* 230 (1999): 473-83.

¹¹⁴ S.E. Wutzke, K.M. Conigrave, J.B. Saunders et al., “The long-term effectiveness of brief interventions for unsafe alcohol consumption: A 10-year follow-up”, *Addiction* 97 (2002): 665-76.

interventions are often more modest than they appear.¹¹⁵ Finally, different studies use different definitions of brief intervention, which range from very short (5-10 minute) one-off contacts with a nurse or physician, to multiple, longer contacts (up to or over one hour).

Most importantly, while research has shown the effectiveness of brief interventions, several studies suggest that there are barriers to their dissemination and use amongst healthcare professionals.¹¹⁶ These barriers include a lack of knowledge and skills to use the interventions, limited time with patients, and financial disincentives. In Canada, for example, research indicates that many health professionals feel ill-prepared to undertake screening and intervention for alcohol and other drug use problems (AOD), or they perceive that dealing with AOD is unnecessary, troublesome or time-consuming.¹¹⁷ This might explain why there appear to be only a few targeted prevention programmes rather than an ongoing everyday engagement of various health professions in screening for alcohol and drug abuse.

Similar findings led to an initiative in the Netherlands¹¹⁸ and Germany to promote the use of brief interventions. In Germany, the BZgA and the German Medical Association started an initiative to educate general practitioners and internists in techniques of brief interventions and motivational interviewing, as around 75% of people with risky drinking behaviour use the health service at least once a year. This initiative resulted in the publication of new guidance for general practitioners combined with leaflets to hand out to patients.¹¹⁹ The extent to which these guidelines are used within the medical community, however, has not been evaluated. In addition, this initiative did not tackle the key problems of improving the incentive structures for general practitioners, who are currently not reimbursed for brief interventions.¹²⁰ The problem of lack of reimbursement for physicians also limits the use of brief interventions in primary care settings in the US.

So even though brief interventions have been shown to be effective *when used by healthcare professionals*, the extent to which they are actually used in all the countries reviewed here is very limited, thus greatly limiting the overall effectiveness of the interventions as a measure for combating alcohol misuse.

¹¹⁵ J. Ballesteros, J.C. Duffy, I. Querejeta et al., "Efficacy of brief interventions for hazardous drinkers in primary care: Systematic review and meta-analysis", *Alcoholism: Clinical and Experimental Research* 28 (2004): 608-18.

¹¹⁶ T. Babor and J. Higgins-Biddle, "Alcohol screening and brief intervention: dissemination strategies for medical practice and public health", *Addiction* 95:5 (2000) 677-86.

¹¹⁷ T. Brown, M. Dongier and G. Graves (2005) "Availability and Use of Evidence-Based Treatment" in *Substance abuse in Canada: Current challenges and choices* (Canada: Canadian Centre on Substance Abuse, 2005).

¹¹⁸ P. Cuijpers, M. Scholten and B. Conijn, "Verslavingspreventie; een Overzichtsstudie" (Den Haag: ZonMw, 2006).

¹¹⁹ Prognos, *The national pilot project HaLT – scientific monitoring. Communal strategies for preventing heavy or risky alcohol consumption amongst children and adolescents. Short Report*, Basel: Prognos AG im Auftrag des Bundesministerium für Gesundheit, Berlin, 2007.

¹²⁰ Interview with official from the German Federal Ministry of Health, 01/02/08.

4.4 Specialist services for the treatment of alcohol problems

In addition to brief interventions, which are primarily targeted at non-dependent drinkers, other services are delivered through the healthcare system primarily to treat dependent or abusive drinkers. Researchers have identified up to 40 treatment types for alcohol problems, including motivational counselling, marital and family therapy, cognitive-behavioural programmes, and the Twelve Steps to recovery of Alcoholics Anonymous.¹²¹ ¹²² These interventions are generally delivered either as inpatient or outpatient treatments, within hospitals, residential facilities, primary care and other settings. In the US for example, the focus over the last decade has been increasingly on outpatient treatments due to escalating healthcare costs.¹²³ While outpatient treatment has been associated with higher drop-out rates in the initial stages (detoxification) than inpatient approaches,¹²⁴ reviews have not found significant differences in the effectiveness of inpatient and outpatient treatments in reducing alcohol consumption and its attendant harms.¹²⁵ It is recognized, however, that different types of treatment – ambulatory, inpatient, involving or excluding pharmacotherapy, etc – are likely to have different effects on different types of people with alcohol problems.¹²⁶

According to 2006 data from the US, the number of people needing treatment specifically for alcohol abuse was 19.3m in 2006, but only 1.6m received treatment at a specialty facility.¹²⁷ Similarly, data from the UK suggests that only 5.6% of the alcohol-dependent population access specialized alcohol treatment. Reasons for this include perceived difficulties in access to the services and patients' preference not to seek specialist treatment.¹²⁸

¹²¹ T. Babor et al., *Alcohol: no ordinary commodity*, (Oxford: Oxford University Press, 2003).

¹²² Interestingly, research suggests that in general, “when patients enter treatment, exposure to *any* treatment is associated with significant reductions in alcohol use and related problems, regardless of the type of intervention used” (T. Babor et al., *Alcohol: no ordinary commodity*, [Oxford: Oxford University Press, 2003]. Emphasis added).

¹²³ R. Fuller and S. Hiller-Sturmhofel, “Alcoholism treatment in the United States: an overview”, *Alcohol Research and Health* 23:2 (1999).

¹²⁴ M. Hayashida, A.I. Alterman, A.T. McLellan, C.P. O'Brien, J.J. Purtill, J.R. Volpicelli, A.H. Raphaelson, and C.P. Hall, “Comparative effectiveness and costs of inpatient and outpatient detoxification of patients with mild-to-moderate alcohol withdrawal syndrome”, *New England Journal of Medicine* 320:6 (1989): 358-64.

¹²⁵ J. Finney et al., “The effectiveness of inpatient and outpatient treatment for alcohol abuse: the need to focus on mediators and moderators of setting effects”, *Addiction* 91:12 (1996): 1773-96.

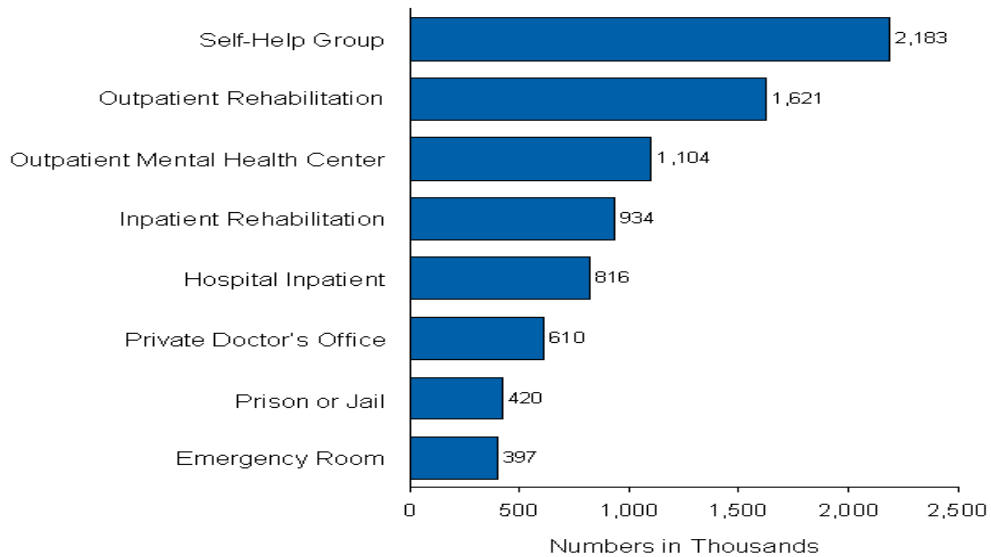
¹²⁶ B. Stimmel, *Controversies in Alcoholism and Substance Abuse* (US: Haworth Press, 1986).

¹²⁷ Substance Abuse and Mental Health Services Administration, “2006 National Survey on Drug Use and Health: National Results”, <http://www.oas.samhsa.gov/nsduh/2k6nsduh/2k6results.cfm#Ch3> (accessed April 2008).

¹²⁸ BMA Board of Science *Alcohol misuse: tackling the UK epidemic* (London: British Medical Association, 2008).

Figure 3 indicates the locations where substance abuse treatment was received in the US in 2006. It reflects the proportions of people receiving treatment at each type of facility.¹²⁹

Figure 3: Locations where 'past year substance use treatment' was received by people aged 12 or older: 2006 in the USA



Source: 2006 National Survey on Drug Use and Health: National Results (access January 2008: <http://www.oas.samhsa.gov/nsduh/2k6nsduh/2k6results.cfm#Ch3>)

In the case of the US, it is interesting to also note the reported reasons for not seeking treatment amongst those classified as needing treatment, and amongst those who sought treatment but did not receive it, as these data can help inform the development of effective policies to address barriers to treatment. Based on 2004-2006 combined data, the five most often reported reasons for not receiving illicit drug or alcohol use treatment among persons who needed but did not receive treatment at a specialty facility and perceived a need for treatment included (a) not ready to stop using (37.2%), (b) no health coverage and could not afford cost (30.9%), (c) possible negative effect on job (13.3%), (d) not knowing where to go for treatment (12.6%), and (e) concern that might cause neighbors/community to have negative opinion (11.0%).¹³⁰

Based on 2004-2006 combined data, for those people who needed but did not receive illicit drug or alcohol use treatment, made an effort to receive treatment, and felt a need for treatment, the four most often reported reasons for not receiving treatment were (a) no health insurance and could not afford cost (36.3%), (b) not ready to stop using (23.9%),

¹²⁹ In terms of how patients fund their treatment, most reported using more than one source, including for example their own savings, private insurance and/or Medicare or Medicaid (Substance Abuse and Mental Health Services Administration, "2006 National Survey on Drug Use and Health: National Results", <http://www.oas.samhsa.gov/nsduh/2k6nsduh/2k6results.cfm#Ch3> (accessed April 2008)).

¹³⁰ Substance Abuse and Mental Health Services Administration, "2006 National Survey on Drug Use and Health: National Results", <http://www.oas.samhsa.gov/nsduh/2k6nsduh/2k6results.cfm#Ch3> (accessed April 2008)

(c) able to handle the problem without treatment (11.2%), and (d) no transportation/inconvenient (10%).¹³¹

Data from Australia indicates that while 56,076 alcohol treatment episodes were recorded for 2005-6, it is assumed that many more Australians are in need of treatment for alcohol dependence than received it.¹³² Self-referral was the most common source of referral (39% of episodes), followed by referrals from alcohol and other drug treatment services and correctional services (both 12%).¹³³ The main treatment type was counselling (42% of episodes), followed by withdrawal management (detoxification) (20%) and assessment only (18%). Treatment was most likely to take place in a non-residential treatment facility (70% of episodes), followed by a residential treatment facility (19%) and an outreach setting (7%). As in the US, Australia also exhibits a higher use of outpatient facilities for the treatment of alcohol abuse.

In Germany, a similar picture emerges. Although there is no capacity shortage of out- and inpatient treatment,¹³⁴ only a small share of the estimated 1.6m people abusing alcohol and the 1.5m dependent drinkers receive treatment.¹³⁵ Experts interviewed for this project attribute this difficulty in reaching people with an alcohol problem to a lack of “low key” interventions such as brief interventions, which encourage people to seek treatment early in the development of their harmful drinking patterns.

In Germany in 2005, an estimated 79,050 patients received outpatient treatment, and a further 42,667 patients were in in-patient care.¹³⁶ The statistics also provide information about treatment completion. On average 75.2% of inpatient treatments are ended as planned. For these patients, treatment is considered successful in 71.6% of cases, as improved in 25.0% and, for only 3.4%, the treatment is considered not to have improved

¹³¹ Substance Abuse and Mental Health Services Administration, “2006 National Survey on Drug Use and Health: National Results”, <http://www.oas.samhsa.gov/nsduh/2k6nsduh/2k6results.cfm#Ch3> (accessed April 2008)

¹³² Australian Institute of Health and Welfare, “Alcohol and other drug treatment services in Australia 2005-06. Findings from the National Minimum Data Set”, *Bulletin 52* (Australian Government, July 2007). Available from <http://www.aihw.gov.au/publications/aus/bulletin52/bulletin52.pdf> (accessed April 2008).

¹³³ Australian Institute of Health and Welfare, “Alcohol and other drug treatment services in Australia 2005-06. Findings from the National Minimum Data Set”, *Bulletin 52* (Australian Government, July 2007). Available from <http://www.aihw.gov.au/publications/aus/bulletin52/bulletin52.pdf> (accessed April 2008).

¹³⁴ Thus, while everyone seeking treatment for alcohol problems will receive a treatment place in time, this still means that a substantial part of the population is not reached by the treatment infrastructure. (Interview with DHS.)

¹³⁵ L. Kraus, G. Bühringer, D. Sonntag and R. Augustin, *Monitoring: Gebrauch psychoaktiver Substanzen und substanzbezogene Störungen in Deutschland*. (Munich: IFT Institut für Therapieforschung, 2006). (<http://www.ift.de/index.php?id=90>, zuletzt aktualisiert: 25.04.2006).

¹³⁶ Dilek Sonntag, Ann Katrin Hellwich, and Christina Bauer, *Deutsche Suchthilfestatistik 2005 für ambulante Einrichtungen* (Geesthacht: Neuland, 2006a).

Dilek Sonntag, Ann Katrin Hellwich, and Christina Bauer, *Deutsche Suchthilfestatistik 2005 für stationäre Einrichtungen* (Geesthacht: Neuland, 2006b).

the situation or the situation has worsened.¹³⁷ For outpatient treatments, only 52.9% end the treatment as planned. Of all the patients, the treatment was successful for 52.9%, for 31.6% the condition had improved, and for 14.8% it had remained stable and it had worsened for 0.8% of cases.

In the Netherlands, the government in its Alcohol Action Plan of 2004 has tried to increase the number of heavy alcohol misusers in specialist care provided by the Association of Mental Health providers (Vereniging Geestelijke Gezondheidszorg [GGZ]). As a result more than 64,500 problem drinkers asked for help through GGZ-associated organizations. This has to be seen in the context of a possible 1.1m problem drinkers in the Netherlands.¹³⁸

Regarding the cost-effectiveness of specialist treatments for alcohol problems, research has tended to show that treatment in non-hospital environments (including, in some cases, detoxification without pharmacotherapy) or partial hospitalization programmes can have comparable results to hospital-based, inpatient treatments, at a significantly smaller cost (often a half or a third of the cost).¹³⁹

Box 5: Alcoholics Anonymous and other mutual aid societies

According to the literature on alcohol disorders, Alcoholics Anonymous (AA) and other mutual aid societies are not considered to be formal, specialist treatment. Nevertheless, they are often used as substitutes, alternatives and adjuncts to alcohol treatment.¹⁴⁰ In fact, some experts have suggested that AA and other mutual aid groups often augment professional and medical treatment modalities and are increasingly used as after-care, often “with the explicit aim of providing the problem drinker with an ongoing non-drinking community”.¹⁴¹ While research is yet to conclusively assess the effectiveness of mutual aid groups, existing studies suggest that AA can have an incremental effect when combined with formal treatment. Research from America and Canada also suggests that substantial availability and use of AA and other mutual aid groups may reduce alcoholic cirrhosis.¹⁴²

4.5 Education and awareness campaigns

‘Public education through awareness’ campaigns, labelling and other measures have been used extensively in all the countries examined in this report, although evidence of their effectiveness is inconclusive. As the 1994 World Health Organization report “*Alcohol*

¹³⁷ Dilek Sonntag, Ann Katrin Hellwich, and Christina Bauer, *Deutsche Suchthilfestatistik 2005 für stationäre Einrichtungen* (Geesthacht: Neuland, 2006b).

¹³⁸ GGZ, “Jaarverslag GGZ Nederland 2006”, http://741620.websites.xs4all.nl/Jaarverslag_GGZ_Nederland.pdf, (accessed April 2008).

¹³⁹ T. Babor et al., *Alcohol: no ordinary commodity*, (Oxford: Oxford University Press, 2003).

¹⁴⁰ T. Babor et al., *Alcohol: no ordinary commodity*, (Oxford: Oxford University Press, 2003).

¹⁴¹ C. Wesiner, and L. Schmitt, “Rethinking access to alcohol treatment”, in *Recent developments in Alcoholism, Volume 15: Services research in the era of managed care*, ed. M. Galanter (American Society of Addiction Medicine and Research Society on Alcoholism: 2001).

¹⁴² T. Babor et al., *Alcohol: no ordinary commodity*, (Oxford: Oxford University Press, 2003).

Policy and the Public Good” stated: “School-based education, public education, warning labels, and advertising restrictions ... Their longer-term efficacy is difficult to research, but if they have benefit, it is perhaps more likely to be indirect and through heightened political and public awareness. There is no present research evidence which can support their deployment as lead policy choices”.¹⁴³ Or, as other experts have put it: “compared to other interventions and strategies such as law enforcement initiatives, outlet zoning, pricing policies, and responsible serving practices, educational programmes are expensive and appear to have little effect on alcohol consumption levels and drinking-related problems”.¹⁴⁴

In the countries studied for this report, a number of education and awareness campaigns aimed at preventing alcohol misuse and harms are developed, implemented and financed by the governments’ departments of health. In Germany, for example, the BZgA is the centre of national prevention policies. The BZgA communicate the message of responsible drinking, run targeted information and awareness campaigns to specific groups (e.g. teenagers) and support healthcare professionals and other key players in their preventive efforts. The effectiveness of specific campaigns, however, is not normally evaluated in Germany.

In Canada, the National Native Alcohol and Drug Abuse Programme, funded by Health Canada (the federal government’s medical services), provides over 550 prevention programmes – including education and awareness campaigns – with over 700 workers, almost all employed by First Nations and Inuit communities. The NNADAP activities include: public awareness campaigns, public meetings, public speaking, developing content for schools on alcohol and drug abuse, school programmes, new media work, and cultural and spiritual events. It is unclear, however, whether these measures are effective in reducing alcohol misuse in their target communities.

In the Netherlands, there has been some work on the differences between universal mass media campaigns and more targeted education campaigns. The existing evaluations, mostly based on expert opinions, tend to show that universal mass-media campaigns are less effective than more-targeted awareness raising and education.¹⁴⁵ In addition, the campaigns seem mostly beneficial in increasing knowledge among adults and young people. It is unclear what the effect is on the actual use of alcohol.¹⁴⁶

4.6 Other relevant initiatives

The extent to which medical practitioners receive formal training on the identification and treatment of alcohol problems during their medical studies varies from country to country.

¹⁴³ G. Edwards et al., *Alcohol Policy and the Public Good* (Oxford: Oxford University Press 1994).

¹⁴⁴ T. Babor et al., *Alcohol: no ordinary commodity*, (Oxford: Oxford University Press, 2003).

¹⁴⁵ S.A. Meijer, F. Smit, C. Schoemaker and P. Cuijpers, “Gezond verstand: Evidence-Based Preventie van Psychische Stoornissen”, *RIVM Rapport 270672001; VTV Themarapport*. (Bilthoven/Utrecht: RIVM/Trimbos-instituut, 2006).

¹⁴⁶ D. De Graaff, “Zomercampagne 2002: Een Evaluatie van de 'Peer'-Benadering” (Haarlem: ResCon, 2003).

Whereas in Canada and the US there is no formal alcohol component to medical degrees, Australia has seen a substantial increase in the provision of alcohol and other drug (AOD) education and training education by tertiary providers in the last decade. From 1989, medical practitioners in Australia can receive postgraduate training in alcohol problems from the Australian Medical and Professional Society on Alcohol and Drug-Related Problems. This is similar to in the Netherlands, where general practitioners can gain a Master's degree in addiction care and become a designated addiction care general practitioner in designated outpatient clinics. In the 1990s in Australia, dedicated positions were established in all medical schools to develop a core alcohol and drug curriculum, which resulted in a programme called Coordinators for Alcohol and Drug Education in Medical Schools (CADEMS). However, the financial constraints faced by the educational institutions meant that only a few medical schools retained that position.¹⁴⁷ Some alcohol and drug courses are also provided in nurses' and midwives' teaching programmes. While some undergraduate nursing and midwifery undergraduate courses have alcohol and drug subjects in the curricula, improvements are still needed in the way life-long training is delivered to registered nurses and midwives.¹⁴⁸ Nonetheless, growing recognition of the medical community's role in tackling alcohol abuse is leading to an increased emphasis on the provision of training for the members of the public delivering services in communities.¹⁴⁹ In Germany, alcohol addiction does not feature very prominently during medical education for students. But alcohol- and addiction-related questions are included in the curriculum of some specialist training programmes (e.g. for GPs or psychiatry). In addition, the chambers of physicians offer accredited training in the area of addiction medicine.¹⁵⁰

This is similar to England, where undergraduate education on substance abuse has been described as patchy and uncoordinated. While questions of addiction and alcohol abuse are covered within the curriculum, they are experienced as being niche issues by the medical students.¹⁵¹

¹⁴⁷ Ministerial Council on Drug Strategy, *National Alcohol Strategy 2006-2009: Towards Safer Drinking Cultures* (Commonwealth of Australia, 2006).

¹⁴⁸ Ministerial Council on Drug Strategy, *National Alcohol Strategy 2006-2009. Towards Safer Drinking Cultures* (Commonwealth of Australia, 2006).

¹⁴⁹ WHO, "Western Pacific Region: Substance Abuse Country Studies Australia", (2006). www.who.int/substance_abuse/publications/en/australia.pdf, (accessed April 2008).

¹⁵⁰ www.bundesaertztammer.de (accessed 8 April 2008).

¹⁵¹ International Centre for Drug Policy, *Substance Misuse in the Undergraduate Medical Curriculum*, 2007 <http://www.sgul.ac.uk/dms/FFC5BB82D0FE511F81EACAF00FA887E.pdf> (accessed April 2008).

CHAPTER 5 **Non-health interventions to prevent and reduce alcohol harms**

The previous chapter provided an overview of measures delivered by the healthcare sector to tackle alcohol problems, with a particular focus on prevention and treatment services in healthcare settings. This chapter reviews some of the alcohol policies most widely used in the countries examined, paying particular attention to evidence of their effectiveness and providing examples of how these measures are put in place in each of the countries.¹⁵²

5.1 **Pricing and taxation**

Alcohol pricing and taxation have been shown to have significant effects on alcohol consumption. Numerous international studies have generally concluded that increases in the prices of alcoholic beverages – for example through local or federal taxation – lead to “reductions in drinking and heavy drinking as well as in the consequences of alcohol use and abuse”, although the price elasticity of the demand for different types of alcohol beverages vary (for example, the price elasticity of demand for beer is lower than that for wine and spirits).¹⁵³ For example, a comprehensive American study using aggregate data for the period from 1982 to 1988 found “consistent evidence that higher beer taxes significantly reduce motor vehicle crash fatalities”.¹⁵⁴ Other studies in the US and elsewhere have shown that these policies can be effective in reducing other alcohol-related harms, such as adverse health effects, child abuse and other types of violence.¹⁵⁵ Conversely, a 2007 study found that reductions in alcohol taxation levels in Finland in

¹⁵² It is worth noting that this chapter does not aim to provide a comprehensive overview of all alcohol policies and programmes used in the countries reviewed here. For example, there are large numbers of community mobilisation approaches, many of which have been shown to be effective in reducing aggression and other problems related to drinking in licensed premises (T. Babor et al., *Alcohol: no ordinary commodity*, [Oxford: Oxford University Press, 2003.]). This chapter focuses primarily on the most widely used high-level, population-wide policy measures.

¹⁵³ F. Chaoupka et al., “The effects of price on alcohol consumption and alcohol-related problems”, *Alcohol Research and Health* 26:1 (2002).

¹⁵⁴ F. Chaoupka et al., “The effects of price on alcohol consumption and alcohol-related problems”, *Alcohol Research and Health* 26:1 (2002).

¹⁵⁵ F. Chaoupka et al., “The effects of price on alcohol consumption and alcohol-related problems”, *Alcohol Research and Health* 26:1 (2002).

2004 were associated with an increase in the number of sudden deaths involving alcohol.¹⁵⁶ In the Netherlands, a tax on the sale of spirits introduced in 2003 reduced the consumption of these spirits by 30%, though the substitution effect on other forms of alcohol is unclear.¹⁵⁷

Pricing and taxation, however, are not systematically and explicitly part of the alcohol strategies of the countries examined in this report. In spite of evidence that raising alcohol prices reduces consumption and attendant harms, the trend in the real price of alcoholic beverages is decreasing in many countries, including those studied in this report.^{158 159} With few exceptions (such as the alcopop tax in Germany), alcohol taxes serve primarily fiscal and not public health functions.¹⁶⁰ This is partly due to the stability of alcoholic beverage taxes vis-à-vis inflation rates; public agencies may be reluctant to raise alcohol taxes because this would affect not only binge and dependent drinkers, but also moderate or light drinkers who do not generate public costs through alcohol-related harms.¹⁶¹ Trade dispute decisions may have also contributed to the failure of governments to raise alcohol taxes in accordance with inflation.¹⁶²

5.2 Regulating physical availability of alcohol

Policies to restrict the demand and supply of alcohol have also been shown to be effective in reducing alcohol problems. These policies include: licensing requirements for the production and sale of alcohol; restrictions on the density of outlets; and reductions in the

¹⁵⁶ BMA Board of Science *Alcohol misuse: tackling the UK epidemic* (London: British Medical Association, 2008).

¹⁵⁷ STAP, Stichting Alcohol Preventie, “Factsheet; Nederlands Alcoholbeleid.” (Utrecht: STAP, 2005).

¹⁵⁸ World Health Organization, *Global Status Report: Alcohol Policy* (Geneva: WHO, 2004).

¹⁵⁹ It is worth noting, however, that alcohol in the UK is more highly taxed relative to other EU countries, although “the combination of low alcohol taxation in the EU coupled with high travellers’ allowances mean large quantities of alcohol are regularly imported into the UK from continental Europe” (BMA Board of Science, *Alcohol misuse: tackling the UK epidemic* [UK: British Medical Association, 2008] 49).

¹⁶⁰ Growing concerns about youth binge drinking led the German federal government to introduce a special tax on spirit-based alcopops in 2004, with the aim of reducing the consumption of alcopops which had been identified as facilitating binge drinking. This measure resulted in a sharp drop in consumption of alcopops among youth, from 8.3g (measured in grams of pure alcohol per week) in 2004 to 2.8g in 2007. This led to an overall reduction of youth drinking in 2005, but by 2007 the total youth alcohol consumption had increased even above the 2004 levels as alcopops were substituted through increased consumption of beer, spirits and beer- and wine-based alcopops (Bundministerium der Finanzen, *Bericht der Bundesregierung über die Auswirkungen des Alkopopsteuergesetzes auf den Alkoholkonsum von jugendlichen unter 18 Jahren sowie die Marktentwicklung von Alkopops und vergleichbaren Getränken*, Berlin, 2005).

, BZgA, *Development of Alcohol Consumption among Young People. Giving particular consideration to consumption habits regarding alcopops*, Köln: Federal Centre for Health Education, 2005.

¹⁶¹ F. Chaloupka et al., “The effects of price on alcohol consumption and alcohol-related problems”, *Alcohol Research and Health* 26:1 (2002).

¹⁶² T. Babor et al., *Alcohol: no ordinary commodity*, (Oxford: Oxford University Press, 2003).

hours of sale.¹⁶³ Legal restrictions in the physical availability of alcohol are used in all the countries examined in this report (and many not included) as a measure to reduce alcohol harms.¹⁶⁴ Comparisons of the extent to which these restrictions are used, however, are difficult given the decentralization of licensing and other regulations in federal countries like the US, Germany and Canada.

The effects of the density of retail outlets in a particular area/community on patterns of alcohol consumption and harms have been studied extensively in the US, Australia and Nordic countries. Evidence from the US indicates that physical availability of alcohol (i.e. the number of outlets in a given area) is related to alcohol sales, alcohol-related traffic accidents and other alcohol-related harms.¹⁶⁵ Studies from Norway, Finland and Sweden have also found some net effect from changes in the number of alcohol outlets, including (in Sweden) the changes in the sale of 4.5% beer in grocery stores.¹⁶⁶

These types of measures have also been used to reduce alcohol harms for short periods of time, for example during the Euro 2000 football championships. In the city of Eindhoven, in the Netherlands, a ban on the sale of full-strength beer was implemented in the city centre during the event and, in spite of the large numbers of football fans, the streets of the town remained relatively peaceful. In Belgium, however, there was no such measure in place, and the country experienced large-scale riots the following week of the championship.¹⁶⁷

In Canada, provincial alcohol retail monopolies have been shown to be an effective method not only for restricting hours or days of sale and outlet density, but also for guaranteeing enforcement of minimum legal purchase age.¹⁶⁸ In the UK, recent and proposed changes in policy have favoured extended opening and trading hours (e.g. through the 2003 Licensing Act allowing 24-hour opening in England and Wales), in spite of extensive evidence on their effect on alcohol consumption and harms.¹⁶⁹

The effectiveness of these measures relies heavily on their enforcement. As one author stated, with reference to licensing requirements: “[i]f the system has effective power to

¹⁶³ World Health Organization, *Global Status Report on Alcohol 2004* (Geneva: WHO, 2004).

¹⁶⁴ T. Babor et al., *Alcohol: no ordinary commodity*, (Oxford: Oxford University Press, 2003).

¹⁶⁵ P. Gruenewald et al., The geography of availability and driving after drinking, *Addiction* 91:7 (1996) 967-83.

¹⁶⁶ T. Babor et al., *Alcohol: no ordinary commodity*, (Oxford: Oxford University Press, 2003).

¹⁶⁷ T. Babor et al., *Alcohol: no ordinary commodity*, (Oxford: Oxford University Press, 2003).

¹⁶⁸ The Canadian retail or off-premises business for spirits, wines and beer, is controlled by provincial liquor boards, which operate their own stores (e.g. LCBO in Ontario). The exception is the province of Alberta, which is privatized with more than 1,000 independent and chain retailers. Canadian Liquor Boards are independent monopolies, controlled by their provincial governments. Each jurisdiction operates its own business, although they must follow federal rules for product and packaging standards. These Canadian standards relating to Food and Drug regulations – along with packaging requirements for labels and cartons, print and font size, and package size, etc. – are published and available from any of the liquor boards. All brands must have a UPC and SCC international product codes for distribution in Canada.

¹⁶⁹ BMA Board of Science (2008) *Alcohol misuse: tackling the UK epidemic* (London: British Medical Association, 2008) 49.

suspend or revoke a license in the case of selling infractions, it can be an effective and flexible instrument for holding down rates of alcohol-related problems”.¹⁷⁰

5.3 Minimum legal drinking age

Most of the existing research on the effectiveness of drinking age restriction on alcohol consumption and harms is from the US, where youth drinking is a significant concern. Data for the US shows that in 2003 a total of 28% of high school students reported binge drinking in the previous 30 days.¹⁷¹

The American National Minimum Drinking Age Law, whereby all states prohibit persons under 21 years of age from purchasing alcohol, is a key regulatory approach to reducing youth alcohol consumption and harms.¹⁷² Evidence has shown this policy’s effectiveness in reducing alcohol-related harms, particularly vehicle accidents and deaths amongst under-21s attributable to drinking. It was calculated that if a uniform minimum drinking age of 21 years had been in place in the US between 1975 and 1981, the numbers of 18 to 21 year olds killed in motor vehicle crashes would have decreased by 8% in that period.¹⁷³ Research suggests that delaying the initiation of drinking is also likely to have longer-term benefits since “there seems to be an association between this age of onset and the likelihood of heavier drinking and experience of alcohol-related problems later”.¹⁷⁴

A comprehensive review of studies on drinking age conducted between 1960 and 1999, compared evidence on the effectiveness of minimum legal drinking age and other measures to reduce drinking amongst high school students, college students and other teenagers. The researchers concluded that, given the available evidence, increasing the minimum legal drinking age to 21 has been the most effective strategy to reduce alcohol consumption and harm amongst high school students, college students and other teenagers.¹⁷⁵

While the evidence from the US clearly indicates that a higher minimum legal drinking age helps reduce alcohol consumption and harms, it is also clear that these benefits can only be realized if and when the regulation is enforced. It has been suggested that community involvement can have make an important difference in ensuring adequate enforcement.¹⁷⁶ The centrality of enforcement was recognized by the Australian National Expert Committee on Alcohol, which concluded that the effective enforcement of bans on

¹⁷⁰ T. Babor et al., *Alcohol: no ordinary commodity*, (Oxford: Oxford University Press, 2003), 133.

¹⁷¹ Centers for Disease Control and Prevention (2004) Indicators for chronic disease surveillance, *Morbidity and Mortality Weekly Report* 53, No. RR-11 (2004) 1-89.

¹⁷² K. Komro and T. Toomey, “Strategies to prevent under-age drinking”, *Alcohol Research and Health* 26:1 (2002).

¹⁷³ S. Caswell, “Population level policies on alcohol: are they still appropriate given that ‘alcohol is good for the heart?’” *Addiction* 92: Supplement 1, S81-S90 (1996).

¹⁷⁴ S. Caswell, “Population level policies on alcohol: are they still appropriate given that ‘alcohol is good for the heart?’” *Addiction* 92: Supplement 1, S81-S90 (1996) S86.

¹⁷⁵ T. Babor et al., *Alcohol: no ordinary commodity*, (Oxford: Oxford University Press, 2003).

¹⁷⁶ T. Babor et al., *Alcohol: no ordinary commodity*, (Oxford: Oxford University Press, 2003).

the sale of alcohol to buyers under 18 years of age is limited across the country.¹⁷⁷ Although parents and friends are the most common means of obtaining alcohol by underage drinkers, 11% of male and 8% of female 12–17-year-old Australian school students surveyed in 2002 bought their most recent alcoholic drink themselves. In addition to a stricter enforcement of the existing purchase age restriction, the possibility of raising the legal purchase age from 18 to 21 years is currently under review.¹⁷⁸ In the UK, a nationwide study in 2004 found that 51% of on-licensed premises and 32% of off-licenses had sold alcohol to individuals under 18 (illegal under UK law) highlighting the difficulties of adequate enforcement of restrictions in sale.¹⁷⁹

An economic evaluation in the Netherlands, before changes to the main legal instrument regulating the distribution of alcohol (*Drank en Horecawet*), showed that raising the minimum age for drinking from 16 to 18 and making alcohol less available in cafeterias would lead to a 1.5% reduction in overall average alcohol consumption, a reduction of problem drinkers by 11,000 and a decrease in the number of heavy drinkers by 1.7%.¹⁸⁰

Table 12: Minimum legal drinking age, selected countries

Country	Minimum legal drinking age
Australia	18
Canada	18 in Alberta, Manitoba and Québec; 19 elsewhere in Canada (codified in provincial laws)
Germany	16 for beer and wine; 18 for all other alcoholic drinks
Netherlands	16 for beer and wine; 18 for all other alcoholic drinks ¹⁸¹
USA	21
UK	18 (i.e. it is illegal for anyone under that age to buy alcohol)

5.4 Drink-driving counter-measures

A number of drink-driving counter-measures are used around the world to reduce alcohol-related vehicle accidents, injuries and deaths. Research from the US, for example, has indicated that reinforcing the minimum legal drinking age policy by making it illegal for underage drivers to have *any* alcohol in their system (zero tolerance, as implemented in

¹⁷⁷ National Expert Advisory Committee on Alcohol, *Alcohol in Australia: issues and strategies* (Canberra: Commonwealth Department of Health and Medical Research Council, Canberra, 2001).

¹⁷⁸ Ministerial Council on Drug Strategy, *National Alcohol Strategy 2006-2009. Towards Safer Drinking Cultures* (Commonwealth of Australia, 2006).

¹⁷⁹ BMA Board of Science, *Alcohol misuse: tackling the UK epidemic* (London: British Medical Association, 2008).

¹⁸⁰ Het Rijksinstituut voor Volksgezondheid en Milieu (RIVM, Institute for Public Health and Environment), http://www.rivm.nl/vtv/object_document/o2481n19460.html (accessed April 2008).

¹⁸¹ Recent government proposals would give municipalities legal powers to raise the drinking age in municipalities to 18 for all alcoholic beverages.

some states) appears to be effective in reducing traffic accidents.¹⁸² There is also evidence from the US that reductions in the legal blood alcohol concentration (BAC) for driving, from 0.1 to 0.08 – implemented in all 50 states in recent years – have resulted in decreases of between 5 and 16% in the number of alcohol-related crashes, fatalities and injuries. The research suggests that a further reduction, to 0.05 (which is the BAC limit in other countries), is also effective.^{183 184}

It is worth noting, however, that some research suggests that the effectiveness of the BAC laws may erode over time, as drink-drivers realize that their chances of being apprehended are actually relatively low.¹⁸⁵ One strategy to ensure the continued effectiveness of the BAC laws is to increase the frequency and visibility of random breath-testing (RBT), which has been found to have a significant effect in reducing drink-driving. In Australia, for example, RBT proved to be a very effective prevention/deterrence programme, shown to have led to significant reductions in alcohol-related mortality and morbidity. Evidence shows that RBT has been most effective in those jurisdictions where it has had a high profile and large numbers of drivers have been routinely tested.¹⁸⁶ Interestingly, RBT is not allowed in the UK, where only selective breath testing can be carried out (i.e. breath-testing requiring the police to have judged that a driver has consumed alcohol before implementing the test).¹⁸⁷ Overall, international evidence suggests not only that adequately enforced BAC laws have a positive effect in reducing alcohol harms, but also that this measure is relatively cost-effective.¹⁸⁸

Table 13: Legal blood alcohol levels, selected countries

	Legal blood alcohol concentration (BAC)	BAC for new and learner drivers
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¹⁸² R. Voas, A. Tippetts and J. Fell, “Assessing the effectiveness of minimum legal drinking age and zero tolerance laws in the United States”, *Accidents: Analysis and Prevention* 35:4 (2003) 579-97.

¹⁸³ J. Fell and R. Voas, “The effectiveness of reducing illegal blood alcohol concentration (BAC) limits for driving: evidence for lowering the limit to .05BAC”, *Journal of Safety Research* 37:3 (2006) 233-43. See also: A.S. Tippetts, R.B. Voas, J.C. Fell and J.L. Nichols, “A meta-analysis of .08 BAC laws in 19 jurisdictions in the United States”, *Accidents; Analysis and Prevention* 37:1 (2005) 149-61.

¹⁸⁴ Research has shown that deterioration in driving performance becomes marked between BAC of 0.05% and 0.08%, but a driver may have impaired driving performance with BAC even lower than 0.05% (T. Babor et al., *Alcohol: no ordinary commodity* [Oxford: Oxford University Press, 2003]).

¹⁸⁵ T. Babor et al., *Alcohol: no ordinary commodity* (Oxford: Oxford University Press, 2003).

¹⁸⁶ Australia is reported to have one of the most extensive programs for mass breath-testing of drivers worldwide (Australian Bureau of Statistics 2002, *Year book Australia 2002: transport: special article: a history of road fatalities in Australia* [Canberra: Australian Bureau of Statistics]. Available in: *Policy Positions of the Alcohol and other Drugs Council of Australia*, http://www.adca.org.au/policy/policy_positions/1.2%20Alcohol%202003.pdf (accessed April 2008).

¹⁸⁷ BMA Board of Science, *Alcohol misuse: tackling the UK epidemic* (London: British Medical Association, 2008).

¹⁸⁸ T. Babor et al., *Alcohol: no ordinary commodity* (Oxford: Oxford University Press, 2003).

USA	0.08%	Zero tolerance (0% BAC) for underage drivers in some states
Canada	0.08%	Graduated driver licence, with zero BAC for new drivers
Australia	0.05%	BAC of 0.02% for probationary drivers (those who have had a license for less than 3 years) and for learner drivers. The 0.02 BAC also applies to other categories of drivers including taxi drivers, bus drivers, dangerous goods vehicles, etc.
Netherlands	0.05%	BAC of 0.02% for new drivers who achieved their driving license on or after March 30, 2002 – a licence holder is a new driver for the first five years of having a licence (regulation introduced in 2006)
Germany	0.05%	Zero tolerance (0% BAC) for drivers under 21 or who are still in their two-year probation period after getting their driver's licence (regulation introduced in 2007).
UK	0.08%	No graduated driver's licence.

Other policies have been developed specifically to tackle drink-driving. For example, an American study shows that severe licence suspensions, minimum fines and licence sanctions are effective in reducing drunk-driving and fatality rates from alcohol-related vehicle accidents.¹⁸⁹ The effectiveness of these types of administrative sanctions is even higher when they are applied after a drunk-driving arrest but prior to any court penalty.

In Canada, driving-while-impaired remedial programmes for people charged with or convicted of alcohol- or drug-related driving offences supplement licensing actions/suspensions. These remedial programmes include two or three levels of both educational and treatment interventions. Initially developed in the 1960s, there is now a reasonably extensive literature on remedial programmes for impaired driving offenders and good scientific evidence for their general effectiveness – Health Canada has identified best practices where the evidence warrants it.¹⁹⁰

¹⁸⁹ F. Chaloupka et al., “The effects of price on alcohol consumption and alcohol-related problems”, *Alcohol Research and Health* 26:1 (2002).

¹⁹⁰ Health Canada. *Best Practices: Treatment and Rehabilitation for Driving While Impaired Offenders* (Ottawa: Health Canada, 2004).

5.5 School-based interventions

School-based interventions to reduce alcohol consumption amongst young people are used in many countries, including the ones studied in this report. In the UK, for example, education on alcohol consumption is a statutory requirement, and is provided through school-based programmes.¹⁹¹

While reviews and meta-analysis suggest that school-based interventions can be effective in reducing alcohol, tobacco and drug use among teenagers, studies also show that in the long term, changes are sustained in relation to tobacco and drug use to a higher extent than in relation to alcohol use. This indicates that patterns of alcohol use are more resistant to change.¹⁹²

An evaluation of a particular school-based programme in Australia yielded positive results.¹⁹³ Findings from the School Health and Alcohol Harm Reduction Project (SHAHRP) clearly show a reduction in alcohol consumption in the target group of secondary school students compared with the control group. The study was conducted over a two-year period in Perth, Western Australia and focused on the development and implementation of a classroom-based alcohol education programme. The main study conclusion is that such programmes can reduce harm, particularly in students who are supervised drinkers prior to the interventions.

Similarly, in the Netherlands, research has shown that the school-based project “De Gezonde School en Genotmiddelen” (Healthy School and Drugs) proved effective at reducing alcohol use by pupils attending the targeted schools compared to pupils in schools not included in the project. The intervention is a longer running project, which started in the 1990s and is currently used by approximately 64-73% of Dutch secondary schools.¹⁹⁴ Main components of the intervention are classes informing children of the harmful effects of substance abuse; a drug-code for each school; and care for children with a substance abuse problem.¹⁹⁵ In the study nine experimental schools were compared with three control schools, and follow-up measurements were conducted up to three years after the intervention. It is reported that two years after the intervention the experimental group still used significantly less alcohol than the control group. It is, however, also noted that “there was no clear evidence for any effects on attitude towards substance use and on self-efficacy”.¹⁹⁶

¹⁹¹ Prime Minister Strategy Unit, *Alcohol Harm Reduction Strategy for England* (UK: Cabinet Office, 2004).

¹⁹² K. Komro and T. Toomey, “Strategies to prevent under-age drinking”, *Alcohol Research and Health* 26:1 (2002).

¹⁹³ N. McBride, R. Midford, F. Farrington and M. Phillips, “Early results from a school minimization study: the School Health and Alcohol Harm Reduction Project”, *Addiction*, 95: 7 (2000) 1021-42.

¹⁹⁴ P. Cuijpers, R. Jonkers, I. de Weerd and A. de Jong, “The effects of drug abuse prevention at school: the ‘Healthy School and Drugs’ project”, *Addiction*, 97 (2002) 67-73.

¹⁹⁵ Trimpos, “De Gezonde School en Genotmiddelen” <http://www.dgsg.nl> (accessed 2008).

¹⁹⁶ P. Cuijpers, R. Jonkers, I. de Weerd and A. de Jong, “The effects of drug abuse prevention at school: the ‘Healthy School and Drugs’ project”, *Addiction*, 97 (2002) 67-73.

Research from the US and elsewhere indicates that up to 40% of adolescents' waking hours are discretionary, i.e. not spent in activities such as eating, school, homework, chores or employment. There is evidence that adolescents who spend a lot of time after school without adult supervision are more likely than those *with* adult supervision to use alcohol, tobacco and illicit drugs. Studies have also shown that involvement in extracurricular activities is strongly associated with reduced adolescent alcohol, tobacco, marijuana, and other drug use.¹⁹⁷ Peer programmes, those that involve social and life-skills training including refusal skills, appear to be the most effective in reducing or preventing alcohol use amongst adolescents.¹⁹⁸

5.6 Advertising bans and counter-advertising

Although alcohol advertising has been linked to increased drinking, particularly amongst certain groups such as children and teenagers,¹⁹⁹ research on the link between advertising regulations and alcohol harms remains inconclusive. Nevertheless, advertising bans and other advertising control measures have been implemented in many countries with the aim of reducing alcohol harms.²⁰⁰

The evidence on the effectiveness of advertising bans is mixed.²⁰¹ Research has found that advertising bans are only effective under certain conditions; for example, comprehensive advertising bans (across most or all media) can be more effective than partial bans. Self-regulation and voluntary codes of practice, which often exist alongside legal frameworks on alcohol advertising, have been shown to be ineffective, possibly a result of the fact that the industry's self-interest leads towards under-regulation and under-enforcement.²⁰²

For example, in Germany and the Netherlands, alcohol advertising is governed primarily by industry self-regulation. Nevertheless, in 2008, the Dutch cabinet approved a ban on alcohol advertising before 9pm on radio and TV. Similarly, there are a few restrictions on alcohol promotion, advertising and sponsorship in Australia. Legislative controls are set by the Australian Broadcasting Authority on the advertising of alcohol on television. This control permits all forms of alcohol advertising during programmes of any classification, with the exception of 'C' (children) classified programmes during which no advertisement or sponsorship of alcohol is allowed. The only other restriction is through alcohol industry self-regulation: the Alcohol Beverages Advertising Code, established in 1998, and

¹⁹⁷ K. Komro and T. Toomey, "Strategies to prevent under-age drinking", *Alcohol Research and Health* 26:1 (2002).

¹⁹⁸ K. Komro and T. Toomey, "Strategies to prevent under-age drinking", *Alcohol Research and Health* 26:1 (2002).

¹⁹⁹ J. Agostinelli and J. Grube, "Alcohol counter-advertising and the media: a review of recent research", *Alcohol Research and Health* 26:1 (2002).

²⁰⁰ T. Babor et al., *Alcohol: no ordinary commodity* (Oxford: Oxford University Press, 2003).

²⁰¹ J. Agostinelli and J. Grube, "Alcohol counter-advertising and the media: a review of recent research", *Alcohol Research and Health* 26:1 (2002).

²⁰² T. Babor et al., *Alcohol: no ordinary commodity* (Oxford: Oxford University Press, 2003).

articulated in the Advertiser Code of Ethics, states that alcohol advertisements must not appeal to those under the age of 18 or associate alcohol with social, sporting or sexual success.²⁰³

On the other hand, evidence has indicated that counter-advertising (the use of media to promote health) is effective in reducing consumption amongst teenagers and young adults.²⁰⁴ The policy implications of this have been succinctly stated by one researcher: “New restrictions on alcohol advertising might also result in less alcohol counter-advertising. Given these trade-offs, increased counter-advertising, rather than new advertising bans, appears to be the better choice for public policy”.²⁰⁵ Finally, the effectiveness of counter-advertising campaigns is subject to the quality of their design, content and delivery, and can be further compromised by its low and irregular occurrence.

²⁰³ Alcohol and other Drugs Council of Australia (2003) “Policy and Advocacy, Alcohol” <http://www.adca.org.au/policy/index.htm> (accessed 28 April 2008); and National Expert Advisory Committee on Alcohol, *Alcohol in Australia: issues and strategies* (Canberra: Commonwealth Department of Health and Medical Research Council, 2001).

²⁰⁴ H. Saffer “Alcohol advertising and youth”, *Journal of Studies on Alcohol*, Supplement No. 14 (2002)173-81.

²⁰⁵ H. Saffer, “Alcohol advertising and youth”, *Journal of Studies on Alcohol*, Supplement No. 14 (2002) 180.

CHAPTER 6 **Comparative analysis – Lessons for alcohol policy from international evidence**

The evidence presented in the preceding chapters provides a snapshot of alcohol policy in various countries with a comparable context and similar alcohol-related trends and policy priorities. Given the significant differences in healthcare systems in the countries examined here, the report also provides brief descriptions of the aspects of their healthcare systems most relevant to the implementation of measures to reduce alcohol harms, with the aim of enabling relevant lessons to be drawn for England. This comparative chapter draws together the main findings from the evidence, highlighting key messages that can help inform alcohol policy in England.

This study indicates that differences in the structure of healthcare systems do not necessarily reflect differences in countries' policies to reduce alcohol problems. All countries reviewed here, and most countries around the world, use a mixture of measures to control alcohol consumption and reduce harms, including some form of taxation, licensing, a minimum legal drinking age, drink-driving counter-measures, the provision of treatment services, and awareness and education campaigns. There are many similarities in terms of interventions delivered by the healthcare system itself, particularly in relation to brief interventions and specialist treatments in residential and outpatient facilities. For example, in all the countries examined the use of brief interventions is not widespread within primary care settings, despite evidence of its effectiveness in reducing alcohol consumption and harms. The barriers to use of brief interventions are comparable across countries, and include, most notably, lack of financial incentives and lack of training for healthcare professionals, and their reluctance to ask about their patients' drinking habits.

The types of specialist treatment available are also comparable across the different countries, even if the resources devoted to alcohol treatment vary. In addition, all the countries examined here recognize a gap between capacity in specialist treatment facilities and the proportion of the population that would qualify as needing these type of treatment (but not all of whom may seek treatment). Nevertheless, as one expert interviewed for this project suggested, if all of those with drinking problems actually demanded specialist treatment the system would be overburdened and unable to deliver effectively.²⁰⁶

²⁰⁶ Interview with official from Substance Abuse and Mental Health Services Administration, 19/02/08.

Part of the reason why a significant proportion of people who would qualify as problem drinkers do not actually seek treatment can be traced back to the structure of specialist treatment. Research has suggested that problem drinking which does not qualify as alcohol dependence can be more effectively addressed through harm-reduction and prevention approaches, such as drink-driving counter-measures and community-level interventions.²⁰⁷ According to one expert interviewed for this project, specialist treatment tends to be most appropriate for people with very severe alcohol dependency.²⁰⁸

In spite of their central role in treating alcohol problems, however, healthcare interventions (including specialist treatment and brief interventions) do not feature prominently as part of the alcohol strategies of the countries we studied.²⁰⁹ This is compounded by the fact that given the limited availability of specialist services in the countries examined, and the significant proportion of problem drinkers who do not seek treatment, specialist services “are not likely to have an impact on morbidity and mortality at the level of communities and nation states”.^{210 211} The same can be said about brief interventions. As discussed earlier, evidence indicates that lack of financial and human capital resources only partially explain the limited use of brief interventions in healthcare settings. Experts interviewed for this study suggested that in spite of increasing public recognition of alcohol misuse as a health issue, there is still a cultural bias within the medical community in most developed countries towards interventions to treat acute conditions, rather than to prevent disease. This is reflected, for example, in the extremely limited training available to medical students on alcohol abuse, prevention and treatment (although Australia has made significant strides to address this issue in medical schools in recent years). Together, these form a serious systemic setback to the effective use of available tools to tackle alcohol problems within healthcare settings.

The consensus in the research reviewed in this study seems to be that the most effective tools to achieve aggregate reductions in alcohol consumption and harms are situated outside the health field. The evidence presented in this study indicates that measures that change the availability as well as supply and demand of alcohol, which are targeted at the

²⁰⁷ C. Wesiner, and L. Schmidt, “Rethinking access to alcohol treatment”, in *Recent developments in Alcoholism, Volume 15: Services research in the era of managed care* ed. M. Galanter (2001: American Society of Addiction Medicine and Research Society on Alcoholism, 2001).

²⁰⁸ One of the experts interviewed for this study speculated that if the scope and nature of ‘treatment’ were reconsidered, many of those who currently qualify as problem drinkers but do not seek treatment might in fact become more inclined to do so. This is because most of the treatment available is perceived to be for people with severe alcohol dependency. People with less severe problem drinking but who nonetheless qualify as problem drinkers may be disinclined to seek treatment which they perceive to be unsuitable to their needs.

²⁰⁹ The Alcohol Harm Reduction Strategy for England, however, highlights the importance of specialist treatment and other healthcare interventions as part of the country’s comprehensive approach to tackling alcohol misuse, for instance by emphasising the need to understand whether the supply for treatment is meeting its demand (Prime Minister Strategy Unit, *Alcohol Harm Reduction Strategy for England* (UK:Cabinet Office, 2004).

²¹⁰ T. Babor et al., *Alcohol: no ordinary commodity* (Oxford: Oxford University Press, 2003) 214.

²¹¹ Although there is some evidence that treatment has the potential to produce aggregate impact in countries where specialist treatment systems are relatively well developed (T. Babor et al., *Alcohol: no ordinary commodity* [Oxford: Oxford University Press, 2003]).

whole population, are more effective than measures targeted at the individual such as short interventions and specialist treatment. Some of these measures are more targeted strategies, aiming to reduce heavier consumption or drinking in particularly risky circumstances (for example amongst under-age groups), and others are population-wide.²¹² As we have seen, a number of effective measures are those which change the drinker's *environment*, rather than change the drinkers' *behaviour*, for example by reducing the frequency of drinking occasions through such measures as hours-of-sale and outlet density restrictions. These have been shown to lead to reductions in alcohol-related harm. Other commonly used, and effective, measures aim to alter the demand for alcohol in the general population by imposing certain *restrictions* or *direct disincentives*, for example a minimum legal drinking age and taxes to increase the price of alcohol and thus reduce its demand.^{213 214} Overall, the research reviewed in this study suggests that these measures are more effective not only in leading to aggregate reductions in alcohol consumption and harms than individually-targeted healthcare measures, but also in preventing the onset of alcohol problems. Interventions delivered in healthcare settings, even brief interventions, come into play once alcohol misuse has already arisen.

Nevertheless, given their centrality in the treatment of alcohol problems, prevention and treatment policy within healthcare settings and encouragement of help-seeking should be fully integrated within broader preventive strategies. An effective policy mix which "makes use of taxation and control of physical access, which supports drink-driving countermeasures, and which invests broadly in treatment and particularly in primary care, is on all the research evidence likely to achieve success in reducing the level of problems. Educational strategies or restrictions on advertising can be added to that mix, but that must be on the basis of reasonable hope of long-term pay-off, rather than evidence of the kind which supports the former group of strategies".^{215 216}

Even though most of these measures are in place in one form or another in all the countries reviewed here (and in many other countries worldwide), alcohol problems continue to beset societies and communities. Part of the failure in the public provision of

²¹² S. Caswell, "Population level policies on alcohol: are they still appropriate given that 'alcohol is good for the heart?'" *Addiction* 92: Supplement 1, (1996) S81-S90.

²¹³ As mentioned in previous chapter, alcohol taxes have not been used systematically in any of the countries examined as a public health strategy; rather, they appear to play a purely fiscal role. As a result, in spite of extensive evidence supporting the use of taxes as a means of raising alcohol prices and thus reduce consumption and harms, the real price of alcohol has decreased in all the countries studied here.

²¹⁴ As research reviewed in this report suggests, even though they are among the most popular approaches to the prevention of alcohol problems, education and persuasion strategies tend to be expensive and have not been shown to be effective in reducing alcohol consumption levels and drinking-related problems. Indeed, their widespread and continued use "seems not to be a function of either their demonstrated impact or their potential for reducing alcohol-related harms" (T. Babor et al., *Alcohol: no ordinary commodity*, [Oxford: Oxford University Press, 2003]).

²¹⁵ G. Edwards et al, *Alcohol Policy and the Public Good* (Oxford: Oxford University Press, 1994).

²¹⁶ Also, in the context of the increasing incidence of other chronic conditions such as those related to obesity and over-weight, governments are compelled to learn new and efficient ways to manage and fund the prevention and treatment of chronic conditions, including alcohol abuse.

an effective set of strategies to combat alcohol problems is likely to be a function of complex governance issues and the difficulty of reconciling the diverse interests at play (for example, commercial interests, those of the general public, mass media and different arms and levels of government).²¹⁷ These often have a profound influence on the resources and support provided for different types of policies. In our research, officials from several departments of health in the countries examined were very aware of the fact that many non-health interventions are more effective in reducing alcohol harms; however they pointed to the political difficulties of introducing certain policy changes to improve alcohol-related outcomes. Non-health measures to tackle alcohol abuse usually require the support of other government departments with different priorities, and have to be implemented against the strong, organized interests of the alcohol industry and the hospitality sector. In addition, many non-health interventions relating to alcohol abuse are not popular with significant sectors of the general public.

An interesting yet under-researched question, however, is the extent to which the weaknesses in government strategies to tackle alcohol problems are also associated with a lack of understanding of what the *optimal* mix of policies, and of resources provided for them, would be. That is to say, what is the composition of the most effective policy mix, i.e. the policy mix that achieves the greatest reductions in alcohol harms? Whilst extensive research has been conducted for many decades on the effectiveness of individual policies (or, at most, combinations or a small set of them such as minimum legal drinking ages with zero BAC tolerance laws for under-age drivers), there is extremely limited understanding of how different interventions affect each other, and how to optimize their mix to obtain improved outcomes.

Nevertheless, it is clear from the evidence presented in this report that a first condition to the development of an effective policy mix to reduce alcohol harms is the systematic assessment of alcohol-related problems. In view of their central place in dealing with many of the consequences of alcohol misuse, healthcare services have an important role to play in the data and information collection which is necessary for this assessment. Moreover, even though their effectiveness in reducing alcohol problems at the population level is limited, healthcare systems provide services that are necessary to many people and often unavailable elsewhere. Given not only the risk of remission by existing patients, but also the reluctance of many non-patients to seek treatment, it is crucial that continued attention is paid to ways of improving the design and delivery of services. Research into treatment that might be suitable to larger sections of the problem-drinking population is also crucial, as it could enhance the contribution of the healthcare system to reducing alcohol-related harms. Finally, as mentioned above, prevention and treatment policy within healthcare settings should be fully integrated within broader preventive strategies. While as a discrete measure healthcare services can only have a limited impact on overall alcohol harms, its contribution to a wider, comprehensive alcohol strategy is fundamental to ensuring that the social and economic harms from alcohol misuse are minimized.

²¹⁷ T. Babor et al., *Alcohol: no ordinary commodity*, (Oxford: Oxford University Press, 2003).

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APPENDICES

Appendix A: Methodology

Obtaining data and information

RAND Europe was commissioned by the National Audit Office (NAO) to conduct an international benchmark study with the aim of identifying areas of good policy and practice which may be transferable to England. The research team defined the focus of the study (including the five countries to review) in cooperation with the NAO in the early stages of the project, and agreed with the NAO project team an outline for the final report. The agreed outline for the final report ensured that the study was tailored to the specific needs of the NAO in the context of its value for money (VfM) study to examine alcohol harm prevention and treatment services which are supported by the Department of Health and the NHS in England.

Having defined the focus of the work and selected the countries to be included (Australia, Canada, Germany, the Netherlands and America), the project team undertook desk-based research, collecting relevant literature on three broad areas, as specified by the NAO:

- the scale and nature of alcohol misuse and alcohol-related harms in selected countries
- the nature of health-service provision of alcohol harm prevention and treatment services
- the broader public policy response.

We used these areas to draw up a data extraction template to guide our research process (see Appendix B), which was submitted to the NAO for comments and feedback. After approval, the main research task was to complete one set of templates for each country investigated. We also used these focus areas to form the basis of our list of search terms for a literature survey.

Research consisted primarily of reviewing articles, research reports and books, drawing on relevant databases such as Web of Science and significant journals in the area, for example *Addiction*, *Alcohol Research and Health* and the *Journal of Studies in Alcohol*. Research reports and other relevant literature published by organizations, notably specialized government agencies in the countries reviewed here, all informed the research. These documents were then used to identify additional literature ('snowballing'). Articles and evidence from countries not included in this review (e.g. Scandinavian countries) was included only if findings were deemed to be particularly informative on a specific issue (for example, evidence on alcohol licensing practices).

Capitalizing on the language skills of its international staff, RAND Europe was able to consult relevant literature in English, German and Dutch.

The research team summarized the research in a series of headlines conveying the key findings emerging from the literature, to present to the NAO in advance of the submission of the final report. The headlines were presented in a PowerPoint presentation and discussed with the NAO. Through the discussion, the RAND and NAO teams clarified their understanding of certain key issues and discussed some of the conclusions that could be drawn from the findings.

Following this presentation, the RAND research team completed a draft report, which was shared with the NAO team for feedback, and which also underwent a quality assurance review by two reviewers outside the project's research team, in accordance with RAND Europe's Quality Assurance standards and procedures. Once feedback was received from the NAO and the two reviewers, a final report was composed taking this input into account.

Expert consultations

In addition to web-based literature searches, we also contacted experts in the field of alcohol policy (primarily government officials in the five countries) to complement the literature review; supplement any missing data and information; and discuss the initial findings of the review. The following experts were contacted and provided useful information and valuable help:

- official from National Institute on Alcohol Abuse and Alcoholism (NIAAA)
- official from Substance Abuse and Mental Health Services Administration (SAMHSA)
- official from Bundesministerium für Gesundheit, (Federal Ministry of Health)
- official from Deutsche Hauptstelle für Suchtfragen (German Centre for Addiction Issues)
- official from the Drug Strategy and Controlled Substances Programme of Health Canada
- official from the Canadian Executive Council on Addictions
- official from the Canadian Centre for Addiction and Mental Health (CAMH)
- member (1) of Australian National Alcohol Strategy 2006-2009 team, also member of Australian National Council on Drugs
- member (2) of Australian National Alcohol Strategy 2006-2009 team
- official from Algemene Rekenkamer (Dutch Audit Office) with responsibility over Kenniskring VWS (Ministry for Public Health, Well-being, and Sport)

Appendix B: Data extraction template

1) Alcohol consumption: Country profile

This section will be based on international data and data from national sources.

- a. **Definitions: alcohol units; binge drinking; heavy episodic drinking; hazardous and harmful drinking; dependent drinking; etc (common section for all country studies)**
- b. **Levels and trends in alcohol consumption (last 10 years)**
 - Level of population drinking
 - Level of heavy and hazardous drinkers
 - Level of heavy episodic drinkers – if available (this figure may not be readily available in some countries)
 - Level of youth drinkers
 - Level of youth binge drinkers
 - Any other groups particularly vulnerable to drinking (immigrants, low-income groups, high-income etc)
- c. **Levels and trends related to alcohol misuse (last 10 years)**
 - Alcohol-related mortality
 - Alcohol-related morbidity
 - Economic costs of drinking
 - Social costs of drinking

2) The national health system and alcohol strategies

- d. **The national alcohol strategy**
 - What is the general strategy towards alcohol use/abuse? What are the key policy interventions/ instruments used (please provide detail only in later section)?
 - Targets and/or incentives as part of alcohol strategy
 - Which role do the health services play within this strategy? Is there a particular health service strategy towards reducing alcohol harm?

e. The organisation of the health system with regard to the provision of services to reduce alcohol harm

- A brief description of the health system (nationalized, privatized, semi-privatized, centralized, de-centralized, levels of spending, etc).
- A description of the organisations that commission and/or deliver the services to reduce alcohol harm and the specific services that they provide (you might also want to mention voluntary organisations funded by the state)- also think about the different levels of delivery (macro-meso-micro)
- A brief description on how the services are coordinated between organisations and agencies (e.g. criminal justice system and health system)
- Allocation of resources to the health care system for alcohol work, and how budget is distributed among organisations to deliver the services
 - Who holds the budget for the national alcohol strategy?
 - Specific budget (ring fencing?) for alcohol interventions or undifferentiated core funding?

3) Interventions of the health services to reduce alcohol harm

In this section, we are looking for the type of interventions used by the **health services** and evidence on cost-effectiveness and impact. Also think about the different levels of delivery (macro-meso-micro). These are some suggestions on what you might find. Finally, include information, where available, on costs of the different interventions.

f. Prevention

- Official guidelines on alcohol consumption
- Screening and early identification of alcohol problems
- Raising awareness on alcohol consumption
- Mass media campaigns
- Health care professionals as providers of information and brief interventions
- Education measures targeted at specific groups (e.g. pregnant women, youth, binge-drinking, patients in emergency rooms)

g. Treatment

- Brief interventions
- Moderation-oriented self-help groups
- Training of health and other professionals (spreading knowledge on problem; screening and identification of problem; and provision of interventions and counselling)
- Inpatient and outpatient treatments

- Acute treatment (e.g. detox bed/facilities)
- Other interesting and potentially cost-effective measures

4) Other interventions

h. Availability (supply and demand management), e.g.:

- Pricing and taxation of alcohol
- Licensing (e.g. alcohol retail; hospitality sector)
- Minimum legal drinking age
- Regulation of Advertising

i. Other:

- Drinking and driving regulations
- Other instruments and interventions