Alcohol in the European Region – consumption, harm and policies

by

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EUROPEAN HEALTH21 TARGET 12

REDUCING HARM FROM ALCOHOL, DRUGS AND TOBACCO

By the year 2015, the adverse health effects from the consumption of addictive substances such as tobacco, alcohol and psychoactive drugs should have been significantly reduced in all Member States

(Adopted by the WHO Regional Committee for Europe at its forty-eighth session, Copenhagen, September 1998)

Abstract

This document is intended for those policy-makers, researchers and concerned members of the public who wish to obtain information about the consumption of alcohol, alcohol-related harm and alcohol policies within the European Region. It also puts forward some new findings in alcohol epidemiology and draws on existing evidence to discuss the effectiveness of various aspects of alcohol policy. The aim of the document is to give the reader an overview of alcohol policy target areas and to summarize some developments from the last five years.

Keywords

ALCOHOL DRINKING
ALCOHOLISM – adverse effects – epidemiology
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Contents

Page

Chapter 1 Introduction 1

Chapter 2 Alcohol consumption in the European Region – trends and patterns 5
Current alcohol consumption 5
Trends in consumption levels 8
Beverage preferences 11
Drinking patterns 13

Chapter 3 Alcohol-related harm in Europe 21
Social, psychological and physical harm 21
Alcohol-related mortality 26

Chapter 4 New findings in alcohol epidemiology 35
Drinking and the mortality experience in the former Soviet Union 35
The lessons of the experience 37
Drinking and mortality in western Europe 39
The experience and its lessons 40
Some conclusions 41

Chapter 5 Alcohol policies in Europe 43
Introduction 43
Information and education 43
Public, private and working environments 45
Drink–driving 48
Availability of alcohol products 51
Promotion and advertising 57
Treatment 60
Responsibilities of the alcoholic beverage industry 62
Societal response 63
Nongovernmental organizations 64
Policy development 66
The European Commission and alcohol 67
Changes in alcohol policies 70

Chapter 6 Alcohol policy: securing a positive impact on health 77
The need for an informed and supportive public 77
The total drinking population should be the public health target 78
Taxation of alcohol 79
Availability of alcohol 79
Drinking and driving 79
Advertising restrictions 80
Treatment 80
School-based and public education 81
Community action programmes 81
Alcohol policy and coronary heart disease 82
Conclusions 82

Chapter 7 Summary and conclusions 85
Alcohol consumption in the European Region 85
Alochol-related harm in Europe 86
New findings in alcohol epidemiology 87
Alcohol policies in Europe 88
Alcohol policy: securing a positive impact on health 91
General conclusions 92

Annex 1 Member States in the European Region of WHO 99

Annex 2 European Charter on Alcohol 101

Annex 3 Survey data on the percentage of excessive, problem or risk drinkers in the total population 103

Chapter 1

Introduction

HEALTH21 is the current Health for All policy framework for the European Region of the World Health Organization (WHO). The policy, adopted by the health community in May 1998, aims to realize the vision of health for all. It sets out, for the first two decades of the twenty-first century, overall priorities and twenty-one targets that will create the conditions for people to reach and maintain the highest attainable level of health throughout their lives. The WHO definition of health is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". Moreover, health is considered to be a fundamental human right and a worldwide social goal.

Several of the targets deal with the complex issue of promoting healthy lifestyles. A significant part of the lifestyle issue is the use of psychoactive substances and, consequently, one of the targets of HEALTH21 addresses the question of tobacco, alcohol and drugs.

EUROPEAN HEALTH21 TARGET 12 – REDUCING HARM FROM ALCOHOL, DRUGS AND TOBACCO

By the year 2015, the adverse health effects from the consumption of addictive substances such as tobacco, alcohol and psychoactive drugs should have been significantly reduced in all Member States.

This report focuses on the issue of alcohol. Nevertheless, alcohol use by individuals and in communities cannot and should not be separated from other lifestyle factors, such as the use of psychoactive substances, smoking, diet and exercise.

Alcohol-related harm, including accidents, is an important European health problem. The consumption of alcoholic beverages is estimated to be responsible for about 9% of the total disease burden within the Region, increasing the risk of liver cirrhosis, certain cancers, raised blood pressure, stroke and congenital malformations. Furthermore, alcohol consumption increases the risk of family, work and social problems such as alcohol

dependence, accidents (including fires), assaults, criminal behaviour, unintentional injury, violence, homicide and suicide, road traffic and shipping accidents, sometimes with extensive environmental damage. Between 40% and 60% of all deaths from intentional and unintentional injury are attributable to alcohol consumption. Alcohol-related harm is particularly high in the eastern part of the Region and is responsible for a considerable proportion of the increase in cardiovascular diseases and reduced life expectancy. Over 90% of the countries in the Region have an annual consumption per person exceeding two litres of absolute alcohol (the level suggested by the evidence as the lowest population mortality risk) *(1).* The total societal costs of alcohol amount to between 1% and 3% of the gross domestic product *(2).*

The European Region of WHO (with about 870 million people in 51 countries) is in many respects a heterogeneous area, and that is also the case with regard to alcohol. Historically, as well as currently, trends in alcohol consumption, patterns of drinking, levels of alcohol-related harm, impact from the alcohol industry and the choice of policy responses are diverse around Europe. Evidence from countries in the European Region demonstrates, however, that significant health and economic benefits may be achieved by taking action on alcohol. One of the important tools for action on alcohol has been the European Alcohol Action Plan (EAAP) 2000–2005, adopted by the WHO Regional Committee for Europe at its forty-ninth session in 1999, which is a continuation of the original plan from 1992. The EAAP is the first attempt to establish a regional policy framework, a set of guiding principles to which Member States have committed themselves. The majority of countries around the Region consider it successfully implemented to some extent and also consider it to be important and necessary in raising awareness about the alcohol issue. The EAAP together with the European Charter on Alcohol, adopted in 1995, outline the main public health and alcohol policy strategies. The Charter presents five ethical principles and ten strategies that all Member States should adhere to in their development of comprehensive alcohol policies and programmes (see Annex 2).

This document, which to some extent follows up on the document *Alcohol in Europe – a health perspective (3)*, gives an overview of the policy target areas for alcohol and summarizes some of the developments in the alcohol field since the WHO European Ministerial Conference on Health, Society and Alcohol, held in Paris in 1995. It brings together different aspects of the issue of alcohol in Europe and is relevant for policy-makers, researchers and the concerned public. The Paris Conference concluded that significant health and economic benefits for the European Region can be achieved if the ten health promotion strategies for action are implemented in accordance with the differing cultural, social, legal and economic environments in each Member State.

Accompanying the present document is a supplementary and more detailed report that includes a profile on alcohol for each Member State in the European Region. These documents are of particular importance to the WHO European Ministerial Conference on Young People and Alcohol that will take place in February 2001, in Stockholm.

Each of the following chapters covers a different aspect of the issue of alcohol.

- Chapter 2, on alcohol consumption, brings together information on the level of current consumption, including unrecorded as well as recorded consumption (where available), and trends in that consumption since the late 1980s. It also includes some data on beverage preferences and survey results on drinking patterns.

- Chapter 3, on alcohol-related harm, discusses the social harm that results from alcohol consumption and the most common alcohol-related mortality – chronic liver disease and cirrhosis, external causes of injury and poisoning, and motor vehicle traffic accidents.

- Chapter 4 presents some new findings in alcohol epidemiology and changes in our understanding of alcohol's impact on health. It discusses the new focus on alcohol's effects at the population level and the importance of drinking patterns.

- Chapter 5, on alcohol policy measures in Europe, is a review of the current situation in the Region and which policy measures are favoured. The information presented draws extensively on data provided by the national EAAP counterparts in response to a questionnaire. The chapter also describes some of the changes and developments in alcohol policy that have taken place in the Region during the past five years.

- Chapter 6, on alcohol policy and health impact, draws on the existing evidence to discuss the effectiveness of various aspects of alcohol policy, and how the deployment of appropriate policies can achieve significant health and social benefits.

- Chapter 7 briefly summarizes the earlier chapters and puts forward some general conclusions.

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Chapter 2

Alcohol consumption in the European Region – trends and patterns

Current alcohol consumption

A population's general level and pattern of drinking affects the prevalence of drinking problems, thus warranting an up-to-date review of its alcohol consumption situation. Alcohol consumption levels are not set; they fluctuate – like beverage choices. Consumption rates respond to changes in such factors as market controls, political liberalization, production, buying power, urbanization, migration, real price, and marketing and trade. This chapter presents the current level of alcohol consumption, including unrecorded consumption (where data are available), trends in the levels of consumption, beverage preferences and some aspects of drinking patterns from across the European Region. The main sources of information have been statistical and survey data received from the Member States, *World Drink Trends 1999 (1)* and the WHO Regional Office for Europe's Health for All database (http://www.euphin.dk/hfa/phfa.asp, accessed 18 October 2000).

To get a picture of alcohol consumption in a country, both recorded and unrecorded consumption should be included. It is, however, not possible to find estimates of unrecorded consumption for many of the European countries. For the countries where estimates exist, the figures are presented below. With regard to unrecorded and recorded consumption, the figures are derived from different methods of calculation and quantification; this calls for caution in comparing different countries and trends within countries. The problem is one of reliability, as well as comparability.

On the whole, the European Region has the highest alcohol consumption in the world. Consumption levels for almost all of the countries in the Region surpass the lowest mortality risk level for populations, which has been established at two litres of pure alcohol per person per year *(2).* For the 38 countries with data available on alcohol consumption, the average consumption per person in 1998 was 7.3 litres. The amount of recorded alcohol consumption ranges from 0.9 litres per person (Azerbaijan and Israel), to 13.3 litres per person (Luxembourg). Unrecorded levels of consumption

have been estimated for 20 countries in the European Region. The sources of data are the Alcohol Profile Questionnaires and the Global Status Report on Alcohol. The estimated levels can be seen in Table 1, which shows both the recorded and unrecorded alcohol consumption in the late 1990s.

Table 1. Recorded and unrecorded (where available) alcohol consumption (in litres per person per year) in the late 1990s for some Member States in WHO's European Region

Country	Recorded consumption 1998[a]	Estimated unrecorded consumption
Austria	9.2	+0.7
Azerbaijan	0.9 (1997)	
Belarus	7.7 (1997)	
Belgium	8.9	
Bulgaria	6.8	
Czech Republic	10.2	
Denmark	9.5	+1.9
Estonia	2.4	+6.0
Finland	7.1	+2.0
France	10.8	+0.9
Germany	10.6	
Greece	9.1	+1.5
Hungary	9.4	+10.1
Iceland	4.3	+0.89
Ireland	10.8	
Israel	0.9 (1997)	
Italy	7.7	+0.4
Kyrgyzstan	1.9 (1993)	
Latvia	7.1	+14.2
Lithuania	12.0 (1993)	+6.5
Luxembourg	13.3	
Malta	5.1	
Netherlands	8.1	
Norway	4.3	+1.42
Poland	6.2	+1.5
Portugal	11.2	
Republic of Moldova	3.2 (1993)	+7.0
Romania	9.5	
Russian Federation	7.9	+7.5
Slovakia	8.3	
Slovenia	11.7 (1997)	+7.5
Spain	10.1	
Sweden	4.9	+0.6
Switzerland	9.2	+0.5
The former Yugoslav Republic of Macedonia	3.5 (1997)	+14.5
Turkey	1.1 (1997)	
Ukraine	1.2 (1997)	+11.5
United Kingdom	7.5	

Source: World Drink Trends 1999 (1) and Health for All database, WHO Regional Office for Europe.

[a] Years other than 1998 are shown in parentheses.

Based only on the *recorded* level of alcohol consumption for 1998, the countries in the Region can be arbitrarily divided into countries with a high level of consumption (more than 10 litres per person per year), a middle level of consumption (more than five litres per person per year) and a low level of consumption (less than five litres per person per year). Adding the figures for unrecorded consumption changes the picture considerably. It increases the number of countries with a high level of consumption to at least 17 and reduces the number of countries with a low level of consumption to four. Grouped by consumption level (with countries with unrecorded consumption changes shown in *italics*), the countries with high, middle and low levels of consumption are as follows:

- **High level of consumption:** Czech Republic, France, Germany, Ireland, Lithuania, Luxembourg[1], Portugal, Slovenia and Spain (nine countries), and *Denmark, Greece, Hungary, Latvia, the Republic of Moldova, the Russian Federation, the former Yugoslav Republic of Macedonia and Ukraine* (total 17 countries);

- **Middle level of consumption:** Austria, Belarus, Belgium, Bulgaria, Denmark, Finland, Greece, Hungary, Italy, Latvia, Malta, the Netherlands, Poland, Romania, the Russian Federation, Slovakia, Switzerland and the United Kingdom (18 countries), and *Estonia, Iceland, Norway, Sweden* (total 22 countries); and

- **Low level of consumption:** Azerbaijan, Estonia, Iceland, Israel, Kyrgyzstan, Norway, the Republic of Moldova, Sweden, the former Yugoslav Republic of Macedonia, Turkey and Ukraine (11 countries), and *Azerbaijan, Israel, Kyrgyzstan and Turkey* (total 15 countries).

The extent of unrecorded consumption varies and is particularly significant in countries such as Estonia (6.0 litres per person per year), Hungary (10.0 litres), Latvia (14.0 litres), Lithuania (6.5 litres), the Republic of Moldova (7.0 litres), the Russian Federation (7.5 litres), the former Yugoslav Republic of Macedonia (14.5 litres), and Ukraine (11.5 litres) – all from the eastern part of the Region.

There is a wide regional spread of countries in the group with a high level of alcohol consumption, ranging from many of the member countries of the European Union (EU), both in the north of Europe (Denmark, Germany, Ireland and Luxembourg) and in the south (France, Greece, Portugal and Spain), to the Baltic countries (Latvia and Lithuania), countries of central and eastern European (CCEE) (the Czech Republic, Hungary, and Slovenia) and finally to the newly independent states (NIS) of the former

[1] It is widely accepted that a significant proportion of the alcohol in Luxembourg is bought for consumption by visitors from outside the country.

USSR (the Republic of Moldova, the Russian Federation and Ukraine). A few other countries (Belgium, Romania and Slovakia) are close to the benchmark of 10 litres per person per year; they might equal or surpass this level if estimates for unrecorded consumption were available.

A general picture of alcohol consumption in the 12 NIS would indicate that they can roughly be divided into three levels of alcohol consumption, without indicating exact levels. The countries with a low level of alcohol consumption, partly for religious reasons, are Azerbaijan, Tajikistan, Turkmenistan and Uzbekistan. The countries with a middle level of alcohol consumption are Armenia and Georgia (mainly wine consumption), and Kazakhstan and Kyrgyzstan. The countries with a high level of alcohol consumption are Belarus, the Republic of Moldova, the Russian Federation and Ukraine.

In summary, it can be said that of the 38 countries, 27 have a recorded consumption level of more than five litres per person per year, and nine of these countries have levels of more than 10 litres per person per year. With the addition of the unrecorded consumption (where known), the number of countries with a consumption of more than 10 litres per person per year is 17. Comparing this to the situation five years earlier (n = 40), the percentage of countries with a consumption level above 10 litres per person per year has increased from 35% to 45%; a similar increase (from 78% to 89%) is seen for the number of countries with an alcohol consumption level above five litres per person per year.

Trends in consumption levels

Rather than looking at the level of alcohol consumption for a given year, it might be more relevant and informative to look at the trends in consumption. There are constant fluctuations in alcohol consumption levels, so a 10-year period has been chosen for this exercise. The levels of recorded alcohol consumption from 1988 to 1998 have been compared, and the countries divided accordingly into three groups: countries that show an increasing, a decreasing or a stable trend in their alcohol consumption. Only changes of about 10% or more have been accepted as indicative of an increase or decrease. Table 2 shows the levels of alcohol consumption for 32 countries between 1988 and 1998, and the changes (in litres per person per year) during this 10-year period.

Table 2. Litres of pure alcohol consumed per person per year in some Member States in WHO's European Region, 1988 and 1998

	1988 Consumption level	1998 (1997) Consumption level	Change in litres per person per year 1988–1998
Austria	10.1	9.2	–0.9
Belarus	4.6	8.6	+4.0
Belgium	10.0	8.9	–1.1
Bulgaria	9.1	6.8	–2.3
Czech Republic	8.1	10.2	+2.1
Denmark	9.7	9.5	–0.2
Estonia	6.1	2.4	–3.7
Finland	7.3	7.1	–0.2
France	12.6	10.8	–1.8
Germany	10.6	10.6	0.0
Greece	8.3	9.1	+0.8
Hungary	10.4	9.4	–1.0
Iceland	4.1	4.3	+0.2
Ireland	6.9	10.8	+3.9
Italy	9.4	7.7	–1.7
Latvia	4.9	7.1	+2.2
Luxembourg	12.0	13.3	+1.3
Netherlands	8.3	8.1	–0.2
Norway	4.2	4.3	+0.1
Poland	7.1	6.2	–0.9
Portugal	9.9	11.2	+1.3
Romania	7.9	9.5	+1.6
Russian Federation	4.4	7.9	+3.5
Slovakia	9.5	8.3	–1.2
Slovenia	10.9	11.7 (1997)	+0.8
Spain	11.1	10.1	–1.0
Sweden	5.5	4.9	–0.6
Switzerland	11.0	9.2	–1.8
The former Yugoslav Republic of Macedonia	3.1	3.5 (1997)	+0.4
Turkey	0.4	1.1 (1997)	+0.7
Ukraine	3.2	1.2 (1997)	–2.0
United Kingdom	7.6	7.5	–0.1

Source: *World Drink Trends 1999 (1)* and Health for All database, WHO Regional Office for Europe.

Decreasing consumption

Prominent among the countries with a decrease in recorded alcohol consumption during the last 10 years are Bulgaria, Estonia, Italy, Switzerland and Ukraine. Estonia and Ukraine, however, have a high level of unrecorded consumption, which may negate the decrease in recorded consumption. Consumption has also been decreasing slightly in Austria, Belgium, France, Hungary, Poland, Slovakia, Sweden and Spain. With regard to Hungary, the decrease may be negated by a considerable unrecorded consumption. Also, several of these countries still have quite high levels of consumption. When comparing these data with data for the period preceding the 1990s, it seems

that decreasing consumption for some countries (Iceland, the Netherlands, Norway and Portugal) has levelled off, while other countries (Austria, Belgium, Bulgaria, Italy, Poland and Sweden) have begun the decrease more recently.

Increasing consumption

Countries that show a considerable increase in the recorded level of alcohol consumption are Turkey (175%), the Russian Federation (79%), Belarus (67%), Ireland (56%), Latvia (45%), and the Czech Republic (26%). Smaller increases have taken place in Greece, Luxembourg, Portugal, Romania and the former Yugoslav Republic of Macedonia. Lithuania and the Republic of Moldova might also have an increasing level of consumption, but we do not have data from 1998. As there is no information on estimated levels of unrecorded consumption for many of these countries, the data should be approached with caution. There are also a number of countries (mainly among those having recently undergone major political, social and economic change) where levels of recorded consumption suggest a decreasing trend, but where the addition of estimates for unrecorded consumption, and other evidence (like alcohol-related harm indicators), suggest an increasing trend. Many of these countries show a striking decrease in consumption levels in the mid- to late-1980s (the period of the anti-alcohol campaign in the former USSR), but considerable increases since then. Compared with the countries that showed an increasing trend five years earlier (the Czech Republic, Greece, Luxembourg and the former Yugoslav Republic of Macedonia), all the countries are still increasing their level of consumption, but a spread has taken place.

Stable consumption

Countries with relatively stable levels of alcohol consumption in the 10-year period from 1988 to 1998 include Denmark, Finland, Germany, Iceland, the Netherlands, Norway, Slovenia and the United Kingdom. Of these countries, at least Slovenia has a high level of unrecorded consumption. Of the countries that showed a stable level of alcohol consumption earlier, Denmark, Finland and the United Kingdom have a longer period of stable consumption than the rest of these countries.

Because of the high levels of unrecorded alcohol consumption, especially in the CCEE and NIS, and because some countries have large fluctuations in alcohol consumption levels from one year to another, it is difficult to display precisely the different trend directions during the 10-year period. In general, from the recorded levels of alcohol consumption, it can be concluded that the level of alcohol consumption is relatively stable in 8 countries, is increasing in 11 countries and is decreasing in 13 countries.

Comparing these data with data from the 1980s to the beginning of the 1990s, it seems that some countries have moved from an increasing level of

alcohol consumption to a slightly decreasing one. The number of countries with a stable level of consumption has remained 8, the number of countries with an increasing level of consumption has decreased from 21 to 11, while the number of countries showing a decreasing trend has increased from 11 to 13.

On a subregional level there are clear patterns. In the Nordic countries, the only exception to the stable trend in alcohol consumption is Sweden, which is experiencing a decrease. In the Baltic countries of Latvia and Lithuania, consumption is increasing, while Estonia shows an uncertain decrease. Among the 15 EU countries, Ireland is the only country where consumption is increasing considerably; to a lesser extent it is also increasing in Greece, Luxembourg and Portugal. In the rest of the EU countries, it is decreasing in six countries and is stable in five. In the CCEE, consumption is increasing in the Czech Republic, Romania and the former Yugoslav Republic of Macedonia. Finally, in the NIS, consumption is increasing in Belarus and the Russian Federation.

Beverage preferences

Traditionally, countries have been grouped according to their preferred alcoholic beverage: beer, wine or spirits. Looking at the 27 countries around the Region where data are available on recorded alcohol consumption for the different beverages, for 1998 the average consumption of spirits is 2.2 litres per person; for beer it is 71.6 litres per person; and for wine it is 25.9 litres per person. Countries that exceed the regional average in the different beverage categories are as follows:

- Beer: Austria, Belgium, the Czech Republic, Denmark, Finland, Germany, Ireland, Luxembourg, the Netherlands, Slovakia and the United Kingdom;
- Wine: Austria, Denmark, France, Greece, Hungary, Italy, Luxembourg, Portugal, Spain and Switzerland; and
- Spirits: Bulgaria, France, Greece, Hungary, Latvia, Poland, Romania, the Russian Federation, Slovakia, and Spain.

A few countries fit into more than one group (Austria, Denmark, France, Greece, Hungary, Luxembourg, Slovakia and Spain), while in Iceland, Malta, Norway and Sweden the consumption of the different beverages is so low and equally distributed that these countries do not clearly belong to any one group.

In much of the literature on alcohol consumption patterns, it has been noted that there seems to be a greater degree of uniformity in beverage preferences between the countries, and that preferences are generally converging all around the Region. Convergence in this situation indicates movement away from one dominant beverage type towards a spread, where

the beverage mix is something like 50% beer, 35% wine and 15% spirits *(1)*. At present, the total alcohol consumption for the 27 countries consists of about 47% beer, 42% wine and 11% spirits, so convergence should mean that countries get closer to the average levels in their beverage preferences, and that the average consumption of spirits and beer would increase while that of wine decreases. Of the 27 countries examined here, 13 have experienced an increase in the consumption of beer and 13 have increased their consumption of wine, but only 6 have had an increase in spirits consumption. Changes in 10-year averages indicate that spirits consumption has decreased by 4.4%, beer consumption has decreased by 2.8% and wine consumption has increased by 3.9%. Consequently, on an aggregate level, very small changes have occurred during the 10 years, and they have occurred in the direction opposite to the one expected.

Looking more closely at the data and changes in beverage preferences during the 10-year period from 1988 to 1998 for 15 countries, (five beer countries, five wine countries and five spirits countries), the picture is not uniform (see Table 3). Spirits consumption is increasing in three countries (Latvia, Romania and the Russian Federation) that already have a high level of consumption of spirits. Beer consumption is increasing in seven countries (the Czech Republic and Ireland (beer countries); Italy and Portugal (wine countries); and Latvia, Poland and the Russian Federation (spirits countries)). Also, the consumption of wine is increasing in three beer-drinking countries: the Czech Republic, Ireland and the United Kingdom. A cautious and general conclusion might be that spirits countries are drinking more spirits and/or beer. Many wine countries are reducing overall consumption; if they drink more, however, it is most likely to be beer. Moreover, beer countries drink more wine and, in some cases, also more beer.

Table 3. Percentage changes in beverage preferences in selected countries, 1988–1998

Country	Spirits	Beer	Wine
Belgium	–27.6	–17.4	+7.7
Bulgaria	–14.3	–50.7	–5.1
Czech Republic	–51.8	+22.8	+30.0
France	–2.8	–1.5	–21.8
Germany	–5.2	–10.9	–11.9
Ireland	+5.8	+37.3	+245
Italy	–50	+14.9	–18.3
Latvia	+78.8	+20.7	–20.9
Poland	–26.0	+33.1	–23.3
Portugal	–3.0	+21.6	–1.4
Romania	+140.0	–31.3	–10.0
Russian Federation	+233.0	+31.3	–6.2
Spain	–10.7	–3.3	–12.3
Switzerland	–26.6	–13.1	–13.4
United Kingdom	–27.0	–12.6	+26.7

Source: *World Drink Trends 1999 (1)*.

Drinking patterns

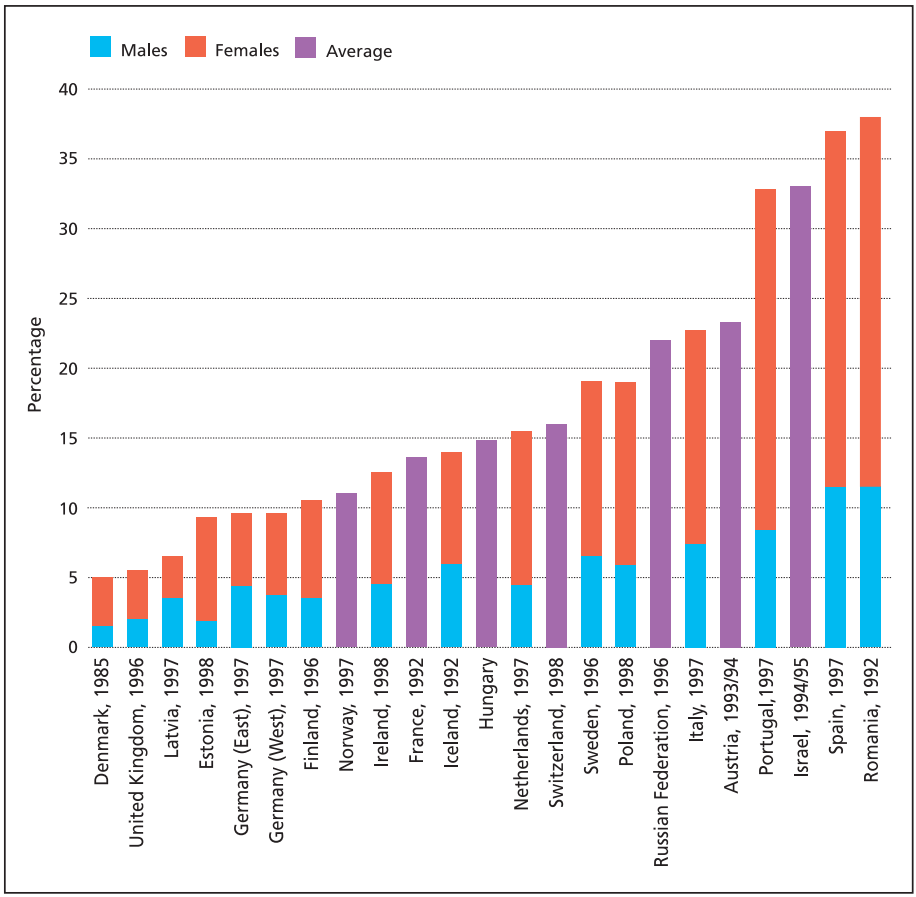
While per person consumption of alcohol and trends in consumption are useful indicators of a country's situation in relation to alcohol, they can hide considerable differences in patterns and the prevalence of drinking. For a more comprehensive view, it is useful to examine such factors as the prevalence of consumption, composition of the drinking population, gender differences, and distribution of consumption in terms of quantity and general social and cultural influences on drinking patterns. For this exercise, however, only the composition of the drinking population is examined. The drinking population is made up of abstainers, moderate or light drinkers and heavy or excessive drinkers, which has an important bearing on alcohol-related problems for the whole population. The majority of the drinking population is composed of moderate or light drinkers. There is, however, no clear distinction between moderate and heavy drinkers, but it is rather a gradual shift – with a long continuum towards the heavy drinkers. In this context, we look at the abstainers and the risk or problem drinkers. For a smaller number of countries, estimates of the rate of alcohol dependency in the general population have been found. This more detailed information is mainly based on survey data, and thus is not available for a number of countries in the Region.

Abstainers

For some countries of the European Region, Table 4 shows the proportion of the adult population that never drink alcoholic beverages. Before making any comparisons or looking in detail at the figures for the 22 countries, it is important to note that the definition of an abstainer sometimes varies between surveys and between countries. Most often abstainers are defined as 12-month abstainers – that is, they have not had any alcohol during the previous 12 months. But there are other definitions: some use lifetime abstainers (people who have never drunk any alcohol), and others (e.g. Italy) use people who have had less than one unit of alcohol during the previous three months.

The percentage of abstainers in the general population varies from 5% (Denmark) to 38% (Romania). When looking at the percentage of abstainers in the different countries (in the ascending order as presented), some general trends appear. The eight countries with the lowest rates of abstainers are northern European countries (Baltic or Nordic, and Ireland and the United Kingdom). These countries are often regarded as having a "wet" drinking culture – that is, consumption of spirits is rather high, and binge drinking is quite common. The majority of women also drink alcohol, perhaps because they work outside the home. Sweden has a higher rate of abstainers than the other Nordic countries; this may be due, in part, to the history of a strong temperance movement in Sweden that is still somewhat active today. Among the countries with the higher percentages of abstainers are those in southern

Table 4. Survey data on the percentage of abstainers (in ascending order) in the total population and by gender (where available) in some European countries



Europe, mainly wine drinking countries. These countries have a "dry" drinking culture, where drinking wine is an integral part of the diet, but drinking alcohol to intoxication is regarded as socially unacceptable. Women, in particular, are abstainers in these countries: Spain (51.0%) and Portugal (48.8%). Where available, gender-specific data is presented in Table 4, which also includes older data for comparison over time. Five countries (Hungary, Iceland, Poland, Sweden and Switzerland) have experienced an increase in the proportion of abstainers. In Sweden the proportion of abstainers has doubled in about three years, from 9.5% in 1993 to 19.0% in 1996. Also in Poland the increase has been high (8.0% in five years). In nine countries (Estonia, Finland, Germany, Ireland, Latvia, the Netherlands, Norway, Portugal and the United Kingdom), the change has been in the opposite direction, and the proportion of abstainers has decreased. In Estonia, the Netherlands, Norway and Portugal, the decrease has been smaller. In Finland, Germany, Ireland and the United Kingdom, the proportions have decreased by about 50% during the study period. In Germany, the decrease is the same in both the eastern and western parts of the country. Latvia has experienced a remarkable decrease, from 30.5% in 1993 to 6.5% in 1997.

Problem or heavy drinkers

Survey data for estimating the percentages of the general population that are classified as problem or risk drinkers are available for 28 countries across Europe. For any comparisons between countries or over time, the definition of what constitutes risky drinking behaviour is crucial; for almost half of the countries, however, we have not been able to obtain this information. We have converted the amounts of alcohol consumed from the original measure (centilitre, decilitre, millilitre, litre, cubic centimetre) into grams of alcohol per week. Some of the highlights for three different weekly limits of alcohol consumption are shown in Tables 5–7 below, while the complete data, including the year of the survey and definitions, can be found in Annex 3.

Table 5. Percentage of population exceeding 150 grams per week

Country	All	Men	Women	Consumption (g) Men/women
Finland	–	13.0	2.0	–
Germany	–	20.1	5.6	+140
Iceland	–	8.1	1.6	–
Poland	10.0	–	–	+150/115
Switzerland	–	27.0	7.0	+140

Table 6. Percentage of the population exceeding 21/14 units or drinks per week

Country	Men	Women	Consumption (g) Men/women
Austria	41.0	8.5	210/210
Denmark	14.0	10.0	252/168
Hungary	14.1	0.8	210/140
Ireland	27.0	21.0	210/140
Switzerland	2.1	3.0	252/168
United Kingdom	28.0	14.0	168/112

Table 7. Percentage of population exceeding 350 grams per week

Country	All	Men	Women	Consumption (g) Men/women
Austria	–	28.8	4.3	+420
Czech Republic	–	15.8	1.3	+550
Denmark	20.0	–	–	+420
Germany	–	6.9	1.0	+420
Italy	11.0	–	–	+385
Luxembourg	–	3.0	–	+824
Netherlands	–	9.0	2.2	+540
Spain	–	4.3	0.1	+550
Switzerland	–	3.3	0.5	+560
United Kingdom	–	6.0	2.0	+400/280

Large differences seem to exist between the drinking populations in different countries, and even between countries with approximately the same level of alcohol consumption. Looking at men consuming more than 210 g of alcohol per week, the percentage varies from 14% in Hungary to 27% in Ireland and 41% in Austria. The percentage of women drinking more than 140 g of alcohol per week ranges from 0.8% in Hungary to 6.0% in Germany, 7.0% in Switzerland and 21.0% in Ireland. The percentage of men consuming more than between 400 and 420 g of alcohol per week is about 7% in Germany and 6% in the United Kingdom, but 28% in Austria. For women the situation is similar: 1% in Germany, 2% in the United Kingdom, and 4% in Austria consume more than between 400 and 420 g of alcohol per week. Among males that consume more than between 540 and 560 g of alcohol per week, the percentage varies from 16% in the Czech Republic, to 9% in the Netherlands, 4% in Spain and 3% in Switzerland. In summary, the three figures that most clearly stand out are the number of women in Ireland exceeding 140 g of alcohol per week (21%), the number of men in Austria exceeding 420 g per week (29%), and the number of men in the Czech Republic exceeding 550 g of alcohol per week (16%).

For 13 additional countries, the survey data could not be converted into grams of alcohol per week or there was no definition available. The general estimates from the survey, although not comparable, suggest that the proportion of heavy or excessive drinkers is 9% in the Russian Federation, 10% in Belarus, 10% in Portugal, 14% in Bulgaria and 15% in the former Yugoslav Republic of Macedonia.

Alcohol dependency

Estimates of the prevalence of alcohol dependency in the population are not available for the majority of countries. Data are available for 14 countries and are presented in Table 8. It is important to note that the different estimates are derived by different methods of screening (for example, using the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, third edition (DSM-III), the CAGE instrument or the tenth revision of the International Classification of Diseases – ICD-10) and that the samples may not be representative of the general population. There seems, however, to be a wide variation between 11.5% of the population being assessed as alcohol-dependent in Croatia and Finland, and 1.2% in the Netherlands – the average for the 14 countries being 5%.

Table 8. Estimates of prevalence of alcohol dependency in the general population (in ascending order)

Country	Percentage alcohol-dependent				Comments
	Year	All	Men	Women	
Netherlands	1997	1.2			
Spain	1997	2.0			
Bulgaria	1992	2.0			
The former Yugoslav Republic of Macedonia	early 1990s	2.0			
Germany	1998	3.0	4.9	1.1	
France	1992	3.5			
Italy		3.6			
Switzerland		4.0			
United Kingdom	1996	4.7 (age 16–64 years)			2.2 for drug dependence
Austria	1994	5.0	8.0	2.0	
Portugal	1997	7.6	14.7	0.5	
Estonia		8.0	13.0	1.4	
Croatia	1965–1985	11.5	15.0	8.0	
Finland		11.5 (age 20–60 years)	17.0	6.0	

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Chapter 3

Alcohol-related harm in Europe

The European Region has the highest consumption of alcohol in the world, and it has the highest rates of alcohol-related harm, an important European health problem. The consumption of alcoholic beverages is estimated to be responsible for some 9% of the total disease burden within the Region, increasing the risk of many medical problems, such as liver cirrhosis, certain cancers, raised blood pressure, stroke and congenital malformations. Furthermore, alcohol consumption increases the risk of family, work and social problems, such as absenteeism, accidents, unintentional injury, violence, homicide and suicide. This chapter covers some of the social harm that results from alcohol consumption and the most common causes of alcohol-related mortality – that is, chronic liver disease and cirrhosis, external causes of injury and poisoning, and motor vehicle traffic accidents. The main sources of information are the Health for All database and reports and documents received from Member States.

Social, psychological and physical harm

Alcohol-related harm is a broad concept that includes a wide range of physical, mental and social consequences. The term "alcohol-related" is a conditional label because at a certain level of consumption the risk of a consequence increases; but it does not necessarily indicate causality. The medical and physical consequences of alcohol consumption are not elaborated further in this context; for a listing of some of the physical problems see Fig. 1 and 2. Also, Chapter 4 discusses some population-level issues that relate to health and alcohol, especially the new findings in alcohol epidemiology.

Different patterns of alcohol consumption result in different types of harm: acute, chronic and alcohol dependence. In acute alcohol problems, inappropriate consumption, intoxication or binge drinking can result in drink–driving, poisoning, accidents and violence (Fig. 1). In alcohol-related chronic mortality and morbidity, the cumulative level of alcohol drinking over time can cause health, financial, work or family problems (Fig. 2). In the diagnosed condition of alcohol dependence, long-term heavy alcohol consumption is a likely result; this presupposes psychological and withdrawal symptoms.

With regard to social harm, research supports the existing relationship between alcohol consumption and the risk of family, work and social consequences, alcohol dependence/alcoholism, alcoholic psychosis, (traffic) accidents, assaults, criminal behaviour, unintentional injury, violence and suicide *(1)*. Alcohol problems are a frequent factor in disrupted marriages and families, and alcohol abuse by parents causes high levels of psychological anxiety and health problems in their children. Another group of social consequences could be labelled violent harm and includes suicide, homicide, robbery, rape, and family violence; here, alcohol is associated with intentional violence, both towards oneself and others. It is also a factor in victimization – becoming a victim of violence while intoxicated. Alcohol abuse often leads to deterioration of social and family ties and, at the same time, reduces individual self-control and provokes depression, which is the primary cause of suicide, so that the frequently noticed link between suicide and alcohol characterizes more a chain of events than a direct causal relationship.

Fig. 1. Problems relating to intoxication

Social problems	Psychological problems	Physical problems
Family arguments	Insomnia	Hepatitis
Domestic violence	Depression	Gastritis
Child neglect/abuse	Anxiety	Pancreatitis
Domestic accidents	Amnesia	Gout
Absenteeism from work	Attempted suicide	Cardiac arrhythmia
Accidents at work	Suicide	Accidents
Inefficient work		Trauma
Public drunkenness		Strokes
Football hooliganism		Failure to take prescribed medicine
Criminal damage		Impotence
Theft		Fetal damage
Burglary		
Assault		
Homicide		
Drink–driving		
Taking and driving away		
Road traffic accidents		
Sexually deviant acts		
Unwanted pregnancy		

Source: Alcohol Concern *(2)*.

Fig. 2. Problems relating to regular heavy drinking

Social problems	Psychological problems	Physical problems
Family problems	Insomnia	Fatty liver
Divorce	Depression	Hepatitis
Homelessness	Anxiety	Cirrhosis
Work difficulties	Attempted suicide	Liver cancer
Unemployment	Suicide	Gastritis
Financial difficulties	Changes in personality	Pancreatitis
Fraud	Amnesia	Cancer of the mouth, larynx, oesophagus
Debt	Delirium tremens	Breast cancer (?)
Vagrancy	Fits of withdrawal	Colon cancer (?)
Habitual convictions for drunkenness	Hallucinosis	Nutritional deficiencies
	Dementia	Obesity
	Gambling	Diabetes
	Misuse of other drugs	Cardiomyopathy
		Raised blood pressure
		Strokes
		Brain damage
		Neuropathy
		Myopathy
		Sexual dysfunction
		Infertility
		Fetal damage
		Hemopoietic toxicity
		Reactions with other drugs

Source: Alcohol Concern *(2)*.

The nature and scale of harm caused by alcohol is difficult to assess. In spite of a fairly large number of studies conducted in countries around the Region, it is difficult to present a comprehensive picture – due to different definitions, age groups, and research methods. The following findings on social and physical harm, although by no means comprehensive, give some idea of the scale of the problem.

Some indications of alcohol-related social and physical harm from across Europe

- **Belgium:** About 20% of all crimes are committed while under the influence of alcohol, and this increases to 40% of violent crimes and vandalism. About 6% of the Belgian workforce may have a drinking problem, and alcohol may be a factor in 30% of the accidents in the workplace.

- **Denmark:** Alcohol-related mortality (from cirrhosis, pancreatitis, alcoholism, alcohol poisoning and psychosis) almost doubled in Denmark between 1970 (15.2 per 100 000 population) and 1994 (29.5 per 100 000), even though the consumption of alcohol has been stagnating since 1983. Alcohol is implicated in 25.1% of road traffic accident mortality and in 16.3% of the corresponding morbidity.

- **Estonia:** Mortality due to traumas and intoxication is three times higher than the European average. About 40% of traffic accidents, 50% of drownings, 60–70% of violence-related crimes, hooliganism and vehicle thefts, and 80% of violent crimes committed by juveniles are connected with alcohol. One third of patients with psychological disorders are alcohol abusers. Acute alcohol deaths doubled between 1990 and 1993 (to 20), and the number of deaths from alcohol poisonings tripled for both sexes. Each year, alcohol accounts for about 1500 deaths.

- **Finland:** Of suicides, 44.5% of men and 18.4% of women were alcohol abusers. There were 2500 alcohol-related deaths, representing 5% of all deaths.

- **France:** Each year, alcohol-related harm accounts for 1000 cases of fetal alcohol syndrome, 10–20% of accidents at work and 40% of fatal traffic accidents (4000 deaths due to drink–driving), and 13% of all hospitalized patients are dependent on alcohol. Each year alcohol consumption causes 50 000 deaths, 130 000 injuries due to drink–driving, and 3000 suicides. Of total mortality, 9% is alcohol-related, accounting for 42 963 deaths in 1997 (compared to 41 777 deaths due to tobacco and 547 deaths due to illegal drugs).

- **Germany:** Between the ages of 18 and 69 years, 9.3 million people (16% of the total population) have a risky use of alcohol, and 2.7 million of them misuse alcohol. Between 10% and 17% of people seeking any kind of medical care have an alcohol problem or dependency that needs treatment. Alcohol-related mortality is estimated to be 40 000 people per year.

- **Hungary:** The country's suicide rate is one of the highest in Europe (55.5 per 100 000 population in 1994). Research found fatty liver in 52.0% of suicide cases, compared to 3.0% in the general population. Of all accidents, 12.9% are related to drunkenness, while 77.0% of traffic offences were committed under the influence of alcohol. Of all sentenced offenders, 35.4% committed their crime under the influence of alcohol. In the past five years alcoholic cirrhosis has become the dominant cause of death for some age groups among males of working age, and approximately 90% of the increase in total mortality

is accounted for by causes of death connected with alcohol consumption (and smoking). The incidence of cirrhosis among men increased from 19.0 per 100 000 population in 1970 to 208.8 in 1994. Alcohol-related mortality (psychosis, alcoholism, cirrhosis, intoxication and alcoholic cardiomyopathy combined) increased from 18.2 in 1980 to 87.9 in 1994.

- **Iceland:** Of the women who had been victims of domestic violence, 71% reported their husbands' drinking to be the main cause, and 22% of the women reported they had used alcohol in order to cope with the violence. Of all drinkers, 0.7% said their drinking was considered a problem by their employer.

- **Netherlands:** In 1995, alcohol-related harm accounted for 660 deaths (primary cause), 843 deaths (secondary cause), 1000 cases of cancer, 90 home accidents, and 265 traffic accidents.

- **Norway:** Some 80% of the crimes of violence, 60% of rapes, arson and vandalism, and 40% of burglaries and thefts are committed by people while under the influence of alcohol.

- **Poland:** Assailants in a state of intoxication committed 79% of family violence, 56% of murders and 40% of robberies. In 1997, 1341 suicides were alcohol-related, and in 1996 there were 1446 fatal alcohol poisonings.

- **Russian Federation:** In 1994, 68.4% of rapes, 47.2% of robberies and 62.2% of all violent attacks were committed by intoxicated people. According to the Russian Federation Health Ministry, 40.0% of men and 17.0% of women suffer from alcoholism. Another 20% occasionally drink heavily. In 1999 there were 24.4 registered teenage alcoholics per 100 000 population (17.4 per 100 000 in 1995).

- **Spain:** One quarter of domestic violence is alcohol-related. In 1995, there were a total of 19 966 alcohol-related deaths (6% of total mortality in Spain), which accounted for 224 370 years of life lost.

- **Sweden:** In 1992, 87% of attempted suicides were attributed to alcohol and 86% of violent acts occurred while the assailant was drunk. In 1994, there were 1155 alcohol-related deaths (5000 premature deaths per year).

- **Switzerland:** Over 5% of deaths in Switzerland are attributable to alcohol (3500 people in 1994). About 8.5% of all years of life lost is alcohol-related. Fetal alcohol syndrome is found in about 2 births per 1000. Over 10% of traffic accidents with injuries and over 20% of traffic accidents with casualties are linked to alcohol.

- **United Kingdom:** It is calculated that 25% of all people arrested are drunk and that 50% of all violent crime, 65% of suicide attempts and 75% of assaults are committed by people under the influence of alcohol. There is also a strong link between domestic violence, child abuse and alcohol. Alcohol-related mortality is about 33 000 deaths per year in England and Wales.

Estimating the economic cost of alcohol is fraught with difficulties. Several attempts have been made, mostly in the United States, Australia and in Europe. The problem is gathering accurate data on the true costs while excluding the more amorphous costs of unhappiness, pain, family disruption, suffering and general ill health. Though they may be significant, these costs cannot be adequately quantified and are thus usually omitted from cost estimations. Societal costs of alcohol can be either direct or indirect. Most often, costs that are included in calculations are workplace production losses (due to absenteeism, illness, accidents and lower working efficiency), the cost of accidents (especially traffic accidents), health care expenditures, costs of treatment, social welfare payments (for disability, early retirement, invalidity) and social community costs (crime, enforcement and penal costs). When looking at the net effect of alcohol on any economy (national, regional or local), the costs need to be balanced against income from alcohol in the form of tax revenue, employment, production and export. Overall, it is estimated that the total societal costs of alcohol amount to between 1% and 3% of gross domestic product *(3).*

Alcohol-related mortality

Overall, WHO estimates that in developed countries alcohol accounts for 10–11% of all illness and death each year.

Excessive drinking and certain drinking patterns increase the risk of alcohol-related mortality and morbidity for individuals, and the risk rises with increased levels of consumption. Data from many countries suggest that various kinds of accidents and injuries add significantly to overall alcohol-related morbidity and mortality, and that accidents affect younger adults, in particular, thus contributing significantly to years of life or years of healthy life lost, especially in this age group. More epidemiological research exists for different causes of mortality than for morbidity, but it should be remembered that alcohol causes much illness and pain that does not end in death. In this paper, however, only some aspects of mortality are covered. The indicators used most frequently for examining individual-level alcohol-related mortality are: liver cirrhosis, alcoholic psychosis, alcohol dependency,

alcohol-related traffic accidents, pancreatitis, external injury and poisoning, and cancers of the upper digestive tract and of the pancreas. Using data from the Health for All database (Table 9), this section focuses on three indicators: chronic liver disease and cirrhosis, external causes of injury and poisoning, and motor vehicle traffic accidents.

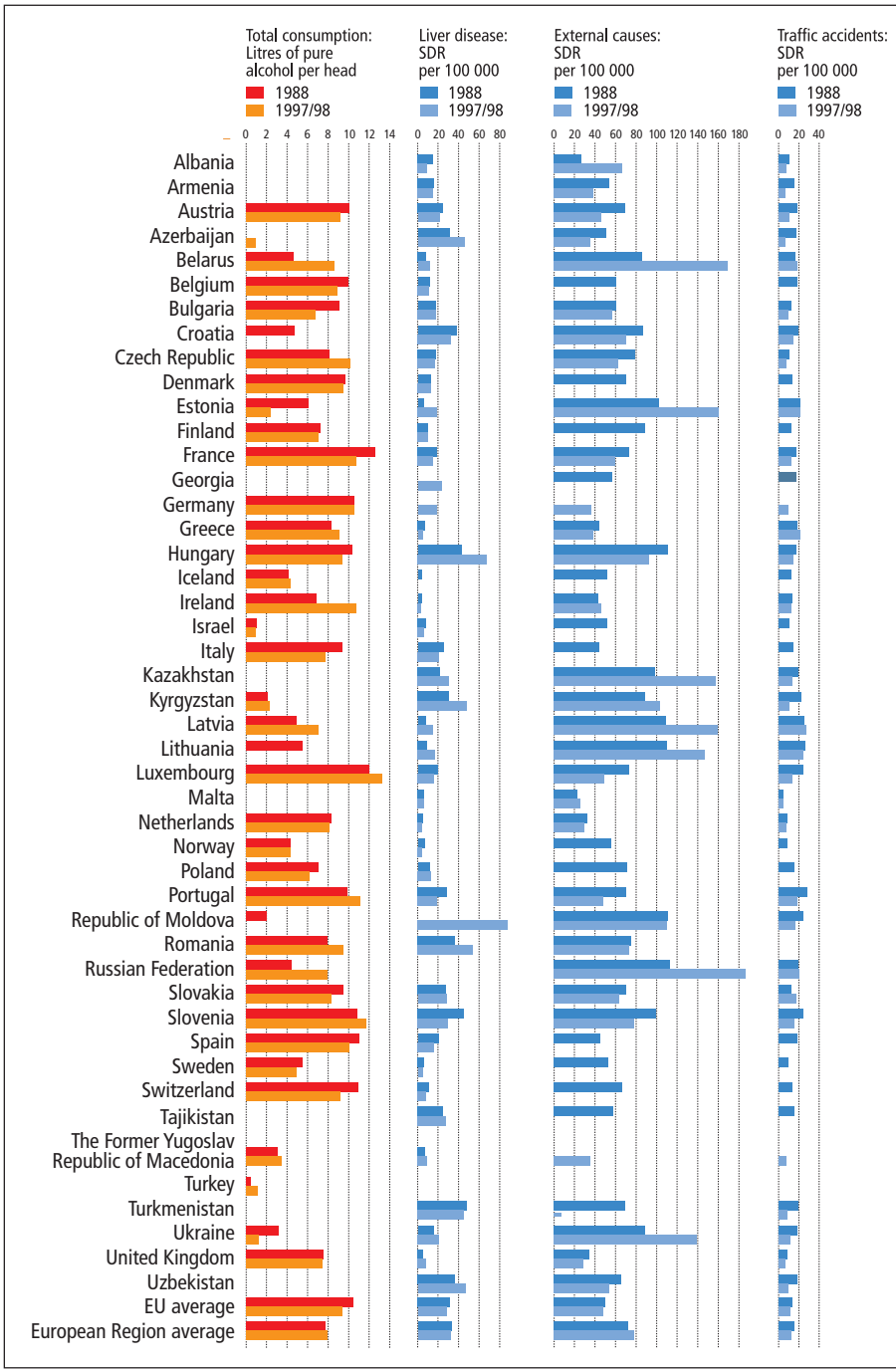
Standardized death rate for chronic liver disease and cirrhosis

Liver cirrhosis is the most frequently used and reported indicator of alcohol-related harm on the individual level. Research shows that it is quite a reliable indicator and that it usually varies with the level of alcohol consumption, although often with a time lag. It should be noted, however, that the proportion of liver cirrhosis caused by alcohol consumption can vary between countries. Most studies show that for liver cirrhosis to develop, a daily consumption of 160–210 g of pure alcohol during 10–20 years is necessary. For other liver problems (such as fatty liver), the limits are lower *(4).*

For the standardized death rate for chronic liver disease and cirrhosis, data were available for 43 countries in 1997/1998; it varies from 3.12 deaths per 100 000 in Ireland to 87.09 deaths per 100 000 in the Republic of Moldova. The 12 countries with a high rate of liver disease and cirrhosis (above 25 deaths per 100 000) are Azerbaijan, Croatia, Hungary, Kazakhstan, Kyrgyzstan, the Republic of Moldova, Romania, Slovakia, Slovenia, Tajikistan, Turkmenistan and Uzbekistan. The group of countries with a high rate of cirrhosis consists of seven NIS and five CCEE. The central Asian republics of Kazakhstan, Tajikistan, Turkmenistan and Uzbekistan have high rates of viral hepatitis mortality among women and children, but these are therefore not alcohol-related. Twenty-one countries have an intermediate rate of liver disease and cirrhosis of between 10 and 25 persons per 100 000, while 12 have a low rate.

Looking at trends in the level of chronic liver disease and cirrhosis, data from 1987/1988 and from 1997/1998 were compared, and only changes of 10% or more were taken as indicating an increase or decrease (n = 40). Five countries had an increase above 50% (Estonia, Hungary, Kyrgyzstan, Latvia and Lithuania). In summary, 14 countries show an increasing trend in level of cirrhosis, nine show a stable trend and 17 show a decreasing trend. The group of countries with an increasing trend in chronic liver disease and cirrhosis is dominated by NIS (seven countries), followed by CCEE (six countries) and one western European country. Eleven of the EU countries show a trend of decreasing liver cirrhosis, and three show a stable situation. Compared with the trends among 43 countries five years earlier, the number of countries with an upward trend has grown from 10 to 14, while the number of countries with a downward one has declined from 19 to 17; the number of countries with a stable trend has declined from 14 to 9.

Table 9. Changes in total recorded alcohol consumption and standardized death rates for all ages for external causes of injury and poisoning, motor vehicle traffic accidents, and chronic liver disease and cirrhosis in the European Region between 1987/1988 and 1997/1998



Note: The table covers all countries for which the WHO had data. With regard to chronic liver disease and cirrhosis, the first data for Estonia is from 1990, for Tajikistan it is from 1993, and for Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Lithuania, the former Yugoslav Republic of Macedonia, Turkmenistan, Ukraine and Uzbekistan it is from 1991. Latest EU averages for SDRs are from 1996.

Standardized death rate for external causes of injury and poisoning

Although no direct causal relationship has been demonstrated between alcohol consumption and ensuing injury and poisoning, in the majority of cases alcohol is strongly implicated. Standardized death rates for external causes of injury and poisoning in 1997/1998 were available for 31 countries. They vary from a low of 25.98 per 100 000 population in Malta to a high of 186 per 100 000 in the Russian Federation. The countries with a high rate of over 100 per 100 000 are: Belarus, Estonia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, the Republic of Moldova, the Russian Federation and Ukraine – all from the eastern part of the Region.

Comparing data from 1987/1988 and 1997/1998 for 29 countries reveals that 11 show an upward trend in injury and poisonings, 14 have a downward trend and four are stable. Prominent among the countries with increasing trends are Albania,[2] Belarus, Estonia, Kazakhstan, Latvia, Lithuania, the Russian Federation, and Ukraine – again, all countries from the eastern part of the Region.

Standardized death rate for road traffic accidents

Alcohol is one of the major contributors to accidents (among them road traffic accidents), although other factors (such as the condition of the road network and the vehicles) are also important. Standardized death rates for road traffic accidents are available for 29 countries. The mortality rates vary from a low of 3.9 per 100 000 population in Malta to a high of 27.03 per 100 000 in Latvia. The countries with a high rate (of over 15 per 100 000) are Belarus, Estonia, Greece, Latvia, Lithuania, Portugal, the Republic of Moldova, the Russian Federation and Slovakia.

The three countries where the rate is increasing are Belarus, Greece and Slovakia. Rates are decreasing in 22 countries (in many of them considerably) and are stable in four countries. This mortality indicator seems to be less connected with alcohol consumption than are the other two.

Data on the number of traffic accidents that specifically involve alcohol are available for 38 countries for 1997/1998, and figures vary from 0.12 per 100 000 population in Albania to 114.8 per 100 000 in Slovenia. Looking at the ten EU countries where information is available, there is a more than tenfold difference between Italy (4.3 per 100 000) and Luxembourg (52 per 100 000). Among the countries with the highest rates

[2] This is not alcohol-related, but is mainly due to the situation of conflict in the Balkan area.

are Croatia, Latvia, Slovakia and Slovenia, but the reliability is highly influenced by the official requirements and extent of testing drivers and/or victims for blood alcohol concentration at the site of the accident.

Alcohol consumption and alcohol-related harm

The link between the trend in alcohol consumption and the three mortality indicators, using the 10% threshold, is demonstrated by a regional overview of the countries. A few countries show a very consistent pattern between the two variables; for example, Austria, France and the Netherlands show a trend of uniform decrease for all indicators, while Belarus and Latvia are considerably increasing for all indicators. Overall, six countries (Belarus, Estonia, Latvia, Lithuania, the Republic of Moldova and the Russian Federation) are at a very high level and/or show a strongly increasing trend in all three mortality indicators.

Western Europe

Among the 15 EU countries, Austria, France and the Netherlands are experiencing a decrease in alcohol consumption, which is consistent with a decrease in all the mortality indicators. Belgium, Italy, Spain and Sweden also seem to be showing a decrease in both consumption and mortality. Denmark and Finland have stable levels of both consumption and mortality. In the United Kingdom, consumption is stable, which is supported by a decrease in deaths due to external causes and traffic accidents, while there is a considerable increase in the level of cirrhosis. Ireland, Luxembourg and Portugal are all experiencing an increase in alcohol consumption, which is not yet seen in the mortality indicators, as they are either decreasing or remaining stable. Greece is experiencing a slight increase in alcohol consumption and the rate of traffic accidents, while death rates due to cirrhosis and external injuries are decreasing.

Among some other western European countries (Israel, Malta, Norway and Switzerland), both consumption and mortality indicators are either decreasing or stable, except for a small increase in deaths due to external causes of injury and poisoning in Malta. In Turkey, consumption is increasing but is still at a very low level.

Central and eastern Europe

Among the Baltic states, Latvia shows a consistent increase in both alcohol consumption and all of the mortality indicators. In Lithuania, considerable increases in cirrhosis and external causes suggest increasing alcohol consumption, although data are not available. In Estonia, the dramatic increase in the rates of cirrhosis and of injuries and poisoning suggests that the decrease in recorded alcohol consumption is being more than offset by increasing unrecorded consumption. In Hungary, consumption and rates of

death due to external causes and accidents are decreasing slightly, while there is a considerable increase in liver cirrhosis. This pattern is similar in Poland, where consumption is decreasing, but there is a small increase in liver cirrhosis. Consumption in Bulgaria is decreasing slightly, followed by stable or decreasing mortality indicators. Consumption is stable in Slovenia, and all the mortality rate indicators are decreasing. Slovakia shows a trend of slightly decreasing or stable consumption, external causes and cirrhosis, but a considerable increase in traffic accidents. In the former Yugoslav Republic of Macedonia, consumption is increasing moderately and the rate of cirrhosis mortality is decreasing. A considerable increase in both alcohol consumption and the cirrhosis death rate has occurred in Romania, although the external causes indicator remained stable. In Croatia, the mortality indicators show a decreasing trend, possibly suggesting decreasing consumption. Alcohol consumption is increasing in the Czech Republic, while the mortality indicators are stable or decreasing.

Newly independent states

The central Asian republics of Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan show very high levels of chronic liver disease and cirrhosis, but this is mainly because of viral hepatitis occurring in women and children and is not alcohol-related. Azerbaijan, Tajikistan, Turkmenistan and Uzbekistan have a low level of alcohol consumption compared to the majority of countries. In Armenia, all the mortality indicators show a downward trend, suggesting a decrease in consumption. The considerable increase in mortality due to both liver cirrhosis and external causes in Kazakhstan might indicate that alcohol consumption is increasing. Kyrgyzstan has stable consumption, a slight increase in external causes and a decrease in traffic accidents. In Belarus, both consumption and mortality are increasing considerably. In Ukraine, cirrhosis and external causes of mortality show big increases, indicating that the decrease in recorded consumption might be more than offset by unrecorded consumption. The Republic of Moldova has considerable unrecorded consumption, which is substantiated by the high levels in all mortality indicators. Although there are no data available on the level of cirrhosis in the Russian Federation, the considerable increase in consumption is supported by the increase in external causes of mortality.

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Chapter 4

New findings in alcohol epidemiology

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The past five years have seen important changes in our understanding of alcohol's impact on health. The two most important changes can be summarized as:

1. a new focus on alcohol's effects on health at the population level, and a recognition that individual-level studies may provide a poor indication of effects at the population level; and

2. a new recognition that the pattern of drinking, as well as the level of drinking, is important in the links between alcohol and health.

The strongest evidence in both these lines of thinking comes from research on the European experience. Two main bodies of research have contributed this evidence. One of these is the developing literature on what is often called the demographic crisis in eastern Europe – and in particular on developments in the countries of the former Soviet Union in the years since 1984. The other is a new series of studies of the role of alcohol in various causes of death over the past 50 years in the countries of western Europe.

Drinking and the mortality experience in the former Soviet Union

The story of the development of mortality in the NIS is one of the most dramatic and indeed tragic of our time. After about 1960, mortality in the former Soviet Union and other parts of eastern Europe stagnated or increased, while in western Europe it gradually improved. Then, in the period from 1985 to 1988, mortality in Russia and other parts of the Soviet Union took a sudden sharp turn for the better. The trend then reversed, and in the period from 1990 to 1995 mortality increased dramatically, to an

extent never seen before in peacetime in industrialized societies. Since 1995, the rates appear to have stabilized and even improved a little, but the net lowering of life expectancy in the Russian Federation in the 1990s remains very substantial.

The improving trend in mortality in the 1980s corresponds to the period of the anti-alcohol campaign of the Gorbachev era. The trend showing a decline after that corresponds to the period of the dissolution of the former Soviet Union, and the state's subsequent loss of control of the alcohol market. But many other changes were occurring in the period after 1989 – besides what was happening to the availability of alcohol and to drinking patterns – and it is likely that alcohol bears only part of the responsibility for the dramatic mortality crisis of the early 1990s.

From the point of view of understanding the role of alcohol in health, the occurrences during the period 1984–1988 are most important. This was the period of *glasnost* and *perestroika*, and one can argue that there was a new spirit of hope in the former Soviet Union at the time. But it was not a time of great social changes: the political and economic system was still intact and functioning much as it had earlier in the decade. In 1985, the main obvious change in a health risk factor was the advent of the anti-alcohol campaign. What happened in those years in the republics of the former Soviet Union offers an unusually well developed picture of what can happen to a population's health when there is a substantial change in the amount of alcohol in the society.

The changes were quite dramatic. Between 1984 and 1987, age-standardized deaths fell among males by 12% and among females by 7% *(1)*. There was quite a specific pattern in terms of which causes of death were affected. Cancer deaths did not follow the general trend at all – they actually rose slightly. Deaths from alcohol-specific causes were the most affected: they fell among males by 56% *(1)*. Among males, deaths from accidents and violence fell by 36%. Deaths from pneumonia (40%), other respiratory diseases (20%), and infectious diseases (25%) also fell. Deaths from circulatory diseases, which accounted for over half of all deaths, also fell among males by 9%. The trends were similar among females, but the changes were less dramatic.

It was only in the latter part of the 1990s that these data began to come into the public arena. Though mortality statistics appear to have been recorded quite carefully in the last years of the Soviet Union *(2)*, they were a state secret. It was only in the wake of the disastrous trend in general mortality of the early 1990s that epidemiologists everywhere turned their attention to understanding what had occurred.

The fact that the anti-alcohol campaign rapidly became highly unpopular in the former Soviet Union also turned attention away from the

issue. Many in the intelligentsia still have difficulty believing that anything the Politburo did could have any beneficial effects. Also, it was obvious that a primary response to the severe restrictions of the campaign was a growth in the production and marketing of illicit alcohol. Without access to detailed statistics, it was easy to believe the claims of some that the total consumption of alcohol actually grew during the anti-alcohol campaign.

By now, more than a decade later, it is clear that this perception was wrong. Nemtsov's careful estimates of actual alcohol consumption *(3)* show total ethanol consumption, combining legal and illegal sources, to have declined from 14.2 litres per person in 1984 to 10.7 litres per person in 1987 – much less than the decline in officially recorded sales, of course, but still a decline of about 25%.

The lessons of the experience

The experience of the former Soviet Union in the latter half of the 1980s, then, suggests that a substantial cut in the alcohol supply can produce dramatic beneficial effects on the population's health. For each litre of ethanol by which per-person consumption dropped in the Soviet Union, the age-standardized mortality fell by 2.7%.

This is an important and indeed startling figure. From this experience, we have learned that given appropriate circumstances, alcohol can have a much greater net impact on a population's health than we had thought. But there are also other lessons to be drawn from the experience. This figure is considerably higher than the estimate from the pooled western European experience of a 1.3% net decrease in mortality from a 1 litre drop in per-person consumption of alcohol *(4,5).* This discrepancy illustrates another major realization of the past five years: that the effects of a given volume of alcohol on health and disease can vary from one society to another. Among the factors that can have a major effect on this relationship are the dominant patterns of drinking in a society. In the Russian Federation and a number of the NIS, there is a long-standing tradition of repeated heavy binge drinking, particularly among males. This pattern of drinking seems to be strongly implicated in the finding that a litre of ethanol has about twice the effect on mortality in the Russian Federation than it does in western Europe. We will return soon to other evidence of the importance of characteristic patterns of drinking to health, this time looking within western Europe.

The second major lesson to be drawn from the experience of the former Soviet Union is about the relation of drinking and heart disease. A major news item from medical epidemiology in the years before 1995 was the idea that alcohol can have a protective effect against heart disease. This finding, from a variety of prospective epidemiological studies, became an important argument for the increased availability of alcohol. It was an

important justification, for instance, for the increased British "sensible drinking" limits, announced at the same time as the European Conference on Health, Society and Alcohol (Paris, 1995).

The majority of epidemiological studies at the individual level still show the same result, although there are some exceptions. But in the meantime a number of important considerations have become apparent.

1. Most of the protective effects can apparently be gained with very little drinking – as little as one drink every second day.

2. Any protective effects are only important for men past 45 years of age or women past menopause; for most younger people, heart disease is not an important problem.

3. We still do not know to what extent the alcohol effect overlaps with, and could be replaced by, other protective behaviours.

4. It remains true that the prospective epidemiological studies are drawn from a relatively narrow range of societies. At the extreme, drinking cannot have protective effects, for instance, in a culture without substantial heart disease mortality, such as in some developing societies.

5. As will be discussed below, the effects of increased drinking on heart disease at the aggregate level may often be quite different from the effects at the individual level.

The experience of the former Soviet Union added a sixth point to this list: again, that drinking patterns matter. It was noted above in passing that deaths from heart disease actually declined in the former Soviet Union during the anti-alcohol campaign of the 1980s, before rising again dramatically in the early 1990s. The medical epidemiological literature was so committed to the idea that alcohol had predominantly protective effects for the heart that at first this finding was interpreted as showing that alcohol could not be playing a role in the improvement in Soviet mortality in the late 1980s and the deterioration in the early 1990s. It has taken some time to get to the point where it is clear that, in cultural contexts like the former Soviet Union, alcohol is detrimental rather than beneficial for the mature heart. The exact mechanisms by which intoxication can cause heart disease are still a matter of some discussion *(6,7)*, but by now there is a developing consensus that the data from the former Soviet Union, as well as from elsewhere *(8)*, show that given a common cultural pattern of repeated binge drinking, alcohol can be very bad for the heart indeed.

Drinking and mortality in western Europe

In terms of the mortality experience, there was nothing in western Europe in the last half of the twentieth century to match the dramatic changes in eastern Europe in the past two decades. Throughout the Region, national rates of mortality dropped gradually in the period. There were substantial divergences in national experiences with alcohol consumption levels. Broadly speaking, alcohol consumption fell in the traditional wine cultures of southern Europe, starting in the 1950s in France and somewhat later in the other wine cultures. On the other hand, alcohol consumption rose in the central and northern countries in the Region, so that the overall picture is of a convergence in alcohol consumption levels *(9,10).*

Over half a century, many other factors besides alcohol consumption have affected what happened to mortality rates. Analysing the overall trends thus tells us little about the specific effects of alcohol. Instead, a better approach is to set aside the overall trends and examine what happens in terms of changes year by year. If alcohol consumption goes up from one year to another, for instance, how much does the rate of a specific cause of death go up or down? Looking at the sum of these year-by-year changes in what is called an ARIMA (auto-regressive integrated moving average) time-series analysis is one of the most convincing ways of studying relationships between a possible cause and its potential effects. In a project funded by the EU, a team of Nordic researchers has recently been doing this for the countries of the EU (excluding Greece and Luxembourg, but including Norway).

Such analyses look at relationships in the population as a whole. Recently it has been re-emphasized that such aggregate-level analyses will not necessarily give the same result as individual-level studies, such as the prospective studies common in medical epidemiology. In fact, findings from the individual-level studies may not offer much guidance on what to expect at the level of the population. If the level of alcohol consumption has a J-shaped relationship to general mortality at the individual level, for instance, what does this imply about whether mortality will rise or fall if the average alcohol consumption level rises in a population?

An article by Skog *(11)* considered this question in 1996. Skog's argument was that because people tend to influence each other in their drinking patterns, so that in aggregate their consumption levels tend to rise and fall together, the shape of the J-curve implied that the optimum average drinking level for a whole population would be lower than the optimum drinking level for the average individual member of that population. In fact, he concluded, the current per-person consumption level in every western European country was greater than the likely optimum drinking level for a population. An increase in consumption in such countries, therefore, should bring an increase in general mortality.

The experience and its lessons

One of the ARIMA analyses examined Skog's hypothesis empirically, looking at the relationship between changes in alcohol consumption level and in overall male mortality *(12).* Norström *(12)* found that the relationship between alcohol consumption and increased mortality was nearly always positive, although the relationship was often not significant at the level of individual countries. Pooling the experience of the different countries, there was a significant positive relationship between change in alcohol consumption and change in overall mortality for each age segment of the adult male population. In general, then, the results supported Skog's hypothesis that "in none of these European countries would an increase in alcohol consumption bring a reduction of mortality".

A number of other analyses examined the relationship between changes in alcohol consumption and changes in specific causes of death. Looking at the relationship to deaths from cardiovascular disease (CVD), Hemström *(13)* found no support for the idea that increased alcohol consumption would be cardioprotective at the population level. There did not appear to be any typical relationship between changes in consumption and changes in CVD mortality, although increased consumption tended to bring more male CVD deaths in the southern wine-culture countries. Even looking specifically at heart disease deaths, it appears that there is no added benefit from added consumption in societies with consumption patterns at western European levels.

Other analyses looked at the relationship between changes in alcohol consumption and liver cirrhosis *(14),* accident mortality *(15),* homicide *(16)* and suicide *(17).* For cirrhosis, accidents and homicide, a rise in alcohol consumption predicted a rise in that cause of death in each of the northern, middle and southern tiers of countries in western Europe. For suicide, the relationship was generally significant only in northern Europe.

However, the findings of the cirrhosis, accident and homicide analyses had one feature in common. In each, the relationship was stronger in northern Europe than in southern Europe. Since consumption levels are higher in southern Europe, the actual number of deaths of these kinds attributable to alcohol are roughly equal in the northern and southern regions. But in terms of the effect of an extra litre of alcohol per person, there were marked differences: Rossow's results *(16)* suggest this would result in a 12.4% increase in homicides in the northern tier of Finland, Norway and Sweden, but in only a 5.5% increase in the southern tier of France, Italy, Portugal and Spain *(18).* The greater effect of an added litre of alcohol also showed up in the results for general mortality *(12).*

The most likely explanation of these different relationships, again, is in terms of different patterns of drinking. Drinking to complete intoxication seems to be a traditional component of the drinking patterns of the northern tier of countries. It seems that the adverse effect of an added or subtracted litre of ethanol per person is affected by the predominant patterns of drinking in a population.

Some conclusions

We may sum up the lessons from the new alcohol epidemiology as follows:

- The level of alcohol consumption matters for the health of a population as a whole.

- Within the current range of per-person consumption levels in Europe, an increase in consumption will produce net adverse effects on the health of the population as a whole. It is not likely to produce any net cardiovascular mortality benefit.

- The predominant pattern of drinking in a population can make a big difference in the extent of damage from extra alcohol consumption. Patterns that seem to add to the damage are drinking to intoxication, and recurrent binge drinking.

We have focused in this discussion on the level of whole populations, rather than on the level of the individual drinker or abstainer. From a public health perspective, it is the population level that matters in terms of societal policies and programmes. The general implications of the new findings for alcohol policies are twofold:

1. In a European context, any policy that reduces general levels of consumption will have a net benefit for health.

2. Given that the effects of a given amount of alcohol varies from one society to another, there is good public health justification for national differences in alcohol policies. In particular, strong policies controlling alcohol availability and drinking patterns are especially justified where the harm to the population from increased drinking seems to be greater, as in northern and eastern Europe.

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Chapter 5

Alcohol policies in Europe

Introduction

This chapter provides an overview of the alcohol policy options in place in the different Member States of the European Region. It is based mainly on the responses received by the WHO Regional Office for Europe from national counterparts[3] to a specifically designed questionnaire in 1998/1999. Other sources of information are the evaluation report of the first European Alcohol Action Plan (EAAP), the Global Status Report on Alcohol from WHO headquarters, and official documents and published reports received from Member States in the European Region. To varying degrees, we have information from 42 countries in the Region. For the following countries, the information base was insufficient to be included: Albania, Andorra, Kyrgyzstan, Monaco, San Marino, Tajikistan, Turkey, Turkmenistan and Yugoslavia. The presentation occasionally uses the different country groupings of western Europe, the CCEE and the NIS (see Annex 1).

This chapter is divided into twelve subsections, of which the first ten cover the ten strategy areas of the European Charter on Alcohol, corresponding to the ten broad policy options available to countries (see Annex 2). A brief review of the European Commission and alcohol, including the relevant EU directives, can be found in the section entitled "The European Commission and alcohol". The chapter ends with a short review of some of the main changes in alcohol policies that have taken place since 1994/1995.

Information and education

Information and education efforts can be viewed either on an individual level or on a population level. At the individual level a supportive environment is seen as important, and some efforts (such as brief interventions for risk groups in primary health care) have offered significant benefits. Well

[3] National European Alcohol Action Plan (EAAP) counterparts are designated by their ministers of health to liaise with the WHO Regional Office on alcohol policy. They all play key roles in their own countries as policy-makers and advisers.

developed, skill-based learning programmes as a part of health education in schools have also shown some positive results in relation to personal development. There is a general consensus among researchers that information and media campaigns at the population level rarely lead to changes in drinking behaviour on their own. The most effective outcomes have been achieved by a multisectoral approach, in which a combination of policy measures and interpersonal interventions (such as taxation and education) have been deployed. The role of mass media campaigns is mainly to influence and change the social climate of alcohol, as well as to promote individual healthy choices. Such campaigns can be more effective when targeted at specific issues, such as drink–driving.

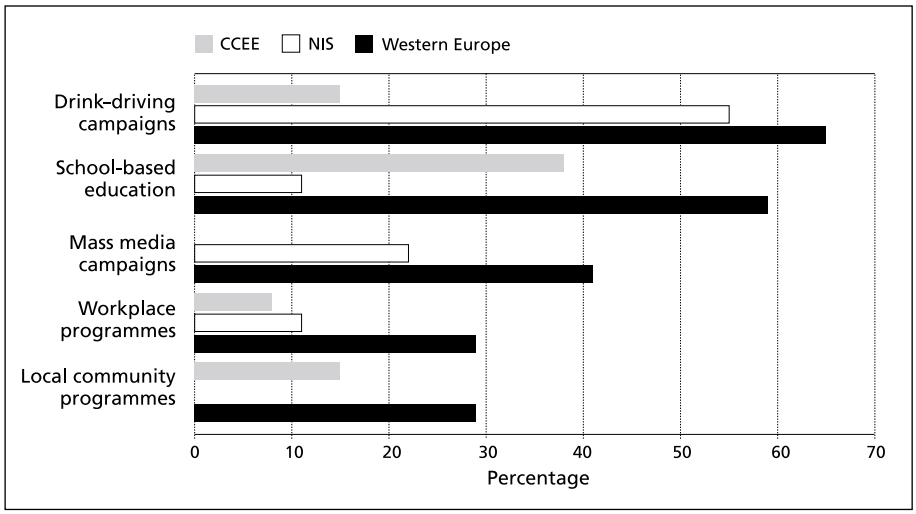
Information and education efforts are spread across the Region, and there are wide variations according to target groups, aims, and resources. The following, however, gives an overview of the development of different programmes in the Region. The information and education field is examined under five action areas: mass media campaigns, school-based education, workplace programmes, local community programmes and drink–driving campaigns. The most common strategies are drink–driving campaigns (where 18 of 39 countries report such activities as well developed) and school programmes (well developed in 16 countries). The three other information and education areas – mass media programmes (nine countries), local community programmes (seven countries) and workplace programmes (seven countries) – are generally less well developed and less frequently implemented in fewer countries.

The regional distribution (see Fig. 3) shows that about half of the NIS have well developed drink–driving campaigns, and that about one fifth of them report well developed mass media campaigns. This part of the Region seems to lack well developed local community programmes. Of the responding CCEE, close to 40% have well developed school-based education, while the other areas seem underdeveloped, and non-existent when it comes to mass media campaigns. In western Europe, the main thrust of the efforts seems to be on drink–driving campaigns and school-based education, while workplace programmes and local community programmes are well developed in almost 30% of the countries.

Examples of different types of information and education efforts at the national, regional or local level from around the European Region include: mini-interventions in primary health care (Finland), Project “vent” [wait] that aims to increase the age when alcoholic beverages are first consumed (Norway), primary health care education (Bulgaria, Sweden), “Alkohol-alles im Griff?” (Germany), “Saturday night” campaign for young people (Italy), “On my own two feet” school education (Ireland), “Handle with care” campaign (Switzerland), pregnancy and alcohol (Israel), “BOB, the non-drinking driver”, a popular and positive role model (Belgium), mandatory

testing of new drivers using the WHO AUDIT questionnaire (Ukraine), and "Second ABC, a seven-step programme for pupils (Poland).

Fig. 3. Regional distribution of well developed education and information efforts



Public, private and working environments

The two overall aims of restricting alcohol consumption in different settings are to ensure a safe public environment for leisure-time and sporting events, and to minimize or avoid accidents and loss of production in workplaces. The designation of specific environments as alcohol-free can be viewed from the perspective of physical safety and social order. The research evidence for this field of preventive action is scattered but accumulating, and one of the areas identified is the potential of local government regulations to prevent alcohol-related harm in public places *(1).* One of the most significant social costs of alcohol use is work-related accidents and absenteeism. The development of comprehensive, formal or informal, workplace health programmes, which include alcohol and other drug use, can contribute to a healthier and more productive workforce. Research done in Austria showed that 68% of workplaces were negative towards alcohol (24% neutral and 8% positive) and that the people who worked there drank less alcohol than those in more "alcohol-friendly" workplaces *(2).* In the public sphere, the threat of aggressiveness and disorderly behaviour, and of physical or mental harm, has led to a variety of interventions aimed at drunk people in public areas. In the private domain, family-related problems can be reduced through a supportive network of prevention and treatment programmes that ensure a safe home environment, especially for vulnerable children.

Most countries have restrictions on alcohol consumption in different settings. These regulations are targeted either at the general population or at specific target groups. The restrictions on alcohol consumption in the different environments vary from complete or partial restrictions to voluntary agreements or no restrictions. The public settings considered here are: health care buildings, educational buildings, government offices, public transport, restaurants, parks and streets, sporting events, leisure events (such as concerts), workplaces, and domestic and international air transport.

The vast majority of countries (33 of 39) have some form of restriction on alcohol consumption in the workplace (Table 10), and just under half of these have a complete ban on alcohol. Educational and health care buildings, government offices and public transport in many countries are also alcohol-free environments. The least restricted environments are international air transport and restaurants. The regional distribution of alcohol-free environments shows some interesting patterns. Western European countries are more likely to completely ban alcohol consumption in outdoor settings – during leisure and sporting events, and out in the open in parks and streets. On the other hand, the CCEE mainly ban consumption in more "official" surroundings, workplaces, health care buildings and government offices, and also in public transport and international air transport. The NIS ban alcohol mostly in workplaces, and domestic and international air transport. Overall, the CCEE have the greatest number of restrictions on alcohol consumption in different settings, while the NIS have the least.

Table 10. Restrictions on alcohol consumption in different settings (based on 39 countries)

Setting	Total number of countries with restrictions	Number of countries with complete ban	Percentage of countries with a complete ban		
			Western Europe	CCEE	NIS
Workplaces	33	16	6	50	44
Educational buildings	32	24	29	42	29
Health care buildings	31	21	15	52	33
Government offices	27	12	14	42	42
Public transport	26	16	18	44	38
Sporting events	22	9	45	22	33
Leisure events	21	3	100	–	–
Domestic air transport	18	8	13	25	62
Parks and streets	15	5	60	20	20
International air transport	12	2	–	50	50
Restaurants	8	–	–	–	–

Of all countries responding, Iceland has the most restrictions – a complete ban on alcohol in all the settings, except in restaurants and international air transport. Armenia and Denmark are the only countries that appear to have no restrictions, while Portugal has a voluntary agreement for just workplaces. Austria has no general restrictions on alcohol consumption in all settings, with the exception that alcohol cannot be served to pupils in schools, and some workplaces have adopted alcohol restrictions. In some countries, the restrictions cover only certain types of alcoholic beverages; for example, in Italy, the restriction in sporting and leisure events applies to spirits. Many countries restrict alcohol consumption in other additional settings. The Netherlands has a voluntary agreement for offshore industry, ships, water transport and soccer stadiums during "risk matches". There are also restrictions on alcohol in the vicinity of schools and churches (Lithuania), kindergartens and hospitals (Turkmenistan), educational and child care facilities, and in treatment institutions (the Russian Federation).

Although a majority of countries (17 of 27) have regulations governing the consumption of alcohol or people's blood alcohol levels at the workplace, the type of workplace restriction varies. Some of the regulations appear very strict; for example, in the Czech Republic and Latvia the employer can break a contract on these grounds. Croatia, Romania and Slovakia have strict regulations banning all alcohol on the job. In other countries, alcohol is restricted according to the type and nature of the work. In Georgia, some professionals (pilots, drivers of public transport and government security officers) are tested daily. In Belgium, the law bans strong alcoholic drinks (over 6% by volume) from the workplaces, and in Portugal the blood alcohol level in the workplace has to be below 50 mg%. The regional distribution of workplace alcohol regulations is similar between central and eastern Europe; on the one hand, and western Europe, on the other – 78% and 64%, respectively, of all responding countries have them. The corresponding percentage for the NIS is 43%.

The countries that have regulations on alcohol in the workplace also have workplace alcohol programmes. A few additional countries have developed workplace programmes, although they do not control the consumption of alcohol. The type and comprehensiveness of the programmes vary widely. In Norway, a tripartite committee is well established, highly organized and formal. Germany has over 2000 enterprises with workplace programmes, while in Switzerland it is mainly bigger enterprises that have organized such programmes. Ukraine has implemented a joint International Labour Organization (ILO)/United Nations Drug Control Programme (UNDCP) project at eleven different sites. Ireland and Malta refer to such programmes as Employer Assistance Programmes (EAPs), although only a small number are established in Ireland. In Iceland, alcohol-dependent people identified in the workplace are given the possibility of going into treatment or attending Alcoholics Anonymous (AA) meetings. Workplace programmes are most widespread in western Europe, where all responding

countries have them; in the CCEE, half the countries have programmes, while in the NIS less than one third do.

The majority of countries provide some level of support for families with an alcohol-dependent member. Twenty out of 27 countries have programmes to meet the needs of family members, especially children whose parents have an alcohol problem. Family programmes exist in all western European countries, in almost all the CCEE, but in only one of the NIS. This support is given in two main ways: in the first, assistance is given by nongovernmental organizations (NGOs), especially the Alateen and Alanon programmes (based on the AA model), and by other groups such as the International Organization of Good Templars (IOGT), Blue Cross and religious organizations. Alternatively, support is provided through treatment centres, where the family member undergoes treatment. This type of treatment is mainly local and not formalized.

The majority of countries (24 of 28) have regulations for custody of publicly drunk persons, usually involving either the police or health care facilities. In 16 countries, intoxication in itself is a reason to be taken into custody by the police for a certain time, usually ranging from 8 hours to 24 hours. A fine is imposed in a minority of countries (Belgium, Latvia and Poland), while in the Russian Federation the person has to pay for the service, a minimum of one month's salary. In seven countries (Austria, Bulgaria, the Czech Republic, Italy, Malta, Portugal and Slovakia), there are some additional requirements that have to be met before an intoxicated person can be placed in custody; these include danger, severe intoxication that requires emergency detoxification, criminal involvement, public nuisance and/or aggression. Almost all the NIS have the possibility of taking a publicly intoxicated person into custody, while this is the case in just over half of the western European countries and the CCEE.

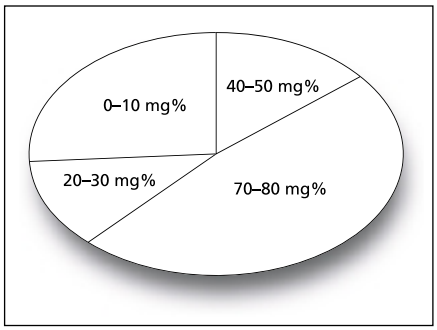
Drink–driving

The aim of drink–driving legislation, which is the most widespread form of alcohol policy in the Region, is to reduce the number of accidents, injuries and fatalities that result from driving while intoxicated. More generally, this harm-minimization approach covers boating and civil aviation, and even bicycling in some countries. The legal blood alcohol concentration (BAC) level in a country is based on the evidence of risk, public safety and what is perceived as publicly convenient and acceptable. The EAAP 2000–2005 recommends the adoption of a BAC of 50 mg% or lower, and it also recommends mandatory education for habitual drink–driving offenders. The effectiveness of any drink–driving law is determined by the degree of certainty of detection and the severity of punishment. A successful drink–driving strategy requires high-visibility, frequent and random road checks, which include random breath testing (RBT) and blood sampling.

Seven countries (Austria, Croatia, Italy, the Russian Federation, Slovenia, Spain and the former Yugoslav Republic of Macedonia) recognize the increased risk for young or professional drivers and require a lower BAC limit for those drivers.

The general BAC limits of the 43 countries can be grouped into four categories: very low, low, intermediate and high. A number of countries, mainly from the eastern part of the Region, permit no or very low (0–10 mg%) blood alcohol when driving a vehicle (Albania, Armenia, Azerbaijan, the Czech Republic, Estonia, Hungary, Kyrgyzstan, Romania, Slovakia, Ukraine, and Uzbekistan). A low BAC (20–30 mg%) is the recognized limit for Georgia, Poland, the Republic of Moldova, Sweden and Turkmenistan. The majority of countries (21) have set 40–50 mg% as the BAC limit. Six countries (Ireland, Italy, Luxembourg, Malta, Switzerland and the United Kingdom) have a higher level of between 70 mg% and 80 mg% (see Fig. 4). The Russian Federation defines its BAC limit as a state of drunkenness.

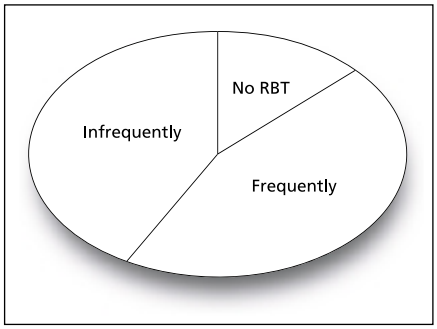
Fig. 4. Blood alcohol concentration permitted while driving
(based on data from 43 countries)



Random breath testing is performed in 35 of 41 countries, and half of these countries perform it frequently (Fig. 5). Frequent testing is performed in almost all the NIS that have RBT and in almost all western European countries, while it seems to be infrequent in the CCEE, with only less than one in ten having frequent RBT. Six countries (Azerbaijan, Georgia, Ireland, Israel, Switzerland and the United Kingdom) do not have RBT. In some countries (Bulgaria, Ireland, Italy, Latvia, Malta, Portugal and the United Kingdom), the police need justified suspicion to breath test drivers. In many cases after an accident or with a positive breath test, additional blood or urine tests are performed. In Austria, the Czech Republic and France, a refusal to take the test is interpreted legally as a positive result. In the United Kingdom, a refusal to provide a specimen can result in six months' imprisonment, a fine of £5000 and a suspension of the driving licence for at least 12 months. The overall level of enforcement of drink–driving legislation

is generally regarded as very strict or strict. In Belgium, Bulgaria, Latvia, Malta, the Netherlands, Poland, Spain and Switzerland, enforcement is seen only as fairly strict; in Denmark Greece and Italy, enforcement is regarded as not strict.

Fig. 5. Random breath testing (based on data from 41 countries)



Practically all countries report fines as one of the penalties for drink–driving, the sums varying from very little up to a sum equal to 150 days' wages. Suspension of the driving licence is another penalty, the time period depending on how much the BAC limit was exceeded. In most countries, a first offence or a BAC just above the legal limit results in suspension for between a few weeks and three months. There are, however, countries with very harsh penalties; Kyrgyzstan has a suspension of 1–2 years for a first offence. In Estonia and Latvia, the suspension period is up to two years. In Israel, the penalty is a two-year jail term and fines up to US $6000; in Georgia, suspension is up to three years; and in Iceland, a second offence can result in suspension from three years to life. For high BAC levels or repeated offences, many countries have legislation stipulating imprisonment. Countries mentioning imprisonment are: Armenia, Belgium, Bulgaria, Estonia, Denmark, Finland, France, Germany, Ireland, Israel, Italy, Luxembourg, Malta, the Netherlands, Sweden and Switzerland. In some countries, the penalty can be at the discretion of a court. Austria and Sweden state that the penalties are very harsh if a drunk driver is involved in a traffic accident or injures/kills somebody.

A small minority of countries report having mandatory education or treatment programmes for habitual drink–driving offenders or offenders who have significantly exceeded the legal BAC limit. These countries include Austria (if BAC of more than 120 mg% or 100 mg% for novice drivers (first two years), Belgium, Croatia, Germany (psychological medical examination), Ireland (at the discretion of a court), Netherlands, Portugal (law not specifically mentioning drink–driving), the Russian Federation (classes at

traffic police station), Switzerland, Ukraine and the United Kingdom (voluntary, experimental rehabilitation courses paid by the offender).

Availability of alcohol products

There is evidence that a variety of ecological policy measures, which influence people's access to alcohol and which control the pricing of alcohol through taxation, can somewhat curtail social problems. The key to the success of such policies, however, is to gain public support, enforce the policies widely and continue to maintain them. Studies that address the availability of alcohol have usually found that when alcohol is less available, less convenient to purchase, or less accessible, consumption and alcohol-related problems are lowered *(3)*.

Licensing and monopolies

In almost all countries, there is some form of legislation that deals with the production and sale of alcoholic beverages. The rationale behind these regulations varies from quality control of products and public health considerations to elimination of the private profit interest and religious considerations, all of which can provide support for stringent restrictions *(4)*.

Many countries seek to control the availability of alcohol by means of a state monopoly or a licensing system. Traditionally, the state monopoly approach has been characteristic of the Nordic countries (except Denmark), and some of the CCEE and the NIS. Recent political developments, however, have led to changes that have deregulated the market and opened up availability in some of these countries. Some 17 of 40 countries have state monopolies in one form or another. Azerbaijan, Belarus, Kazakhstan and the Russian Federation have state monopolies at all levels: import, export, production, wholesale and retail sale. Hungary's monopoly controls import, export, production and wholesale, but excludes retail sale. Belarus, the former Yugoslav Republic of Macedonia and Turkmenistan have state monopolies for all production, and Germany, Lithuania and Turkey have state monopolies for the production of spirits. Norway and Sweden have state monopolies for retail sale, Bosnia and Herzegovina have them for wholesale and retail sale, Iceland has them for imports and retail sale, and Finland has one for the retail sale of spirits (and partially of wine and beer). Ukraine has a state monopoly on import, export, production and sales of ethyl alcohol, but not alcoholic beverages.

Most of the countries in the European Region have a licensing system. Of a total of 45 countries, 14 require a licence for both the import, export, production, wholesale and retail sale of alcohol. The majority (25 countries), however, require a licence for one or more of these functions. Only six

countries (Denmark, the Czech Republic, Greece, Israel, Slovenia and Spain) have no licensing relating to alcohol.

In almost all countries, retail outlets have to apply for the right to sell and serve alcohol. Only in Armenia, Austria, the Czech Republic, Spain, Slovakia and Slovenia have all outlets the right to sell and serve alcohol. In Greece, a licence is only required for retail sales off-premise, but the licence is not alcohol-specific and it is permanent. In some countries (for example, Italy, Portugal, the Republic of Moldova and Romania), there is a formal procedure, but all applicants get a licence, thus rendering the procedure almost meaningless. All bars and restaurants in Hungary and Iceland, and bars and shops in Croatia, get licences. Generally, it is more common and easier for bars and restaurants to obtain alcohol licences than for off-premises and shops. The fees for obtaining a licence vary from no fee (Norway, Portugal and Romania,) to €50 in Bulgaria, and up to €1500 in Estonia. The fee usually depends on the size of the outlet, its turnover, rent and the time limit for the licence.

Five of 27 countries officially use the possibility of limiting the number of outlets as an alcohol policy tool; they are Iceland, Italy (for spirits), Luxembourg, Poland and Spain. In most cases, however, it is the local municipalities or authorities that can restrict the number of licences – for example, in Belgium, Estonia and Norway.

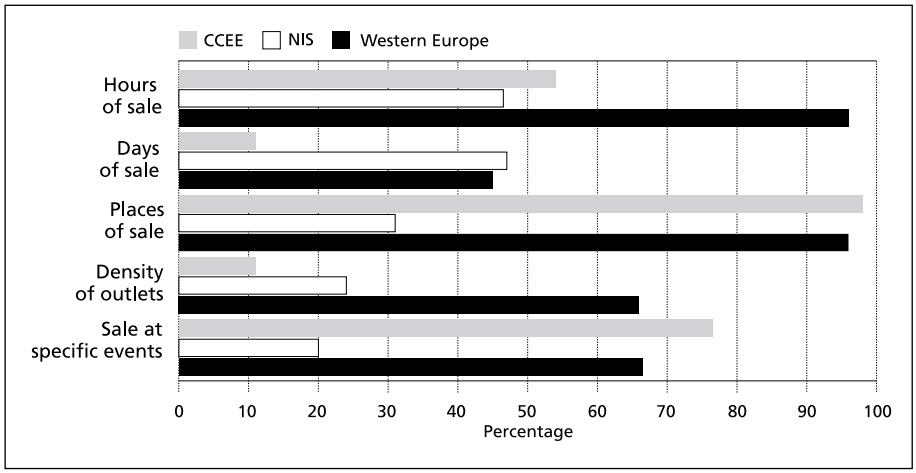
Restrictions on sale

There are many ways in which countries may seek to restrict the sale of alcoholic beverages, besides monopolies and licensing. The most prominent are restrictions on hours, days and places of sale, sale during specific events and the density of outlets. Most studies of changes in hours or days of sale have demonstrated increased drinking or increased rates of alcohol-related harm with increased number of hours or days of sale and vice versa. Curbing the number of alcohol outlets and regulating their location (for example, near schools, churches or workplaces) have demonstrated that geographical density does have a significant effect on alcohol sales *(3)*.

As Fig. 6 illustrates, 28 of 41 countries have restrictions on places of sale, 20 restrict the hours of sale, and nine limit the days of sale. The five countries with no restrictions on sale are Armenia, Greece, Israel, the Republic of Moldova and Slovenia. Restrictions on the places of sale of alcohol are decisions taken mostly at municipal level (for example, the Netherlands and Poland), thus rendering national comparisons impossible. Hours of sale can vary across the days of the week and can also include banning the sale of alcohol at certain places during specific hours; for example, France and Germany ban alcohol sales at highway petrol stations between 10 p.m. and 6 a.m. Restricting the days of sale tends to be a

predominantly Nordic policy response, but Estonia and the United Kingdom also have this form of restriction. Some of the restrictions relate only to a specific alcoholic beverage – for example, spirits (Croatia and Italy). The restrictions on sales in Kazakhstan and the Russian Federation apply only to alcoholic beverages with more than 12% alcohol by volume, and in Ukraine to beverages with over 8.5% alcohol by volume.

Fig. 6. Restrictions on sale



Twenty countries restrict the sales of alcohol at specific events, like children's festivals, sporting events and demonstrations. In Italy the restriction on sales during events is partial for beer, voluntary for wine and total for spirits. In Spain alcohol is forbidden during sporting events, and in Belgium the restriction only applies to spirits. A minority of countries (11 of 41) have specific regulations restricting the density of outlets serving alcohol: Iceland (1–5 outlets per square kilometre), France (1 on-premise outlet per 450 inhabitants or in larger urban areas 1 per 3000 inhabitants), Finland (beer), Belarus (wine and spirits), Ireland, Luxembourg, Malta, Poland (wine and spirits), Spain Sweden and the United Kingdom.

The restrictions on sale are equally distributed in the Region with regard to places of sale and sale at specific events, while hours of sale and density of outlets are more restricted in western Europe.

Age limits

Setting minimum legal age limits is a measure targeted at barring a specific age group (regarded as particularly vulnerable) from access to alcohol. Age limits for buying alcoholic beverages vary in the European Region from

15 years to 21 years. In a number of countries different beverages have different age limits – in particular, a higher age limit is set for spirits. There are also countries with different age limits for buying on or off the premises and for drinking alcohol.

The age limit that relates to the purchase of alcohol (the lower limit if there are several) has been taken for the purpose of this analysis. Of 41 countries, three (Armenia, Bosnia and Herzegovina and Slovenia) have no age limits for buying alcohol. Greece limits the purchase of spirits to people over 18 years old, but has no age limit for buying beer and wine. Denmark has the lowest age limit (15 years), while 11 countries have 16 years as the age limit. The majority of countries (23) have 18 years as the limit, and two countries (Iceland and Sweden) have 20 years as the limit. In Austria and Switzerland, the age limit varies between regions/cantons. The group of countries with 16 years as the age limit is dominated by western European countries (72%), while the age limit of 18 years is mainly enforced by the CCEE, the NIS and Nordic countries. About 17 of the countries can impose fines on those selling or serving alcohol to under-age people.

Having legal age limits is important; the enforcement of these regulations, however, determines their effectiveness. The majority of countries estimate their enforcement of age limits to be strict; only eight countries (the Czech Republic, Ireland, the Netherlands, Poland, Portugal, Romania, the Russian Federation and Ukraine) estimate it to be lax.

Alcohol taxation

In most countries, alcohol is an important source for raising government revenue and therefore an established target of taxation. Only quite rarely, however, are the precise objectives of alcohol control explicitly stated in the laws embodying such policies *(4)*. The effect of price changes on alcohol consumption has been extensively investigated in societies such as those in Australia, Europe, New Zealand and North America. The robust finding is that if alcohol prices go up, consumption goes down, and if prices go down, consumption goes up *(3)*. Taxation and pricing, therefore, can be an effective public health instrument for reducing overall alcohol consumption. The real price of alcohol needs to rise (and not just the nominal price) if pricing is to be used as a strategy to contain alcohol consumption. Pricing policies could also be effective in steering people towards a particular type of low-alcohol or non-alcoholic beverage, in order substantially to reduce risky or high blood alcohol levels.

It is difficult to compare taxation levels between countries for a number of reasons. Tax systems vary and are calculated differently, and information on specific taxation levels has not been supplied by all countries.

The majority of countries, however, have a system of two taxes on alcoholic beverages: sales tax/value added tax (VAT) and a specific alcohol tax.

Some 36 of the 40 countries have VAT on alcoholic beverages (Germany and Israel have a different taxation system). The VAT is higher on alcohol than on other consumer products or services in Austria (with a special drink tax of 10% added to the VAT), Italy, Lithuania, Romania and Slovakia. The level of the VAT varies from a low of 7.5% (Switzerland) to a high of 27% (Slovakia), with the majority of countries having a level close to 20%.

The specific alcohol tax, in almost all countries, is based on the volume of alcohol – the stronger the beverage, the higher the tax; this, however, is not the case in Italy, Kazakhstan, the Republic of Moldova and Ukraine. Some countries have no tax on certain beverages (Austria, Germany, Greece, Italy, Luxembourg, Portugal and Spain do not tax wine, and Latvia does not tax beer). Where taxation is reported as a percentage of price, 10 countries have a low tax proportion of less than 10% on beer, while the tax take is between 55% and 70% in the Nordic countries (except Denmark) and the former Yugoslav Republic of Macedonia. For wine, 12 countries have a tax of less than 40% of the price, while (again) the high taxation countries can be found among the Nordic countries (except Denmark), and also in Ireland, Turkmenistan and the United Kingdom. Spirits are clearly the most heavily taxed beverage. Taxation of spirits ranges from below 30% (in Spain, the Republic of Moldova and Turkmenistan), to medium taxation of 30–60% in 12 countries. High taxation (> 60%) of spirits occurs in Belarus, Lithuania, the Nordic countries (except Denmark), the former Yugoslav Republic of Macedonia, Ukraine and the United Kingdom, with Romania topping the list at 118%. Apparently, there is no specific alcohol taxation in Georgia and Uzbekistan.

The tax revenue from alcohol is an important source of income for many countries in the Region. The contributions of tax revenue from alcohol as a proportion of total government revenue range from 0.7% in Spain to a high of 10.0% in Estonia (see Table 11). The total tax revenue from alcohol in any country is related more to the level of taxation than to the level of consumption. Many countries lose substantial amounts of tax revenue because of difficulties in controlling the production, import and sale of alcohol. Ineffective enforcement of a taxation policy generates large black markets for illegally produced or smuggled alcohol products, which evade all taxation. In the former Soviet Union, for example, excise taxes on alcoholic beverages and state profits (derived from the alcohol and wine industry and imports) accounted for between 12% and 14% of all state revenue for more than 60 years, while illicit production of alcohol accounted for US $360 million in lost tax revenue *(5)*.

Table 11. Tax revenue from alcohol as a percentage of total government revenue, selected European countries

Range	Country	Percentage	Year
Low < 2%	Spain	0.70[a]	1997
	Denmark	0.78[a]	1997
	Germany	0.94	1997
	Portugal	1.00	–
	Netherlands	1.10	1996
	Slovenia	1.10	1997
	Italy	0.53–2.20[b]	1997/98
Medium 2–5%	Norway	2.00	1997
	Switzerland	2.00	–
	Luxembourg	2.50	1985
	Sweden	2.60	1996
	Lithuania	2.70	1998
	Austria	2.90	1996
	Slovakia	3.12	–
	Hungary	4.50	–
High > 5%	Finland	5.20	1996
	Poland	5.20	1999
	Ireland	6.74	1998
	Estonia	10.0	1995

[a] Not including VAT.
[b] Depending on calculation.

Only six of 39 countries use a proportion of taxes on alcoholic beverages to directly fund alcohol control activities; they are France, Lithuania, Norway, Poland, Switzerland and the former Yugoslav Republic of Macedonia. In Lithuania, 1.3% of alcohol taxation goes directly to prevention work and to the police. In Switzerland, 10% of the net profit from the taxation on spirits goes to prevention and treatment. In France, there is a special tax (of about FF 10 per litre of alcoholic beverages above 25% alcohol by volume) that is used to fund social programmes. In Poland, 1% of total excise tax on alcohol is used to implement the national alcohol programme; in addition, since 1998, local governments have access to the fees paid for alcohol licences within the municipality, which amount to about €50 million per year nationwide.

Of 27 countries, nine (Germany, Iceland, Kazakhstan, Luxembourg, Malta, Norway, Poland, Switzerland (for spirits) and the United Kingdom) mention reducing total alcohol consumption as the official objective of the alcohol taxation policy.

To ensure the collection of taxes and counteract smuggling, many countries (20 of 39) have introduced duty-paid stamps for alcoholic beverages; these countries include Armenia, Croatia, France, Hungary, Georgia, Greece

(spirits), Italy (spirits), Kazakhstan, Luxembourg (spirits), Latvia, Poland (wine and spirits), Portugal (spirits), the Republic of Moldova, Romania, the Russian Federation (not beer), Slovakia (spirits), Spain (spirits), Switzerland (spirits), Ukraine and Uzbekistan. From all responding countries, 78% of the NIS, 46% of the CCEE and 41% of western Europe have duty-paid stamps.

Promotion and advertising

Alcohol advertising has the potential of portraying drinking as socially desirable, of promoting pro-alcohol attitudes, of recruiting new drinkers and of increasing drinking among current drinkers. Alcohol advertising emphasizes the desirable aspects of drinking, ignores the risk of alcohol use to the individual and to public health, and can undermine prevention objectives *(6).* The overall research evidence confirms that advertising has a small but contributory impact on drinking behaviour *(3).* Restricting and controlling alcohol advertising as a policy measure is relevant and appropriate for a comprehensive alcohol policy, although the overall impact of advertising on alcohol consumption or alcohol-related harm may be limited and long-term.

Advertising restrictions, as presented in Table 13, vary from complete bans and more limited legal restrictions to voluntary advertising codes or no restrictions. The media considered here are television (TV), radio, print media and billboards. In these areas, Greece, Hungary and Romania have no restrictions on advertising, and Georgia only restricts the advertising of spirits (TV, radio and print media). Kazakhstan restricts TV and billboard advertising, but no other media.

Of 37 countries, 29 ban or legally restrict advertising of spirits on TV, 28 ban or restrict advertising of wine, and 23 ban or restrict advertising of beer (see Table 12).

Table 12. Restrictions on alcohol advertising on TV and radio (*n* = 37)

Type of restriction	**Spirits**		**Table wine**		**Beer**	
	TV	Radio	TV	Radio	TV	Radio
Complete ban	15	13	12	11	9	8
Legal restrictions	14	14	16	15	14	12
Voluntary code	8	7	8	7	9	9
No restriction	3	6	4	7	8	11

Table 13. Controls on advertising of alcohol, WHO European Region, 1998–1999

Country	Spirits				Table wine				Beer			
	TV	Radio	Print media	Billboards	TV	Radio	Print media	Billboards	TV	Radio	Print media	Billboards
Armenia	R	none	none	R	R	none	none	R	R	none	none	R
Austria	R	R	VC	VC	R	R	VC	VC	R	R	VC	VC
Azerbaijan	R	R	R	R	R	R	R	R	R	R	R	R
Belarus	B	B	B	VC	B	B	B	VC	B	B	B	VC
Belgium[a]	R	R	VC	VC	R	R	VC	VC	R	R	VC	VC
Bulgaria	R	R	R	R	R	R	R	R	R	R	R	R
Croatia	R	R	R	R	R	R	R	R	none	none	none	none
Czech Republic	VC	VC	VC	VC	VC	VC	VC	VC	VC	VC	VC	VC
Denmark	B	B	VC	VC	B	B	VC	VC	B	B	VC	VC
Estonia	R	R	R	B	R	R	R	R	R	R	R	R
Finland	B	B	R	B	R	R	R	R	R	R	R	R
France	B	R	R	R	B	R	R	R	B	R	R	R
Georgia	R	R	R	none	none	none	none	none	none	none	none	none
Germany	VC	VC	VC	VC	VC	VC	VC	VC	VC	VC	VC	VC
Greece	none	none	none	none	none	none	none	none	none	none	none	none
Hungary	none	none	none	none	none	none	none	none	none	none	none	none
Iceland	B	B	B	B	B	B	B	B	B	B	B	B
Ireland	VC	VC	VC	VC	VC	VC	VC	VC	VC	VC	VC	VC
Israel	VC	none	VC	none	VC	none	VC	none	VC	none	VC	none
Italy	R	R	R	VC	R	R	R	R	R	VC	R	R
Kazakhstan	R	none	none	R	R	none	none	R	R	none	none	R
Latvia	B	B	R	R	R	R	R	R	none	none	none	none
Lithuania	R	R	–	–	R	R	–	–	R	R	–	–
Luxembourg	VC	VC	VC	VC	VC	VC	VC	VC	VC	VC	VC	VC
Malta	VC	VC	none	none	VC	VC	none	none	VC	VC	none	none
Netherlands	VC	VC	VC	VC	VC	VC	VC	VC	VC	VC	VC	VC
Norway	B	B	B	B	B	B	B	B	B	B	R	B
Poland	B	B	B	B	B	B	B	B	B	B	B	B
Portugal	R	R	none	none	R	R	none	none	R	R	none	none
Republic of Moldova	R	R	R	R	R	R	R	R	R	R	R	R
Romania	none	none	none	none	none	none	none	none	none	none	none	none
Russian Federation	R	R	B	R	R	R	B	R	none	none	B	R
Slovakia	B	B	R	R	B	B	R	R	VC	VC	VC	VC
Slovenia	B	B	B	B	B	B	B	B	B	B	B	B
Spain	B	R	R	none	R	R	R	none	R	R	R	none
Sweden	B	B	R	R	B	B	R	R	B	B	R	R
Switzerland	B	B	none	R	B	B	none	none	B	B	none	none
Ukraine	B	B	R	R	B	B	R	R	none	none	R	none
United Kingdom	VC	VC	VC	VC	VC	VC	VC	VC	VC	VC	VC	VC
Uzbekistan	B	B	B	R	B	B	B	none	R	R	R	R

[a] For the French community in Belgium, the radio and TV advertising prohibition is for alcoholic beverages above 10% alcohol by volume.

VC: Voluntary code.
R: Restricted.
B: Banned.

A total ban on advertising in print media exists in seven countries: Belarus, Iceland, Norway (not beer), Poland, the Russian Federation, Slovenia and Uzbekistan (not beer). Also, advertising alcohol on billboards is banned in six countries: Estonia (spirits only), Finland (spirits only), Iceland, Norway, Poland and Slovenia. Voluntary advertising codes are mainly a western European phenomenon, and they exist in Austria, Belgium, the Czech Republic, Denmark, Germany, Ireland, Israel, Luxembourg, Malta, the Netherlands and the United Kingdom. The group of countries with mainly complete bans of advertising is dominated by the Nordic countries: Denmark, Iceland, Norway and Sweden (TV and radio), but includes also Belarus, Poland, Slovenia, Switzerland (TV and radio) and Uzbekistan (mostly for wine and spirits). France has a ban on advertising on TV and legal restrictions on the other media. Croatia, Latvia, Slovakia and Ukraine also have severe controls on alcohol advertising, except for beer. Finland bans advertising of spirits and restricts advertising of other alcoholic beverages. Azerbaijan, Bulgaria, Estonia, Italy and the Republic of Moldova have legal restrictions on all (or almost all) of the media. The Russian Federation bans print-media advertising and restricts it (except for beer) on TV and radio.

The EU countries have regulations as set out by the directive on TV advertising (89/552/EEC). Some countries have additional restrictions over and above the provisions of this directive. Belgium does not allow pregnant women to be shown; Portugal does not permit advertising between 7.00 a.m. and 9.30 p.m. In Ireland people in advertisements must be 25 years of age or older. In the United Kingdom, advertising is prohibited between 4.00 p.m. and 5.45 p.m. and in children's and religious programmes. Outside the EU, national advertising codes are found in Armenia, Bulgaria, Georgia, Hungary, Latvia, Malta, the Russian Federation, Switzerland, Ukraine and Uzbekistan. In Latvia, it is forbidden to use state symbols, exhibit people drinking, and target those under age, drink–driving, sport or medicine. In Switzerland, the codes prohibit advertising targeted at minors, and for spirits advertisements can only be directed to the product and its properties. In the Russian Federation, images of success and good health are forbidden, and advertisements cannot discredit abstaining or appeal to minors. In Malta, alcohol advertising cannot target young people, be shown to increase performance, or be broadcast on TV before 8.30 p.m. In Bulgaria, advertisements cannot target minors, be associated with driving, or show abstinence or moderation in a negative way. In Hungary, the code stipulates no advertising on children's TV programmes.

Of 39 countries, 17 impose fines as a punishment if advertising regulations are breached. It is mainly countries of western Europe that have the possibility of imposing fines. In the Russian Federation, the penalties are harsh; the second violation in one year is considered a criminal offence, which can result in imprisonment for two years or compulsory labour or a

fine of 50–100 times the minimal monthly salary. In France, the penalties are high and the offender is taken to court.

Of 39 countries, only five (Azerbaijan, France, Latvia, Lithuania and Ukraine) require health warnings on advertisements. In Latvia, the warning has to cover 10% of the surface. In Lithuania, it has to cover 20% of the advertisement, be black on white, and include a message by the Ministry of Health stating "alcohol use is a risk to your health, family, society, and income", and it is applicable to all exterior advertising. In Ukraine, warnings covering 5% are required on printed advertisements saying "excessive alcohol use is harmful to your health". In France, the message is: "the abuse of alcohol is dangerous for health: consume in moderation".

Of 27 countries, only nine have regulations (legal or voluntary) restricting sponsorship by the alcohol-beverage industry of young people's leisure-time activities or sports: Croatia (not for beer), France (all sports and culture), Germany, Iceland, Ireland, Italy, Norway, Ukraine (when directed at those under 18 years old if the title or image of alcohol is used) and Uzbekistan.

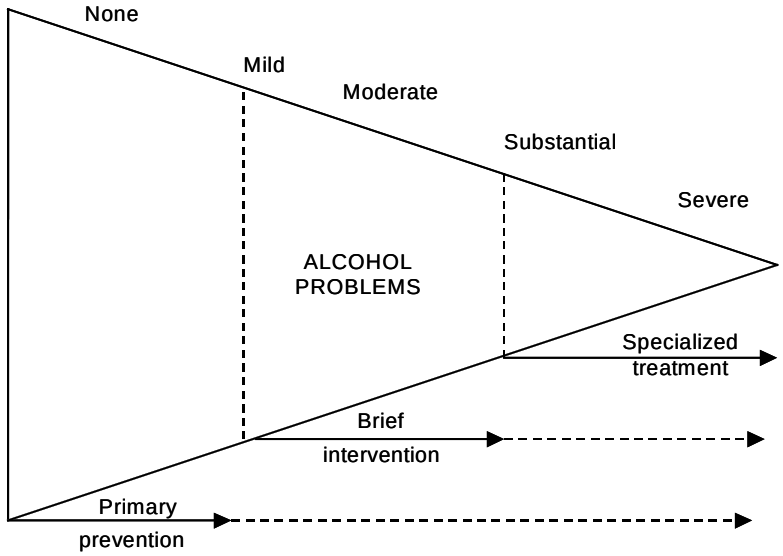
Treatment

In addition to the primary health care (PHC) sector, the social service groups that play an important part in intervening in the life and treatment of problem alcohol users include accident and emergency care services, general hospitals, psychiatric services, specialist treatment units, voluntary organizations and self-help groups. Extensive research confirms that much can be gained by ensuring that health care systems, including PHC facilities and general hospitals, play a greater role in early detection and prevention of alcohol-related harm. The overall conclusion is that brief interventions targeted at excessive drinking, or at an early stage, offer significant benefits, especially to men *(3).* PHC facilities can also be a major support for families and self-help groups. For treatment to benefit a significant population, it must be widely available within the population, and its costs, complexity, and acceptability must be such as to make dissemination feasible. Services will need to respond both to acute and to long-term problems. Intensive and expensive treatment does not necessarily produce better results; low-cost alternatives can assist substantially with early identification, secondary prevention, and long-term support *(4).* Those alternatives are epitomized by primary care interventions, the only part of treatment covered in this context. The place of brief interventions in the overall treatment of alcohol problems is illustrated by Fig. 8.

In all the countries in the Region, PHC facilities are involved in some way, although they are not extensively involved in primary prevention or work on health promotion. Half of the countries in the Region implement

intervention activities in PHC settings. These interventions are mainly based on the WHO model (AUDIT) of brief interventions. The model is also used to motivate problem drinkers to accept specialist care.

Fig. 8. Relationship between the severity of alcohol problems and the type of intervention needed



Source: Institute of Medicine *(7)*. Reproduced by permission of National Academy Press, Washington, DC, USA.

In the treatment for hazardous and harmful alcohol consumption, PHC facilities (including general practices) are the most widely available setting. Twenty-three of 39 countries assessed the PHC setting as available or widely available in their country. The availability of telephone helplines in 13 countries and of NGOs in 15 countries is good, while referral or treatment is readily available at workplaces in only 10 countries and in pharmacies in only seven countries: Austria, Bosnia and Herzegovina, Hungary, Italy, Poland, the Republic of Moldova and Uzbekistan.

For PHC services, protocols for giving advice on alcohol are available in 11 of 39 countries (Austria, the Czech Republic, Georgia, Hungary, Iceland, Israel, Italy, Luxembourg, the Republic of Moldova, Spain and Uzbekistan), and training programmes on providing that advice are available in nine countries (Austria, Belgium, Finland, Germany, Italy, Luxembourg, Portugal, the Republic of Moldova and Sweden). Only five countries (Austria, Denmark, Finland, Iceland and Italy) have financial or contractual incentives for giving alcohol advice in the PHC setting.

Responsibilities of the alcoholic beverage industry

Societies are penetrated by an increasing awareness of consumer rights and consumption risks. Because the consumption of alcoholic beverages carries a number of health and social risks, this awareness can be used for the prevention of alcohol-related problems, in particular, by making the alcoholic beverage industry collaborate in preventive efforts. The tools of this branch of preventive work include accurate product information, warning labels, responsible serving and marketing, and promotion of drinking patterns that are assumed to be less harmful. In all these activities, the work done by the industry is of central importance. A number of studies have demonstrated that changes in serving and sales practices, together with training for establishment managers, may have a positive effect on reducing the amount of alcohol served to intoxicated people, subsequently reducing the risk of them being involved in traffic accidents or other alcohol-related problems. Also, the civil liability of alcohol retail establishments, when properly enforced, may act as a tool for preventing alcohol problems *(4).*

Half of the countries in the Region believe that the role played by the alcoholic beverage and the hospitality industries in preventing alcohol-related problems is insufficient or non-existent. In a small number of countries, the industry has cooperated in the prevention of under-age drinking, drink–driving and drinking in the workplace. In some countries (such as Ireland and the United Kingdom), the hospitality industry has also adopted a code of practice of self-regulation concerning advertising and packaging. The successful enforcement of these codes, however, has been questioned. In Sweden, representatives from the trade monopoly work together with the Ministry of Health and Social Affairs, finding common interests and designing information campaigns. Negative practices of the alcoholic beverage industry identified by countries include marketing aimed at young people, sponsorship of sports, and strong opposition to reductions of BAC limits or the introduction of random breath testing.

The vast majority of countries have regulations that require alcohol content and/or alcohol concentration to be printed on all alcoholic beverages, which is also a requirement under an EU directive. Countries that do not have this requirement are Azerbaijan and the Czech Republic.

A number of countries (20 of 40) have set levels for the maximum alcohol content for all or some alcoholic beverages. In a few countries, the limit is so high (95% in Turkmenistan and Ukraine) that the regulation is effectively meaningless. For spirits, the maximum level is usually between 40% and 60%, the exceptions being Croatia (rum), Estonia and the Netherlands, where it is 70–80%. Regarding wine, the limit varies between 11% and 22%, while only eight countries have a maximum limit for beer,

varying between 3.5% and 12.0%. Austria and Switzerland have regulations only for the minimum content of alcohol for the specific beverages.

The Russian Federation has provisions that require various types of information (including contraindications for use of alcohol products), but in practice these are not carried out. Regulations that include health warnings on containers of alcohol products or at points of sale are not evident in any country. The United Kingdom, however, has unit labelling on alcohol products, and Denmark has a voluntary agreement for unit labelling of beer and wine when they are bottled in Denmark.

A few countries provide training for those who serve alcohol: Iceland, Ireland (at the development stage), Luxembourg, Malta (partial), Norway, Poland and Switzerland (even mandatory in some cantons). Germany has server liability for the servers of alcohol, although it is seldom implemented. Bulgaria and Ukraine have had litigations on product liability for damage to individual consumers or their families, but the outcome of these cases is not known to us.

Several countries (16 of 27) have penalties or sanctions (such as licence withdrawal) for those serving alcohol in an irresponsible manner (for example, to under-age or intoxicated people); these countries include Austria, Belgium, Croatia, Estonia, Iceland, Ireland, Italy, Kazakhstan, Luxembourg, Malta, Poland, Portugal, Slovakia, Spain, Switzerland (some cantons) and Uzbekistan.

A smaller number of countries have also regulated alcopops and designer drinks (spirit- or wine-based alcoholic drinks mixed with sweet soft drinks, which appeal to young people); these countries include Armenia, Bulgaria, Croatia, Estonia, Ireland (voluntary code), Kazakhstan, Norway (sold in monopoly stores only), Poland, the Russian Federation, Switzerland (in some cantons), Ukraine and the United Kingdom.

Societal response

One measure that enhances the capacity of society to respond to alcohol problems is the training of professionals in other fields; here the aims are increased awareness and the ability to recognize, intervene in and alleviate alcohol-related problems. Training and awareness-heightening are often part of community actions and projects. The social welfare system, in particular, is often in the front line for dealing with problems associated with alcohol use. It can play an important part in both identifying and assisting families and individuals at risk of heavy drinking. Child care protection, problem identification, and a referral system that encourages family members to enrol in counselling or treatment are important functions.

Most countries (19 of 27) have training for professionals in fields other than health on the issues of alcohol. Latvia is an interesting example; it has training for the national armed forces on the issues of alcohol. The social welfare system is described in many countries as taking no part or only a limited part in alcohol-related work. Half of the countries in the Region provide training related to the issues of alcohol as part of the education for social workers, or as separate programmes. Half of the countries consider the training to be sufficient, while the other half consider it to be too limited.

Many countries express a need for training that covers the issues of alcohol and appropriate responses within the criminal justice system. In most of the countries, the criminal justice system is engaged mostly in controlling drink–driving and in ordering treatment or education programmes for drink–driving offenders or prisoners. A minority of countries consider their criminal justice system to be active or sufficient in its contribution to alleviating problems that arise from alcohol. Some countries have educational programmes on the judicial consequences of drinking.

The majority of countries have local activities and community programmes for the prevention of alcohol-related harm and the promotion of healthy lifestyles. In most cases, local programmes are aimed at educating the young and at introducing a ban on drinking in certain places or during specific events. Other areas of action are drink–driving campaigns and police programmes for preventing under-age access to alcohol.

Nongovernmental organizations

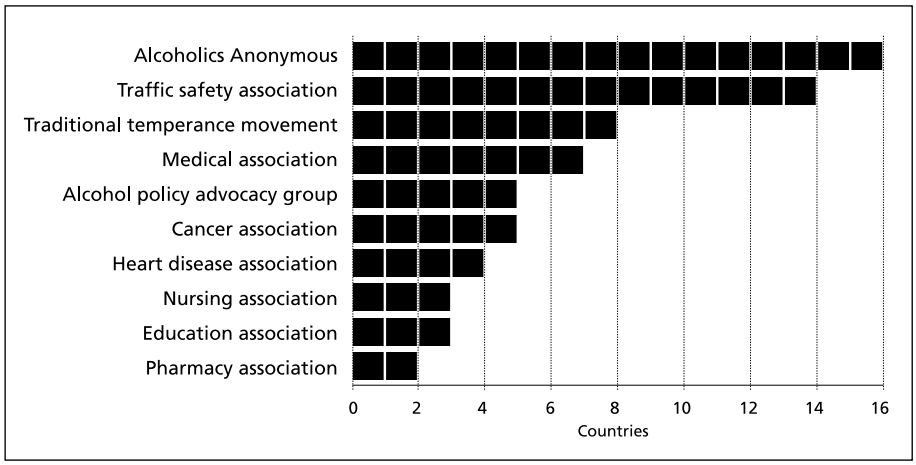
NGOs can play an important role in society and local communities by preventing, reducing, or treating alcohol-related problems. The flexibility of many NGOs can open avenues that influence decision-making at local, national and supranational levels. NGOs act in a multitude of areas: providing information centres, workplace and education programmes, and various kinds of treatment centres, participating in the public debate over alcohol issues through campaigns, media coverage and articles, and offering alcohol-free alternatives and grass roots support *(8).*

In general, the historical, cultural and political roots of NGOs vary greatly between European countries, which makes it difficult to build unified action plans around NGO involvement. NGOs with a vested interest in alcohol can be divided into three different types of organizations: temperance organizations, self-help movements, and general social and health organizations. Temperance organizations have had their stronghold in the Nordic alcohol-monopoly countries (Finland, Iceland, Norway and Sweden), while elsewhere in Europe they have never gained a significant foothold. Today, the remaining temperance organizations are often reformulating their thrust in the direction of general health and lifestyle

interests. One of the most widespread and recognized of self-help organizations is Alcoholics Anonymous (AA), which is also a philosophy, a social movement and a form of treatment. The influence of AA in policy formulation is significant in many countries, and the ideology has become a part of the official treatment ideology in some countries. In Europe, there is a broad network of NGOs in the field of health and social problems, typically built around the interests of victims of a special health or social problem. When considering the role of voluntary organizations in providing services and treatment for problem drinkers, there are differences that lie in the historical division of labour between state, municipalities, church, commercial actors and civil organization (*4*).

By their mandate, a broad range of NGOs should show an interest in alcohol policy questions. In most countries, however, these NGOs either do not exist or are not very active (see Fig. 9). The AA movement in 16 of 38 countries and the Traffic Safety Association in 14 (of 38) countries are quite active, followed by the traditional temperance movement, which is quite active in eight countries (the Czech Republic, Finland, Iceland, Latvia, Poland, Slovakia, Sweden and Switzerland) and moderately active in another five countries (Austria, Belgium, Estonia, Germany and Ukraine). Alcohol policy advocacy groups, and cancer and medical associations are active in about six countries, and the NGOs (nursing, pharmacy, education and heart disease associations) only in up to four countries. Examples of NGOs active in the alcohol field are Alcohol Concern (the United Kingdom), MADD – Mothers Against Drink–Driving (Ireland and the United Kingdom), and the Narcology Association (Moldova).

Fig. 9. Number of countries where NGOs are active in alcohol policy issues (total 38 countries)



Basically, all countries have some national project that promotes healthy settings, such as homes, schools, hospitals and workplaces. These offer opportunities to encourage healthy behaviour, improve social support and strengthen attitudes that favour more moderate drinking habits. These projects are either independent or integrated within the structure of a WHO project. Looking at the active involvement of WHO networks in alcohol-related activities at country level, it is noted that the Health-promoting Schools and Healthy Cities networks are active in 23 and 25 countries, respectively. National medical associations are active in 14 countries, and the countrywide integrated noncommunicable disease intervention (CINDI) programme is active in 15. Other WHO networks (Regions for Health, Health Promoting Hospitals, National Nursing Associations and EuroPharm) have considerably less alcohol-related visibility; only between two and seven countries consider them clearly involved in this area.

Policy development

Given that well balanced alcohol policies have clear public health benefits, one of the main areas of action (as laid out by the EAAP) is to stimulate the development of comprehensive alcohol policies in the Member States. WHO calls on all Member States to draw up comprehensive alcohol policies and to implement programmes that give expression (appropriate to their differing cultural, social, legal and economic environments) to the ethical principles and goals of the European Charter on Alcohol.

From the European Region 13 of 39 countries (Estonia, Finland, Germany, Iceland, Ireland, Israel, Italy, Lithuania, the Netherlands, Norway, Poland, Portugal and Sweden) have introduced alcohol into their national planning and/or developed a national alcohol action plan; and another 14 countries (Armenia, Austria, Belarus, Bulgaria, Hungary, Kazakhstan, Latvia, Malta, the Republic of Moldova, the Russian Federation, Slovakia, Switzerland, the United Kingdom and Uzbekistan) are in the process of developing such plans. The regional differences are shown in Table 14. None of the NIS yet has a plan, but more than half of them are developing one. In the CCEE, one third of the countries are developing a plan, which would bring half of the countries into the group with action plans. In western Europe, only one fifth of the countries do not have a plan or are not developing one.

Table 14. National alcohol action plans in Europe

Countries	National Alcohol Action Plan	Developing a National Alcohol Action Plan	No National Alcohol Action Plan
CCEE	2	4	7
NIS	–	6	3
Western Europe	10	4	3

About 25 countries have a national coordinating body or organization that advises on and coordinates the implementation of a national alcohol policy, and another seven countries are in the process of developing such a body. These include all the previously mentioned countries that already have a national alcohol action plan, as well as Armenia, Belarus, Bulgaria, Denmark, Georgia, Hungary, Luxembourg, Malta, the Republic of Moldova, the Russian Federation, Spain, Switzerland and Uzbekistan. Denmark, Georgia, Luxembourg, Spain and Ukraine are countries that have a coordinating body but do not have a national action plan. Different statutory and non-statutory sectors are engaged in the coordinating bodies. Statutory sectors include mainly the ministry of health, and to a lesser degree the ministries of justice, social welfare, labour and education, and national health boards, public health institutes and municipalities. Non-statutory sectors are mainly NGOs, such as temperance societies.

Twenty-three of 40 countries (Armenia, Belarus, Bulgaria, Croatia, Denmark, Finland, France, Hungary, Iceland, Ireland, Italy, Lithuania, Luxembourg, Norway, the Netherlands, Poland, Portugal, the Republic of Moldova, the Russian Federation, Spain, Sweden, Switzerland and Ukraine) have specific targets for their alcohol policy activities. Of these countries, eight mention reducing total or per person consumption as the target, while the rest have reducing alcohol problems as their target or else have very specific targets; for example, Italy has the target of reducing, by at least 20%, the prevalence of men drinking more than 40 g per day and women drinking more than 20 g per day, and also reducing the prevalence of drinking between meals.

Surveys of alcohol consumption are carried out at different intervals and among different populations by the following countries: Belgium, Croatia (up to 1990, started again in 1998), Denmark, Estonia, Finland, Germany, Ireland, Israel, Italy, Lithuania, Malta, the Netherlands, Norway, Portugal, Slovakia, Spain, Sweden and Switzerland.

Regular national reports about alcohol use, alcohol-related harm or alcohol control policies are published by Armenia, Austria, Belgium, the Czech Republic, Denmark, Finland, Germany, Hungary, Italy, Kazakhstan, Lithuania, Norway, Slovakia, Sweden and Switzerland.

The European Commission and alcohol

Since the ratification of the Maastricht Treaty in 1992, public health has received full recognition in the mandate of the European Commission (EC), for which Article 152 of the Amsterdam Treaty now provides it with competence. In 1998, the EC adopted a Communication on the development of public health policy in the European Community; it identified three main strands of action: improving health information, establishing a rapid response

mechanism and tackling health determinants. One explicit objective of the European Community action programme on health promotion, information, education and training is to promote the examination, assessment and exchange of experience and support for actions on measures to prevent alcohol abuse and its health and social consequences. In this action programme, special references are made to health education measures in the workplace and to the training of health professionals about alcohol abuse. The other European Community action programme is on health monitoring. The objective of the Council resolution on alcohol abuse, adopted in 1986, is to decrease alcohol-related problems in the Member States through a joint initiative that takes into account economic factors and public health concerns. Alcohol, as one of the most important risk factors for human health, will remain an issue of utmost importance, not only for the Member States, but also at the level of the EU. Furthermore, because an additional 12 countries are negotiating to accede to membership, the importance of the EU in the public health field (and thus also regarding alcohol in the whole European Region) will become more significant.

The EU directives that have been adopted to date relate to three aspects of alcohol control policy: taxation, advertising, and transportation between Member States of alcohol for personal use.

The EU has attempted to harmonize taxation on alcohol among its member countries, but to date has succeeded only in setting minimum excise rates. According to the Council directive on the approximation of the rates of excise duty on alcohol and alcoholic beverages (92/83/EEC 19 October 1992), the minimum rates, from 1 January 1993, are as follows:

- for wine (still and sparkling): ECU 0;
- for beer: ECU 0.748 per hectolitre per degree Plato, or ECU 1.87 per hectolitre per degree of alcohol of the finished product;
- for intermediate products (beverages with an alcohol content under 22% and not belonging to the group of wines or beers): ECU 45 per hectolitre of product; and
- for spirits: ECU 550 per hectolitre of pure alcohol.

In support of its attempt to harmonize taxes and duties, the EU has raised to a very high level the limits on the quantity of alcoholic beverages that a traveller may transport between member countries for personal use. The regulations allow for 110 litres of beer, 90 litres of wine, 20 litres of intermediate products (alcohol content below 22%) and 10 litres of spirits. Some of the countries have nevertheless made reservations to this directive due to perceived risks to security and the health of their citizens; for example, the limits for Denmark and Finland are much lower: 15 litres of

beer, 5 litres of wine, 3 litres of intermediate products and 1 litre of spirits. These exceptions remain in force until the end of 2003.

The EU has also placed restrictions on the advertising of alcohol on television. Council Directive 89/552/EEC 3 October 1989 (on the coordination of certain provisions laid down by law, regulation or administrative action in member countries concerning the pursuit of television broadcasting activities) restricts the content of alcohol advertisements on TV. The directive states:

> Television advertising for alcohol beverages shall comply with the following criteria; it may not be aimed specifically at minors or, in particular, depict minors consuming these beverages; it shall not link the consumption of alcohol to enhanced physical performance or driving; it shall not create the impression that the consumption of alcohol contributes towards social or sexual success; it shall not claim that alcohol has therapeutic qualities or that it is a stimulant, a sedative or a means of resolving personal conflicts; it shall not encourage immoderate consumption of alcohol or present abstinence or moderation in a negative light; it shall not place emphasis on high alcoholic content as being a positive quality of the beverage.

The EC has also recently adopted a programme of priority measures for road safety, which includes a recommendation to adopt blood alcohol limits of 50 mg% or less, and will call on the member countries to take the necessary support measures of information campaigns, tests and penalties.

The EC is also preparing a proposal for a new programme of Community action in the field of public health (2001–2006), recognizing alcohol as one of the important health determinants (alongside tobacco and drug abuse), and intends to set up a European Health Forum as a consultative mechanism. In response to the increasingly international character of youth culture, to the fact that young people are more vulnerable to the adverse effects of alcohol and more prone to accidents and violence, and to the possibility that their psychological and physiological development can be impaired by alcohol, the Commission is preparing a proposal for a Council recommendation on the drinking of alcohol by children and adolescents.

There is also a clear need for action to improve data collection on a consistent basis and to facilitate the exchange of information about best practices. In response to this need, the EC has funded several activities and research studies. One example is the European Comparative Alcohol Study (ECAS), currently under way, which aims to examine the alcohol policies in the EU member countries (and Norway) and to discuss the scientific, social, economic, and political dimension of the issue “Alcohol and health”.

Changes in alcohol policies

When examining policy changes, the time period between 1994/1995 and 1998/1999 is short; nevertheless, some changes have taken place (Table 15). The changes have occurred in three broad strategy areas: drink–driving legislation (BAC limit and the performance of RBT), availability of alcohol (state monopolies on alcohol, alcohol licensing of import/export, production or sales, and restrictions on sale, including age limits); and promotion of alcohol (specifically advertising restrictions). Almost all countries (35 of 42) have made changes at some level, indicating that alcohol policy measures do change quite frequently and that new regulations are adopted. The changes that have occurred have been in both directions: some have increased alcohol control, while others have decreased control.

Most changes have focused on the advertising of alcohol: 25 countries have either introduced or abolished some restrictions, the changes being equally distributed between the number of restrictions increasing and decreasing. Changes in restrictions on the sale of alcohol have occurred in 19 countries: in 13 of them towards more restrictions and in six towards fewer restrictions. Changes in the licensing of alcohol have occurred in 15 countries: in 10 countries towards more licensing requirements and in five countries towards fewer. The limit for BAC has changed in 12 countries: nine have adopted higher BAC limits and three have adopted a lower limit. Changes in performing RBT have occurred in eight countries, seven of them introducing RBT. Finally, state monopolies on alcohol have changed in seven countries, one of them introducing a new state monopoly. Examining the direction of all the above-mentioned changes shows that of 85 changes in alcohol policy, 53 (62%) are towards a more strict alcohol policy and 32 (38%) are towards a less strict policy.

The overall regional distribution shows that in western Europe virtually all countries (17) have seen changes in their alcohol policies during the period. More strict policies have been introduced in nine of the EU countries (Austria, Belgium, Denmark, France, Germany, Greece, Italy, Luxembourg and Spain), and in Israel and Malta. Of the 43 changes in this group of countries, 32 (74%) have been towards stricter policies and 11 towards fewer restrictions. In the CCEE, 10 of 13 countries have had changes, with four of them (Croatia, Estonia, Latvia and Poland) moving in the direction of stricter policies. Of a total of 24 changes, half (12) introduce new restrictions and half result in fewer restrictions. Among the NIS, seven of the nine countries have seen changes taking place, and three of these (Azerbaijan, Belarus and the Republic of Moldova) have moved towards a stricter alcohol policy. With respect to the direction of all NIS changes, the situation is identical to that of the CCEE: half of the 18 changes are towards more restrictions, and half towards fewer.

Table 15. Changes in drink–driving legislation, availability of alcohol and alcohol promotion between 1994/1995 and 1998/1999

Drink–driving			Availability of alcohol		Promotion	
Country	**BAC**	**RBT**	**Monopolies**	**Licensing**	**Restrictions on sale**	**Advertising**
Armenia					◆	
Austria	●	●	◆			●
Azerbaijan				●		●
Belarus			●	●	●	●
Belgium	●			●		●
Bosnia and Herzegovina						
Bulgaria	◆		◆	●	◆	◆
Croatia				●	●	◆
Czech Republic				◆	●	
Denmark	●			◆	●	
Estonia	●					
Finland						◆
France	●					
Georgia	◆	◆				
Germany	●			●	●	
Greece	●	●			●	
Hungary						
Iceland		●				◆
Ireland						
Israel						●
Italy		●			●	●
Kazakhstan						
Latvia			◆		●	●
Lithuania			◆	●		◆
Luxembourg					●	●
Malta	●	●			●	●
Netherlands						
Norway			◆	●		
Poland				●	●	
Portugal				◆	●	◆
Republic of Moldova		●			◆	●
Romania						◆
Russian Federation	◆				◆	◆
Slovakia				◆		●
Slovenia					◆	●
Spain	●			◆	●	●
Sweden				●		◆
Switzerland			◆			◆
The former Yugoslav Republic of Macedonia						
Ukraine		●			◆	◆
United Kingdom						
Uzbekistan						

Key:
BAC: ● = lower BAC limit; ◆ = higher BAC limit
RBT: ● = introduced RBT; ◆ = abolished RBT
Monopolies: ● = introduced a state monopoly; ◆ = abolished a state monopoly
Licensing: ● = more alcohol-related licensing; ◆ = less licensing
Restrictions on sale: ● = more restrictions; ◆ = less restrictions
Advertising: ● = more restrictions; ◆ = less restrictions

Note: Respondent countries indicating no changes are included in the above table, but without symbols.

Drink–driving legislation

Blood alcohol concentration

During the past five years, a number of countries (Austria, Belgium, Denmark, Estonia, France, Germany, Greece and Spain) have lowered their BAC levels. Most previously belonged to the high BAC group of 80 mg%, before decreasing to 50 mg%; Estonia, however, lowered its BAC from 50 mg% to 0 mg%. Malta has introduced (for the first time) a BAC limit of 80 mg%. Three countries have raised their BAC levels: Georgia, from 0 mg% to 30 mg%; Bulgaria, from 20 mg% to 50 mg%; and the Russian Federation, from 10 mg% to "a state of drunkenness". The change in the distribution of the BAC limits that has occurred over the past five years is that more countries have lower BAC limits (see Table 16); this has occurred especially among EU countries.

Table 16. Changes in BAC limits

BAC (in mg%)	1994 (*n* = 36) (in %)	1999 (*n* = 42) (in %)
0–10	14	26
20–30	14	10
40–50	42	50
70–80	31	14

Random breath testing

In 1994/1995, 27 of 39 countries (69%) had RBT, compared with 35 of 41 countries (85%) in 1999. About five years ago, 12 countries did not have RBT, while the number for 1999 is six countries. Seven countries (Austria, Greece, Iceland, Italy, Malta, the Republic of Moldova and Ukraine) have recently introduced RBT, while Georgia has abolished it. The frequency of performing RBT has also increased slightly, from 35% of countries performing it frequently in 1994 to 44% in 1999.

Availability of alcohol

State monopolies

Six countries have abolished their state monopoly to some degree during this period (1994–1999): Austria and Switzerland have done so in relation to the production of spirits, Lithuania for production of wine, Bulgaria for all production and Latvia for both production and distribution of wine and spirits. Norway has kept its state monopoly on retail sale. Belarus is the only country that has introduced a more widespread state monopoly: it now also covers retail/wholesale, import and export of alcoholic beverages.

Alcohol licensing

As a consequence of abolishing some aspect of their state monopoly, four countries (Belarus, Bulgaria, Lithuania and Norway) introduced licensing on all imports, exports, production and sales of alcohol. More licensing was also introduced by Azerbaijan (production and sale), Belgium (retail sale of spirits), Croatia (import and sale), Germany (retail sale), Poland (all licensing) and Sweden (all licensing). Five countries abolished part or all of their licensing requirements: the Czech Republic, Denmark and Spain changed from having licensing on production and/or sale to having no licensing requirements; Slovakia moved from licensing on sales to licensing on import; and Portugal moved from licences on sales to licences on import, export and production.

Restrictions on sale

Three countries (Belarus, Denmark and Italy) previously without an age limit have introduced higher age limits for buying alcohol. Two countries (Bulgaria and Ukraine) have lowered their age limits. Eight countries have introduced new restrictions on sales: Croatia (spirits), Germany and Italy (spirits) have restricted hours of sale; Denmark, Latvia, Luxembourg and Spain have restricted places of sale; and Portugal has restricted both hours and places of sale. In Spain and Italy, the changes have both abolished some restrictions and, at the same time, introduced some other restrictions. On the other hand, eight countries have abolished some form of restrictions on sale: the Russian Federation, Slovenia, Spain and Ukraine have increased hours of sale; Iceland and Lithuania have increased days of sale; Bulgaria has increased both hours and days of sale; and Italy has increased the types of outlets. A number of countries had no restrictions on the sale of alcohol (apart from age limits): in 1994/1995, they were Armenia, Austria, Azerbaijan, Belarus, Georgia, Germany, Greece, Israel, Latvia, Portugal and Slovakia. Also, four countries (Belarus, Germany, Latvia and Portugal) introduced restrictions on sale, and for two countries (Azerbaijan and Georgia) information was not available. In 1999, seven countries (Armenia, Austria, Greece, Israel, the Republic of Moldova, Slovakia and Slovenia) continue to have no restriction on the sale of alcohol.

Alcohol promotion

Thirteen countries have introduced more restrictions on alcohol advertising during the five-year period. Israel, Luxembourg and Malta have introduced some voluntary codes. Azerbaijan and the Republic of Moldova, which previously had no restrictions, have legally restricted all media. Austria, Belgium and Slovakia now have legal restrictions on advertising, as compared to having mainly voluntary codes. Italy has introduced some more legal restrictions, and Belarus, Latvia, Slovenia and Spain have introduced some total bans on alcohol advertising. Eleven countries, on the other hand,

have fewer restrictions or less strict restrictions than earlier. Croatia, the Russian Federation and Sweden have abolished some part of their complete ban on advertising alcohol. Romania has abolished its restrictions on TV and radio advertising. Portugal has fewer restrictions on billboards, while Finland has lifted its ban on print media advertising of spirits. In Ukraine, beer advertisements are now allowed on TV, radio and billboards. Switzerland allows wine and beer advertising billboards and advertisements in print media for spirits. Lithuania had a complete ban on all advertising of spirits and wine, but now is restricting TV and radio advertising. Bulgaria had a complete ban on TV, radio and print media advertising, but has now legal restrictions on all media. In 1994/1995, seven countries had a complete ban on alcohol advertising in all media; that number has decreased to only three. In 1994/1995, eight countries had no restrictions on advertising, and this figure has decreased to three in 1999. Voluntary codes for all media existed in eight countries, and six of those have retained all the voluntary codes.

Other changes

In 1994/1995, 24 of 40 countries (60%) had legislation to provide for alcohol-free environments in some setting. That number has increased in recent years: 33 of 39 countries (85%) now restrict the consumption of alcohol in at least some public, private or working environment. A maximum limit on alcohol content existed previously in 14 countries, and this number has increased to 20 in 1999. Previously, only five countries allocated part of their tax revenue from alcohol for prevention or treatment; in 1999, the number of countries was six.

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Chapter 6

Alcohol policy: securing a positive impact on health

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The need for an informed and supportive public

All health policies require the informed support of the people they aim to benefit. This is especially true of alcohol policy, where what is being dealt with is often a cultural symbol, a leisure activity and a tradable commodity, as well as an issue relevant to health. It is not surprising that in these circumstances a pro-health policy on alcohol frequently has to fight for its acceptance in the face of opposition from various quarters. The formation and implementation of alcohol policy must be accompanied by a strong and continuing commitment to disseminate the true and balanced facts on alcohol as a health issue. Public support should not be taken for granted but has to be built over time. For example, people need to understand more fully that it is not only their own health and happiness that can be harmed by alcohol, but that other people's drinking also may have negative consequences for them as "bystanders". Such external features include circumstances where someone is the victim of drink–driving or drunken assault, the costs incurred by every taxpayer from the diversion of health care resources, and many other types of alcohol-related external cost. Another important awareness that needs to be developed, if alcohol policy is to win due support, is an understanding that although drinking is a personal act and an individual responsibility, it is also behaviour shaped by our societies and something for which society as a whole has responsibility. It is thus counterproductive to formulate health policy responses exclusively for the individual, while neglecting the very necessary public health perspective which suggests that ecological measures that can modify people's drinking are very important within the mix of needed strategies *(1,2).* Alcohol is a personal issue, but it is also in every sense a public and social issue.

Under this introductory heading, what is thus being proposed is that a national alcohol policy will need to be rooted in national and local support. More attention should be paid today, than has often previously been the case,

to the mechanisms through which that support will be won and to the question of how such activity will be supported and implemented. It is not an activity that can safely be left to chance.

The total drinking population should be the public health target

Policy must take into account the total drinking population, in order to define the scope of public health action. Alcohol policy should not be limited to "alcoholism", the alcohol addict, or extreme physical illness, but should take into account both alcohol-related problems and alcohol dependence. It should give attention to acute and accident problems, as well as to long-term problems. It should deal with social and psychological problems, as well as physical ones. It should tackle small and common problems, as well as major and less common consequences. Policy must be concerned with the adverse impact of drinking on the family and, as mentioned above, on other people, as well as on the drinker. Policy must address drink–driving and other aspects of alcohol-related crime. Young people can be especially vulnerable to alcohol-related accidents and violence, and it is vitally important that policy should be sensitive to the need to protect this age group *(3)*.

Prevention measures that influence drinkers in general will also have an impact on heavier drinkers. The drinking population in general behaves as one system, rather than as several different parts. An increase or decrease in overall consumption results in shifts across all bands of drinking, including heavy drinkers.

Many alcohol-related problems are broadly distributed in the drinking population, rather than being concentrated only among heavy drinkers. Policies targeted at the larger sector of a population, which may manifest lesser degrees of individual risk but in sum contain many problems, can (for some problems) produce greater public health benefit than a focus on a smaller population at higher risk, but with (in sum) a lower number of problems.

The overall strategy for alcohol policy must be to create an environment that helps people to make healthy choices and renders unhealthy choices more difficult or expensive. Any measure that will potentially increase the availability of alcohol within a country, whether as a result of trade agreements, a reduction in the real price of alcoholic beverages, or reductions or eliminations of restrictions on retail access, should therefore be judged in terms of public health and public safety, in addition to any other perspectives.

Taxation of alcohol

Taxation of alcohol is an effective environmental mechanism for reducing alcohol problems. Population alcohol consumption is generally responsive to price, with increases in price leading to decreases in consumption and decreases in price leading to increases in consumption *(1,2).* Through the relationship between consumption and individual population problems, taxation of alcohol is a public health instrument of wide potential effectiveness for reducing alcohol-related harm.

The exact relationship between the price of alcohol and the level of alcohol consumption depends on the particular population, income variations, the beverage type and historical time period. As a rough generalization, a 10% increase in price leads to approximately a 5% decrease in beer consumption, and a 7.5% decrease in wine and a 10% decrease in spirits consumption. There is some evidence that heavier drinkers are affected disproportionately and that an increase in price leads to a greater decrease in cirrhosis mortality than in alcohol consumption. A 10% decrease in per person consumption will be reflected in about a 20% decrease in male alcohol-related mortality, and a 5% decrease in fatal accidents, suicides and homicides in the whole population. It needs to be stressed that these figures are only approximate.

Availability of alcohol

Environmental measures that influence people's physical access to alcohol can make a significant contribution to the prevention of alcohol problems. Such measures include: enactment of a minimum legal drinking age; restrictions on hours or days of sale; and policies on number, type or location of sales outlets *(1).* Increases in the density of outlets and increases in the number of hours and days of sale may all lead to increases in consumption. Increased age limits can reduce alcohol-related traffic crashes by up to one quarter, as well as reducing alcohol consumption and alcohol-related fatalities. Responsible beverage service and server training programmes, and increased legal liability of servers of alcohol, can all lead to reductions in the number of traffic crashes involving alcohol.

Drinking and driving

Drink–driving countermeasures are effective if vigorously enforced and given a high public profile *(1).* Deterrents and the strict enforcement of drink–driving laws are of fundamental importance. Other measures include server training and making legally liable the person on a premise that supplies alcoholic drink to an intoxicated patron. Young drinkers who drive

are at particular risk, due both to their inexperienced driving and their inexperienced drinking. One logical countermeasure is, therefore, to set lower levels of BAC for young drivers. High visibility RBT can lead to sustained reductions in fatal crashes by at least 20% and in alcohol-involved traffic crashes by at least a third. In reality, a person may become impaired at much lower BAC levels than those commonly established.

Advertising restrictions

There is some evidence that restrictions on advertisements lead to reduced alcohol consumption and alcohol-related harm *(1)*. Within stable and saturated markets, the main role of advertisements is to ensure that old consumers are replaced by new ones and that educational messages do not diminish alcohol consumption. Contemporary advertisements communicate more about the meaning and desirability of the products and about the social contexts in which the products are used than about the products themselves. Alcohol advertising presents alcohol consumption as a safe and problem-free practice, de-emphasizing the potential health risks and negative consequences. Through its messages, alcohol advertising maintains the social desirability of drinking, overshadows the risk of alcohol use to individual and public health, and contradicts prevention objectives. These indirect effects alone are sufficient to justify the need to control the volume and content of alcohol advertising.

Countries that are members of the Organisation for Economic Co-operation and Development (OECD) and which have bans on spirits advertising have about 16% lower alcohol consumption than countries with no bans, while countries with bans on beer and wine advertising have about 11% lower alcohol consumption than countries with bans only on spirits advertising. Motor vehicle fatalities are about 10% lower when spirits advertising is banned, and about 23% lower in countries with bans on beer and wine advertising, as well as that for spirits. For young people, a five minute increase in exposure to alcohol advertising can be associated with an increase in alcohol consumption of 5 g a day.

Alcohol advertising needs to be examined not in isolation and only in terms of its direct effects on individual or aggregate alcohol consumption, but as an influence that shapes the context in which alcohol education is delivered and in which alcohol-related policies are formulated.

Treatment

If alcohol treatment is to make a significant population-wide impact on drinking problems, it must be delivered on an appropriate and community-wide scale. Different levels and types of problems may require different

types and degrees of interventions, and policies cannot be based on the assumption that there is any one treatment appropriate for every drinking problem. Evidence points to the frequent effectiveness of simple help given in general or primary care settings *(4)*.

Brief interventions are likely to comprise an assessment of alcohol intake, information on hazardous and harmful drinking, and clear advice for the individual to reduce consumption. Brief intervention sessions are often accompanied by information booklets and details of further resources available locally. Although findings are not consistent across all studies, brief interventions have been shown in some research to be effective in reducing alcohol consumption by over 25% in people with hazardous or harmful alcohol consumption.

School-based and public education

These policy elements have in common the intention of influencing the individual's knowledge, attitudes and behaviour. School-based and public education are interventions that (by their nature) are likely to be interactive with many other environmental influences, and if they have an impact, it is likely to be in the longer term. Their longer-term efficacy is difficult to research but, if they are beneficial, the benefit is perhaps more likely to be indirect and expressed through heightened political and public awareness. There is at present no research evidence that can support their deployment as lead policy choices or justify expenditure of major resources on school-based education or mass media public education campaigns, unless these are placed in a broader context of community action *(1)*.

Thus far there is no evidence to support the efficacy of campaigns that, as a public health strategy, seek to teach drinkers in the population to count the number of units of alcohol they drink *(1)*. Furthermore, there may be some danger that talking about a "safe limit" will encourage more of the population to drink and spur light drinkers to drink up to the stated limit.

Community action programmes

A variety of community action programmes have been reported. These have often been multifaceted and have provided a context for both environmentally directed interventions and strategies that give information. The evidence to date suggests that comprehensive community action can reduce alcohol problems. As at the national level, however, it seems likely that the community's acceptance, or better still its active backing, is a prerequisite for the successful application of any local public health policy and must be integral to alcohol policies. Community action strategies recognize this fact and aim to mobilize existing community resources and support to this end.

Alcohol policy and coronary heart disease

Evidence from many epidemiological studies shows that light or moderate drinkers have lower rates of coronary heart disease mortality than abstainers, and the relationship is thus J-shaped *(1)*. This effect has been confirmed even when people who have stopped drinking because of illness are eliminated and when a variety of potential confounders are also corrected out. There are potential biological explanations for this apparent cardioprotective effect in terms of the influence of alcohol on clotting mechanisms.

Should people therefore be advised to drink for their heart's sake? An examination of the facts and the conflicting arguments *(5)* suggests that for the following reasons a categorical message of this kind would be imprudent.

- When confounders relating to the individual's social and economic position are corrected out, the seeming cardioprotective effect may no longer be found. Poor and isolated people contribute disproportionately to the pool of abstainers or very light drinkers, and they may be a sector whose lifestyle increases their vulnerability to heart disease, and hence the artefact.
- The cardioprotective findings are not universal, and a recent Scottish study did not show any mortality advantage for drinkers *(6)*.
- The benefits, if they exist, are likely to be limited to men over 40 years of age and to post-menopausal women and are not population-wide.
- There is research that shows that alcohol can, for some people, actually be cardiotoxic because of its capacity to produce abnormalities in heart rhythm. In some circumstances alcohol is thus bad for the heart.

In the face of evolving research, the best interim approach to interpreting the evidence must be that there are more effective and better substantiated ways of protecting the heart than using alcohol as medicine. For the population, the risks that stem from a message which might increase population alcohol consumption would be likely to outweigh any population cardiac-level benefit.

Conclusions

A public health policy on alcohol should be integrated with all other health planning, nationally and locally. The days are long gone when action on alcohol could be viewed only as some kind of optional extra. A prerequisite for the establishment of effective responses to this problem will, however, be

a sustained commitment to public dialogue and dissemination of information on the nature of the problem and the rational basis for policy choices.

Today a mass of high-quality international research is available to inform us of the policy choices on alcohol. That evidence suggests that what is needed is a policy mix rather than any one policy master stroke. Measures directed at specific drinking situations can be effective, with drink–driving countermeasures providing a persuasive example. Other measures will employ ecological strategies (such as pricing and control over physical access), so as to support healthy choices and help obviate unhealthy choices. Treatment, especially through its primary care delivery, is a significant element within the overall public health response. Discrimination must be used when making evidence-based choices of the policy mix, and the research does not support school-based or public education as lead elements. It can be dangerous if education becomes a diversionary activity, while more effective policies that confront vested interests are neglected. Controls on advertising can benefit health through their influence on the climate of debate and by curtailing the encouragement of individual drinking. "Drink for your health" is not a sound or helpful message.

Alcohol policies must be formulated and implemented at both national and local levels, with integration between the two. These two broad levels of policy response are mutually supportive and can contribute something greater than the responses of the individual levels. Whether at national or local level, the policies needed must be intersectoral and be directed at populations and at common and diverse occurrences, not just at the individual or extreme cases.

The research base convincingly demonstrates that an integrated mix of alcohol policy strategies of the kind advocated here can, with public support, constitute highly effective measures in the public interest, with very significant health and social benefits. The current level and cost of alcohol problems across European Member States is not inevitable, should on no account be allowed to worsen, but should and can be substantially ameliorated through the deployment of appropriate policies.

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Chapter 7

Summary and conclusions

Alcohol consumption in the European Region

The European Region has the highest alcohol consumption in the world, but the average recorded consumption of 7.3 litres of pure alcohol per person in 1998 hides considerable differences between countries, from a low of 0.9 litres to a high of 13.3 litres per person. Adding unrecorded consumption changes the situation dramatically for some countries, especially in the eastern part of the Region, bringing a few of them up to about 20 litres per person. If both recorded and unrecorded consumption are examined, 17 countries have a high level of consumption of more than 10 litres per person; these countries are distributed uniformly around Europe. Roughly the same number of countries (16) have consumption levels of between 5 and 10 litres per person, while only four countries have a consumption level of less than 5 litres per person. Compared with figures from five years ago, the group of countries with a high level of consumption has increased and now accounts for almost half of all the countries in the Region.

During the 10-year period from 1988 to 1998, it can be concluded (based on recorded consumption) that eight countries have had relatively stable alcohol consumption, 11 countries have shown an increasing trend, and consumption seems to have been decreasing in 13 countries. Regionally, some patterns emerge. The Nordic countries show a stable trend in alcohol consumption, except Sweden, which is experiencing a decrease. In the Baltic countries of Latvia and Lithuania, consumption is increasing, while Estonia shows a slight decrease. Among the 15 EU countries, Ireland is the only country where consumption is increasing considerably; to a lesser extent, it is also increasing in Greece, Luxembourg and Portugal. In the rest of the EU, consumption is decreasing in six countries and is stable in five. In the CCEE, consumption is increasing in the Czech Republic, Romania and the former Yugoslav Republic of Macedonia. Finally, in the NIS, consumption is increasing in Belarus and the Russian Federation.

While per person consumption of alcohol and trends in consumption levels are useful indicators of a country's situation, they hide considerable differences in patterns and in the prevalence of drinking. The percentage of abstainers varies considerably in the Region, from 5% to 38% of the

population, and it seems to clearly reflect the drinking culture of a country, i.e. whether the country is so-called dry or wet, and whether the beverage preference is beer and spirits, or wine. Noticeable changes have occurred in the percentage of abstainers in many countries; five countries have seen an increase and nine have seen a decrease. Estimates based on survey data for problem or risk drinkers were available for 28 countries, but exact definitions were not obtained for half of them. After conversion (where available) into grams of pure alcohol per week, some observations emerge. There seem to be clear differences between the compositions of drinking populations in different countries, even between countries with approximately the same level of alcohol consumption. In summary, the three figures that most clearly stand out as being higher than others are the proportion of women in Ireland drinking more than 140 g per week (21%), the percentage of men in Austria exceeding 420 g per week (29%), and the number of men in the Czech Republic exceeding 550 g per week (16%). Data on the prevalence of alcohol dependency in the population are available for 14 western, central and eastern European countries. The estimates are derived from different screening methods (such as DSM-III, CAGE, or ICD-10), and the samples may not be representative of the general population, thus warranting some caution in comparisons. There seems, however, to be a wide variation between 11.5% of the population being assessed as alcohol-dependent in Croatia and Finland, and 1.2% in the Netherlands – the average being 5% for the 14 countries.

Some degree of standardization would facilitate future comparisons and analysis of alcohol consumption levels and trends, as well as of survey data on drinking populations. Also, estimates are needed of unrecorded alcohol consumption for all countries, to improve comparability and accuracy.

Alcohol-related harm in Europe

The European Region has the highest rates of alcohol-related harm in the world, and this harm represents an important European health problem. The consumption of alcoholic beverages is estimated to be responsible for some 9% of the total disease burden within the Region, increasing the risk of many medical problems (such as liver cirrhosis, certain cancers, high blood pressure, stroke and congenital malformations). Furthermore, alcohol consumption increases the risk of family, work and social problems (such as absenteeism, accidents, unintentional injury, violence, homicide and suicide). Different patterns of alcohol consumption result in different types of harm: acute, chronic or alcohol dependence. Regarding social harm, research supports the existing relationship between alcohol consumption and risk of family, work and social consequences, alcohol dependence/alcoholism, alcoholic psychosis, (traffic) accidents, assaults, criminal behaviour, unintentional injury, violence and suicide.

The overall estimate that the total societal cost of alcohol amounts to between 1% and 3% of the gross domestic product often includes the cost of workplace production losses (due to absenteeism, illness, accidents and lower working efficiency), the cost of accidents (especially traffic accidents), health care expenditures, costs of treatment, social welfare payments (for disability, early retirement and invalidism) and social community costs (crime, enforcement and penal costs).

Globally, WHO estimates that in developed countries alcohol accounts for 10–11% of all illnesses and deaths each year. More epidemiological research exists for different causes of mortality than for morbidity, but it should be remembered that alcohol causes much illness and pain that does not end in death. Examining three mortality indicators – chronic liver disease and cirrhosis, external causes of injury and poisoning, and motor vehicle traffic accidents – shows considerable differences between countries. For all three indicators, six countries (Belarus, Estonia, Latvia, Lithuania, the Republic of Moldova and the Russian Federation) are on a very high level and/or show a strong increasing trend. Overall, regarding chronic liver disease and cirrhosis, a greater number of countries than before show an increasing trend, while mortality from traffic accidents is generally decreasing in most countries; external causes of injury and poisoning are also increasing to a lesser extent than observed earlier.

New findings in alcohol epidemiology

The past few years have brought a new understanding of alcohol's impact on health: two important changes have been the new focus on effects at the population level, and a new recognition of the importance of drinking patterns. The lessons learned from the new alcohol epidemiology may be summarized as follows:

- The overall level of alcohol consumption is important for the health of the population as a whole.

- For the existing range of per person consumption levels in the European Region, an increase in consumption will produce a net increase in harmful effects on the health of the population. A consumption increase is not likely to produce any net benefit in terms of cardiovascular mortality.

- A population's general pattern of drinking plays an important role in defining the extent of the harmful effects caused by an increase in alcohol consumption. Risky patterns of consumption, which seem to add to the harmful effects, are drinking to intoxication and regular binge drinking.

The discussion has focused on the level of whole populations rather than individual drinkers because, from a public health perspective, it is the population level that is significant for developing societal policies and programmes. The overall implications of the new epidemiological findings for alcohol policies are that, in a European context, all policies that reduce the level of alcohol consumption will produce net benefits for health. Since the consequences of alcohol consumption vary from one country to another, there is sound public health justification for having different alcohol policies. Rigorous policies controlling the availability of alcohol and drinking patterns are particularly justified where the harmful effects from increased drinking are greater, as in the northern and eastern parts of Europe.

Alcohol policies in Europe

The European Charter on Alcohol identified ten strategy areas that represent the broad elements of an effective alcohol policy. The alcohol policy options, which are actually in place in the countries of the Region, are examined under these strategy areas. Information was available, to varying degrees, from 42 countries in WHO's European Region.

Drink–driving campaigns and school-based education are the two most common programmes across the Region. Of the 39 countries for which such information was available, nearly 50% had well developed programmes. Other areas in the information and education field are less well developed, less frequently implemented and in fewer countries, with local community programmes reported in only seven countries. The NIS mainly have well developed drink–driving campaigns and the CCEE have school programmes, while efforts in western Europe are more equally distributed among the different action areas.

To ensure safety and public order, many countries have restrictions on alcohol consumption in the public, private or working environment. Most countries have restrictions on alcohol in workplaces, educational establishments and health care facilities. Restrictions on alcohol consumption in government offices and in public transport are also predominant in two thirds of the countries. Workplace alcohol programmes exist in all the western European countries, in half of the CCEE and in less than one third of the NIS. A similar spread of programmes for supporting families with an alcohol-dependent member exists across the Region. Such programmes are in place in all the western European countries, almost all of the CCEE and in one of the NIS. The majority of countries (24 of 28) have regulations for the custody of publicly intoxicated people, involving either the police or health care facilities.

With regard to drink–driving, which is the most widespread area of alcohol policy in the Region, 37 countries have a BAC limit of 50 mg% or

less. The higher BAC limit of 70–80 mg% exists in six countries. Random breath testing is performed in 85% of all countries, and 42% of those claim to perform it frequently, especially the NIS and western European countries. The drink–driving laws are regarded as strictly enforced in 72% of all countries. Mandatory driver education or treatment programmes for habitual offenders, however, exist only in a minority of countries.

Most countries in the Region have measures to regulate the availability of alcohol. Of the 45 countries where information was available, 87% of them have licensing of alcohol, while 42% have state monopolies in one form or another. Restricting the sale of alcohol is also quite common: 68% of the countries restrict the places of sale, 49% restrict the hours of sale and the sale of alcohol at specific events, 27% restrict the density of alcohol outlets, and 22% restrict the days of sale. Setting an age limit for the sale of alcohol is also common practice. Of the 41 countries that presented information, 56% have 18 years as the age limit for buying alcohol, and this group is dominated by the CCEE, the Nordic countries and the NIS. Eleven countries (27%) have 16 years as the age limit.

The taxation of alcohol is an important source of revenue for governments; the tax is usually a combination of VAT or sales tax (in 90% of the countries) and a specific alcohol tax (in 95% of the countries). Only six countries directly use part of their alcohol tax revenue to fund alcohol control, prevention or treatment activities. One way of ensuring the collection of taxes and counteracting smuggling is by using duty-paid stamps on alcoholic beverages; half of the countries have such labels.

Restricting and controlling the advertising and promotion of alcoholic beverages takes many forms: a total ban, legal restrictions, or a voluntary code. Only three countries have no restrictions on advertising in the media. Of 37 countries, between 60% and 80% of them (depending on the beverage) ban or legally restrict alcohol advertising on TV. Less than 20% of the countries rely on voluntary codes. For alcohol advertising in general, 64% of the countries have codes guiding what kind of advertisements are allowed, what age groups can be targeted, etc. Only five countries have health warnings on the advertisements. Approximately one third of the countries restrict sponsorship by the alcoholic beverage industry of young people's sporting or leisure-time activities.

In the treatment of hazardous and harmful alcohol consumption, primary health care is considered to be available in 23 of 39 countries. The availability of NGOs that provide treatment is good in 38% of the countries. Protocols for giving alcohol advice in the primary health care setting are available in 28% of the countries, and training programmes for giving that advice exist in 23% of the countries.

The alcoholic beverage industry should assume more responsibility for preventing and reducing alcohol-related harm. Almost all of the countries have regulations for printing the alcohol content and/or concentration on the alcohol container, and half of the countries have maximum alcohol concentration limits for the different beverages. No country has health warnings on the alcohol container, and only one country has server liability. Responsible server training exists in seven countries; several countries (16 of 27), however, can impose sanctions or penalties for irresponsible serving of alcohol.

Most countries (19 of 27) provide training for professionals outside the health field; it is aimed at increasing their awareness of alcohol issues and at making them competent to understand, recognize and intervene in problems. A majority of countries also have some form of local activities and community programmes aimed at preventing alcohol-related harm and promoting healthy lifestyles.

Many NGOs have an interest in alcohol issues and can take on many responsibilities in education, information and treatment. Of the 38 countries where information was available, traffic safety associations are active in 37%, and traditional temperance movements are, at least partly, active in 34%. As far as self-help movements are concerned, AA is active in 42% of the countries, and other types of movements are emerging in some countries. Among WHO's Region-wide networks, 66% of the countries have a Healthy Cities project and 60% of them have a Health-promoting Schools programme that includes activities related to alcohol.

Of the 39 countries that submitted information on a national alcohol action plan, 33% of them reported having such a plan, and another 36% are in the process of developing one. To coordinate alcohol policy activities, 64% of the countries have an advisory body of some kind, and 18% are developing such a body. To monitor progress, 58% of the countries have specific targets and 46% of the countries have regular population surveys on alcohol consumption.

Alcohol policy changes were examined (where adequate information was available for the two periods, 1994/1995 and 1998/1999) using six indicators for areas of drink–driving, alcoholic beverage availability and promotion. An overall view suggests that nearly two thirds of the changes reported provide for stricter alcohol policy in relation to lowering the BAC limits, introducing RBT, increasing alcohol licensing regulation and introducing some restrictions on the sale of alcohol. Most of the changes in the area of state monopolies on alcohol have been towards abolishing some or all monopolies, although these changes have partly been offset by a more rigorous alcohol licensing system in some countries. Restrictions on the sale of alcohol have changed in many countries; overall, however, a greater number of countries have tightened rather than eased restrictions. Moreover,

four countries which previously had no restrictions on the sale of alcohol have introduced some form of restrictions. Changes in age limits have also occurred: three countries have introduced higher age limits for buying alcohol, and two have lowered their age limits. The advertising of alcohol appears to warrant some concern; overall, about an equal number of countries seem to have moved in opposite directions regarding advertising: countries without any restrictions or with mainly voluntary codes have introduced more regulations, while countries with complete bans on advertising have relaxed their restrictions, at least to some extent. There has been a considerable increase of legislation on alcohol-free environments: 85% of all countries have such legislation in place for at least some public, private or working environment.

In summary, most of the policy changes (51%) have taken place in western Europe, rather than in the CCEE (28%) or the NIS (21%). The vast majority of the changes in western European countries have been towards stricter alcohol control policies, compared with about half in both the CCEE and the NIS. In the eastern part of the Region, this would suggest that for every step towards a more restrictive alcohol policy, there is one towards a greater degree of liberalization. In general, 11 countries in western Europe, four in the CCEE and three in the NIS have moved towards more restrictive alcohol control polices.

Within Member States, the adoption of different measures, as part of a national alcohol policy, reflects the health, economic, social and political developments relevant and appropriate for national governments. The effectiveness of alcohol policy measures, however, is related much more to the degree of policy implementation than to the actual number of policy measures. The convergence of many policy measures across the Region demonstrates that alcohol policies are frequently also influenced by international economic and political integration, common policies, the expansion of the multinational alcoholic beverage industry and the globalization of promotion and marketing of alcohol.

Alcohol policy: securing a positive impact on health

A public health policy that includes the issue of alcohol needs to be integrated with general national and local health planning. Action on alcohol can no longer be viewed as an optional measure. However, prerequisites for the adoption of effective responses are a sustained commitment to an informed public debate and the provision of information about the problem. The latter, in turn, forms basis for making the necessary policy choices.

High-quality international research now provides information about the policy choices on alcohol. The evidence suggests that what is needed is a mix of policies, rather than any one particular policy. An encouraging

example is drink–driving countermeasures, which are effective when targeted at specific drinking situations. Other measures use environmental strategies (such as pricing and control over availability) to support healthy choices and to make unhealthy choices more difficult. Treatment, especially in a PHC setting, is a significant element of a comprehensive public health response. Among the various evidence-based policy choices, not all policies are equal, and the research does not support school-based programmes or public education as lead components. There is the risk that education may become a diversionary activity, while more effective policies are neglected. Restricting advertising is beneficial because it influences the general debate and minimizes the encouragement of individuals to drink.

Alcohol policies need to be developed and implemented at both national and local levels, with integration between the two. These two levels of policy response are mutually supportive and synergistic. In all cases, the policies must be intersectoral and directed at populations and at common situations – not just at the individual or at extreme and rare cases.

The research demonstrates convincingly that an integrated mix of alcohol policy measures can, with public support, be a highly effective strategy with very significant health and social benefits. The current level and cost of alcohol problems in the European Region are not inevitable and should not be allowed to increase; on the contrary, they can be substantially decreased through the adoption of appropriate policies.

General conclusions

The European Region has the highest alcohol consumption in the world. A level of over 10 litres of pure alcohol per person per year is found in nine countries; when unrecorded consumption is included, the number increases to 17 countries. Over the past decade, 13 countries have seen increased per capita consumption, while 11 have had decreased consumption, and the rest have remained relatively stable. In particular, Belarus, Ireland, Latvia and the Russian Federation have shown dramatic increases. In most of the EU countries, consumption has either decreased or remained stable in the past decade.

An assessment of drinking patterns provides a clearer understanding of those who drink, the context in which they drink and how much they drink. This is particularly important, because drinking to intoxication and recurrent binge drinking adds considerably to the extent of harm experienced across the whole population. Examining survey data, although fraught with difficulties, does provide some general information about drinking habits. There is a wide variation in the number of people who do not drink alcohol or are abstainers, with higher numbers among the southern European countries and lower numbers among the northern European countries. In the

past ten years, again, a few countries have reported a higher number of abstainers. The level of problem drinking, based on weekly intake, shows two important aspects of drinking patterns. First, excessive drinking is more common among men in all the countries where information is available. The level of excessive drinking among women, however, is also high in a few western European countries. Second, the level of excessive drinking varies greatly between countries, even among those with similar levels of overall alcohol consumption. The differences in drinking patterns illustrate the strong cultural and societal factors involved and the impact of the changes in demographics, income and the promotion and availability of alcohol – all of which influence attitudes and drinking practices. The economic and political integration of Europe, together with international efforts in marketing and advertising, further influence alcohol consumption across the Region.

From a public health perspective, the health of the whole population is of paramount importance. The new findings in alcohol epidemiology have significant policy implications. A policy aim of reducing overall alcohol consumption continues to be of great importance and will have a net benefit for the health of the whole population. Where alcohol-related harm is a greater problem in some populations, as in eastern Europe, strong policies that control alcohol availability and drinking patterns are justified. National alcohol policies should therefore reflect different measures and emphases in addressing both overall consumption and damaging drinking patterns, in an effort to reduce alcohol-related harm in the population.

The development of alcohol policies in the European Region continues to make progress, despite weaknesses in some areas. Many countries have now coordinated national alcohol action plans with targets and key activities. Policy changes over the past few years have shown convergence on some alcohol policy measures. Alcohol availability is a good example of this convergence, where countries with state monopolies have, in some cases, changed to an alcohol licensing system. A greater number of countries have tightened restrictions on the sale of alcohol than have eased them. Specific policy efforts to reduce drink–driving illustrate effective country-level policy measures, where many countries have lowered their BAC level, introduced RBT and increased enforcement. The regulatory provisions for alcohol-free environments have also been increased in many countries, to ensure greater public safety and safer working environments. Measures to regulate alcohol advertising have had mixed responses: some countries have introduced restrictions, but many others have eased them. In general, western European countries have moved towards stricter alcohol control policies, have reduced per capita consumption levels and have lowered alcohol-related harm to a greater degree than have many of the countries in the central or eastern part of the Region. Greater support from countries in the western part of the Region for countries in the eastern part would help to accelerate progress in reducing the high levels of alcohol-related harm in the whole Region.

Weaknesses in policy effectiveness still remain, and these stem both from the policy measures themselves and from external negative pressures. Getting the policy mix right, in terms of responding to changing needs over time, poses difficulties when a coordinating body and the necessary human resources are not in place. The enforcement of codes, regulations or legislation is a critical factor in policy effectiveness. External pressures from the alcoholic beverage industry, commercial marketing and illegal trade militate against further progress. The lack of a collective willingness to recognize the seriousness and the wide-ranging damage of alcohol problems in society is a further obstacle.

Effective alcohol policies require an integrated mix of proven strategies that address the health of the whole population. Greater efforts need to be made to foster informed debate and public support. Policies should be formulated and implemented at both the national and local level. Policy measures that effectively address alcohol promotion – be it advertising, marketing or sponsorship – remain elusive and require a concerted effort at the transnational level, given the global reality of communications networks. Changes in drinking patterns, especially drinking to intoxication and repeated binge drinking, require rapid and effective policy responses to stop the further damage caused by alcohol consumption.

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Annex 1

Member States in the European Region of WHO

Albania
Andorra
Armenia
Austria
Azerbaijan
Belarus
Belgium
Bosnia and Herzegovina
Bulgaria
Croatia
Czech Republic
Denmark
Estonia
Finland
France
Georgia
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Luxembourg
Malta
Monaco
Netherlands
Norway
Poland
Portugal
Republic of Moldova
Romania
Russian Federation
San Marino
Slovakia
Slovenia
Spain
Sweden
Switzerland
Tajikistan
The former Yugoslav Republic of Macedonia
Turkey
Turkmenistan
Ukraine
United Kingdom
Uzbekistan
Yugoslavia

Annex 2

European Charter on Alcohol

Ethical principles and goals

In furtherance of the European Alcohol Action Plan, the Paris Conference calls on all Member States to draw up comprehensive alcohol policies and implement programmes that give expression, as appropriate in their differing cultures and social, legal and economic environments, to the following ethical principles and goals, on the understanding that this document does not confer legal rights.

All people have the right to a family, community and working life protected from accidents, violence and other negative consequences of alcohol consumption.

All people have the right to valid impartial information and education, starting early in life, on the consequences of alcohol consumption on health, the family and society.

All children and adolescents have the right to grow up in an environment protected from the negative consequences of alcohol consumption and, to the extent possible, from the promotion of alcoholic beverages.

All people with hazardous or harmful alcohol consumption and members of their families have the right to accessible treatment and care.

All people who do not wish to consume alcohol, or who cannot do so for health or other reasons, have the right to be safeguarded from pressures to drink and be supported in their non-drinking behaviour.

Ten strategies for alcohol action

Research and successful examples in countries demonstrate that significant health and economic benefits for the European Region may be achieved if the following ten health promotion strategies for action on alcohol are implemented to give effect to the ethical principles and goals listed above, in accordance with the differing cultures and social, legal and economic environments in each Member State:

1. Inform people of the consequences of alcohol consumption on health, family and society and of the effective measures that can be taken to prevent or minimize harm, building broad educational programmes beginning in early childhood.
2. Promote public, private and working environments protected from accidents and violence and other negative consequences of alcohol consumption.
3. Establish and enforce laws that effectively discourage drink–driving.
4. Promote health by controlling the availability, for example for young people, and influencing the price of alcoholic beverages, for instance by taxation.
5. Implement strict controls, recognizing existing limitations or bans in some countries, on direct and indirect advertising of alcoholic beverages and ensure that no form of advertising is specifically addressed to young people, for instance, through the linking of alcohol to sports.
6. Ensure the accessibility of effective treatment and rehabilitation services, with trained personnel, for people with hazardous or harmful alcohol consumption and members of their families.
7. Foster awareness of ethical and legal responsibility among those involved in the marketing or serving of alcoholic beverages, ensure strict control of product safety and implement appropriate measures against illicit production and sale.
8. Enhance the capacity of society to deal with alcohol through the training of professionals in different sectors, such as health, social welfare, education and the judiciary, along with the strengthening of community development and leadership.
9. Support nongovernmental organizations and self-help movements that promote healthy lifestyles, specifically those aiming to prevent or reduce alcohol-related harm.
10. Formulate broad-based programmes in Member States, taking account of the present European Charter on Alcohol; specify clear targets for and indicators of outcome; monitor progress; and ensure periodic updating of programmes based on evaluation.

The European Charter on Alcohol was adopted at the European Conference on Health, Society and Alcohol, convened by the WHO Regional Office for Europe and hosted by the Ministry of Labour and Social Affairs of France. The participants numbered 371, including 180 official delegates from 46 of the 49 Member States of the WHO European Region and the Conference took place in Paris, from 12 to 14 December 1995.

Annex 3

Survey data on the percentage of excessive, problem or risk drinkers in the total population

Country	Most recent data (in %)				Previous data (in %)				Comments
	Year	All	Men	Women	Year	All	Men	Women	
Denmark	1985	5.0	3.0	7.0					
United Kingdom	1996	5.5	4.0	7.0	1992	9.0	6.0	12.0	Only England
Latvia	1997	6.5	7.0	6.0	1993		15.0	46.0	
Estonia	1998	9.3	3.8	14.8	1993		4.0	29.0	
Germany	1997	9.6	6.4 9.6	7.6 14.9	1995		12.8 16.3	20.8 30.0	East West
Finland	1996	10.5	7.0	14.0	1984 1992		12.0 10.0	27.0 18.0	
Norway	1997	11.0			1994		11.0	16.0	
Ireland	1998	12.5	9.0	16.0	1989	25.0 abstainers			
France	1992	13.6							7.0 lifetime 6.6 current
Iceland	1992	14.0	12.0	16.0	1984 1988		8.0 9.0	18.0 18.0	
Hungary		14.8			1985/ 1986		6.6	21.4	
Netherlands	1997	15.5	9.0	22.0	1989 1996	– –	12.4 10.4	28.1 25.1	
Switzerland	1998	16.0			1992/ 1993	14.6	8.3	20.6	
Sweden	1996	19.0	13.0	25.0	1994 1993	– –	10.0 6.0	25.0 13.0	
Poland	1998	19.0	11.6	25.7	1993	11.0 abstainers			–

Country	Most recent data (in %)				Previous data (in %)				Comments
	Year	All	Men	Women	Year	All	Men	Women	
Russian Federation	1996	22.0							–
Italy	1997	22.7	14.6	30.2					(< 1 unit in last 3 months)
Austria	1993/ 1994	23.3							
Portugal	1997	32.8	16.8	48.8	1995/ 1996		15.6	52.3	
Israel	1994/ 1995	33.0							(18–40-year-old Jewish people)
Spain	1997	37.0	23.0	51.0					
Romania	1992	38.0	23.0	53.0					

Country	Total consumption			Liver disease			External causes			Traffic accidents		
	Litres of pure alcohol per person		(%)	SDR per 100 000		(%)	SDR per 100 000		(%)	SDR per 100 000		(%)
	1988	1997/ 1998		1988	1997/ 1998		1988	1997/ 1998		1988	1997/ 1998	
Albania	–	–	–	14.06	9.31	–34	27.02	66.23	145	10.26	7.49	–27
Armenia	–	–	–	16.05	14.68	–9	53.82	37.92	–29	14.9	5.97	–60
Austria	10.1	9.2	–9	24.17	21.06	–13	69.03	45.67	–34	17.6	9.77	–44
Azerbaijan	–	0.9	–	30.78	45.27	47	51.08	35.24	–31	17.14	5.9	–66
Belarus	4.6	8.6	87	8.16	11.47	41	84.99	168.1	98	16.07	18.14	13
Belgium	10.0	8.9	–11	11.5	10.74	–7	59.88	–	–	17.51	–	–
Bulgaria	9.1	6.8	–25	17.33	17.91	3	59.87	56.73	–5	11.67	9.41	–19
Croatia	4.7	–	–	37.62	32.08	–15	86.83	69.94	–19	18.85	13.78	–27
Czech Republic	8.1	10.2	26	17.64	16.94	–4	78.64	62.5	–21	9.99	6.96	–30
Denmark	9.7	9.5	–2	12.37	12.80	3	69.57	–	–	12.85	–	–
Estonia	6.1	2.4	–61	5.62	18.38	227	102.13	159.67	56	20.72	20.83	1
Finland	7.3	7.1	–3	9.76	9.97	2	88.77	–	–	12.23	–	–
France	12.6	10.8	–14	19.58	15.18	–22	72.59	59.86	–18	17.23	12.29	–29
Georgia	–	–	–	–	22.92	–	56.71	–	–	17.19	–	–
Germany	10.6	10.6	0	–	18.32	–	–	35.77	–	–	8.7	–
Greece	8.3	9.1	10	7.64	4.39	–43	44.33	38.37	–13	17.92	20.49	14
Hungary	10.4	9.4	–10	42.41	66.87	58	110.63	92.51	–16	16.61	13.81	–17
Iceland	4.1	4.3	5	3.56	–	–	51.6	–	–	12.5	–	–

Country	Total consumption			Liver disease			External causes			Traffic accidents		
	Litres of pure alcohol per person		(%)	SDR per 100 000		(%)	SDR per 100 000		(%)	SDR per 100 000		(%)
	1988	1997/ 1998		1988	1997/ 1998		1988	1997/ 1998		1988	1997/ 1998	
Ireland	6.9	10.8	57	3.64	3.12	–14	42.64	46.2	8	12.94	11.6	–10
Israel	1.0	0.9	–10	8.31	6.41	–23	51.45	–	–	10.58	–	–
Italy	9.4	7.7	–18	24.92	20.69	–17	44.06	–	–	14.2	–	–
Kazakhstan	–	–	–	21.34	30.08	41	97.85	156.6	60	19.09	13.09	–31
Kyrgyzstan	2.13	2.3	8	30.56	47.87	57	88.68	102.99	16	21.47	10.57	–51
Latvia	4.9	7.1	45	7.43	14.52	95	108.46	158.67	46	24.82	27.03	9
Lithuania	5.5	–	–	9.23	16.92	83	109.9	146.2	33	26.05	23.47	–10
Luxembourg	12.0	13.3	11	19.05	15.67	–18	72.76	48.75	–33	23.21	13.49	–42
Malta	–	–	–	6.34	6.12	–3	22.81	25.98	14	3.95	3.9	–1
Netherlands	8.3	8.1	–2	5.25	4.55	–13	32.74	29.21	–11	8.34	6.81	–18
Norway	4.3	4.3	0	6.46	4.42	–32	55.92	–	–	7.97	–	–
Poland	7.1	6.2	–13	11.41	12.95	13	71.23	–	–	14.94	–	–
Portugal	9.9	11.2	13	28.21	18.94	–33	69.83	48.16	–31	27.77	17.84	–36
Republic of Moldova	1.96	–	–	–	87.09	–	110.4	110	0	24.13	15.48	–36
Romania	7.9	9.5	20	36.24	53.72	48	74.41	72.64	–2	–	–	–
Russian Federation	4.4	7.9	80	–	–	–	112.2	186	66	18.67	19.71	6
Slovakia	9.5	8.3	–13	27.21	27.84	2	69.72	63.01	–10	11.74	17.24	47
Slovenia	10.9	11.7	7	44.75	29.15	–35	99.11	77.5	–22	23.19	14.91	–36

Country	Total consumption			Liver disease			External causes			Traffic accidents		
	Litres of pure alcohol per person		(%)	SDR per 100 000		(%)	SDR per 100 000		(%)	SDR per 100 000		(%)
	1988	1997/ 1998		1988	1997/ 1998		1988	1997/ 1998		1988	1997/ 1998	
Spain	11.1	10.1	–9	20.13	15.48	–23	45.33	–	–	18.3	–	–
Sweden	5.5	4.9	–11	6.14	4.76	–22	52.91	–	–	8.8	–	–
Switzerland	11.0	9.2	–16	10.76	8.41	–22	65.92	–	–	13.32	–	–
Tajikistan	–	–	–	24.42	27.41	12	57.19	–	–	15.36	–	–
The former Yugoslav Republic of Macedonia	3.1	3.5	13	7.17	8.94	–25	–	35.36	–	–	7.41	–
Turkey	0.4	1.1	175	–	–	–	–	–	–	–	–	–
Turkmenistan	–	–	–	47.68	44.80	–6	69.39	–	–	18.79	8.47	–55
Ukraine	3.2	1.2	–63	15.42	20.46	33	88.31	138.2	56	17.56	11.23	–36
United Kingdom	7.6	7.5	–1	5.42	7.97	47	34.19	28.48	–17	8.5	5.89	–31
Uzbekistan	–	–	–	36.32	46.14	27	64.81	53.45	17	17.69	8.86	–50
EU average	10.4	9.4	8	16.77	14.38	–14	49.31	42.1	–15	13.83	10.95	–21
European Region average	7.8	7.9	1	17.9	17.11	–4	73.31	86.37	18	15.49	12.67	–18

Note: The table covers all countries for which the WHO had data. With regard to chronic liver disease and cirrhosis, the first data for Estonia is from 1990, for Tajikistan it is from 1993, and for Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Lithuania, the former Yugoslav Republic of Macedonia, Turkmenistan, Ukraine and Uzbekistan it is from 1991. Latest EU averages for SDRs are from 1996.

Source: Health for All database, WHO Regional Office for Europe.

Country	Most recent data				Consumption	Previous data				Comments
	Year	Percentage				Year	Percentage			
		All	Men	Women			All	Men	Women	
Austria	1994	24.3 16.2 13.3	41.0 28.8 20.7	8.5 4.3 6.5	+210 g/w +420 g/w Problematic alcohol use					
Belarus					Estimated 10% of population drinks heavily					No definition
Belgium	1990	19.0			Frequent consumers					Defined as at least 3 d/w
Bulgaria	1992	14.0			Alcohol abusers					No definition
Czech Republic	1996		15.8	1.3	+550 g/w	1993	28.0			+350 g/w
Denmark			14.0	10.0	+252/168 g/w					Unit = 12 g
Estonia	1998	2.6	4.9	1.5	Drink almost every day	1994 1993	0.3	53.0	31.0	Drink at least weekly Drink almost every day
Finland	1996		13.0 33.0	2.0 6.0	+150 g/w (hazardous drinkers) 70 g alcohol on 1+ occasion/month) (binge drinkers)	1992		8.0	3.0	+280/190 g/w (heavy drinkers)
France	1992	30.4			Drink every day or 35 times/week					5 million people experience difficulties of a medical, psychological or social nature

Country	Most recent data				Consumption	Previous data				Comments
	Year	Percentage				Year	Percentage			
		All	Men	Women			All	Men	Women	
Germany	1997		20.1	5.6	140–280	1995	West	7.4	1.4	+420
			7.2	0.8	280–420	1995	East	9.2	1.3	+420
			6.9	1.0	> 420 (13.3% consume alcohol in a harmful manner)					
Hungary	1994	11.6			Drink excessively (no definition)	1985/ 1986		14.1	0.8	+210/140 g/w (heavy drinkers)
								10.6	1.6	Problem drinkers Unit = 10 g
Iceland	1992		8.1	1.6	+ 150 g/w					
Ireland			27.0	21.0	+210/140 Unit = 10 g	11% drink alcohol > 5X/week Typical drinking occasion average: men 67 g, women 45 g				
Israel	1994/ 1995	2.0			Every day previous year Drink heavily 18–40-year-olds					Daily and heavy drinking more prevalent among Arabs
Italy		11.0			+385 g/w (risk consumers)	1997		5.3	1.1	Problematic consumption
Luxembourg	1998	3.0			+824 g/w of 15+ years (excessive drinkers)	1990	20.0			3–4 d/w (frequent consumers)
					30% of 16+ years (frequent drinkers)					
Latvia	1993		2.5	0.7	Drink several times per week					

Country	Most recent data				Consumption	Previous data				Comments
	Year	Percentage				Year	Percentage			
		All	Men	Women			All	Men	Women	
Netherlands	1997		9.0	2.2	+540 g/w (excessive drinkers) 350 000 problem drinkers	1995 1990	6.57 20.0			+540 g/w At least 3–4 d/w (frequent consumers)
Norway	1991		20.0	6.0	Drink 40–60 g at least twice a month					
Poland	1998	10.0			+150/115 (risk threshold)	1993		23.7	3.6	+150/115 g/w
Portugal	1997		15.5	4.0	No definition	1995 1990	13.7 39.0			Excessive drinkers Drank at least 3–4 d/w
Republic of Moldova					Estimated 15 per 1000 people drink heavily and 20% of these are women					No definition
Romania	1992		16.0	2.0	Daily drinkers					No definition
Russian Federation	1996	9.0			Problem drinkers					Defined as every day or strong beverages more than 2–3 times per week
Spain	1997		3.4 4.3	0.1 0.1	410–550 (high consumption) +550 (excessive consumption)					

Country	Most recent data				Consumption	Previous data				Comments
	Year	Percentage				Year	Percentage			
		All	Men	Women			All	Men	Women	
Switzerland	1988		2.1	3.0	+252/168 (heavy users)	1992		3.3	0.5	+560 g/w
			27.0	7.0	+140 g/w			8.3	2.1	High risk drinkers Unit = 12 g
			31.2	33.4	Binge drinkers 60/48 g or more on one occasion during last month					
The former Yugoslav Republic of Macedonia	early 1990s		15.0		Heavy drinkers					No definition
United Kingdom	1996		28.0	14.0	+168/120 (safe limit)	1993		9.0	5.0	Problem drinkers
			6.0	2.0	+400/280 (definitely harmful)					Unit = 8 g