

Trends in Drinking Patterns in Fifteen European Countries, 1950 to 2000

A Collection of Country Reports

Compiled by

Jussi Simpura and Thomas Karlsson

Foreword

Europe is the continent where per capita alcohol consumption is highest in the world. For many years, the Mediterranean wine-drinking countries held top positions in the world statistics on alcohol consumption. A declining trend of wine-drinking in those countries and opposite trends in many other countries have changed the traditional ranking, so that many countries in central and eastern Europe now have passed the Mediterranean countries. Within the EU Europe, the differences have diminished, too. In addition, in most countries the traditionally dominating beverage type (wine, beer, distilled spirits) has lost ground to other beverages. As a consequence, the map of Europe with respect to alcohol consumption is today radically different from that 50 years ago. It can be expected that the changes have been felt not only in per capita alcohol consumption and beverage preferences but also in drinking patterns.

The present volume provides a review of trends in drinking patterns among the adult population in 14 EU member countries and Norway. The findings provide background for a number of important issues concerning the prevention of alcohol problems. There is a wide variation of opinion in the political and also in the scientific community about the adequacy of per capita alcohol consumption as the main indicator of alcohol-related risks in a population. There are many who maintain that drinking patterns matter, too, and some even think that they may matter more than the mere volume of consumption. The policy implications of the different views are also different. Controlling the level of per capita alcohol consumption has been an important approach in many countries, whereas a mixture of approaches, if any, has been applied in even more countries. In approaches where drinking patterns are emphasised more than the per capita consumption, the crucial question would be twofold. First, what would be the natural tempo of changes of drinking patterns in changing cultural, economic and material living conditions, and secondly, what are the prospects for modifying drinking patterns by public policy?

The answers provided by the present volume suggest that the natural rhythm of changes in drinking patterns is slow, and the relevant time scale would operate in decades or even generations. However, the review of existing studies also shows how little is known on the basis of existing research. Important issues

like the role of binge drinking (high intake of alcohol at a single occasion) have been studied in many countries only superficially, if at all. Therefore, the findings of the present volume strongly suggest that more research would be directed to the issues of drinking patterns, in particular in countries where the research traditions have been weak. Thus, a better basis for policy making would slowly emerge, contributing to the efforts of building common elements for European alcohol policies.

Helsinki, September 20, 2001

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Abstract

This collection of country reports on drinking patterns among the adult population in 15 European countries is part of the European Comparative Alcohol Study (ECAS), supported by the EU Directorate General for Health and Consumer Protection. Other parts of the study concern trends in alcohol consumption, alcohol-related mortality, demand for alcoholic beverages and alcohol policy.

The country reports here are based on a compilation of existing surveys on drinking patterns in 14 EU member countries (excluding Luxembourg) and Norway from 1950 to 1995, or in some cases, to 2000. Only adult population studies are considered here. Studies of drinking among adolescents are discussed in other projects, e.g., in the European School Survey Project on Alcohol and Drugs (ESPAD).

For each country, the results from existing studies were collected with the help of a network of contact persons in the 15 countries. The aspects of drinking patterns covered here are abstinence rates, frequency of drinking, occasions of heavy intake, differences between age groups and between men and women, and specific characteristics of drinking contexts such as meals, work and drunk driving. In most countries, the existing studies are few and cover only a limited number of the aspects of drinking patterns. The results suggest that changes in the qualitative features of drinking patterns occur slowly, even when quantitative changes have been large.

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Introduction

This report contains a set of country reports on trends in drinking patterns in 15 European countries (the EU member countries, excluding Luxembourg, and Norway). The report is part of the European Comparative Alcohol Study (ECAS; see the description below, and the main reports by Norström (2001) and Österberg & Karlsson (2001)). Elsewhere, we have published a separate article as a summary of the trends (Simpura & Karlsson, 2001), and this introduction is a modified and updated version of that article. The present report serves as a background for the article, and provides the reader with more detailed summaries and more extensive references to the existing literature, country by country, than was possible to present in the article. The country reports are based on a questionnaire sent to the contact persons of the ECAS study (see Appendix 1 and 2 for the list of contact persons and the questionnaire used in compilation) in winter 1999.

The country reports reflect the situation as it was in 1999. In some cases, it has been possible, and sometimes necessary, to add material from newer studies, and from sources not reported by the contact persons but otherwise available in the national research literature in each country, or in international research literature. The reports have been written by the authors of this collection, and circulated for checking among the contact persons. The responsibility for the interpretation and arrangement of the material lies with the authors. It turned out to be very difficult in most countries to produce a systematic compilation of the often very scattered (and few) studies on drinking patterns. On the other hand, a few countries with rich research traditions provided such a wealth of

material that it can be only partly reflected here. It is evident, however, that this compilation is not complete nor exhaustive, and needs to be updated if the interest in trends in drinking patterns continues in the years to come.

Importantly, this report deals with *drinking patterns among the adult population only*. Those interested in drinking patterns among the adolescents should turn to the results from the European School Survey on Alcohol and Drugs (ESPAD; two rounds, 1995 and 1999, see Hibell *et al.*, 1997 and 2000). No international compilations are available on long-term trends in adolescent drinking patterns. In some countries, results from national surveys have been summarized in the review articles. The reader is advised to turn to national experts, such as the authors and co-authors of the ESPAD study, or the contact persons of the ECAS study (see Appendix 1), in search of national data on trends in adolescent drinking patterns.

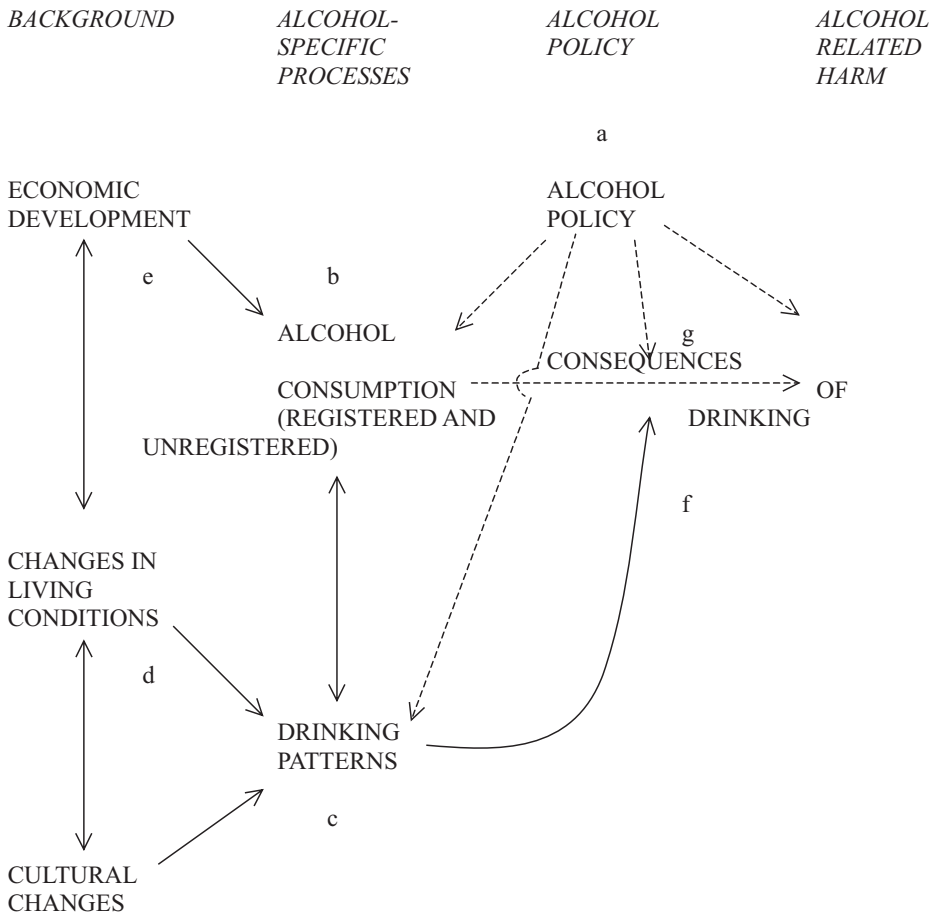
Drinking patterns and the European Comparative Alcohol Study

The European Comparative Alcohol Study¹ (ECAS) aims at describing changes in alcohol consumption and drinking patterns, the prevalence of the consequences of drinking, and alcohol policy measures in 15 European countries from 1950 to the late 1990s. Drinking patterns appear as a possible intervening factor in the link between alcohol consumption and alcohol-related harm (see e.g. Rehm *et al.*, 1996; Grant & Litvak, 1998, Rehm, Greenfield, Rogers, 2001). Special alcohol policy measures are often targeted to harmful drinking patterns. Drinking patterns are influenced by economic development and by overall changes in living conditions and cultural patterns of everyday life. Therefore, the study of drinking patterns is linked to all components of the ECAS project.

Schematically, the structure of the ECAS project and the links between its different parts are as follows:

¹ The European Comparative Alcohol Study (ECAS) is a European Union (EU) financed study carried out by the Swedish National Institute of Public Health (NIPH), a research group at the University of Stockholm, Sweden and another group at the Alcohol and Drug Research Group at the National Research and Development Centre for Welfare and Health (STAKES), Helsinki, Finland. It was carried out in 1998 to 2001, with Dr. Thor Norström (Institute for Social Research, University of Stockholm,) as the director and Dr. Jussi Simpura (Alcohol and Drug Research Group, Stakes, Helsinki) as the deputy director.

Figure 1. The schematic structure of the ECAS project



In particular, findings on drinking patterns are related to two issues in the ECAS study. First, the results from a time-series analysis on the link between per capita alcohol consumption and alcohol-related mortality (see the articles in Norström (Ed.), 2001a) suggest that, although the link is clear in all countries and more drinking leads to more harm, some of the differences between the countries in certain types of mortality may be related to differences in drinking patterns. In particular, variation across countries in the prevalence of binge drinking may be a significant factor. Secondly, understanding changes in drinking patterns may help to better understand the dynamics of changes in alcohol consumption, and even to predict the coming changes. Changes in drinking

patterns reflect changes in factors external to the narrow sphere of drinking, such as economic factors (Leppänen *et al.*, 2001a; b), living conditions and culture (Karlsson & Simpura, 2001a; b), and even alcohol policies (Karlsson & Österberg, 2001; Österberg & Karlsson, 2001).

The results of the other parts of the ECAS study have been reported, firstly, in two thematic issues of scientific journals (Norström (Ed.), 2001 a, on alcohol-related mortality; and Simpura (Ed.), 2001, on recorded and unrecorded alcohol consumption, drinking patterns, economic factors and drinking, living conditions and drinking patterns, and alcohol policies). Secondly, a set of broader reports is available on the econometric analysis of the demand for alcoholic beverages (Leppänen *et al.*, 2001), and on alcohol policies (Österberg & Karlsson, 2001). The latter one is a collection of extensive and detailed country reports on alcohol policies in each ECAS country from 1950 to 2000. Thirdly, a set of articles based on a six-country survey from the year 2000 on drinking patterns and attitudes toward prevention and control of alcohol problems will be reported in another thematic issue of a scientific journal (on drinking patterns see Hemström *et al.*, 2001). Fourthly, an official final report of the ECAS project was prepared for the EU Directorate General on Labour and Health in 2001 (Norström, 2001b). Fifthly, there exist an earlier thematic issue of the papers presented at a conference in preparation of the ECAS project (e.g. Room, 1999; Rehm, 1999; Simpura, 1999; Skog, 1999). A complete list of reports related to the ECAS project is presented in Appendix by Norström (2001b).

The conceptualisation and measurement of drinking patterns

The concept of drinking patterns covers a wide range of phenomena and perspectives. Basically, anything beyond the mere consumption volumes (per capita, on average) could be regarded as “patterns”. At least the following aspects of drinking patterns are frequently mentioned in research literature (see, e.g. Single & Leino, 1998; Room, 1998, Rehm & Gmel, 1999):

- Prevalence and frequencies of drinking
- Socio-demographic patterns: gender, age, social class, regional variation
- Consumption volume, population distribution of consumption and heavy drinking

- Occasions of heavy intake (“binge drinking”)
- Drinking contexts: time, place, company and the nature of the occasion
- Beverage preferences.

The information on drinking patterns usually comes from questionnaire studies. There is a wide variation in how the different aspects of drinking patterns are conceptualized and measured in these studies:

Prevalence and frequencies of drinking. The simplest indicator of drinking patterns is the prevalence of drinking, often also presented as the rate of non-drinkers or abstainers. The definition of “drinking” varies both technically and culturally. In most questionnaire studies, those who report consumption of any alcoholic beverage within a certain time frame are referred to as drinkers. Most often the time frame is one year, but shorter periods have also been used (a few months, a week, and even a day). There is some variation between the countries as to which of the mild beverages should be counted as alcoholic beverages, although, the mildest of them (usually, with alcohol contents below 2 per cent of volume) are excluded in most cases. In addition to the shares of abstainers, most studies make reference to proportions of frequent or “regular” drinkers, despite all the ambiguities in the definition of “frequent” or “regular”.

Socio-demographic patterns: gender, age, social class, regional variation. It is customary to describe the variation of drinking patterns between men and women, and between adolescents, adults and sometimes also the elderly. Some studies also include data on differences in drinking patterns between social classes and regions. The socio-demographic patterns understandably sum up various other aspects of drinking patterns. The definition of these variables is mostly unproblematic, with the exception of social classes, which are always difficult to work with in comparative research.

Consumption volume, population distribution of consumption and heavy drinking. Some studies, though not all, have chosen to survey drinking patterns by the daily, weekly, monthly or annual consumption of alcohol. The measurement techniques are many, ranging from crude assessments of typical consumption (daily, monthly etc.) to detailed registering of actual drinking occasions within the last week or some other period. The information on the

volume of the respondents' alcohol consumption is mostly used to describe and analyse differences in per capita consumption between socio-demographic groups. Another important use is to estimate the prevalence of heavy drinkers in the population. Also of interest is the distribution of the respondents by their annual, weekly etc. consumption.

Occasions of heavy intake ("binge drinking"). It is often assumed that where the European countries may be very different from one another is "binge drinking", or high intake at one single drinking occasion leading to intoxication. The prevalence of such occasions is studied in a multitude of ways. There are so-called objective questions to determine how often the respondents drink more than five or six drinks at one single occasion, and so-called subjective questions on how often they drink "enough to feel it" (see e.g. Mäkelä *et al.*, 1999). In the few studies that have recorded, for example, all drinking occasions of the previous week, it is possible also to calculate how many occasions lead to a BAC exceeding, say, 0.1 per cent, and how large a share of alcohol consumption occurs at such occasions (e.g. the Finnish studies, see Simpura, 1983; Mustonen *et al.*, 1999). Evidently, there is no uniform technical definition of what comprises binge drinking (see *The Limits of Binge Drinking*, 1997 for a detailed discussion). In North American research traditions (e.g. Midanik, 1999), and increasingly also in Europe (e.g. Mäkelä *et al.*, 1999), the minimum binge drinking limit has been set at five or six drinks or more per occasion. The questions on the prevalence of binge drinking aim to establish how frequently such occasions occur. From the point of view of trends analyses, it is important to remember Midanik's (1999) findings on changes over time in the amounts needed for feeling the effect.

Drinking contexts: time, place, company and the nature of the occasion. Cultural traditions and changing living conditions are reflected in the time and place of drinking, as well as in the company and nature of occasions. Typical items covered in studies on drinking patterns are, for instance, drinking on working days and weekends; drinking at home vs. pubs, cafés and taverns; drinking alone vs. in company; and drinking at meals as opposed to other occasions. One technical problem in studying the drinking contexts is the difficulty of defining when an occasion begins and ends. The interpretation of the concept of occasion is evidently strongly dependent on cultural traditions and view (see e.g. Heath, 2000).

Beverage preferences. Depending on their dominating beverage, countries have customarily been referred to as beer, wine or spirits countries (e.g. Sulkunen, 1976). Changes in beverage preferences are perhaps the most widely used evidence for a homogenisation of European drinking cultures: since the Second World War, the traditionally dominating beverage has been losing ground to other beverages in many countries. Another sign of homogenisation has been the narrowing of differences between countries in per capita consumption. A discussion of these aspects of drinking patterns is given elsewhere in the ECAS study (Leifman, 2001). In this article, as in some other ECAS reports, the tripartition into beer, wine and former spirits countries has been maintained. There are some technical problems with the categorisation of beverages, such as the place accorded to ciders or alco-pops and other ready-mixed drinks in the statistics, but the fact remains that changes in beverage preferences and consumption levels are the easiest available indicators on long-term changes in drinking patterns.

Epidemiological and preventive significance of drinking patterns

There has been a growing interest to study drinking patterns in the recent years. There is evidence that it is the patterns of drinking and not only volumes of consumption or beverage preferences that may play a significant role in generating beneficial and harmful consequences of drinking (see e.g. Rehm *et al.*, 1996; Rehm & Gmel, 2000; Rehm *et al.*, 2001). Some of the health-related consequences of drinking (such as liver cirrhosis) are linked to long-term consumption levels, whereas others (including accidents, violence and alcohol poisonings) arise from drinking at single occasions. Similarly, some of the social consequences are related to long-term drinking (including disturbance and conflicts caused by the possibly asocial lifestyle of the drunkards), while others stem from specific drinking patterns (binge drinking and related disturbances and conflicts; drinking in public places). A major dividing line in alcohol policy perspectives runs between the proponents of the regulation of consumption levels (the total consumption model) and those who believe that specific patterns and specific contexts may contribute more to harmful drinking than does the level of consumption (the harm reduction model). The patterns of drinking are

clearly more important from the perspective of harm reduction than from the total consumption perspective (see e.g. Rehm, 1999 and Simpura, 1999 for a discussion).

Specific aspects of drinking patterns all have their bearing on alcohol's epidemiological burden. The basic element is the prevalence of heavy or otherwise risky drinking in different *socio-demographic groups*. Both drinking *frequency* and estimated *per capita consumption* have been used as indicators of drinking-related risks in a group prevalence. The proportion of *abstainers* is mostly used as an indicator of drinking culture, but it also has an epidemiological relevance. It has been shown that abstainers may have an elevated risk of dying of cardiovascular diseases, compared to moderate drinkers (e.g. Poikolainen, 1995). Among socio-demographic differences, most of the research interest is focused on drinking patterns among adolescents and women. The elderly have been treated more rarely. Interestingly, the one group of drinkers who accrue most of the alcohol-related harm of any kind almost everywhere, seldom features as a special interest group, even if they are automatically included in practically every study, that is, the male population between 30 and 50 years of age. Of course, in long-term considerations of the link between alcohol consumption and consequences, it is of crucial importance to know whether the changes in per capita consumption are reflected evenly among socio-demographic groups. If, as many want to believe, drinking has increased among women and adolescents, or decreased less slowly than among men and the elderly, this should be accounted for in studying the changes in the prevalence of alcohol-related harm.

Studies on drinking patterns are the only source for examining the shape of the *distribution of alcohol consumption*. Data on drinking patterns is therefore important when considering the validity of the total consumption approach. From the point of view of the harm reduction model, both *binge drinking* and the prevalence of *drinking at specific contexts* are extremely relevant aspects of drinking patterns. Binging and specific contexts could certainly go some way towards explaining why the differences in the prevalence of some consequences do not completely follow the differences in per capita consumption. Binge drinking and drinking at specific contexts are thus the most promising candidates when looking for intervening factors between consumption and consequences. Finally, *beverage preferences* gain a lot of attention in popular reports about how wine, and even beer (but less frequently spirits), are beneficial for health

and social relationships. The scientific evidence on the different beneficiality or harmfulness of different alcoholic beverages is, however, often contradictory. It seems sufficient to assume that for all practical purposes, the beneficial and harmful effects of alcoholic beverages are mostly related to the amount of ethanol they convey, and not to the alcohol contents (see e.g. Simpura *et al.*, 1996) or any other material or immaterial substances they may contain. For example, successful binge drinking is possible with even the mildest of beverages.

Sources of data on trends in drinking patterns

Findings from the existing comparative reviews and comparative data sets. There are a few review articles (e.g. Hanhinen, 1995; Ahlström-Laakso, 1976), and comparative analyses on drinking patterns in European countries. Review articles are also available on the global scale (e.g. Simpura, 1995; Smart, 1998). A well-known example of a comparative analysis in Europe is the three-country comparison by Knibbe and Lemmens (1987; the Netherlands, Germany and Switzerland). The Eurobarometer data on the 12 EU member countries of 1988 has been used in a number of articles by a Dutch research team (Hupkens *et al.*, 1993; Knibbe & Hupkens, 1993; Knibbe *et al.*, 1996). Another Eurobarometer data set from the year 1992 (Eurobarometer 37.0+37.1) contains useful data on drinking, but has not been used in specific analyses (with the exception of Cassidy 1997 on Ireland). The Reader's Digest Eurodata (1990) contains some information on the use of different beverage types in 17 European countries. Review articles by Simpura (1995) and Hanhinen (1995) have used these and national sources (see also the review by Armyr *et al.* from 1982), with a broader scope of indicators of patterns.

More recently, a comparative study was conducted on alcohol consumption and alcohol problems among women in 9 European countries (Bloomfield *et al.*, 1999; see also separate articles from this project, e.g. Knibbe & Bloomfield, 2001; Ahlström *et al.*, 2001), using existing national data sets, and also providing information on male drinking patterns, mostly on cross-sectional basis with data from the 1990s. Specific comparative studies on drinking patterns, that cover a wide range of aspects are rare. A comparative analysis of drinking patterns in four Northern European countries was conducted in 1996 (Mäkelä *et al.*, 1999; 2001), and an earlier one in 1979 (see e.g. Hauge & Irgens-Jensen, 1986). It is

also worthwhile to remind the reader that the ESPAD studies from 1995 and 1999 (Hibell *et al.*, 1997; 2000) provide information on adolescent drinking patterns in a large number of European countries. The ESPAD data will not, however, be used in the present collection.

Details from national studies on drinking patterns. A number of countries provide a series of roughly comparable studies on drinking patterns from a longer period of time (see the country reports for details; e.g. the Netherlands, the earliest works from the 1950s; Finland since the late 1960s; Norway since the 1950s; Sweden since the 1970s, and more recently Italy since the early 1990s, and Germany since the early 1990s). In addition, there are extensive, but not very systematically repeated studies from the United Kingdom from the 1970s till the 1990s, Austria since the 1980s, Spain (1980) and Denmark since the 1970s. The countries most thinly covered by national special surveys on drinking patterns are Greece, Portugal, Ireland, France and in particular Belgium. A more detailed discussion of the availability of studies is included in each country report.

In addition to the special drinking habits surveys, a large number of general health behaviour studies contain data on alcohol consumption and drinking patterns. A review of these sources will become available in the context of the Euro HIS project for improving the comparability of health interviews surveys (for the alcohol part, see Simpura *et al.*, 2001, forthcoming).- It should also be mentioned that a rich tradition of drinking habits surveys exists in the USA (see e.g. Midanik, 1999; Clark & Hilton, 1991), Canada (see e.g. Adlaf *et al.*, 1994; Smart *et al.*, 2000) and Switzerland (Rehm & Gmel (1999) report a 8-years follow-up study; see also Knibbe & Lemmens (1987)), with the possibility of studying trends.

A special ECAS questionnaire in six countries in spring 2000. In the face of the lack of comparative data, the ECAS project team decided in spring 2000 to conduct a small survey on drinking habits, alcohol-related harm, unrecorded alcohol consumption, and attitudes towards alcohol policy issues in six countries (Italy, France, Germany, United Kingdom, Sweden and Finland), with about 1000 respondents from each country. The results of this survey will be reported in detail elsewhere (Hemström *et al.*, 2001).

The problem of lacking data from earlier post-war decades. In addition to the almost overwhelming problems of comparability in data coming from different countries, there is also the problem of almost no information on drinking patterns from the 1950s and 1960s. This fact makes it difficult to provide any detailed picture of trends in drinking patterns before the 1970s. So, much of the popular beliefs on drinking patterns and changes therein cannot be empirically confirmed or rejected. This leaves much space for speculation about changes in drinking patterns, both in research and policy.

The experience from long series of studies on drinking patterns in certain countries: remarks on data sources

A few countries already have experience of long series of studies on drinking patterns. In some cases the studies comprise a systematic series of technically comparable surveys, in others there may be more variation over time, but still certain basic elements can be used for comparisons over time. We take here a look at the experience from the Netherlands, the Nordic countries, and the United Kingdom. The focus is on prospects and problems on studies looking at long-term changes in one country. Very importantly, long series of studies could provide an opportunity for studying the dynamics of change by taking into account demographic changes (e.g. the effect of “baby boomers” in many countries since 1950), or by studying the effects of different time components on changes in drinking patterns. The latter would, ideally, make it possible to distinguish between age, period and cohort effects in changes. So far, efforts into this direction have been few (e.g. Neve *et al.*, 1993), because of methodological difficulties. With increasingly long series of comparable studies, preferably with even intervals and with a follow-up of the same respondents over longer periods of time, these problems may become solved in the next few years. Such studies would remarkably improve the understanding of the dynamics of changes in drinking patterns.

In the *Netherlands*, the existing long series of surveys on drinking patterns (1958, 1970, 1981, 1985 and 1989) has been studied with an age-period-cohort analysis by Neve *et al.* (1993). The authors discuss at length the various problems that inevitably arise in such an effort, like varying non-response and

underreporting between the years, or changes in the wording of questions. In the Dutch series of studies, response rates varied between 58 and 85 percent. On the basis of other works done in the Netherlands, the authors assumed that varying response rates do not necessarily pose a problem in comparing studies from different years. Underreporting varied between 41 and 55 percent. The authors did not discuss the problems possibly arising from this variation. The problem of different measurement of alcohol consumption in different years gained more attention. However, on the basis that the correlation between the different consumption measures was relatively high (0.7), the authors concluded that “the risks taken by using different operational definitions of alcohol consumption remain within acceptable limits” (Neve *et al.*, 1993, 614). There is, however, no explicit discussion about how wide uncertainty would be “within acceptable limits”. Furthermore, the authors briefly discuss the difficulties arising from different wordings of questions concerning abstinence in different years. As for the results, the authors’ conclusion was that, in the Netherlands, in the cohort that started drinking during the 1960s, long-term changes in abstinence were related to aging, while mean consumption and heavy consumption were associated with period effects. Populations of men and women appeared to change drinking behavior collectively.

In the *Nordic countries*, we have three different situations. In *Finland*, a series of five consecutive, technically comparable studies with 8-year intervals (1968 to 2000) will now provide a unique opportunity to apply age-period-cohort studies (see Mustonen *et al.*, 1999; Mustonen *et al.*, 2001 for a description). In *Norway*, the situation is somewhat similar to Finland, although the existing studies have been collected with less regular intervals. Findings since the 1950s and more regularly since the 1970s have been described by Brun-Gulbrandsen (1988). In *Sweden*, a series of annual studies is available since the 1980s, and a number of earlier studies provide basis for long-term trend estimation (see e.g. Alkoholvanor, 1984). In Denmark, the available data basis is more scattered (see the country reports for more details). In all of the countries, the discussion about long-term trends has been mostly descriptive, with little effort so far to apply more sophisticated methods of analysis. Respectively, the problems related to long-term considerations have seldom been discussed systematically. All countries have experienced the trend of declining response rates in surveys, whereas wordings of the questions have stayed remarkably constant over the years. In Finland, much effort has been put

on technical comparability of the surveys in all respects, including wording of questions, methods of measuring alcohol consumption and the field work in data collection. Still, a persistent problem has been the high and highly variable underestimation of alcohol consumption. Underestimation² has varied between 60 and 75 percent, irregularly and without any obvious technical reason (see Mustonen *et al.*, 1999; Mustonen *et al.*, 2001). This finding suggests that there may be some cultural variation even within one country in the respondents' propensity and attitudes in answering alcohol-related survey questions. Also in Finland, the problems of declining response rates have required more and more attention. However, in a recent analysis, Mäkelä and Laiho (2001) found that the non-response does not have any systematic biasing effects on alcohol-related variables. This parallels the findings from the Netherlands, presented above. When it comes to results, it seems that the changes in drinking patterns have been slow and smooth, with the exception of the effects of major alcohol policy reforms (in Finland, in 1969; in Sweden, 1955). A very visible long-term trend has been the decline in abstinence rates, with a concomitant increase in women's share of alcohol consumption. With the existing descriptive studies it is difficult to say exactly how age, period and cohort effects may have operated behind these long-term changes. Some researchers have, however, emphasised the importance of generational (or cohort) effects, in the almost revolutionary decline of the old temperance-minded cultures in the Nordic countries (see e.g. Sulkunen, 1981).

In the *U.K.*, different organisations have collected data on drinking patterns from the 1970s onwards (see the country report for details). No systematic summary of different studies nor any trend considerations are available. In such a situation, the problems related to technical differences between various surveys, or to different measures of alcohol consumption, are certainly larger than in countries with more unified traditions of drinking habits surveys. However, the basic problems of different wordings, varying response rates and varying underreporting are present in the British data, too. In connection with checking the problems related to the British data from the ECAS 2000 survey (Hemström *et al.*, 2001), an attempt was made to estimate the underreporting of alcohol consumption in six different studies between 1972 and 1996. The crude calculations suggest that underreporting has varied between 40 and 55 percent,

² It should be remembered that the ways of calculating the underestimation differ between countries. Therefore, the underestimation rates presented here for the Netherlands, Finland and the *U.K.* are not necessarily directly comparable.

perhaps with a declining trend. When it comes to results, the British findings also support the view that changes in drinking patterns occur slowly and smoothly, without any dramatic turn in the course of a couple of decades.

To sum up, these long series of studies reveal a number of specific methodological problems in studying trends of drinking patterns, even with technically identical questionnaires. As was evident in the brief review above, the questionnaires are rarely technically identical over long periods of years. This already introduces the problem of comparing results based on questions with identical target phenomena (e.g. abstinence) but different wordings in different years. Even with identical wordings, there is still the possibility that the meaning of the words change over time, so that a question developed in the 1960s and 1970s may refer to a bit different semantic field in the 1990s. Moreover, the Finnish experience, for instance, shows that the level of underreporting may vary remarkably (in the case of Finland, from 60 to 75 percent) between different years, with technically exactly similar studies. This is probably the case in other countries, too. Varying response rates from one year to another are an additional problem. Evidently, these and other methodological issues require special attention already when studying trends in drinking patterns within one country.

The problems of comparability

Unfortunately, all data sources lead to a struggle with problems of comparability. The methodological chapter of the study on alcohol and women in nine European countries (Knibbe *et al.*, 2001) highlights the difficulties involved in the comparison of survey data on drinking patterns. The problems can be divided into three main categories, which are interrelated:

Cultural inequivalence. Drinking as a behaviour is culturally loaded, and therefore even technically identical data sets from different countries cannot easily be compared at face value. Standard examples are binge drinking and drinking occasions. The so-called subjective questions on the experience of binge drinking often contain expressions such as “intoxication” or “feeling the effects”. These are terms that will be culturally familiar in some countries but unfamiliar in others. The so-called objective questions rely on the idea of the

respondents knowing when they have consumed more than five or six drinks or units per occasion. Both “drinks”, “units” and “occasions” are understood and interpreted differently in different cultures.

Variation in accuracy of reporting. Underreporting of alcohol consumption is the rule in all countries. Unfortunately, underreporting differs from one country to another, and also within countries, from one year to another. Typically, survey estimates cover between 40 and 60 per cent of the actual alcohol consumption. In the ECAS 2000 survey, the lowest coverage rates were about 30 per cent and the highest, unbelievably, about 90 per cent (see Hemström *et al.*, 2001). In order to make the responses comparable, some kind of recalibration would be needed. But it is practically impossible to know whether underreporting concerns frequencies more than volumes per occasion, or the other way round. This problem of varying underreporting is easily forgotten in studies where there is no way of estimating the underreporting or where there is no data on the volume of consumption (e.g. the ESPAD study, see Hibell *et al.*, 1997; 2000). In studies on drinking patterns among population over 15 years of age, some estimate of underreporting can and should always be presented. In principle, no comparative survey data on drinking patterns should be accepted at face value if there is no discussion on the inaccuracy of reporting in the different countries.

Differences in the technical processing of the surveys. There are the usual difficulties of comparability because of sampling and data collection techniques, but the most problematic technical issue in comparing survey data on drinking is the definition of beverage types and sizes of units of consumption. This problem can sometimes be resolved afterwards, but still deserves to be remembered.

Trends in drinking patterns: general remarks

It is a long-established fact that a certain homogenisation of alcohol consumption has taken place in western Europe since World War II. Until about 1980, per capita alcohol consumption kept rising in most countries, except in France, where a decline started already in the 1950s (see e.g. Leifman, 2001; Sulkunen, 1978). The increase was sharper in countries with originally lower consumption,

which led to a partial levelling-off of the differences. The increasing trend came to a halt in about 1980, and more and more wine-drinking countries would join the declining trend first experienced in France. The differences in per capita alcohol consumption have diminished in western Europe in the 1980s and 1990s, too. Furthermore, the share of the traditionally dominant beverage has diminished in all countries, to the extent that there is not one single dominantly spirits-drinking country left in western Europe. And yet, significant differences still remain between the countries, when it comes to beverage preferences in general (see Leifman, 2001).

Has the slow and still uncompleted homogenisation of alcohol consumption and beverage preferences been extended to drinking patterns as well? For instance, were there differences between men and women between countries in the 1950s already, and how are the differences today? Is it possible that significant quantitative changes and even homogenisation in alcohol consumption occurred without any equally significant traces on the more qualitative aspects of drinking? What about long-term trends in drinking patterns? And the dynamics of change: are we talking of substitution (new patterns replacing old ones), addition (new patterns coming on top of the old ones), or perhaps even reduction (old habits withering away slowly without any rise of new patterns) (cf. Mäkelä *et al.*, 1981)? And finally, how could the changes in drinking patterns be related to changes in underlying factors such as urbanisation, modernisation and economic fluctuations (see Karlsson & Simpura, 2001; Leppänen *et al.*, 2001; also Sulkunen, 1983 on the development before 1980)? To become properly posed and discussed these questions require data on drinking patterns.

In the following, we will use the compiled findings from drinking pattern surveys in order to describe trends apparent in drinking patterns in qualitative and partly also in quantitative terms. For some countries, there are already publications available that provide such summary information. For most countries, however, general overviews have not been readily available, but are the result of painstaking piecemeal construction. By definition such information is seldom technically comparable across countries and over time, but it nevertheless provides some basis for depicting overall trends. In this section, we will describe the trends country by country. In the next section, we will sum up the information on the following six features of drinking patterns: (1) abstinence rates, (2) overall drinking frequency, (3) distribution of consumption between gender and age groups, (4) the shape of consumption distribution, (5)

binge drinking and (6) drinking at specific drinking contexts. We will also present figures on those few aspects that are technically comparable across at least some countries.

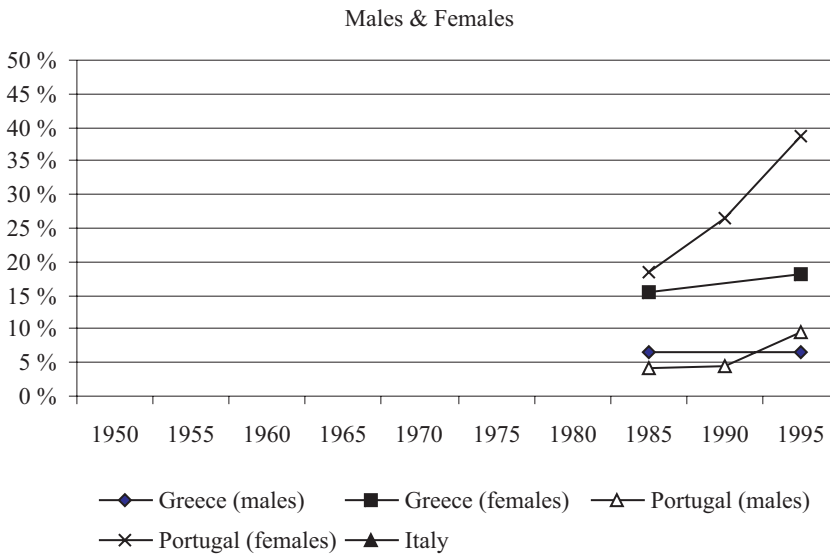
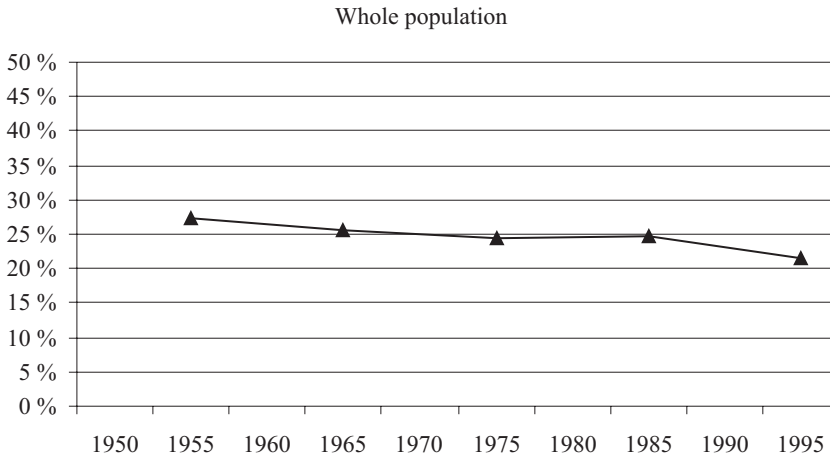
A summary of trends in drinking patterns by different aspects of drinking

The basic question here is whether there is any homogenisation in drinking patterns between countries and groups of countries. Another important question concerns the “natural” time scale of changes in drinking patterns. In this section, we shall also present figures on those aspects and countries where technically comparable data is available. The conclusions, however, will also make use of the technically incomparable descriptions of countries, presented in the previous section.

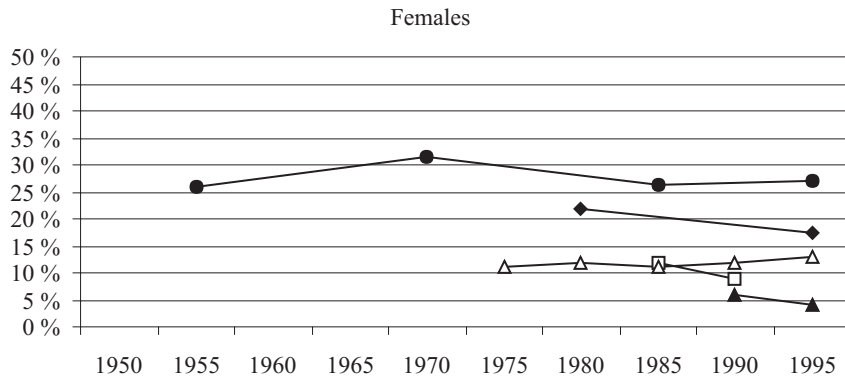
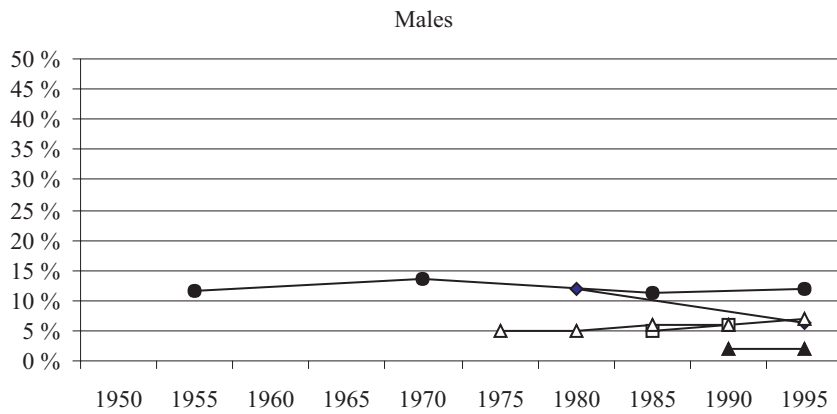
Abstinence and frequencies of drinking. Somewhat surprisingly, the share of abstainers does not vary very much between the country groups (see Figure 2). Abstinence rates were higher in the former spirits countries in the 1950s and 1960s, but now these countries show even lower figures of abstinence than many of the other countries. Apart from the declining abstinence rates, there are no systematic trends visible. At the other end of the scale, the proportion of daily drinkers has always been lowest in the former beer countries and highest in the wine countries (Figure 3). Again, the changes and homogenisation of abstinence and frequencies of drinking appear very slow.

Figure 2. Abstainers as percentage of adult population. Males and females separately 1950 to 1995

Wine countries

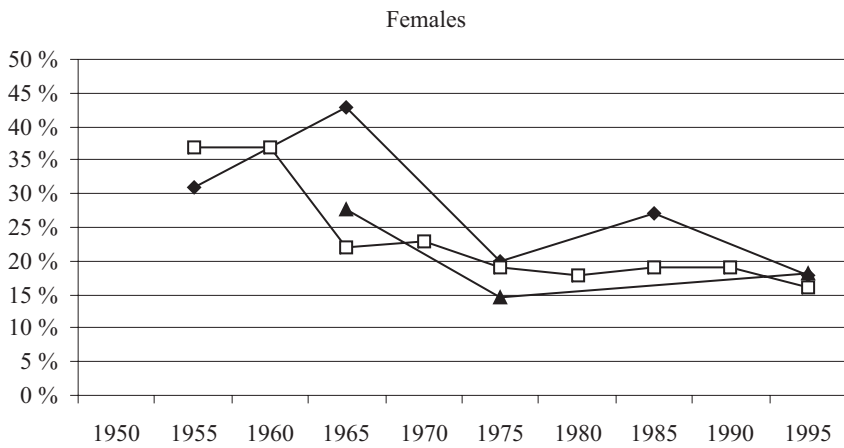
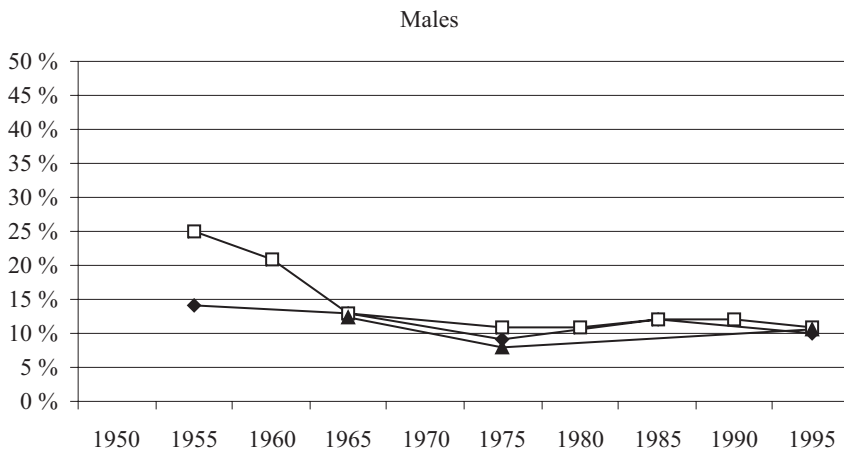


Beer countries



◆ Austria ▲ Denmark □ Germany
 * Ireland ● Netherlands △ UK

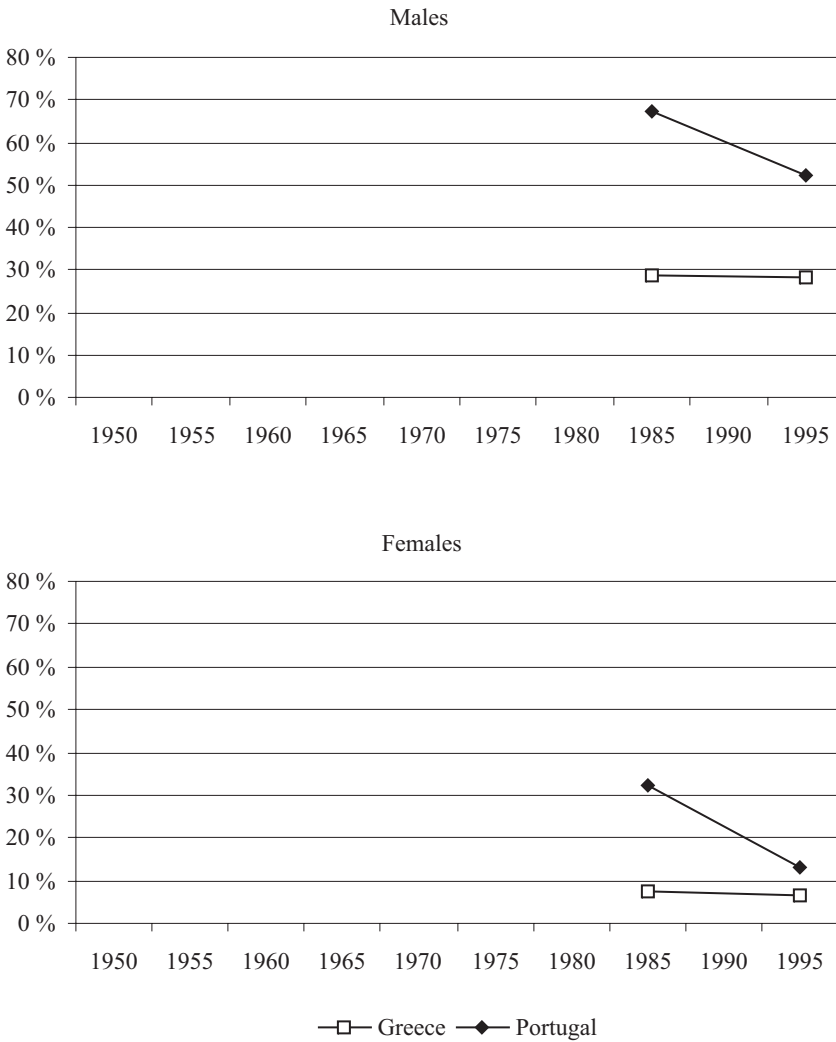
Former spirits countries



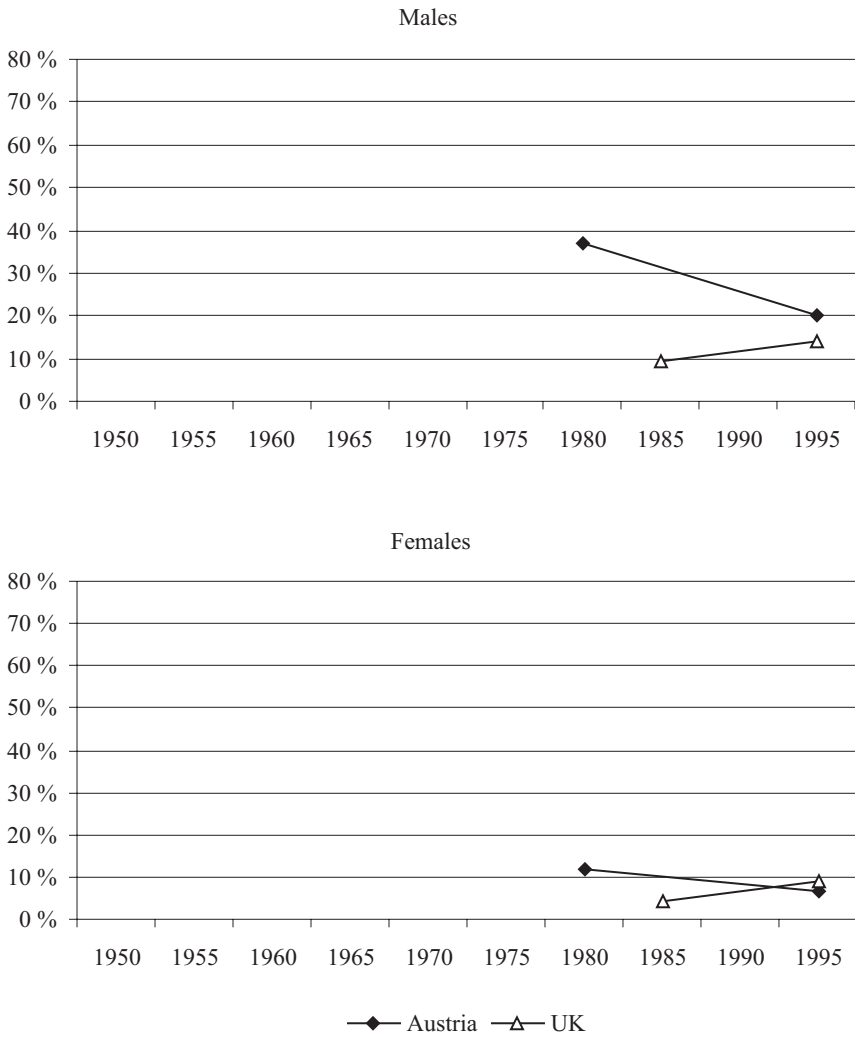
—◆— Finland —□— Norway —▲— Sweden

Figure 3. Proportion of daily drinkers (in per cent). Males and females separately. 1950 to 1995

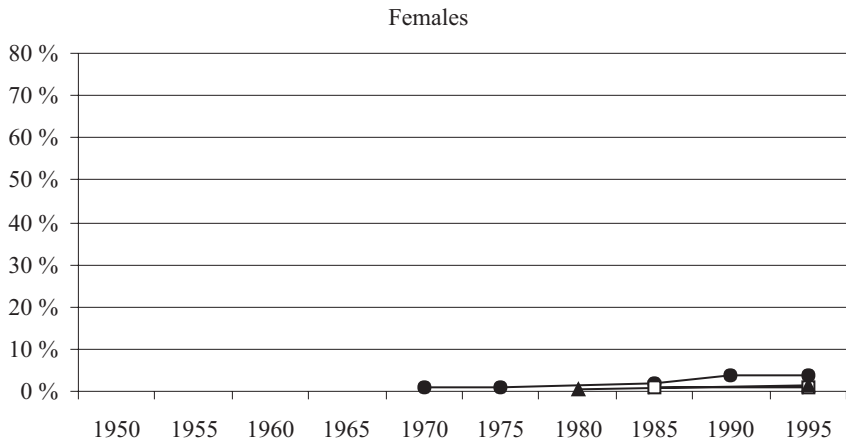
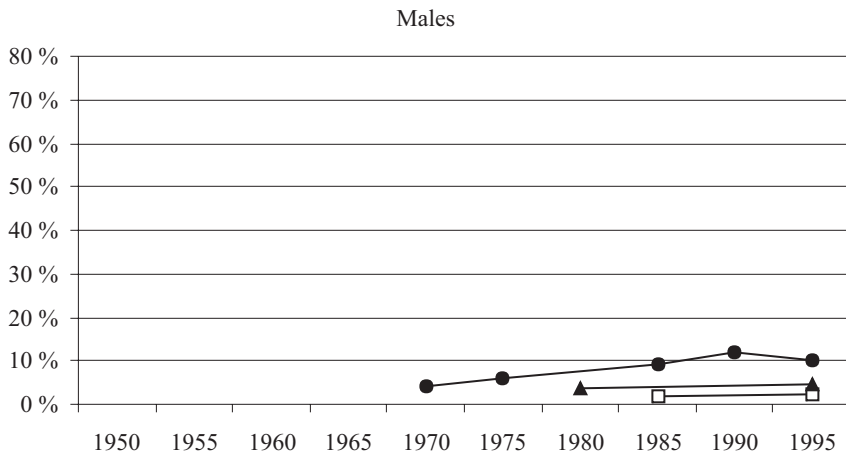
Wine countries



Beer countries



Former spirits countries



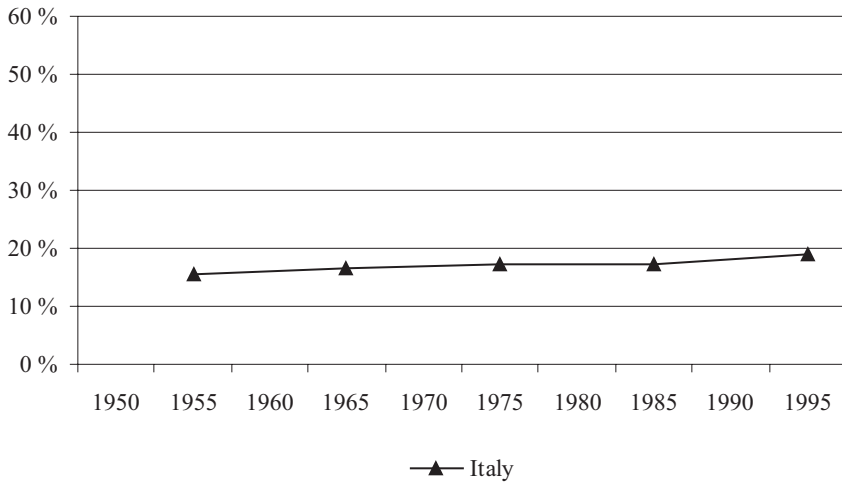
—●— Finland —□— Norway —▲— Sweden

Gender and age. A much-disputed issue is the possible increase in women's share of alcohol consumption, as a consequence of a multitude of changes in women's social position, cultural patterns and living conditions. Women's share of total alcohol consumption is the crudest indicator available. Today, women's share of drinking in most EU member countries amounts to about 30 percent of all alcohol consumption (see e.g. Bloomfield *et al.*, 1999), not very much more, but not very much less, either. Differences between countries are small. The scattered data from earlier decades (see Figure 4) shows, however, that the trends may have been different in different groups of countries. Of the wine countries, only Italy provides long-term data, with evidence that the share of women has been growing gradually. As this has taken place at a time of decreasing alcohol consumption, the net result may still have been a decline in absolute levels of women's drinking in Italy. In beer countries, the evidence on long-term trends does not allow any firm conclusions to be drawn, and in the former spirits countries, an increase of women's share is clear till the 1970s.

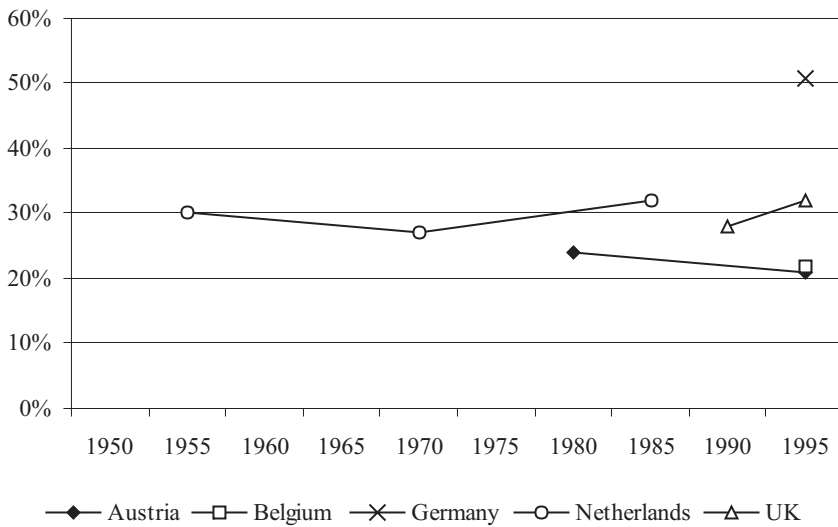
Long-term changes in the age distribution can be covered only partially. Contrary to the stereotypical views of heavily drinking adolescents, in most countries the peak of consumption occurs in the age groups between 30 and 50 years. In wine countries, the evidence is partly contradictory: in Italy the younger groups clearly drink less than the elderly, but in a Spanish study from 1980 (Enriquez de Salamanca, 1984), younger age groups reported higher volumes than did the elderly. In beer countries and the former spirits countries, the variation over time with respect to age seems to have been fairly modest. It is, however, impossible to distinguish between age, period and cohort effects on the basis of the existing data.

Figure 4. Women's share of total alcohol consumption (in per cent). 1950 to 1995

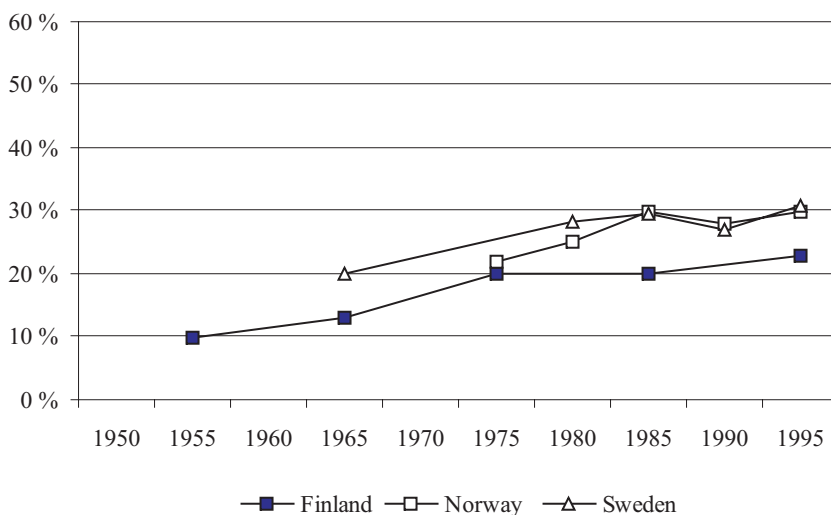
Wine countries



Beer countries



Former spirits countries



The population distribution of consumption. The prevalence of “heavy drinking” would be a central issue when discussing changes of drinking patterns. Unfortunately, there are several definitional problems involved with the concept of heavy drinking, not to mention the problems of measuring alcohol consumption in surveys. Many surveys do not provide data on the volume of alcohol consumption, either, at least not in terms of comparable units of volume and time. This is true of the surveys from earlier decades in particular. Very little therefore remains to be said on the prevalence of heavy drinking from the point of view of long-term trends in international comparison. A related issue is the shape of the population distribution of alcohol consumption. One of the arguments used to defend the so-called total consumption model is that the proportion of heavy drinkers, in different countries and at different points of time, varies in concert with per capita alcohol consumption (see e.g. Edwards *et al.*, 1994; Skog, 1986). Such findings would suggest that the regulation of total consumption would be an effective way of controlling the number of problem drinkers in the population. Basically, the link between per capita consumption and the prevalence of heavy drinkers can be studied by inspecting the shape of the population distribution of alcohol consumption. The existing long-term evidence is scarce and only comes from countries with particular interest and traditions in alcohol research. For instance, the long series of Finnish

studies (see Mustonen *et al.*, 1999) since the 1990s show a remarkable stability in the shape of consumption distributions. On the other hand, at least one Italian set of studies from the 1990s (Gli Italiani e l'alcool, 1998) reports significant short-term changes in the proportion of heavy drinkers without respective changes in per capita consumption. This result may, of course, be an artefact caused by incomparability between data from different years.

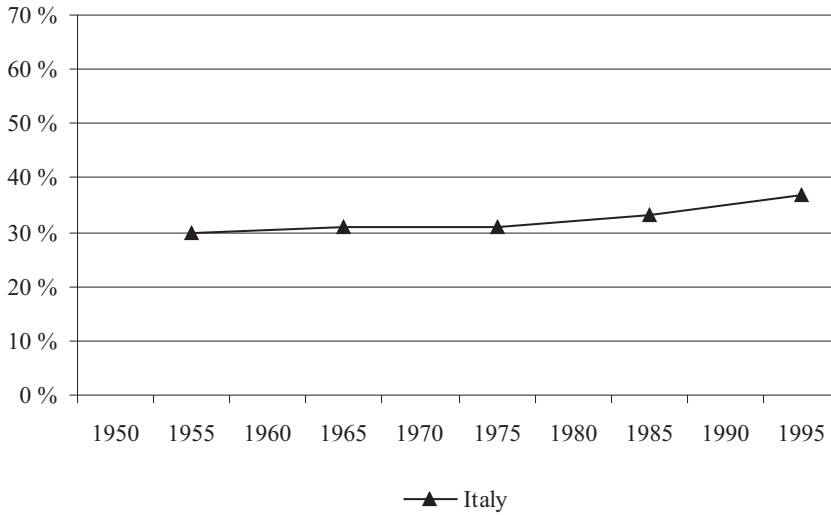
Occasions of heavy intake ("binge drinking"). "Binge drinking", or the share and number of occasions of heavy intake, is also an acute topic in international debate on the prevention of alcohol problems. It is often suggested that differences between countries in problem rates may rise from differences in drinking patterns, and in the prevalence of "binge drinking" in particular (see the related reports from the ECAS Study: Norström (Ed.), 2001; and also the discussion by Berggren & Sutton, 1997). Again, the empirical evidence of long-term changes is scarce, and there are serious difficulties in defining the concept in technically and culturally comparable fashion. Subjective and objective measures (see section 2 above) may lead to countries being ranked differently in different international comparisons. Mäkelä (1999, 36–56) reported findings from a comparative Scandinavian study in 1996. Using objective measures (six or more drinks per occasion), the Danes had the highest prevalence of occasions of heavy intake, whereas the Finns took the lead when using subjective measures (frequency of experiencing intoxication).

Very little can be said about long-term trends in the prevalence of binge drinking. The few existing longer series of national studies (e.g. Finland from the 1960s to the 1990s, see Mustonen *et al.*, 1999) suggest that the share of occasions of binge drinking may change only very slowly. We could therefore conclude that qualitative features of drinking, such as binge drinking, can be typically very resistant against change, despite changes in living conditions, the economy and even alcohol policies.

Drinking contexts: time, place, company and the nature of the occasion. What empirical data we have on drinking patterns provides little systematic information on long-term changes in drinking contexts. The timing of drinking over the week has in all countries been influenced by the introduction of a five-day weekly working schedule. Drinking seems to be more concentrated in the weekends in Central and Northern Europe than in the Mediterranean countries (Figure 5):

Figure 5. Proportion of weekend alcohol consumption (% of total consumption). 1950 to 1995

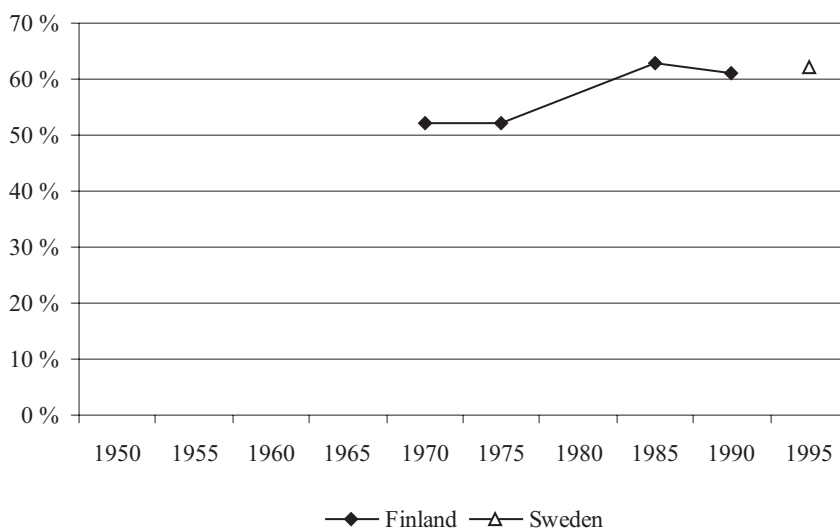
Wine countries



Beer countries



Former spirits countries



Also, very little is known about drinking at contexts that are assumed to be risky in other ways. It is often assumed that homes (and meals at home in particular) would be contexts of low risk, whereas public premises and other public places would be a context of elevated risk of alcohol-related harm. The scattered information that we have at our disposal suggests that this may not be as simple as that. Rather, there is variation between countries and between different points of time.

Concluding remarks

In introducing a set of conference reports on drinking patterns, Rehm *et al.* (1996) present five statements as a proposed core for a new paradigm on patterns of drinking and their consequences, both harmful and beneficial. We shall discuss the findings of our review in the light of these statements before concluding with short remarks on the possible homogenisation and natural rhythm of change in drinking patterns in 15 European countries, and with suggestions for further research.

Five statements and our conclusions. The statements by Rehm *et al.* (1996) and our respective conclusions run as follows:

1. “Patterns of drinking are important influences on health and social outcomes, but epidemiological studies should nevertheless continue to include measures of volume of drinking (average quantity) as a key independent variable.”

Our review does not explicitly examine the link between patterns and consequences. It shows, however, that despite the slow homogenisation of levels of alcohol consumption and beverage preferences, there still remain many differences in patterns of drinking between the 15 European countries. Differences also appear in aspects that Rehm *et al.* (1996) suggest to be relevant from the point of view of consequences. Examples of such aspects include the weekly rhythm of drinking (relatively even weekly consumption vs. concentration of drinking on rare occasions with high intake per session). It is nevertheless important to notice that changes in these aspects seem to be very slow indeed.

2. “Patterns of drinking introduce the social element into alcohol epidemiology.”

The discussion by Rehm *et al.* (1996, 1616–1617) refers to the social networks of drinkers, and to the social interaction at drinking occasions: “If you drink moderately and daily with your meals, if you drink heavily only at parties on weekends, if you drink leisurely with friends in public places – all these situations are expressions of different social interactions.” Unfortunately, existing data on drinking patterns in Europe does not allow any conclusions of trends in patterns in this respect, with the exception of a few countries. Still, it seems feasible to assume that these aspects of drinking, too, typically change very slowly. This suggests, although weakly, that it may not be easy to achieve visible and quick changes in these respects by measures aimed to promote less harmful patterns.

3. “Social harms, benefits and casualties seem to be more closely linked than chronic health conditions to patterns of drinking.”

A central issue mentioned by Rehm *et al.* (1996, 1617) is the finding that “regularity in drinking is important for the beneficial effects of moderate drinking”. Regularity here means regular moderate daily drinking, in contrast to weekend binge drinking. Our review suggests that this kind of regularity is far more common in Mediterranean countries than elsewhere in Europe. It may be, however, in gradual decline in southern Europe, and conversely in a very slow rise in the more northern parts of Europe.

4. “Future research in alcohol epidemiology must develop standardized measures for the various elements encompassed by the term “patterns of drinking” and more sophisticated methodologies and methods of analysis.”

Our review highlights the shortcomings and incomparability of the existing European data on drinking patterns, to the extent that public debate on drinking patterns is still inevitably based more on popular (and political) beliefs than on scientific evidence. Improving the quality and comparability of data is not an easy task. Rehm *et al.* (1996, 1618) already point out that “descriptive analyses of drinking patterns in different cultures will often need to use different indicators of drinking patterns”. Similarly, our review can only support the view that “there is a need for more thinking and explicit discussion about the conceptual relationships between different aspects of drinking patterns and the outcomes which are under study”. Today, all too much of our understanding is of an *ad hoc* type, both in terms of theoretical and empirical basis. Given the scattered field of existing studies on drinking patterns in Europe, there is a long way to go until the first comparable findings will shed more light on the trends of this aspect of the drinking patterns.

5. “Variables that measure patterns of drinking are important considerations in policy and programme development.”

It is evident from our review that there are differences in drinking patterns between countries that are relevant from the point of view of policy and programme development in the prevention of alcohol-related harm. A crucial

question that must be raised concerns the prospects of success in policies targeted to drinking patterns. The review would seem to indicate that many qualitative features of drinking patterns change all the time, but do so very slowly. The reason may be that cultural patterns of drinking are so deeply rooted and multi-layered that any changes necessarily take much time. In the absence of extensive experimental studies on the effects of measures of changing drinking patterns to a less harmful direction, any statements of their potential success in an international European context must remain open.

Homogenisation and the relevant time scales of changes in drinking patterns. In our 50-year-perspective there are some, mostly weak signs of homogenisation in drinking patterns between the 15 European countries. It is possible that the significant quantitative changes and even homogenisation in alcohol consumption have parallel traces on the more qualitative aspects of drinking, but these traces emerge very slowly, in generations rather than in decades. This makes it difficult to build preventive policies on the expectation that qualitative features of drinking could be changed in a relatively short time.

It is important to consider whether factors and processes that are not alcohol-specific but underlie changes in drinking patterns (urbanisation, modernisation, economic development, internationalisation) may have been different in different countries, when it comes to changes in qualitative features of drinking patterns. Still, the result may be an increasing homogenisation. A behavioural pattern that is considered traditional and declining in one country (e.g. wine drinking at family meals in the Mediterranean countries) may be modern and increasing in other countries (e.g. wine drinking at family meals in the Nordic countries).

The persistence of qualitative features of drinking patterns should be related to short-term and long-term changes in alcohol consumption. Short-term changes typically result from price fluctuations (see Leppänen *et al.*, 2001a; b) or significant reforms of alcohol policy (see Karlsson & Österberg, 2001). Long-term changes include the effects of changes in living conditions (Karlsson & Simpura, 2001a; b). Very long-term changes have been suggested to appear as “long waves” of alcohol consumption, with a wavelength of 60 to 80 years (Room, 1991). In typical short-term considerations (about five years or a bit more) of shaping policy measures to prevent alcohol problems, all these different time frames operate in parallel. Our review suggests that cultural friction against changes in drinking patterns may easily be overlooked, and similarly, prospects for positive results from influencing the patterns exaggerated.

Suggestions for further research on trends in European drinking patterns. Our review is the first attempt to cover a large number of European countries in a systematic survey of trends in drinking patterns. It reveals a white spot in the existing European research: there are very few reviews on drinking patterns made by local experts of the different countries. Therefore, we would like to suggest, first of all, that detailed national reviews be procuded soon. We hope that our review, with all its limitations, would be a source of ideas for local experts. Although the lack of comparable data over time is a problem in many countries, much could be achieved by using other types of data as a proxy, and by combining different data using sociological and epidemiological imagination. Another important line of work would be to devise standards for internationally comparable work in studies on drinking patterns and alcohol consumption. There are some ongoing efforts in this direction, and it can only be hoped that their recommendations be adopted sooner rather than later.

Reading the country reports: a brief instruction

The following country reports have been written by the authors of this introduction on the basis of an extensive questionnaire sent to all ECAS contact persons in the 15 ECAS countries (all EU member countries excluding Luxembourg but including Norway). The responses received varied in extent and in the degree of detail, mostly reflecting the strength of alcohol research traditions in different countries. In the country reports, we have condensed the information from different countries into a single format, and have also strived to minimize the variation in the length of the reports.

The structure of the country reports is the following. First, we give a brief general description of the country on the other main areas of the ECAS project: alcohol consumption, consequences of drinking, demand analysis of alcoholic beverages, changes in living conditions and in the extent and scope of alcohol policies. These summaries are mostly based on the reports from the ECAS project (see Appendix 2). Secondly, we present a summary of findings on trends in drinking patterns, in most cases in the same format as the summaries were presented in the Appendix of our earlier article (Simpura & Karlsson, 2001). Thirdly, we briefly discuss the nature of the existing main studies on drinking

patterns, giving references to respective publications at the end of the country report. Fourthly, we systematically present very brief notes on the following aspects of drinking patterns (in conformity with the structure of the questionnaire sent to the contact persons, see Appendix 1): proportion of abstainers, women's share of alcohol consumption, differences in drinking between age groups, proportion of daily drinkers and features of specific types of drinking contexts (occasions of heavy intake, occasions during or at work, occasions related to driving, weekly rhythm of drinking, drinking at meal and overall drinking frequency by beverage types). In many countries, only a few of these different aspects could be covered with findings from existing research.

Finally, two warnings must be repeated. First, our country reports are not exhaustive but certainly leave out some existing studies in each country. We hope that the reader and the authors of the omitted works can excuse us for the omissions, as the task of producing a complete list for every country appeared overwhelming, given the two years' active period of the ECAS project. Secondly, we repeat that our compilation concerns studies on drinking patterns in the adult population only. As far as we know, there is no respective compilation available on trends in adolescent drinking patterns. In search of such data, the reader is advised to turn to national experts in each country.

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Country reports

Austria

Background from other ECAS reports

Austria is a country where beer has traditionally been the dominant alcoholic beverage. Wine accounts for an increasing share of the total, whereas the share of distilled spirits is decreasing. Per capita alcohol consumption rose rapidly in the 1950s, peaked in the 1970s at almost 15 litres per capita (in the population aged 15 years and over), and declined slightly to the present level of just over 13 litres per capita (see Leifman, 2001 for details). Presently, Austria is among the top 3 of the 15 ECAS countries with respect to alcohol consumption, and a high prevalence. A similar rise and decline, is seen in liver cirrhosis rates (see Ramstedt, 2001) and in a number of other consequences of drinking (see Norström, 2001 and other related ECAS reports). Econometric analyses show relatively low price elasticities and medium-level expenditure elasticities, suggesting that alcoholic beverages are not regarded as luxury products (see Leppänen *et al.*, 2001). Austria's efforts to develop preventive alcohol policies have been modest and show no signs of intensification (Karlsson & Österberg, 2001; see also the country report on Austria by Eisenbach-Stangl *et al.*, 2001). Changes in living conditions, such as urbanisation, have been slower in Austria than in the majority of other ECAS countries (see Karlsson & Simpura, 2001).

Main findings on trends in drinking patterns since 1950³

There are no reviews available on the trends in Austrian drinking patterns. The 2 existing nationwide detailed surveys come from 1981 (Mader *et al.*, 1981) and 1993/1994 (Uhl & Springer, 1996). Unfortunately, these surveys are not fully comparable, making it difficult to analyse trends in drinking patterns in Austria. An indication of the local patterns is provided in the 1993/1994 study (Uhl & Springer, 1996), in which the 3-month abstinence rates (no drinking during the last 3 months: ages 16 years and over) were 13 per cent for males and 23 per cent for females; the highest weekly alcohol consumption was in the age group 40 to 49 years both for men and women; women's share of overall alcohol consumption was 21 per cent.

Main studies and reports on drinking patterns since 1950

There are only 2 representative nationwide general population surveys on drinking patterns in Austria between 1950 and 1995 (see the table below). Even these 2 studies do not automatically provide a basis for comparison. The ECAS contact person for Austria, Dr. Alfred Uhl, writes in his winter 1999 report to the ECAS research team:

Since the 1981 and 1993/94 surveys used different questions and since the correction procedures applied to the data differed substantially, it is not useful to compare the results directly. Similarly, it is not useful to compare the two survey results with other isolated results from surveys, since these results usually interpret the raw data without any adjustment for undersampling, forgetting and/or underreporting.

Other scattered sources on drinking patterns are available in various commercial surveys, and also in general health behaviour surveys. At best, they provide a very narrow view of drinking patterns and are therefore of little use in the analysis of long-term trends.

³ We thank the ECAS contact person in Austria, Dr. Alfred Uhl from the Ludwig-Boltzmann-Institut für Suchtforschung, Vienna, for detailed compilation of existing Austrian data on drinking patterns.

Table AUS 1. Nationwide general population surveys on drinking patterns among adults in Austria since 1950

<i>Decade</i>	<i>Year</i>	<i>Name of the study Publication(s)</i>	<i>Age group Sample size</i>	<i>Institute</i>
1950s	-	-	-	-
1960s	-	-	-	-
1970s	-	-	-	-
1980s	1981	Österreichische Trinksitten (Drinking Habits in Austria)	15+ 2 000+ 100	Anton-Proksch-Institute, Ludwig-Boltzmann-Institute for Addiction Research
1990s	1993/94	Konsum von Alkohol und psychoaktiven Stoffen in Österreich (Consumption of Alcohol and Psychoactive Substances in Austria)	15+ 11 000 + 2 000	Ludwig-Boltzmann-Institute for Addiction Research
		Uhl & Springer (1996)		

Indicators of drinking patterns in Austria since 1950

Abstainers

In the 1981 survey, 12 per cent of male respondents and 22 per cent of female respondents (aged 15 years and over) considered themselves ‘abstainers’. In the questionnaire, the term ‘abstainer’ was not explained in detail.

In the 1993/94 survey, a more explicit notion of abstinence was applied. In the research reports, 2 different types of abstainers were defined:

- primary abstainers: those who claim that they have never consumed alcohol in their life
- secondary abstainers: respondents who reported or more than one drinking occasion during the 3 months preceding the survey.

These definitions give the following abstinence rates in groups by age and gender:

Table AUS 2. Abstinence rates in the 1993/94 survey (percentage of respondents in each cell)

	16-19	20-29	30-39	40-49	50-59	60-69	70-	All
Men primary	23	7	5	4	3	7	8	6
Women primary	37	19	12	11	16	20	22	17
Men secondary	6	6	6	5	8	10	13	7
Women secondary	10	13	13	13	14	19	27	16

Source: Uhl & Springer, 1996 (see Table 1), as reported by Dr. Alfred Uhl.

Women's proportion of alcohol consumption

According to the calculations from tables published in the 1981 and 1993/94 surveys, women's share of alcohol consumption was about 24 per cent in 1981 and 21 per cent in 1993/94. It should be remembered that the 2 surveys are not strictly comparable, so that caution is needed in making conclusions on possible trends.

Proportion of different age-groups in total alcohol consumption

Results from the 1981 survey are not available by age-group.

In the 1993/94 survey, the alcohol consumption was studied by age and sex. The per capita consumption for all men and for all women is marked in the table as 100. The results show the differences between age-groups for both men and women. They do not show how much men drink compared to women.

Table AUS 3. Per capita alcohol consumption by age group as a percentage of the per capita consumption for all men (100)/all women (100)

	16-19	20-29	30-39	40-49	50-59	60-69	70-	All
Men	48	99	100	121	105	90	100	100
Women	55	92	111	125	114	83	92	100

Source: Uhl & Springer, 1996, as reported by Dr. Alfred Uhl.

The results in Table AUS 3 show a pattern that is familiar in many other countries: adolescents up to the age of 20 drink much less than adults, consumption peaks in the age-group between 40 and 50 years, and the elderly have slightly lower consumption than the others.

Proportion of daily drinkers in the adult population

In 1981, 37 per cent of males and 12 per cent of females reported drinking on a daily basis. The respective figures in the 1993/94 survey are lower, but it should be remembered that the 2 surveys are not strictly comparable.

The 1993/94 survey on drinking patterns provides a detailed picture of the frequency of drinking in various age groups. The proportion of those who drink 7 days per week was highest in the oldest age group (70+) both for men (27 per cent) and women (10 per cent). The youngest age groups had the lowest proportion of daily drinkers (men 5 per cent, women 2 per cent). Comparison of these figures (and other results on drinking frequencies, see Uhl & Springer, 1996) with the data presented in Table AUS 3 above suggests that the average intake per drinking occasion is somewhat lower in the older groups than among those between 30 and 60 years of age.

Features of drinking contexts

Occasions of heavy intake

Using the survey data, it is possible to estimate the number of respondents who have a high daily alcohol intake (60 grams of ethanol or more), but no detail is available on the individual occasions. Calculations by Dr. Alfred Uhl from the 1981 and 1993/94 data give the following comparison:

Table AUS 4. Drinkers who consume more than 60 grams per day (% of all respondents)

	1981	1993/94
Men	26	29
Women	2	4

Source: Mader *et al.*, 1981; Uhl & Springer 1996, as reported by Dr. Alfred Uhl.

Occasions during or at work

No data was available from Austria on this issue.

Occasions related to driving

In the 1993/94 survey, only 1.7 per cent of the respondents (2.3 per cent of males/1.1 per cent of females) thought that it was acceptable to drive after an intake of more than 1 litre of beer or half a litre of wine. On the other hand, almost 6 per cent of the respondents (10 per cent of males/less than 2 per cent of females) reported that they had exceeded the legal blood alcohol concentration (BAC) limit (0.08 at that time) at least once during the previous 3 months. The respective lifetime prevalence was 22 per cent (38 per cent of men and 9 per cent of women).

Weekly rhythm of drinking

In the 1993/94 survey, Saturday was clearly the peak of the weekly alcohol consumption for men and women in all age groups below 60 years of age. Friday and Sunday also showed higher daily consumption than the other weekdays. The daily consumption on Saturday was 1.5 to 3 times higher than the other weekday consumption. The concentration of drinking at the weekend, and on Saturday in particular was strongest among the youngest age-groups. However, the daily consumption on Saturdays was highest among the age-group between 40 and 49 years.

Drinking at meals

No specific information is available on this. However, the surveys do contain results about the appropriateness of drinking and becoming intoxicated in various situations.

Overall drinking frequencies by beverage type

No information is available on this, but the 1993/94 survey gives the proportions of different beverage types in the weekly or daily consumption as follows:

Table AUS 5. Distribution of survey-based weekly alcohol consumption in Austria in 1993/94 by beverage type (% of consumption by all/men/women)

	<i>All</i>	<i>Men</i>	<i>Women</i>
Beer	57	64	34
Wine	29	23	48
Spirits	6	6	6
Aperitifs	2	1	5
Cider, fruitwine	6	6	5
Total %	100	100	100

Source: Uhl & Springer, 1996, as reported by Dr. Alfred Uhl.

Beer is a popular male beverage in Austria, whereas wine accounts for almost half of all drinking by women. The original survey report gives information on beverage preferences among different age groups and different types of drinkers. Beer is slightly more popular than average among lighter drinkers, and wine more popular among heavier drinkers. Beer is more popular among the young than among the elderly, whereas wine is most popular among the oldest respondents.

Other remarks

None.

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N.B.: The references marked with asterisk () contain original materials from studies on Austrian drinking patterns.*

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Belgium

Background from other ECAS reports

Belgium takes pride in being the leading beer-drinking country in the world, challenged only by the Czech Republic. Beer has been the dominant alcoholic beverage in the country all through the ECAS study period 1950–1995, although its share has been in continuous decline (see Leifman, 2001 for details on alcohol consumption). Beer still accounts for more than half of all alcohol consumed in Belgium, while wine accounts for about one third. Per capita alcohol consumption increased until the 1970s, after which it has been in slight decline. Today, recorded alcohol consumption in the population aged 15 and over is about 11 litres per capita. This places Belgium around the middle in the ranking of the 15 ECAS countries. Similarly, Belgian liver cirrhosis rates have been near the European average fluctuating largely in line with the changes in per capita alcohol consumption (see Ramstedt, 2001). The price and expenditure elasticities estimated for Belgium are also near the average (Leppänen *et al.*, 2001). In Belgium, the interest in preventive alcohol policies was relatively weak until the 1980s, when efforts steadily increased (Karlsson & Österberg, 2001; see also the country report on Belgium by Karlsson & Österberg, 2001). Indicators of changes in living conditions (see Karlsson & Simpura, 2001) show relatively rapid changes in the 1950s and 1960s, and a slower pace thereafter.

Main findings on trends in drinking patterns since 1950⁴

Of all the European Union member countries, Belgium provides the least information on drinking patterns. Scattered information from unpublished reports from the early 1980s and mid-1990s gives abstinence rates between 10 and 20 per cent (the definition of abstinence is not known; sources Dooghe *et al.*, 1991; Dimarso, 1995). The abstinence rates were higher for women than for men. In the early 1980s, about 20 per cent of adults were daily drinkers. The national Health Interview Survey from 1997 gives more detailed information (see references below). According to those findings, about 15 per cent of the adult population were abstainers (no drinking during the past 12 months) and 8 per cent were daily drinkers. 18 per cent of respondents reported that they drank 6 drinks or more at least once a month. No trend data from earlier studies could be found.

Main studies and reports on drinking patterns since 1950

The search for data through the ECAS contact persons did not reveal any major special surveys on drinking patterns in Belgium. However, in addition to the 2 studies mentioned above, it is known that limited information on drinking patterns is given in general health behaviour survey. For instance, the 1997 Health Interview Survey (conducted by the Central Statistical Office, Ministry of Public Health and Environment, and the Institute for Hygiene and Epidemiology) contains a set of questions that provide a basis for international comparison (the findings have been reported on the website <http://www.iph.fgov.be/epidemio>).

⁴ We thank Marijs Geirnaert and Luk van Baelen, Vereniging voor Alcohol- en andere Drugproblemen (VAD) and Luc Bils, Comité de Concertation Alcool-Drogues (CCAD), and Professor H. Van Oyen, Unit of Epidemiology, Scientific Institute of Public Health, Brussels for their valuable help in the search for Belgian sources on drinking patterns.

Indicators of drinking patterns since 1950

In the case of Belgium, there is very little information available on which to draw conclusion about the basic features of drinking patterns or the trends. The 1997 Health Interview Survey, however gives the following findings based on a sample representing the population 15 years of age or more:

Abstainers

In 1997, 21 per cent of women and 10 per cent of men reported no drinking during the past 12 months. Abstinence rates are highest among the youngest respondents (20 per cent of all respondents between 15 and 19 years of age), but decline with increasing age. Respondents with unsatisfactory health report higher abstinence rates than the others.

Women's proportion of alcohol consumption

In the 1997 survey, women drank about 26 per cent of all alcohol consumed by the adult population. This estimate is very similar to that in most other European countries.

Proportion of different age-groups in total alcohol consumption

In the 1997 survey, the variation in alcohol consumption between different age-groups was fairly small compared to many other countries. Nevertheless, a clear pattern emerged showing higher weekly consumption and higher frequencies of heavy drinking among males between 30 and 50 years of age, and among females between 40 and 50 years of age.

Proportion of daily drinkers in the adult population

In 1997, the proportion of daily drinkers was almost zero among the youngest respondents, and generally increased with age up to the over-65 age-group, among both men and women.

Features of drinking contexts

Occasions of heavy intake

In the 1997 survey, 'alcohol abuse' was analysed on the basis of a question on how often the respondents drank 6 glasses of alcohol or more during one day. 29 per cent of men and 6 per cent of women reported that they consumed these high daily volumes at least once a month. The figure for the total population (15 years of age and older) was 18 per cent.

Occasions during or at work

There is no nationwide Belgian study on drinking patterns at work. A few smaller scale studies have been carried out, however. A study of 136 companies (Lenders & Lambrecht, 1996) showed that most employees drank alcohol on the company premises during receptions or festivities, during breaks and during lunchtime. The prevalence of drinking during working hours was low (80 per cent of respondents never drank, 16 per cent sometimes drank). 113 of the 136 companies which participated in the study had a canteen where beer (53 per cent of companies), wine (29 per cent) and spirits (4 per cent) were sold. Another study shows that work-related drinking usually takes place after actual working hours, but even then, not necessarily outside the company premises (Rosseel, 1996).

Occasions related to driving

No information available.

Weekly rhythm of drinking

The 1997 survey gives results for the number of persons who normally drink on working days and the number who drink at the weekend (Friday to Sunday). Some 30 per cent of respondents usually drink on working days, and 57 per cent during the weekend. Although these results do not indicate the share of weekend consumption in total weekly alcohol consumption, they do indicate that in Belgium, too, drinking is unevenly distributed over the weekdays. Weekends may account for more than half of weekly alcohol consumption, as has been the case in many other countries, as well.

Drinking at meals

No information available.

Overall drinking frequency by beverage types

No direct information on beverage-specific drinking frequencies is available. However, the 1997 survey gives results on how alcohol consumption was distributed between different beverage types during working days and at the weekend. The results show that among men, beer is the most popular, even the dominant, beverage throughout the week, whereas women prefer wine.

Other remarks

None.

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N.B.: The references marked with asterisk () are original reports from Belgium.*

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Denmark

Background from other ECAS reports

In Denmark, as in so many other European countries, per capita alcohol consumption underwent a slow but steady increase from the 1950s till the mid-1970s, followed by stabilisation with only minor annual fluctuations (see Leifman, 2001a). Including the estimates of unrecorded consumption, the present level of per capita alcohol consumption is about 14 litres per capita (in the population 15 years of age or more). Among the EU member countries and Norway, this is a high figure, second only to Portugal and France and similar to the consumption in Ireland (Leifman, 2001b). Beer has been the dominant beverage in Denmark all through the ECAS study period (1950-1995), although its proportion has been in decline. Still, however, beer today accounts for almost 60 per cent of Danish alcohol consumption. In the summary of time-series results on the link between alcohol consumption and alcohol-related mortality, a strong positive link was found in Denmark for male liver cirrhosis mortality and mortality from specific alcohol-related diseases. Most of the other links were also positive (i.e., more drinking produces more deaths), although not statistically significant (see Norström, 2001a, b). In the econometric demand analysis of alcoholic beverages, Denmark had a pattern very similar to those of the other beer-drinking countries (Belgium, Ireland and the United Kingdom; notice that of the beer-drinking countries, Germany was excluded because of lack of data, and the Netherlands was a slightly deviant case) (Leppänen *et al.*, 2001a, b). Considering the changes in living conditions (Karlsson & Simpura, 2001a, b), Denmark experienced rapid urbanisation since the 1950s, but had an early start on many other dimensions of modernisation, compared with many other war-torn countries. In alcohol policies, Denmark has systematically followed a minimalistic line, quite similar to Austria and Germany, but very different from

Denmark's Nordic neighbours. Some slow extension of alcohol policies occurred, place, but still today, Denmark has one of the lowest scores in the index of the scope and strictness of alcohol policies in the EU countries and Norway (Karlsson & Österberg, 2001; see also the country report on Denmark by Karlsson & Österberg, 2001b).

Main findings on trends in drinking patterns since 1950

In the late 1970s, 10 per cent of women and 3 per cent of men over 16 years of age said that they never drank alcoholic beverages. In mid-1980, the respective figures were again 3 per cent for men and 7 per cent for women (Nielsen & Hansen 1985, 49). In every year, a significant proportion of drinkers reported daily or almost daily consumption of alcohol. Due to differences between questionnaires from different years, trends cannot be detected. In the Nordic study from 1996, 26 per cent of adult Danish men and 11 per cent of women said that they drank usually 4 times or more per week (Mäkelä *et al.*, 1999, 32). In these studies, women's share of alcohol consumption has varied around 30 per cent, with no clear trends. Binge drinking has been dealt with in the study from 1989, and again in 1996, but with incomparable questions. In the former study, 16 per cent of adult men and 8 per cent of women reported that they drank at least several times per month so much as to become inebriated (Sabroe & Rasmussen, 1995, 348). In the latter, Danish men reported on the average 10 occasions of intoxication per year, and Danish women 4 occasions (Mäkelä *et al.*, 1999, 40).

Main studies and reports on drinking patterns since 1950

A number of extensive nationwide studies on drinking patterns have been conducted in Denmark since the mid-1970s (Nielsen, 1982 (with data from 1977), Hansen & Andersen, 1985 (with data from 1976 living conditions survey and a separate study from 1985), Sabroe & Rasmussen, 1995 (with data from 1989; see also Rasmussen & Sabroe, 1989; Sabroe, 1991), but no systematic

review of trends is available. However, more recently, Denmark was included in a comparative Nordic alcohol survey in 1996 (Mäkelä *et al.*, 1999, 2001). Thorsen (1990) gives a full account on trends in alcohol consumption and alcohol-related problems in Denmark in the 20th century, including a brief summary of existing data on drinking patterns and, in particular, population distribution of alcohol consumption (Thorsen, 1990, 41–49). It shows that only one study was available from the 1960s (men in the capital region, Didrichsen & Skyum-Nielsen, 1969; part of a joint Nordic study reported by Jonsson & Nilsson, 1972). In addition to the studies mentioned above, scattered studies elsewhere contain at least some alcohol-related data (e.g. Vilstrup & Nielsen, 1981, with data from 1978–1980; Rasmussen *et al.*, 1988, a major epidemiological study with data from 1986–1987). Finally, a recent study has reported results on the relation between drinking patterns, diet and cardiovascular diseases (Gronbæk *et al.*, 2000).

Indicators of drinking patterns since 1950

Thorsen (1990, 43) gives a useful summarial table of findings from Danish surveys on alcohol consumption and drinking patterns. We repeat it below (Table DEN 1), leaving out one study on 40-year-old men from the 1980s and adding respective findings from the joint Nordic study from 1996 (Mäkelä *et al.*, 1999). Schmidt (1991, 55–70) also gives a brief summary of survey findings. Thorsen discusses at some length the problems of comparing findings from a number of different studies. The problems include fluctuation in response rates and underreporting, differences in target populations and differences in the design of questions and questionnaires.

Table DEN 1. Thorsen's 1990 summary of findings from Danish studies on drinking patterns, completed with findings from the joint Nordic study of 1996

Study	Year of data collection	Total abstainers (%)	Daily drinkers (%)	Size of the group of top consumers who drink 50% of all alcohol	Heavy drinkers (%)	Those who had drunk 'yesterday' (workdays/weekend) (%)	Those who had consumed at least 5 drinks 'yesterday' (workdays) (%)
Men in Copenhagen (30-45 years)	1964	2	26.1		4		
Study of living conditions (Hansen & Andersen, 1985)	1976			*)	1 (at least 40 drinks per week)		
Nielsen (1982)	1977	6		8		43/61	8
Vilstrup & Nielsen (1982)	1978-1980			8	1 (at least 5 drinks every day 'last week')	43	8
Hansen & Andersen (1985)	1985	5		*)	*)	35	
Rasmussen <i>et al.</i> (1988)	1986-1987	5				37/68	6
Mäkelä <i>et al.</i> (1999)	1996	3 (non-drinkers)	26 (m) 11 (f) (4 times or more per week)		24 (m) 7 (f) (annual consumption over 10 litre alcohol)		

*) The 1985 study gave the consumption distribution using very broad categories. Hansen and Andersen have, however, been able to make some modifications to compare the data with findings from the 1976 study.

Only brief comments, following the presentation by Thorsen (1990, 44-49) will be added here, mostly based on calculations from original studies made by Hanhinen (1995). Hanhinen's data also cover findings from international surveys (Readers' Digest Eurodata, 1991; Hupkens *et al.*, 1993 from Eurobarometer data in 1988).

Abstainers

Abstinence rates in Denmark have been low, compared with its Nordic neighbours, but not very much lower than the rates in Germany or Austria. There has been no visible trend in the abstinence rates in any direction. Admittedly, the rates could not be very much lower than they are today in any case.

Women's proportion of alcohol consumption

Calculations from Sabroe (1991) showed that women's proportion of drinking would have been between 30 and 35 per cent at the late 1980s. The comparative Nordic study from 1996 (Mäkelä *et al.*, 1999, 24) gives an estimate of 32 per cent. This is higher than in the neighbouring Nordic countries. The findings show no clear trend in women's proportion of the alcohol consumption.

Proportion of different age-groups in total alcohol consumption

As an example, Sabroe's (1991, 149) findings show a pattern similar to most other EU member countries: the highest weekly consumption of alcohol was found among respondents between 30 and 50 years of age. In the 1996 Nordic study (Mäkelä *et al.*, 1999, 22), differences between various age-groups were very small among Danish males, and were also not very large among Danish women.

Proportion of daily drinkers in the adult population

Hanhinen (1995) reports the findings from the 1990 study (Schmidt, 1991) where 14 per cent of the respondents drank daily or almost daily. This is roughly in line with earlier and later findings reported in Table DEN 1 above. The data are too scarce to allow any assessment of trends.

Features of drinking contexts

Occasions of heavy intake

Again, no trend data are available on Denmark. The 1996 Nordic study shows that the annual frequency of drinking 6 drinks or more per occasion was higher in Denmark than in the other Nordic countries. However, subjective frequencies ('drinking enough to feel it') were lower in Denmark (see Mäkelä *et al.* 1999, 42, and Mäkelä *et al.*, 2001 for more details on this complicated issue).

Occasions during or at work

No trend data available.

Occasions related to driving

No trend data available.

Weekly rhythm of drinking

No trend data are available. Sabroe and Rasmussen (1995, 115–116) show that in Denmark, as in many other countries, drinking is strongly concentrated on weekends. In their data, about 40 per cent of the respondents reported drinking on Saturdays, about 20 per cent on Fridays and Sundays, and about 20 per cent on weekdays.

Drinking at meals

No trend data are available. Sabroe and Rasmussen (1995, 115–116) classified drinking occasions by the type of situation and found that ‘eating’ was the most frequently met type (almost 25 per cent of all occasions; in addition, a number of other important types of occasions, such as ‘sociable get-together and having fun’ often include some eating). Their data on the daily rhythm of drinking show clear peaks at meals. Sabroe and Rasmussen (1995, 116–117) characterise Danish drinking as a pattern dominated by meals.

Overall drinking frequency by beverage type

No trend data are available. Expectedly, in the survey of daily and weekly rhythms of drinking by Sabroe and Rasmussen (1995), beer was the dominant beverage on all days of the week, and at almost all times of day, except for the dinner hour when wine received a slightly higher proportion of drinkers.

Other remarks

None.

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N.B.: The reports marked with an asterisk () contain original data from Denmark.*

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Finland

Background from other ECAS reports

In Finland, per capita alcohol consumption was very low in the 1950s, but began to increase in the 1960s, and leaped upwards after a radical alcohol policy reform was instituted in 1969. The consumption level has since remained rather stable, with the exception of a rise during an economic boom in the late 1980s a decline during the economic recession of the 1990s, and another rise in the late 1990s (Leifman, 2001a). Distilled spirits were the dominant beverage until the late 1960s. After the 1969 reform, the country turned rapidly into a beer-drinking country. In addition to the unregistered alcohol consumption (where touristic imports are an important component; see Trolldal 2001), the present consumption level was estimated to be about 11 litres per capita (in the population 15 years of age or more; Leifman, 2001b). This figure is a little below the EU median, and is between the figures for the United Kingdom and Belgium on the one hand, and Italy and the Netherlands on the other. The link between changes in per capita alcohol consumption and alcohol-related mortality is also strong in Finland with some emphasis on causes of death that may be related to a drinking pattern in which occasions of high intake play an important role (Norström, 2001a, b). In econometric demand analysis, Finland is somewhat similar to the other Nordic alcohol monopoly countries, with price elasticities varying around the level of -0.6 in the last 3 decades (Leppänen *et al.*, 2001a, b). Finland underwent rapid urbanisation in the 1960s and 1970s, and the pace of modernisation has also been rapid since then, so that living conditions today are radically different from those of a few decades ago (Karlsson & Simpura, 2001a, b). With regard to alcohol policies, Finland has had a very strict alcohol monopoly system all through the ECAS study period, with a radical liberalisation in 1969, a new tightening in the 1970s and 1980s and a smoother liberalisation

in the 1990s (Karlsson & Österberg, 2001b; see also the country report by Karlsson & Österberg, 2001b). Today, the country ranks third after Norway and Sweden on the scale for the extent and scope of alcohol control policies among the EU member countries and Norway, with the policy somewhat stricter than in Italy, the Netherlands and the United Kingdom.

Main findings on trends in drinking patterns since 1950

Finland of the 1950s and 1960s was characterised by low per capita alcohol consumption, very high abstinence rates in the countryside in particular, popularity of distilled spirits and a cultural appreciation for drinking to intoxication. A dramatic turning point in drinking patterns occurred in 1969 with radical liberalisation of alcohol control policies, leading to more than doubling of per capita alcohol consumption in a single year. As abstinence rates among women fell from more than 40 per cent to a level around 20 per cent from the 1960s to 1970s, and the decline has continued in the 1990s. Among men, the changes were much smaller but the trend has been declining. Respectively, women's proportion of alcohol consumption rose from 13 per cent in the late 1960s to almost 25 per cent in the 1990s. The age-group with the highest alcohol consumption has varied between the years, but has mostly been those between 30 and 40 years of age. The overall shape of the population distribution of alcohol consumption has been fairly stable. However, even these radical changes did not greatly affect the traditional qualitative features of drinking patterns. In Finland, high prevalence of binge drinking has often been described as a characteristic feature, and also as a specific source of alcohol problems. The results do not show any weakening of this pattern. On the contrary, binge drinking has become more prevalent among women ever since the 1960s. In the latest specific drinking pattern survey from the year 2000 (Mustonen *et al.*, 2001), no major changes have been found since 1992.

Main studies and reports on drinking patterns since 1950

In Finland, almost all of the research interest in drinking patterns has been related to attempts to develop alcohol control policies (see Mäkelä *et al.*, 1981). Creating less harmful drinking patterns has been, openly or hidden, on the agenda of alcohol policies ever since World War II. The earliest general population survey on Finnish drinking patterns was conducted in 1946 (Kuusi, 1948). Since then and until the late 1960s, only regional or small-scale special surveys were available on drinking pattern in the general population of Finland (Kuusi, 1957 on 3 rural communities (data from 1951), Allardt, 1957 (data from 1956); Jonsson and Nilsson (1971) report on male drinking patterns in 4 Nordic capitals in 1963, including Helsinki). The main findings and a complete list of publications from a long series (from 1968 to 1992) of consecutive general population surveys with 8-year intervals on drinking patterns have been reported in a summary by Mustonen *et al.* (1999). Another summary is available in Simpura *et al.* (1993), and detailed findings from the 3 studies from 1968 to 1984 were reported by Simpura (ed.) (1985). Klaus Mäkelä (e.g. Mäkelä *et al.*, 1981) has extensively analysed the effects of the 1969 alcohol policy reform on drinking patterns. The series of national general population surveys on drinking patterns was continued in 2000 (Mustonen *et al.*, 2001). Some data on drinking patterns have been included in annual health behaviour surveys since the early 1980s (e.g. Helakorpi *et al.*, 1999). In addition, Finland has participated in a number of comparative Nordic studies on drinking patterns (Hauge & Irgens-Jensen, 1985 (data from 1979); Mäkelä *et al.*, 1999, 2001 (data from 1996)).

Indicators of drinking patterns since 1950

Finland has one peculiar feature of drinking patterns that is not met elsewhere in the world. This is the importance of sauna baths (weekly or more often) as a drinking context. In the 1990s, as many as 1 out of 6 drinking occasions was related to sauna baths (Simpura *et al.*, 1993). This pattern became popular after the 1969 alcohol policy reform that was a breakthrough of the beer culture in Finland. Typically, drinking in connection with sauna baths consists of 1 or 2 beers after the bath. Another important feature has been the supposedly high

prevalence of binge drinking, often referred to as the ‘mythical Finnish boozing’ (Falk & Sulkunen, 1983; Simpura, 1983). In the alcohol policy debate and also in follow-up studies on drinking patterns, this assumed Finnish peculiarity has always commanded wide attention. Importantly, it has been suggested that changes in drinking patterns in Finland have occurred over generations (e.g. Sulkunen, 1981). So far, no detailed age-period-cohort analysis has been conducted to check the validity of this conclusion.

Abstainers

The scattered findings from the 1950s suggest that abstinence rates (no drinking during the previous 12 months or lifetime) would have been on the level of 30 or even 40 per cent among adult women and below 20 per cent for adult men. The following table sums up the trends as depicted in 5 consecutive surveys on drinking patterns since 1968:

Table FIN 1. Abstinence rates in the population between 15 and 69 years of age, 1968–2000 (proportion of those who reported no drinking during the 12 months before the interview, %)

<i>Year</i>	<i>1968</i>	<i>1976</i>	<i>1984</i>	<i>1992</i>	<i>2000</i>
Men	13	9	12	10	9
Women	43	20	27	18	9

Source: Mustonen *et al.*, 1999, Table 1; Mustonen *et al.*, 2001

The figures show a dramatic decline in abstinence among women since 1968 (actually, within a few years, according to a study from 1969 and a few smaller studies), and another deep decline in the 1990s. The explanations for this development are many: changes in alcohol control, changes in the moral code concerning women and drinking, modernisation, urbanisation and finally in the 1990s internationalisation (see e.g. Sulkunen, 1981 for earlier development).

Women's proportion of alcohol consumption

As expected on the basis of results on abstinence rates among women, women's percentage proportion of alcohol consumption has also increased radically in the 1970s, not at all in the 1980s, and again, although at a slower pace in the 1990s (see Table FIN 2):

Table FIN 2. Women's proportion of alcohol consumption in Finland, 1968–2000 (women's proportion percentage of consumption reported in surveys, population 15–69 years of age)

<i>Year</i>	<i>1968</i>	<i>1976</i>	<i>1984</i>	<i>1992</i>	<i>2000</i>
Women's share	13	20	20	23	25

Source: Mustonen *et al.*, 1999, Table 5; Mustonen *et al.*, 2001

Proportion of different age-groups in total alcohol consumption

In Finland, the heaviest drinking age-groups among men have been those between 20 and 29 years of age in the study of 1968, and those between 30 and 45 years of age in other studies. For women, the top category has been among those between 20 and 29 years of age. According to Mustonen *et al.* (2001), the ranking of the 8 groups constructed by gender and age in the Finnish studies has varied very little over the 32-year-long series of studies.

Proportion of daily drinkers in the adult population

Daily drinking has not been common in Finland, as alcoholic beverages have not often been consumed with food (water and milk being the most important) nor at everyday social function (coffee is the dominant drink). Since the proportion of daily drinkers has been very low, the survey findings in Table FIN 3 show the proportions of drinkers who reported drinking at least 4 or 5 times per week. The results show an increasing prevalence of frequent drinking, with a slight downturn in the latest study from the year 2000.

Table FIN 3. Proportion of drinkers who imbibed at least 4 or 5 times per week, Finland, 1968–2000 (percentage of all males/all females, 15–69 years of age)

<i>Year</i>	<i>1968</i>	<i>1976</i>	<i>1984</i>	<i>1992</i>	<i>2000</i>
Men	4	6	9	14	10
Women	1	1	2	4	2

Source: Mustonen *et al.*, 1999, Table 1; Mustonen *et al.*, 2001

Features of drinking contexts

As mentioned above, a very special drinking context, that of drinking in connection with the sauna bath, is an important element of Finnish drinking patterns. In the drinking pattern survey from 1992, a 15-class categorisation was used to classify drinking occasions by the type of context (see Paakkanen, 1994; Simpura *et al.*, 1997;). In the 1992 study, one out of 6 drinking occasions were related to sauna baths. These are seldom scenes of heavy intake or otherwise risky drinking, and should be viewed mostly as a cultural peculiarity.

Occasions of heavy intake

In Finland, the prevalence of drinking leading to intoxication has been a major issue in alcohol policy debate. In surveys of drinking patterns, a long-term series is available on questions concerning occasions in which respondents subjectively felt that they were intoxicated, mildly or heavily. In addition, the studies also allow calculation of the proportion of consumption that has occurred at occasions leading to a BAC exceeding 0.1 per cent. In the latest survey from 2000, a question of the frequency of consuming 5 drinks or more is also available. Here, we only present the findings on subjective experience of intoxication. This question was not included in the 1976 study.

Table FIN 4. Proportion of drinkers who report having drunk at least once per week 'enough to feel it a little' (% of male/female respondents between 15 and 69 years of age)

<i>Year</i>	<i>1968</i>	<i>1976</i>	<i>1984</i>	<i>1992</i>	<i>2000</i>
Men	14	..	25	29	30
Women	2	..	5	11	13

Source: Mustonen *et al.*, 1999, Table 8; Mustonen *et al.*, 2001

The figures show an increasing trend after the 1969 alcohol reform. The latest findings from the year 2000 (Mustonen *et al.*, 2001) suggest a slight decrease in frequency of intoxication among men, but no change among women. It should be mentioned that in international comparisons, subjective and objective measures of the frequency of intoxication may produce different rankings of countries. In the comparative Nordic study from 1996 (Mäkelä *et al.*, 1999, 2001), the Finns ranked higher than the Danes on questions of subjectively experienced intoxication, whereas the opposite was true on questions of objective experience (frequency of consuming 5 drinks or more per occasion).

Occasions during or at work

Currently, a very strict informal social norm condemns on-the-job drinking in Finland. In the 1950s, drinking at workplaces was still considered to be a problem, and special control measures were targeted at this issue. Ever since the 1970s, drinking at work or at work-related lunches etc. has become more and more uncommon. Only 2–3 per cent of all drinking occasions have been related to work.

Occasions related to driving

In Finland, the prevalence of drunken driving has been low in international comparisons. Thanks to relatively good public transport, the Finns have avoided a large part of the problems related to drinkers coming home from a pub or bar late at night. Surveys on drinking patterns do not deal with this issue.

Weekly rhythm of drinking

The findings from surveys on drinking patterns show that in Finland, as in so many other countries, the weekly rhythm of drinking has changed slowly, so that Friday is becoming a more popular drinking day at the expense of all other days (Table FIN 5). This is probably related to the adoption of a 5-day weekly working schedule since the late 1960s. The results on weekly rhythm from the latest study from the year 2000 were not available at the time of this writing.

Table FIN 5. Changes in the weekly rhythm of drinking in Finland, 1968–1992: distribution of drinking occasions over weekdays (% of all occasions)

<i>Men:</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>	<i>Sun</i>
1968	9	11	13	11	13	31	13
1976	9	12	13	10	17	28	11
1984	8	9	11	10	22	30	10
1992	8	10	12	9	20	30	10
<i>Women:</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>	<i>Sun</i>
1968	6	8	8	14	15	35	14
1976	9	9	10	10	19	31	13
1984	7	9	10	8	23	32	10
1992	6	8	10	8	22	36	10

Source: Mustonen *et al.*, 1999, Table 14

Drinking at meals

Finland is notoriously a country where milk products have been the basic beverages at meal time throughout the 20th century. At the end of the century, water rapidly replaced milk. Alcoholic beverages have only slowly gained some ground at Finnish lunch and dinner tables. In the year 2000, Finnish men reported an average of 24 days per year when they had consumed beer with the meal, or only 2 days per month. The respective figure for women was 8 days, or, less than 1 day per month. For wine, the figures are slightly lower: for men, 10 days per year drinking wine with meals, for women 9 days. The following table shows some trends from 1968 to 1996:

Table FIN 6. Beverage usually consumed with main meal on Sunday and weekdays, Finland 1968–1996

Men:	Main beverage at Sunday meal				Main beverage at weekday meal		
	1968	1984	1992	1996	1968	1984	1992
Milk etc.	90	80	64	59	93	81	66
Water etc.	2	15	28	32	2	17	30
Mild beer	3	1	2	1	3	1	2
Beer	4	3	4	4	1	1	1
Wine	1	1	2	3	0	0	0

Women:	Main beverage at Sunday meal				Main beverage at weekday meal		
	1968	1984	1992	1996	1968	1984	1992
Milk etc.	92	66	50	44	84	67	50
Water etc.	3	30	45	52	4	32	48
Mild beer	3	1	1	1	2	1	1
Beer	1	1	2	1	0	0	0
Wine	0	1	2	3	0	0	0

Source: Mustonen *et al.*, 1999, Table 18

Overall drinking frequency by beverage type

In Finnish surveys on drinking patterns, the coverage rates for various beverage types have varied widely from one year to another. Therefore, survey data on beverage-specific frequencies is not very comparable over the years. Apart from the problem of varying coverage rate, the findings on beverage-specific drinking frequencies largely reflect changes in the proportions of various beverages of aggregate alcohol consumption. As mentioned above, Finland turned from a spirits-drinking country into a beer-drinking country in the 1970s (after the 1969 alcohol reform; see Mäkelä *et al.*, 1981), and the decline of distilled spirits has continued till today. In recent years, wine has gained increasing popularity, but still less than one-fifth of all alcoholic beverages consumed in Finland is wine.

Other remarks

In general, the long series of Finnish surveys on drinking patterns suggest that the patterns change very slowly. They also demonstrate that major alcohol policy reforms may have an effect on certain features of drinking (e.g. in Finland, on abstinence and beverage preferences), but not on others (e.g. in Finland, on intoxication).

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N.B.: The reports marked with an asterisk () contain original data on drinking patterns from Finland.*

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France

Background from other ECAS reports

Since the 1950s, France has been the leading country in European statistics on per capita alcohol consumption, and also worldwide. The consumption attained reached a remarkable peak of 25 litres per capita in the population 15 years of age and over (Leifman, 2001a). However, a decline in consumption had already begun in the late 1950s, and has continued until the 1990s. Today, the French recorded per capita alcohol consumption is slightly below 14 litres per capita, and the unrecorded consumption adds 1 additional litre to this figure (in the population 15 years of age or more; see Leifman, 2001b, 659). Wine has always been the dominant beverage in France, although its proportion has declined from over 80 per cent in the 1950s to over 60 per cent in the 1990s (Leifman, 2001a). Together with Portugal, France holds first place in alcohol consumption statistics among the EU member countries (excluding Luxembourg) and Norway. Both the high consumption level and the long-term decline are reflected in the prevalence of various forms of alcohol-related mortality (see the articles in Norström, 2001a). As in other wine-drinking countries, consuming wine with meals has been the most stereotypical pattern of drinking, and although in decline, it has persisted till today. Detailed descriptions of drinking patterns are rare from earlier decades but abound in the 1990s (see below). Cultural modernisation, rather than parallel changes in demographic and social structure, has been suggested as a major factor underlying the changes in French alcohol consumption (see e.g. Sulkunen, 1986), and began earlier in France than in most other EU member countries (see Karlsson & Simpura, 2001a, b). The effects of modernisation on alcohol consumption in France cannot, however, be reduced to urbanisation, but reflect more subtle changes in lifestyles and class structure (Sulkunen, 1989). France is similar to other wine-drinking

countries with respect to price elasticities of alcoholic beverages, i.e. the elasticities have been near zero (although with statistically significant differing from zero) all over the ECAS research period (Leppänen *et al.*, 2001a, b). In the extent and scope of alcohol policies, France has been ahead of other wine-drinking countries, with an extension of alcohol policies since the 1960s (Karlsson & Österberg, 2001a; see also the country report by Karlsson & Österberg, 2001). Today, the scope of French alcohol policy measures is similar to that of Italy, Ireland and the Netherlands.

Main findings on trends in drinking patterns since 1950

Trends in French drinking patterns have not been discussed in any recent summarial report. Two general reviews exist from the 1990s (Reynaud *et al.*, 1999; *L'alcool à chiffres ouverts*, no year), but they do not provide any detailed discussion on drinking patterns. A report from a health barometer study among the adult population in 1995/1996 (Guilbert *et al.*, 1997) also contains information from some other studies from the 1990s. Lacking comparable nationwide drinking habit surveys from earlier decades (with the exception of the classic study by Sadoun *et al.*, 1965, with data from 1956 and 1957), long-term trends cannot be characterised in detail. A semiofficial source (Observatoire, 2000) states, however, that over the last 20 years, alcohol consumption patterns have changed: habitual consumption (wine, beer) has been progressively replaced by excessive consumption to intoxication among adults (hard alcohol). During the mid-1990s (Guilbert *et al.*, 1997), 9 per cent of the population 18 years of age and older had not consumed any alcoholic beverages during the previous 12 months. Lifetime abstinence was above the average (4.5 per cent) among women and Islamic groups. The report does not give explicit figures about women's proportion of alcohol consumption, but it can be estimated from the published reports to be about 30 per cent in that dataset. Among age-groups, consumption is highest among men in the age bracket between 35 and 44 years and among women in younger age-groups. Binge drinking was questioned using a subjective assessment, 15 per cent of the adult respondents reported having been inebriated at least once during the previous 12 months ("So that you think

you had drunk too much”). Binge drinking was far more common among men and young adults than in other groups.

Main studies and reports on drinking patterns since 1950⁵

The classic study by Sadoun *et al.* (1965, with data from 1956 and 1957), was based on a general population interview survey in the adult population on intake of food and beverages during the 24 hours preceding the interview. Among many other things, it showed remarkable regional variation, with stronger interest for beer-drinking in the north and northeast of the country. From the 1960s till the 1980s, official statistical reports provide some information on drinking patterns (e.g., SESI, 1984). In addition, there are regional studies on alcohol consumption that also contain some results on drinking patterns (e.g. Balmés *et al.*, 1989). From the 1990s onwards, national health behaviour surveys contain chapters on alcohol (e.g., SESI, 1996 from 1991/1992; Guilbert *et al.*, 1997, from the 1995/1996 data, the newest data is available from 1999/2000, in the Baromètre santé (2000), published by CFES, Paris). The French 1995/1996 data have also been used in a comparative study on drinking and gender (Bloomfield *et al.*, 1999; see also related articles in the thematic issue of Substance Abuse, vol., 22(1), e.g., Ahlström *et al.*, 2001). Data on French drinking have also been available on various broader international comparative studies, also (e.g. Eurobarometer, 1988, see Hupkens *et al.*, 1993; or Reader’s Digest Eurodata, 1991).

It should also be remembered that in France much of the alcohol-related data have been collected in studies on nutrition, often based on a record of food and beverage intake during the previous 24 hours (as in the study by Sadoun *et al.* (1965); for newer studies on nutrition with data on alcohol, see e.g. Baudier *et al.*, 1995 and Marques-Vidal *et al.*, 2000).

⁵ We wish to thank Philippe Guilbert, CFES, Paris, for providing us with reports from French health barometres.

Indicators of drinking patterns since 1950

Only the short-term trends from the 1990s can be briefly discussed here. Comparable existing studies from the 1990s do not provide any systematic reviews of the changes that may have occurred between the consecutive studies (here, Baromètres du santé 1992/1993 and 1995/1996). Furthermore, it appears that there are problems in comparability also between these basically identical studies. The results below concern the population aged 18 years and more. Some findings from the year 2000 (Guilbert & Baudier, 2000) will be mentioned, too. The published report from that study concern the population between 12 and 75 year, making comparisons with earlier findings difficult.

Abstainers

The prevalence of lifetime abstinence was low in the 1995/1996 study, (1,5 per cent for women and 1.3) per cent for men. The internationally comparable 12-month abstinence rates were, according to Ahlström *et al.* (2001), 4 per cent for men and 13 per cent for women. In 1992, about 85 per cent of men and about 60 per cent of women reported that they had consumed alcoholic beverages during the week preceding the interview. The latest findings from the year 2000 show a twelve-month abstinence rate of 7 per cent for men and 11 per cent for women (age-group 12 to 75 years).

Women's proportion of alcohol consumption

Calculations based on results published from the 1995/1996 study suggest that women drink about 24 per cent of all alcohol consumed. The calculations for the report from the year 2000 show a bit higher proportion in the population between 12 and 75 years of age. No trend information is available.

Proportion of different age-groups in total alcohol consumption

Results from the 1995/1996 study suggest that the level of alcohol consumption is highest among males between 35 and 44 years of age. Among women, those between 18 and 24 years scored higher than other age-groups. Differences between different age-groups were small among males, but significant among females. In the year 2000 young adults (20 to 25 years) consumed the highest daily number of glasses among men. The age gradient was weaker among women.

Proportion of daily drinkers in the adult population

In the Baromètre Santé 1995/1996, 22.6 per cent of the respondents were daily drinkers. This pattern was more pronounced in a central geographic belt ranging from the Mediterranean to the Channel and in the northeast of the country. In the year 2000, 25 per cent of men and 9 per cent of women were daily drinkers. In particular, daily drinking is most common in the oldest age-groups (65–75 years).

Features of drinking contexts

Hardly any context-specific information is available. However, some indirect information can be found in the published results.

Occasions of heavy intake

In 1995/1996, 15 per cent of respondents reported that they had been inebriated at least once during the previous 12 months. Inebriation was more common among the youngest respondents than among the elderly (36 per cent of the respondents between 18 and 29 years of age had been inebriated at least once during the last 12 months, whereas the respective figure was 8 per cent among those over 30 years of age). Compared with other groups, intoxication was relatively more frequent among smokers, in the western, northwestern, central

eastern and Mediterranean regions of the country, and among daily drinkers. Intoxication was also more prevalent among those who reported higher risk-taking and social activity. In the study from the year 2000 (Guilbert & Baudier, 2000), 25 per cent of men between 12 and 75 years of age and 9 per cent of women reported drunkenness at least once year. Again, the highest prevalence were found among young adults (20 to 25 years for males and 15 to 19 years for females).

Occasions during or at work

No information available.

Occasions related to driving

In the 1995/1996 study, 12 per cent of the respondents reported that they had driven a car at least once under the influence of alcohol during the preceding 12 months, 80 per cent of these respondents were men. The mean number of glasses consumed at the latest instance of driving under the influence was about 6 for men and 5 for women. A comparison between the findings from the years 1992/1993 and 1995/1996 shows a significant increase among men (the proportion of those who had driven at least once under the influence had risen from 14 to 19 per cent). The increase was highest among men between 25 and 34 years of age.

Weekly rhythm of drinking

In the study from 2000 (Guilbert & Baudier, 2000), the daily consumption in the weekends was higher than on other days of the week among the 20 to 25 year old. The differences were small or negligible in the older age groups.

Drinking at meals

No information available.

Overall drinking frequency by beverage types

Almost all daily drinkers consume wine (20.7 per cent of all respondents were daily wine-drinkers in 1995/1996, compared with the proportion of all daily drinkers, 22.6 per cent). Daily drinking of wine was below the average in the west, southwest, east and extreme north of the country. Daily drinking of beer was relatively rare, with only 3.3 per cent of the respondents reporting this pattern. It was more prevalent in the northwest and east (and in parts of the Mediterranean region) than elsewhere in the country.

Other remarks

Evidently, our review covers only a small part of the existing data on drinking patterns in France. The data appear to be very scattered among studies on nutrition, health behaviour, patterns of consumption etc. It would be extremely useful if some research team in France could make the effort to effectively compile the existing data, in order to provide the best available description of trends in drinking patterns in the country.

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Germany

Background from other ECAS reports

In Germany, a persistent problem in analysing long-term trends in alcohol policy, alcohol consumption, drinking patterns and alcohol-related problems is the fact that the country was divided into 2 separate entities until 1989. Almost no sources are available to provide a basis for describing and analysing the unified Germany until in the 1990s. Therefore, the ECAS project's analysis of alcohol consumption (Leifman, 2001a, b) and alcohol-related mortality (see the articles in Norström, 2001a) concern the former West Germany only, and the econometric analysis (Leppänen *et al.*, 2001a, b) had to omit Germany altogether due to lack of nationwide data. These introductory remarks here also concern mostly the former West Germany only, representing almost 80 per cent of the present German population. Winter (1991) provides an account of alcohol issues in the former East Germany. For the former West Germany, the consumption figures show a steady increase from fairly low consumption levels in the post-WWII years to a peak of 14 litres per capita (in the population 15 years of age and older), and then a slow decline to the present level of about 12 litres (Leifman, 2001a). The unrecorded consumption is estimated to add 1 additional litre to the figure (Leifman, 2001b). Touristic consumption and tax-free purchases lower the consumption estimates by 3 per cent (Trolldal, 2001). Among the consequences of drinking, liver cirrhosis mortality rates show less fluctuation than does the per capita consumption (Ramstedt, 2001). There is also a significant link in Germany between per capita consumption and most different types of alcohol-related mortality (see Norström, 2001b). Changes in living conditions and economic development in Germany were extremely rapid in the postwar recovery in the 1950s and 1960s, also partly reflected in the trends in alcohol consumption, (see Karlsson & Simpura, 2001a, b). As mentioned above, we have no

econometric demand analysis of Germany in the ECAS study. Finally, Germany has placed on the scale regarding the scope and strictness of alcohol policies, although some extension has occurred since the 1970s (Karlsson & Österberg, 2001; see also the country report on Germany by Kümmler *et al.*, 2001). Today, Germany is among the 4 lowest countries in the EU when it comes to the scope of alcohol policies.

Main findings on trends in drinking patterns since 1950⁶

The earliest extensive nationwide datasets on drinking patterns in Germany come from the 1980s (Kraus & Bauernfeind (1998, 12–13) give a summary of the studies from 1980 to 1997). There are also some earlier, less extensive or regional studies (e.g. Wieser, 1972; Stein, 1985). These findings and later studies suggest that there is wide regional variation in drinking patterns in Germany. There is, however, relatively little basis for analysis of trends in drinking patterns nationwide, and even more so as earlier studies are not technically comparable with later ones. An additional complication arises from the German reunification in 1989, since it has become evident that there are significant differences between former West and East Germany (see Kraus & Bauernfeind, 1998). In 1997, abstinence rates were 10 per cent for men in the West and 6 per cent in the East, and 15 and 8 per cent, respectively, for women. Women's proportion of alcohol consumption was above 25 per cent. The highest annual per capita alcohol consumption levels were met in the age-groups between 30 and 49 years. Results on the shape of the population distribution of alcohol consumption and binge drinking have not been published. In a recent article, Kraus *et al.* (2000) suggest that their findings on the onset of regular alcohol use in different cohorts indicate a narrowing of the gender gap since the 1950s.

⁶ We thank the ECAS contact person in Germany, Dr. Ludwig Kraus from IFT, Munich, for providing basic information on studies about trends in drinking patterns.

Main studies and reports on drinking patterns since 1950

The historical background and regional and cultural variation of drinking in Germany has been described, e.g. by Spode (1993). Fahrenkrug (1989) collected scattered studies on the development in drinking patterns in western Germany in the postwar years. Fahrenkrug also mentions a report by Reuband (1980) on findings from surveys on drinking in the 1960s and 1970s. The small nationwide study reported by Wieser (1972) is a rare example of results from the 1960s (616 respondents, data collected in 1967). Many of the studies on German drinking patterns from the years before the 1990s are local or regional (e.g. Stein (1985) about Saarland; Döring *et al.* (1993) on the city of Augsburg). Since 1990, national questionnaire studies have been conducted at varying intervals (Simon *et al.*, 1990; Herbst *et al.*, 1993, 1996; Kraus & Bauernfeind, 1998; see also Perknings *et al.* a review on findings on alcohol and other substances). A special study was conducted on the eastern 'Neue Bundesländer' in the early 1990s (Kraus *et al.*, 1994). Alcohol-related information has also been collected in general health surveys (e.g., Bellach, 1996). Analysis of trends in drinking patterns has been rare (see Bloomfield 1998 and Döring *et al.*, 1994, for exceptions), and also technically hardly possible due to lack of data from earlier years. Data from Germany have also been used in international comparative studies by Knibbe and Lemmens (1987), Hupkens *et al.* (1993; the Eurobarometer data from 1988), and Bloomfield *et al.* (1999; see also Alhström *et al.*, 2001). Reader's Digest Eurodata (1991) also gives a comparative account on German drinking.

Indicators of drinking patterns since 1950

The earliest results from the 1960s, as reported by Wieser (1973, 144), concluded that 4–5 per cent of the respondents were 'absolute abstainers', 17–22 percent 'conditionally abstinent', 10–15 per cent 'conformist consumers', 50–60 per cent 'openly consuming' and about 5 per cent 'drunkards and alcoholics'. As is evident from the labels of the categories, this typology is hardly comparable with later studies having more technical categorisations. Not very much is to be found in later studies, either, the little that can be said is summarised below:

Abstainers

Fahrenkrug (1989, 79) concludes on the basis of earlier research that the proportion of 'absolute non-drinkers' in the adult population of Germany was about 5–6 per cent. Later studies have used very variable definitions of abstinence, so that it is impossible to make any conclusion on trends. Still, the general impression is that abstinence rates have been low compared with many other EU member states.

Women's proportion of alcohol consumption

The scattered data on drinking by women suggests that women's proportion of alcohol consumption has varied between 25 and 30 per cent from one study to another. Again, it is very difficult to state anything certain about long-term trends.

Proportion of different age-groups in total alcohol consumption

The findings by Kraus and Bauernfeind (1998) from 1997 suggest that per capita alcohol consumption is higher among those over 40 years of age than among younger adults. No trend data are available.

Proportion of daily drinkers in the adult population

Bloomfield (1998) reports that in West German nationwide survey, 16 per cent of respondents between 25 and 69 years of age were daily drinkers. In his analysis from 1990, the proportion was slightly but significantly lower.

Features of drinking contexts

Fahrenkrug (1989) presents earlier findings that point out the importance of drinking when visiting friends and drinking at meals in German drinking patterns. This finding is supported by a comparative qualitative study (Simpura *et al.*, 1990), in which German informants differed from Danes and Finns by their more ritualistic patterns, as against the hedonistic Danes and the heavy-drinking Finns.

Occasions of heavy intake

According to the nationwide study from 1997 (Kraus & Bauernfeind, 1998), 27 per cent of drinking occasions of men and 15 per cent of those of women involved intake of 5 drinks or more. No trend data are available.

Occasions during or at work

No information is available in the general population.

Occasions related to driving

No information is available in the general population.

Weekly rhythm of drinking

Not included in the national surveys on drinking patterns.

Drinking at meals

No information available.

Overall drinking frequency by beverage types

Fahrenkrug (1989) sums up development in earlier decades as following (translation JS & TK): ‘between 1950 and 1990, an increasing number of the citizens of the FRG have drunk alcoholic beverages with increasing frequency and in increasing volumes per occasion. Since the beginning of the 1980s, however, there are clear signs of a turn back, into declining direction’. According to other data quoted by Fahrenkrug (1989, 80), increasing popularity of white and red wine, whisky and sparkling wine were visible all throughout the period from the mid-1950s to the mid-1980s.

Other remarks

None.

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Greece

Background from other ECAS reports

Greece is one of the countries where information on alcohol consumption, drinking patterns, alcohol-related problems and alcohol policies is relatively scarce compared with the other EU member countries and Norway. Until the 1980s, wine was the overwhelmingly dominant beverage, and it still comprises almost half of all alcohol consumption in the country (see Leifman, 2001). The trends of per capita alcohol consumption have been different from those in the other wine-drinking countries in that consumption was on the increase in the 1980s, and the decline that was visible in other wine-drinking countries has not yet begun in Greece. All through the ECAS study period until recently, the per capita alcohol consumption has been lower than in the other wine-drinking countries. In the late 1990s, the recorded alcohol consumption was about 11 litres per capita in the population 15 years of age and older (Leifman, 2001), which is more or less the same as in Italy. Although Greece is a popular site for mass tourism, the estimated recorded alcohol consumption should have diminished only by 0.3 per cent because of touristic consumption and tax-free sales (Trollidal, 2001). Data on alcohol-related mortality in Greece is so scarce that the country was excluded in most of the analyses of the ECAS study (see Norström, 2001). Econometric demand analyses of alcoholic beverages (Leppänen *et al.*, 2001) show a pattern that is similar to the other wine-drinking and wine-producing countries, in which alcoholic beverages are used as commodities of everyday consumption. Finally, findings on the scope of alcohol policies (Karlsson & Österberg, 2001; see also the country report on Greece by Gefou-Madianou *et al.*, 2001 for many other details) show that Greece has only slowly proceeded in introducing alcohol policy measures and is at the moment,

together with Austria, the country with the least extensive alcohol policy in the ECAS countries.

Main findings on trends in drinking patterns since 1950⁷

Given the extremely scarce data on drinking patterns in Greece, nothing very much can be said about trends. Two reports are available on trends in Greek drinking patterns (Kokkevi & Stefanis, 1994; Trends in Alcohol Use, 1999), covering the 1980s and 1990s. The findings show a slight decline in lifetime abstinence rates, but only minor changes in the abstinence rates for the previous 12 months (6.5 per cent in 1994 for men between 12-64 years, 18.3 per cent for women) and in the previous month's abstinence rates. There are no trend data available on the quantities consumed by men and women, or by different age-groups, but the results reported from a survey in 1984 suggest that women drink about one third of all alcohol (as calculated from Table 1 in Madianos *et al.*, 1995), and that per capita alcohol consumption would be highest in the age-group between 25 and 44 years of age. Later results from 1994 on the prevalence of very frequent alcohol use show that prevalence was highest in the age-group 36 years or older.

Main studies and reports on drinking patterns since 1950

In addition to the 2 trend reports mentioned above (Kokkevi & Stefanis, 1994; Trends in Alcohol Use, 1999), an article on findings from the 1984 general population survey (Madianos *et al.*, 1995) provides a brief review on earlier studies of drinking patterns. According to this review, there are general population studies on adult drinking patterns from the years 1966 (Athens and Thessaloniki; see Vassiliou *et al.*, 1968), 1978 (nationwide; see Madianos & Zarnari, 1988), and later from 1984 (see Gefou-Madinou *et al.*, 1992) and 1994

⁷ We thank our ECAS contact person in Greece, Dr. Dimitra Gefou-Madianou from Panteion University, Athens, for compiling findings from Greek studies on drinking patterns.

(reported in Kokkevi & Stefanis, 1994). A recent study by San José *et al.* (2001) provides some indicators for drinking patterns in the population 20 to 63 years of age in the late 1990s, based on data from a study on cancer and nutrition. Greek data are also included in the international comparative materials presented by Hupkens *et al.* (1993; the Eurobarometer data from 1988) and Reader's Digest Eurodata (1991).

Indicators of drinking patterns since 1950

Since only comparative results are easily accessible from only 2 nation-wide surveys (1984 and 1994), remarks on indicators of drinking patterns remain very scarce. The findings refer to the general population between 12 and 64 years of age, if not specified otherwise.

Abstainers

Lifetime abstinence rates were relatively unchanged in the 1980s and 1990s (around 3 per cent for men and around 8 per cent for women), showing perhaps a slight decrease. The internationally most comparative indicator of abstinence during the 12 months before the survey shows an equally unchanged rate for men (around 6.5 per cent), but an increase among women (15.6 per cent in 1984, 18.3 per cent in 1994). In the study from the late 1990s (San José *et al.*, 2001), the definition of abstinence was not given, but abstinence rates were below 10 per cent among men and between 20 and 44 per cent among women in different age-groups. Higher-than-average abstinence rates (with respect to the gender means) were met among the elderly (60 years of age or more), those with lower education, single and widowed men and widowed women. Divorced women, on the other hand, had lower than average abstinence rates. Abstinence was more common outside the capital region than in Athens.

Women's proportion of alcohol consumption

As stated above, women's proportion of alcohol consumption can be roughly calculated from the results published on the 1984 nationwide survey. These calculations give an approximate proportion of one third of aggregate alcohol consumption for women.

Proportion of different age-groups in total alcohol consumption

The highest prevalence and highest estimated weekly alcohol consumption in the 1984 survey were found among males between 25 and 44 years of age, but the differences between this group and those over 64 years were very small. Adolescents below 18 years of age drank much lower amounts than adults.

Proportion of daily drinkers in the adult population

In the Greek drinking pattern surveys, the category 'very frequent alcohol use during the last month' refers to drinkers who have consumed alcohol at least 20 times during the previous month. In all 28 per cent of men and 6.5 per cent of women belonged to this category in 1994. The prevalence of frequent drinking had remained unchanged among men from 1984 to 1994, and showed a slight decline among women in the same period.

Features of drinking contexts

Occasions of heavy intake

Binge drinking (5 or more drinks in 1 session during the previous month) showed the following trends between 1984 and 1994:

Table GRE 1. Prevalence of binge drinking (5 or more drinks in 1 session during the previous month) in Greece, 1984 and 1994 (% of all men/ all women, 12–64 years of age)

	<i>Men</i>		<i>Women</i>	
	<i>1984</i>	<i>1994</i>	<i>1984</i>	<i>1994</i>
(Never)	(61.7)	(68.3)	(92.7)	(91.3)
Once or twice	19.8	16.9	4.6	6.7
3+ times	18.5	14.8	2.7	2.0

The figures show a decrease in the prevalence of binge drinking among men, but a slight increase among women.

The prevalence of heavy drinking was studied separately by San José *et al.* (2001). They found that heavy drinking (more than 3 glasses/day) was far more common among men than among women, more common among younger adult males than elderly men, among single and divorced males than among other men and more common among men outside Athens than in the capital region. Heavy drinking was also more common among those who consumed alcoholic beverages other than wine.

Occasions during or at work

In a study conducted in the early 1990s (Gefou-Madianou, 1993) it was found that alcohol consumption in workplaces is a relatively common habit mainly for the male population. It has been customary for many decades that certain male occupational groups, such as construction workers, consume alcohol during work breaks. In 1999, the Ministry of Work introduced information programmes to workplaces covering drinking at work.

Occasions related to driving

Again, survey data on this issue are nonexistent. On the general level, there is an increase in the prevalence of drunken driving. A strong cultural norm supports the view that driving after 4 drinks or so is 'natural' behaviour for men.

Weekly rhythm of drinking

No data available.

Drinking at meals

According to the ECAS contact person in Greece, it was still in the 1950s and 1960s customary in rural agricultural areas to drink wine as an essential part of breakfast in the morning. This habit disappeared in the 1970s. Drinking beer at meals was almost nonexistent in the 1950s, but has slowly become more common. However, the real beverage at meals, and at dinners in particular, has always been wine. In the 1980s and 1990s, drinking spirits at dinner has also become more common. Typical amounts of beer consumption at meals seem to have remained relatively unchanged over the decades, wine consumption has decreased and drinking spirits has increased both among men and women.

Overall drinking frequency by beverage type

The ECAS contact person in Greece estimates that in the 1990s, typical (average) drinking frequencies among men would have been 8 times per week for beer, 10 times per week for wine, and 8 times per week for spirits, making the overall drinking frequency about 13 times per week. The respective estimates for women would have been 3, 3, 5 and 5 times per week. From the 1980s to the 1990s, drinking frequencies among men have decreased, except for spirits. Among women, the frequencies have remained unchanged, except for the increase in frequency of spirits drinking.

Other remarks

None.

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N.B.: The references marked with an asterisk () contain original data on drinking patterns in Greece.*

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Ireland

Background from other ECAS reports

Ireland is the most typical beer-drinking country in the EU today, if one looks at beverage preferences and not per capita consumption (see Leifman, 2001a, 22). About two thirds of all alcohol consumed in Ireland is beer. The proportion of beer has slowly declined ever since the 1950s. At the same time, per capita alcohol consumption has risen rapidly from a level of less than 5 litres per capita (in the population 15 years of age or more) in the 1950s to the present level of about 13 litres (Leifman, 2001b, 65). It is worth noting that different sources give different estimates on the development of recorded alcohol consumption in Ireland, due to changes in practices of the statistical recording of beer consumption in 1987 (see Hope *et al.*, 2001, for further discussion). Adding to the above-mentioned ECAS estimates the estimated 1 litre of unrecorded consumption, the present consumption (almost 14 litres per capita in the population 15 years of age or more) is one of the highest in the EU countries, second only to Portugal and France and similar to Denmark. Estimated consumption abroad and tax-free purchases add another 4 per cent to the per capita consumption (Trollidal, 2001). In Ireland, as in many other countries, increasing per capita consumption of alcohol has led to increasing alcohol-related mortality in many causes of death (see Norström, 2001a, b). Analysis of the effect of economic factors on alcohol consumption in Ireland showed no national peculiarities. The Irish estimates for price and expenditure elasticities are not very different from averages among the ECAS countries (Leppänen *et al.*, 2001a, b). Modernisation has also proceeded in Ireland in a fashion resembling the European averages (Karlsson & Simpura, 2001a, b). In the extent and scope of alcohol policies, Ireland has been slightly above the EU average all throughout the ECAS study period. Thus, a slow extension of alcohol policy

practices has occurred in the country (Karlsson & Österberg, 2001; for more detail, see the country report by Hope *et al.*, 2001).

Main findings on trends in drinking patterns since 1950⁸

There are no summaries for drinking pattern surveys in Ireland, since there are almost no surveys available from earlier decades. A study from 1980 (O'Connor & Daly, 1985) shows an abstinence rate of 24 per cent (men 17 per cent, women 31 per cent, population 18 years of age and older). Trends in drinking patterns have, however, been vividly described in more qualitative fashion by Crowley (1999) and earlier by Walsh & Walsh (1981). The former report describes the Ireland of the 1950s as a traditional agricultural society with high abstinence rates or at least with widespread membership in temperance organisations. Pubs were major arenas for male sociability, market days were important drinking events and the weekend binge was a highlight of working-class life. With economic expansion and commercialisation of leisure in the 1960s, a new turn in the drinking pattern took place. As an indication thereof, membership in the leading temperance organisation declined in the late 1960s. In the 1970s, a rise in youth culture with increasing drinking came to Ireland, and alcohol consumption increased continuously. The last 2 decades of the 20th century witnessed, among other things, increasing drinking among women and the opening of pubs also for female drinkers. Cassidy (1997) reported some findings on Irish drinking patterns from a Eurobarometer dataset from 1992, also covering other EU member countries of that time. Unfortunately, the results are not technically comparable with the mainstream of data from other countries.

⁸ We thank the ECAS contact person in Ireland, Ann Hope from Health Promotion Unit, Department of Health and Children, Dublin, Ireland, for compilation of materials from Irish surveys on drinking patterns.

Main studies and reports on drinking patterns since 1950

Published survey reports with some data on drinking patterns are available from 1980 onwards. O'Connor & Daly (1984) reported findings on alcohol in a survey on smoking, with data collected in 1980. The Irish Heart Foundation (1994; data from 1992), a national survey of involvement in sport and physical activity (1996; data from 1994) and SLÁN (1999; data from 1998) all add to the body of knowledge about Irish drinking patterns. Sample sizes and the age brackets are given in Table IRE 1 below. For the sake of curiosity, it is worth mentioning that Irish drinking patterns have been compared with those of Irish in England and the general population of England and Wales (Harrison *et al.*, 1993). At least one study also exists on drinking patterns in Northern Ireland (Harbison & Haire, 1982). Irish data are included in the comparative sources reported by Hupkens *et al.* (1993; the Eurobarometer data from 1988) and Reader's Digest Eurodata (1991).

Indicators of drinking patterns since 1950

No systematic data collection nor any systematic reviews are available on Irish drinking patterns, except for the reports by Walsh (1980), Walsh & Walsh (1981) and later by Crowley (1999). The ECAS contact person in Ireland, Ms. Ann Hope from the Health Promotion Unit, Dublin, compiled summary tables (see Tables IRE 1 to IRE 5 below), giving a full record of the available information on trends in drinking patterns since 1980. The tables are also an example of the difficulties that may arise in fitting together data from studies that are almost, but not exactly, comparable within one country. We shall only briefly comment the findings in the text below.

Table IRE 1. Irish drinking patterns surveys since 1980

Year of data collection	1980	1992	1994	1998
Name of the study	The Smoking Habit SMO	Irish Heart Foundation IHF	Sports & Physical activity S&PA	SLÁN (Survey of lifestyle, attitudes and nutrition)
Report and year (see the list of references)	O'Connor and Daly (1985)	Irish Heart Foundation (1994)	A National survey ..., (1996)	SLÁN (1999)
Sample size	2 724	1 798	1 300	6 539
Age group	18+	30–69	16–75	18+

Abstainers

Walsh (1980) has reported very high abstinence rates in 1968 (52 per cent) and in 1974 (43 per cent). It is unknown what the definition of abstinence was. Other data in Table IRE 2 show much lower rates, but the rates are still relatively high in international comparison. A declining trend is visible. Highest abstinence rates have been reported among elderly respondents.

Table IRE 2. Abstinence rates according to the Irish drinking pattern surveys

<i>Year</i>	<i>1980</i>	<i>1992</i>	<i>1994</i>	<i>1998</i>
Name of the study	SMO	IHF	S&PA	SLÀN
Abstainers				
% of respondents:				
Total	24	26	28	13
Men	17	20	26	9
Women	31	32	31	16
Comments	Ages 18+	Ages 30–69	Ages 16–75	Ages 18+
	Highest abstinence rates in age-groups 18–24 years and 65+ years	Highest abstinence rates in age-groups 50 to 69 years	Very high abstinence rate in the youngest age-group (16–18 years)	Highest abstinence rate in the age-group 55+ years, lowest in the age-group 18–34 years

Women's proportion of alcohol consumption

The data compiled from Ireland do not allow an estimation of the proportion of women in aggregate alcohol consumption. Other findings suggest that the difference between men and women is as large in Ireland as in most other countries.

Proportion of different-age groups in total alcohol consumption

Various findings in Table IRE 3 show that drinking is most prevalent and the volumes highest in the age groups from about 30 to 40 years of age.

Table IRE 3. Proportion of different-age groups in total alcohol consumption according to Irish drinking pattern surveys

<i>Year</i>	<i>1980</i>		<i>1992</i>		<i>1994</i>		<i>1998</i>	
Name of the study	SMO		IHF		S&PA		SLÀN	
Notes							Drinkers: those who drank previous month	
Men	Age	%	Age	%			Age	%
	18–24	81					18–34	90
	25–34	86	30–49	86			35–54	83
	35–44	83	50–69	72			55+	65
	45–54	83						
	55–64	84						
	65+	80						
Women	18–24	67					18–34	85
	25–34	82					35–54	75
	35–44	78					55+	43
	45–54	67						
	55–64	67						
	65+	53						
Men & Women					16–18	3		
					18–24	83		
					25–34	85		
					35–44	80		
					45–54	73		
					55–64	66		
					65–75	57		

Proportion of daily drinkers in the adult population

In 1996, 3 per cent of men and hardly any women in the age-group between 16 and 75 years of age reported daily drinking (see Table IRE 4).

Table IRE 4. Drinking frequency for men and women according to Irish drinking habit surveys (in per cent)

<i>Year</i>	<i>1994</i>		<i>1998</i>							
Name of the study	S&PA		SLÁN							
	<i>Men</i>	<i>Women</i>	<i>Men/ages</i>				<i>Women/ages</i>			
Every day	3	0	F	18–34	35–54	55+	F	18–34	35–54	55+
More than once a week	31	14	1–2	59	57	57	1–2	71	68	51
Once a week	26	27	3–4	35	28	30	3–4	25	23	23
2–3 times a month	6	8	5+	5	15	14	5+	4	9	26
Once a month	3	7	F: Number of drinking days per week							
Less often	4	12								
Note	Age: 30–69 years									

Features of drinking contexts

No information is available. However, it is worth noting that occasions of heavy intake (7 units or more for men, 5 units or more for women) were certainly not uncommon in the 1998 study (results provided by the ECAS contact person in Ireland). In the comparative study by Harrison et al. (1993), the authors conclude that men in Ireland were more likely to drink at high-risk levels than men in England and Wales.

Other remarks

Prevalence of heavy drinking, as estimated in the proportions of those who exceed the safe limits (in Ireland, 21 units per week for men and 14 units for women) has varied remarkably between the different studies (Table IRE 5). It is impossible to say anything about the trends here.

Table IRE 5. Prevalence of heavy drinking according to Irish drinking habit surveys

<i>Year</i>	<i>1980</i>	<i>1992</i>	<i>1994</i>	<i>1998</i>
Name of the study	SMO	IHF	S&PA	SLÁN
Definition of heavy drinking (weekly intake)	Men: over 50 units Women: over 35 units	Men: over 21 units Women: over 14 units	Men & women: over 10 units	Men: over 21 units Women: over 14 units
Total	6	10	9	
Men	11	17	17	27
Women	1	4	2	21
Note	18+	30–69	16–75	18+

References

N.B.: The references marked with an asterisk () contain original survey data on drinking patterns in Ireland.*

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Italy

Background from other ECAS reports

Italy is included in the group of Mediterranean wine-drinking countries where wine is still today the overwhelmingly dominant beverage. During the 1990s, more than three quarters of all Italian alcohol consumption still consisted of wine, although its proportion has been in constant decline (see Leifman, 2001a; Osservatorio, 2001). The per capita alcohol consumption in Italy began to decline in the mid-1970s. In the late 1990s, the per capita figure for Italy was a little above 9 litres (in the population 15 years of age and more), being only slightly higher than the consumption level in the Nordic, former spirits-drinking country Finland, and lower than in all other wine-drinking countries of Southern Europe and all beer-drinking countries of central Europe (Osservatorio, 2001; Leifman, 2001b), which suggests that unrecorded consumption would add about 1.5 litres to the figure. Liver cirrhosis mortality in Italy has been lower than in France and Portugal, but higher than in Spain (Ramstedt, 2001). In Italy, as in most other countries, the trends in prevalence of alcohol-related mortality follow the development of alcohol consumption (see Norström, 2001a, b). In econometric analyses, Italy shows a very low price elasticity, as do most other wine-producing countries (Leppänen *et al.*, 2001a, b). The extent of formal alcohol policy measures has increased in Italy since the late 1980s, the present extent being close to EU averages (Karlsson & Österberg, 2001; for more detail, see the country report by Allamani *et al.*, 2001).

Main findings on trends in drinking patterns since 1950⁹

Most recently, trends in Italian drinking patterns have been discussed in a report presenting findings from nationwide surveys in the 1990s (Osservatorio, 1998). The reports on Italy for the ECAS study mention among other things that there is a notable decrease in drinking wine at lunchtime. As for the presentday situation in Italy (Osservatorio, 2001), there were 12 per cent non-drinkers among adult men and 27 per cent among adult women (3-month abstinence). The women's proportion of alcohol consumption is increasing (non drinkers among women were 30 per cent in 1997). Among the age-groups, highest intake was met among those between 45 and 54 years of age. Binge drinking is rare indeed, with only 2 per cent of the population (14 years of age and older) reporting at least 2 episodes of drunkenness (objective measure) during the previous 3 months (Osservatorio, 2001).

Main studies and reports on drinking patterns since 1950

A number of studies provide information on the volume of consumption of wine, the most important ones being the Food Balance Sheets and the Household Consumption Surveys of the National Institute of Statistics (ISTAT). The ISTAT also conducts national health surveys and annual surveys on lifestyle aspects, containing at least occasional information on alcohol consumption (see ISTAT, 1999). National studies on nutrition by INN (National Institute of Nutrition) also provide some alcohol-related data. The main sources on the trends in drinking patterns consist of general population surveys among the adult population (14 years of age and older), conducted by the Permanent Observatory of Youth and Alcohol, since 1991 at 3-year intervals (see Osservatorio, 1998). A number of ad hoc surveys, alcohol-related data from surveys planned for

⁹ We thank the ECAS contact persons in Italy, Dr. Allaman Allamani from Centro Alcológico Integrato Policlinico di Careggi, Florence and Dr. Daniele Rossi from the Permanent Observatory on Youth & Alcohol, Rome, and their colleagues, for providing detailed information on studies on Italian drinking patterns. Also thanks to Dr. Emanuele Scafato from Laboratorio di Epidemiologia e Biostatistica, Istituto Superiore di Sanità, Rome for providing additional information.

other purposes and numerous marketing surveys can be added to the potential database (see Cipriani & Innocenti, 1993). Importantly, however, very little survey data on drinking patterns are available before the 1990s on a national level, but a number of regional surveys have already been available since the 1980s (see e.g. for Tuscany, Allamani *et al.*, 1988; 1995 and the detailed study on the Latium region by Scafato *et al.*, 1999). Regional studies can hardly be used to consider national trends in Italy, since nationwide surveys show a significant regional variation, in particular a strong north-south gradient. From earlier decades, the classic study of Lolli *et al.*, 1958 is often mentioned. Even that work should be taken with caution, because it was based on a very small sample of Italians (247 respondents). The last survey by the *Osservatorio Permanente sui Giovani e Alcohol* concerned a national sample of 8 214 respondents, allowing comparative analysis on a regional basis. The findings may confirm a strong attitude towards self-regulation of responsible consumption especially in those regions where alcohol consumption is closely related to social behaviour and cultural tradition (Osservatorio, 2001). Italian data have also been used in comparative studies reported by Hupkens *et al.*, 1993; Reader's Digest Eurodata 1991; Bloomfield *et al.*, 1999 and Ahlström *et al.*, 2001.

Indicators of drinking patterns since 1950

Abstainers

The scattered information from earlier decades, collected by the ECAS contact persons in Italy, suggest that abstinence rates may have been in very slow decline throughout the 50 years covered by the ECAS study. The latest findings from 1990 indicate abstinence rates of over 20 per cent (no alcohol consumption in the 12 months before the study). As for the age-groups, abstinence rates were highest among the youngest (15–17 years) and the oldest (over 64 years), with little variation in the age-groups in between.

Women's proportion of alcohol consumption

The women's proportion of alcohol consumption may have been increasing throughout the 50 years covered by the ECAS study. The latest figures from the 1990s show a share of about 20 per cent in the 12 months before the study and 27 per cent in the final 3. The trend in alcohol consumption among Italian women is characterised by the growth of moderate consumers (especially among young women 14–35 years of age Osservatorio, 2001).

Proportion of different age-groups in total alcohol consumption

The compiled data on Italian surveys from different decades suggests that among men, the per capita alcohol consumption has systematically been highest in the age-group between 45 and 54 years in which the alcohol consumption (especially wine) is related with meals. Those between 35 and 44 years of age, as well as those over 54 years, have always consumed more than those below 35 years. Thus, despite the smooth increase in drinkers among people 35–44 years of age, no major changes in the age structure of alcohol consumption could be detected. Among women, the age gradient has been less emphasised, but even there, those between 35 and 60 years of age drink more than the younger groups.

Proportion of daily drinkers in the adult population

The existing data suggest that daily drinking has been a widespread practice in Italy and shows no signs of decline. In the populations over 35 years of age, about 60–70 per cent of men and about 30–40 per cent of women have been daily drinkers. Among women over 35 years, there is an increasing trend in the proportion of daily drinkers. Daily drinking has always been much less common among those under 35 years of age, but an increasing trend is also visible in that age-group.

Features of drinking contexts

Occasions of heavy intake

Again, the data compiled by the ECAS contact persons in Italy suggest no major changes in the proportion of occasions of heavy intake. In general, it appears that consuming more than 5 drinks (glasses of wine, etc.) at one session or occasion has never been common practice in Italy. According to the 2001 survey carried out by the Osservatorio (2001), 10.3 per cent of men and 0.9 per cent of women consumed more than 4 drinks at one 'normal' session.

Occasions during or at work

The very thin data basis available on this issue suggests that the practice of drinking alcoholic beverages during or at work may have been in decline all throughout the ECAS study period.

Occasions related to driving

The ECAS contact person in Italy strongly emphasised that driving after 4 drinks has never been a culturally accepted pattern in Italy. In all 7.3 per cent of male drinkers (nonabstainers) and 1.5 per cent of women reported in 2001 that they believe they drove more than once during the previous 3 months after having imbibed too much. Again, there is some indication of a declining trend in the prevalence of this risky behaviour (Osservatorio, 2001).

Weekly rhythm of drinking

It is a common belief that alcohol consumption is more evenly distributed over the week in the wine-drinking countries than in the other countries. The Italian data on drinking patterns suggests that in the 1990s, the weekly alcohol consumption peaked on Saturdays and Fridays, Monday to Thursday being the days of lower alcohol consumption. The differences between the weekdays are small (e.g. Saturday 19 per cent of total weekly consumption, Monday 11 per

cent). In the long historical perspective, a small shift from Sunday to Saturday as the peak of weekly drinking seems to have occurred, possibly as a consequence of the introduction of the 5-day weekly working schedule.

Drinking at meals

Drinking a glass of wine with working-day lunch and 1 or 2 glasses at working-day dinner, has been a common practice in Italy. Beer has not been completely unknown as a beverage at meals, either. According to estimation of the ECAS contact persons in Italy, there may have been a tendency towards slightly declining amounts of alcoholic beverages consumed at meals.

Other remarks

None.

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The Netherlands

Background from other ECAS reports

The development of alcohol consumption and drinking patterns in the Netherlands since 1950 has some similarities with Germany and the Nordic countries. In a manner similar to Germany, the Netherlands showed very low alcohol consumption in the 1950s, a continuous increase till the mid-1970s and thereafter a slight decline (Leifman, 2001a). As in the Nordic countries, the Netherlands had strong temperance traditions that slowly weakened throughout the ECAS study period. Another similarity with Northern Europe was that in the Netherlands, distilled spirits were the dominant beverage type in the 1950s (Leifman, 2001a). Today, the country has a consumption level that is close to those of Italy and Finland, i.e. close to the bottom end ranking of the EU member countries and Norway. The estimated figure, including unrecorded consumption, was 10.5 litres per capita in the population 15 years of age and more (Leifman, 2001b). The effects of tourism and tax-free purchases add about 6 per cent to this estimate (Trollidal, 2001). Beverage preferences have also changed, so that beer is today the dominant beverage in the country. The link between fluctuations of per capita alcohol consumption and alcohol-related mortality is equally as strong in the Netherlands as in most other countries, but of course with some modifications (see Norström, 2001a, b). In the econometric demand analysis of the ECAS project (Leppänen *et al.*, 2001a, b), the Netherlands was a slightly deviating case. The price elasticities for the Netherlands were high compared with the rest of the EU member countries and Norway, where a common elasticity could be estimated. However, the authors of the econometric analysis do not want to go too far in their conclusions about the deviant nature of the Dutch elasticities, because their further analysis of the country showed that the estimates were not sufficiently robust for the Netherlands. Modernisation of living

conditions proceeded rapidly in the country, particularly in the 1960s (Karlsson & Simpura, 2001a, b). In alcohol policies, the Netherlands has been on the middle or lower-middle level in the ECAS study period, when it comes to the extent and scope of policy measures (Karlsson & Österberg, 2001a; see also the country report by Karlsson & Österberg, 2001b).

Main findings on trends in drinking patterns since 1950¹⁰

The longest existing series of national drinking habit surveys is available in the Netherlands, ranging from 1958 through 1970 till the 1980s and onwards (see van Reek *et al.*, 1983; Neve *et al.*, 1993, 1996). The findings suggest that abstinence rates among women were higher in the 1960s and 1970s than in the 1950s and also in the 1980s. In the 1990s, abstinence rates have stabilised, being about 12 per cent among men (16 years of age and older) and 27 per cent among women. The proportion of women in total alcohol consumption declined from the 1950s to the 1970s, to recover back to levels of 30 per cent or more in the 1980s. As for the age, the data on men show relatively little association between age and alcohol consumption except for the 1970s, when young adult males drank more than other age-groups. Among women, a stronger interaction was found between age and alcohol consumption, so that young women had high alcohol consumption in the 1970s, but not longer in the 1980s. This finding suggests the presence of a cohort effect. Data on the prevalence of binge drinking (the frequency of consuming 5 or more drinks per occasion) showed a rapid increase in the 1960s and 1970s that continued till the 1980s. No data on the national level are available from the 1990s.

¹⁰ We thank our ECAS contact person in the Netherlands, Dike van de Mheen, and her colleague Regina van den Eijnden, both at IVO Addiction Research Institute, Rotterdam, for compilation of findings from Dutch drinking pattern surveys.

Main studies and reports on drinking patterns since 1950

The Netherlands have a rich tradition of studies on drinking patterns, starting already in the 1950s with the classic study by Gadourek (1963, with data from 1958). Long-term trends in drinking patterns have also been analysed and described in several reports (van Reek *et al.*, 1983; Neve *et al.*, 1993, 1996; Smit *et al.*, no year given; Toet *et al.*, 1998). Dutch data have also been included in several international comparisons (e.g. Knibbe & Lemmens 1987; Reader's Digest Eurodata, 1991; Hupkens *et al.* 1993; Bloomfield *et al.* 1999; Ahlström *et al.*, 2001). The above-mentioned study by Gadourek (1963) is the only source from the 1950s. No special studies were available from the 1960s, but from the 1970s onwards, the number of nationwide studies has increased steadily (1970s: Jessen, 1974; Sijlbing, 1978; 1980s: Adriaanse *et al.*, 1981; 1990s; Swinkels, 1991; Knibbe & Swinkels, 1992; Swinkels & Neve, 1998). Much of the data about drinking patterns in the Netherlands have been collected in general health surveys on the national level (e.g. Knibbe & Swinkels, 1992; Frenken, 1993; van Baal, 1996) and regional level (Garretsen, 1983, van Baal, 1997; Bongers, 1998; Toet *et al.*, 1998; San Jose *et al.*, 2000), or in special groups (San Jose *et al.*, 1999). General reviews on trends and prospects in the development of drinking patterns are also available (e.g. de Zwart, 1998; Smit *et al.*, no year given; Hajema *et al.* (1997) provide a 9-year follow-up study). Special studies have been conducted on drunk driving (Mathijssen, 1998), and drinking and work (Grundemann, 1988).

Indicators of drinking patterns since 1950

The Dutch studies on long-term trends in drinking patterns (in particular, Neve *et al.*, 1993, 1998) are probably the most thorough-going analyses on this subject in the world. They use advanced methodological approaches and discuss at length the technical problems that may occur in using slightly different studies in trend analyses.

Abstainers

The Dutch contact persons of the ECAS project prepared the following compilation of studies from the different decades:

Table NED 1. Abstainers in studies on drinking patterns among the adult population in the Netherlands, 1950s to 1990s

<i>Year</i>	<i>Study/studies</i>	<i>Abstainers % of men</i>	<i>Abstainers % of women</i>	<i>Age bracket</i>
1958	Gadourek, 1963	11.6	25.8	21 to 70
1970	Jessen, 1974	13.7	31.3	21 to 70
1981, 1989 combined	Adriaanse et al., 1981; Swinkels, 1991	11.4	26.4	21 to 70
1990-1996 combined	Annual health interview surveys	12.0	27.0	16 and older

The definition of abstinence in studies conducted before the 1990s was more or less similar; 'no drinking of alcohol'. The annual health interview surveys from the 1990s use another definition, referring to no drinking within the 6 months before the interview. In earlier studies, no time limit was indicated. In a long-term trend analysis (Van Reek *et al.*, 1983), it was confirmed that the abstinence rates were higher in the 1960s/1970s, than earlier, particularly among women.

Women's proportion of alcohol consumption

Estimates on the proportion of women in total alcohol consumption have been presented for the 1950s, 1960s/1970s and 1980s by Neve *et al.* (1993). The respective proportion were 30.2 (in 1958; Gadourek, 1963), 27 (in 1970; Jessen, 1974) and 32 per cent (1981 and 1989; Adriaanse *et al.*, 1981; Swinkels, 1991). These figures show no clear trend. However, an analysis of the convergence of male-female differences in alcohol consumption (Neve *et al.*, 1996) concluded that a convergence appeared in the 1980s. The convergence seemed to be related to a decrease in consumption among men with higher education, and an increase in alcohol consumption among women over 40 years of age.

Proportion of different age-groups in total alcohol consumption

Again, differences between age-groups have been studied in the trend analysis by Neve *et al.* (1993), using the 4 studies before the 1990s, as indicated in Table NED 1 above. The comparison of age-groups showed little association between age and mean consumption for men, and also for women except for the year 1970. In that year, among women a statistically significant negative association was found, with decreasing alcohol consumption in older age-groups.

Proportion of daily drinkers in the adult population

Almost no data exist on this aspect of drinking patterns. Only a study conducted among the working population in the 1980s (Grundemann, 1988) gives an explicit estimate. About 19 per cent of the respondents of that study had consumed alcoholic beverages daily in the week before the interview.

Features of drinking contexts

Occasions of heavy intake

No systematic long-term data exist on the proportion of occasions with an intake of 5 or more standard drinks. As an alternative indicator, the Dutch studies in Table NED 1 (reported by Neve *et al.*, 1993) provide information on the proportion of heavy drinkers (for men, those drinking 21 units or more per week; for women, those drinking 14 units or more per week). The following table was compiled by Neve *et al.* (1993):

Table NED 2. Proportion of heavy drinkers among men and women in the Netherlands (percentage of men/women in each age-group: for information on studies, see Table NED1 above)

Year	Men (% drinking 21 units of more per week)					Women (% drinking 14 units ore more per week)				
	21-30	31-40	41-50	51-60	61-70	21-30	31-40	41-50	51-60	61-70
1958	4.4	1.7	2.3	2.4	0.0	0.8	0.9	2.0	2.4	0.0
1970	17.7	13.4	10.6	8.8	7.2	7.3	7.0	5.7	4.0	3.5
1980s	20.5	17.2	23.5	12.1	11.5	8.9	10.9	15.0	11.0	9.0

The results show a steadily increasing proportion of heavy drinkers in the population. This increase resembles that of per capita alcohol consumption. No systematic age or cohort effects were observed in an age-period-cohort analysis by Neve *et al.* (1993). Respective comparable data are not available from the 1990s.

Occasions during or at work

In the study by Grundemann (1988) from the 1980s, about 36 per cent of the respondents (all from the working population) reported having used alcohol during or at work at least once in their lifetime, 6 per cent reported use at work at least one day during the previous week and 0.6 per cent had imbibed at work each day during the previous week. The author estimated that about 3 per cent of all alcohol in the Netherlands was consumed during or at work. Moreover, it was estimated that some 10–30 per cent of all accidents at work were alcohol-related.

Occasions related to driving

Statistical information on drunken driving comes from police statistics and reflects not only changes in patterns of drinking and driving but also, and perhaps more importantly, fluctuations in policy enforcement (see Mathijssen, 1999). The main risk groups are male drivers 35 to 49 years of age, motorists coming from a pub, restaurant or disco, and motorists in the densely populated western provinces.

Weekly rhythm of drinking

No nationwide data are available on trends in the weekly rhythm among the adult population.

Drinking at meals

No direct information is available. The Eurobarometer data from 1988 (Hupkens *et al.*, 1993) shows that most of the beer drinking in the Netherlands is related to occasions outside meals, whereas more than half of all wine-drinking occurs at meals.

Overall drinking frequency by beverage type

No long-term data available.

Other remarks

None.

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N.B.: The references marked with an asterisk () contain original data from Dutch studies on drinking patterns.*

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Norway

Background from other ECAS reports

Since the late 1960s, Norway has been the country with the lowest officially recorded alcohol consumption per capita among the 15 ECAS countries (the EU member countries, Luxembourg excluded, and Norway). In the 1950s, the Netherlands, and until 1969, Finland, had slightly lower consumption figures. But an increasing trend towards alcohol consumption has also been visible in Norway throughout the 50-year study period, although less dramatically than in many other countries (Leifman, 2001a). Today, beer is the most important beverage category, while distilled spirits were dominant in the 1950s and 1960s. In Norway, a substantial part of alcohol consumption has come from unrecorded sources, raising the per capita level of today from the official 5 litres or more to about 7 litres (Leifman, 2001b). In Norway, the proportional effect of consumption on journeys abroad and of tax-free purchases on per capita consumption is larger than in any other ECAS country (over 11 per cent; Trollidal, 2001). This is related to the very high alcohol prices in Norway. Still, Norway stays clearly behind the next lowest country (Sweden) in consumption statistics. In time-series analyses on the link between recorded alcohol consumption and alcohol-related mortality, Norway shows statistically significant effects in the majority of causes of death, although not in all (Norström, 2001a, b). In the econometric demand analyses of the ECAS project, Norway shows a small peculiarity in that price elasticities have been below the value of -1. This means that the effect of a change in prices on recorded alcohol consumption has been larger than the price change itself (Leppänen *et al.*, 2001a, b). Changes in living conditions have been very rapid in Norway, which has turned from a relatively poor rural country into a modern urban and rich society in 2 generations (see Karlsson & Simpura, 2001). When it comes to alcohol policy, Norway has always

been among the 3 strictest of the ECAS countries, the other 2 being Finland and Sweden (see also the country report by Karlsson & Österberg, 2001a). Today, Norway has the highest score on the scale for the extent and scope of alcohol policies among the ECAS countries.

Main findings on trends in drinking patterns since 1950¹¹

In all studies that are available on drinking patterns, Norway shows features typical of a low-consumption country: high abstinence rates and low frequencies and volumes of consumption among drinkers (see below for sources). The abstinence rates were high in the 1950s (32 per cent of the adult population in 1956), but show a continuous although slow decline since the mid-1960s. The women's proportion of alcohol consumption has increased from 22 per cent in 1973 to 30 per cent in 1994. The highest alcohol consumption has been in the age-group between 20 and 30 years of age or even younger since the 1970s. Daily drinking is very uncommon. In 1995, 2.3 per cent of men and 0.9 per cent of women drank 4–7 times per week. Information on binge drinking is available from a national health survey from 1985, when 26 per cent of men's and 15 per cent of women's drinking occasions showed consumption of 5 drinks or more. In 1996, the annual frequency of drinking 6 drinks or more per occasion was in Norway 8.8 for men and 2.9 for women (Mäkelä 1999, 40).

Main studies and reports on drinking patterns since 1950

Norway takes pride in having the oldest study in the world on alcohol consumption, drinking patterns and alcohol-related problems (Sundt, 1976 [1859]). However, no summaries on trends in Norwegian drinking patterns have been published in the 1990s, although the country has a long series of drinking habit surveys ever since the 1950s. From earlier decades, reports by Brun-

¹¹ We thank our ECAS contact persons in Norway, Dr. Sturla Nordlund and Dr. Ingeborg Rossow, SIRUS, Oslo, for valuable help in compiling information on Norwegian studies on drinking patterns.

Gulbrandsen & Amundsen (1967), Nordlund (1977, 1981, 1985 and 1987) and Brun-Gulbrandsen (1988) describe trends in drinking patterns. National surveys are available from the years 1956, 1962, 1966, 1968, 1973, 1979, 1985, 1991, 1994 and 1999. These surveys have, however, been reported sparsely, and their results have been used for analysis of policy attitudes and unregistered alcohol consumption rather than on the study of drinking patterns (see e.g. Horverak *et al.*, 2001). In addition, Norway has participated in a number of comparative Nordic studies on drinking patterns (Jonsson & Nilsson, 1969; data from 1963, men only; Hauge & Irgens-Jensen (1986, 1987a, b, 1990, data from 1979) and Mäkelä *et al.* (1999, 2001; data from 1996)). Norwegian data were also included in the international comparative report of Reader's Digest Eurodata (1991).

Indicators of drinking patterns since 1950

Nordlund (1987) describes the patterns of drinking frequency as being relatively stable over a longer period of time, in the sense that differences between socioeconomic groups (gender, age, region) have not changed much. Thus, drinking patterns have slowly changed similarly throughout the population. Brun-Gulbrandsen (1988) emphasises the fact that still in the 1980s, Norwegians still drank very little. He links this finding with the historical background of the country, with strong anti-alcohol traditions, e.g. in 1953, 41 per cent of the population lived in municipalities with no sales of alcoholic beverages.

Abstainers

The above-mentioned national surveys provide the following series of abstinence rates:

Table NOR 1. Abstinence rates in Norway, 1956–1999, according to national surveys on drinking patterns (% of population 18+; no consumption of alcoholic beverages during the 12 months before the interview)

<i>Year</i>	<i>1956</i>	<i>1962</i>	<i>1966</i>	<i>1968</i>	<i>1973</i>	<i>1979</i>	<i>1985</i>	<i>1991</i>	<i>1995</i>	<i>1999</i>
Abstinence rate	32	29	17	18	15	15	16	15	13	11

A steep decline is visible around the mid-1960s, and thereafter the downward trend has been slow but steady. A similar development can also be seen in alternative indicators (no drinking during the lifetime or in the previous month or week; data available mostly from 1970s onwards).

Women's proportion of alcohol consumption

Data on the women's proportion are available from the 1970s onwards. The figures show a rise from 22 per cent in 1973 to 30 per cent in 1985. Thereafter, the share has fluctuated some below 30 per cent.

Proportion of different age-groups in total alcohol consumption

Again, data are available from the 1970s onwards and are reliable only for the population over 20 years of age. Systematically, respondents below 30 years of age have shown higher annual alcohol consumption than the elderly. In the 1990s, the age gradient was, however, not as steep as in previous decades.

Proportion of daily drinkers in the adult population

Results on daily drinking are available from the 1980s onwards. They show that daily drinking has been very rare; only about 2 per cent of adult men and less than 1 per cent of adult women reported drinking daily or almost daily. According to the Norwegian contact persons of the ECAS study, daily drinking has always been rare in Norway.

Features of drinking contexts

Occasions of heavy intake

No trend data could be found. The proportion of occasions with 5 drinks or more was 26 per cent for men and 15 per cent for women in the National Health Survey of 1985, for other years, this information is not available. However, the 1999 Nordic study (Mäkelä *et al.*, 1999, 42; see also Mäkelä *et al.*, 2001) shows that the frequency of consuming 6 drinks or more per session was among Norwegian men lower than in the other Nordic countries. Norwegian women reported this pattern more frequently than Finnish women but less frequently than Danish and Swedish women.

Occasions during or at work

No data is available. The contact persons general impression is that drinking during or at work is very rare in Norway.

Occasions related to driving

Data on drinking and driving come from roadside surveys and statistics on criminal offences, not from general population surveys. Again, Norway shows a very low score. In the 1980s, less than 0.2 per cent of all drivers in the roadside surveys had a BAC over 0.03 per cent. There is some indication of declining relative prevalence of drunken driving in the country since the 1970s.

Weekly rhythm of drinking

No trend data available.

Drinking at meals

The 1996 Nordic study (Mäkelä *et al.*, 1999, 56) shows that Norwegians very rarely consume alcoholic beverages at meals, even on the weekend. Less than 10 per cent of the respondents said that they typically had any alcoholic beverage (beer or wine, if any) with the principal meal on Sunday.

Overall drinking frequency by beverage type

National surveys since the 1970s show that beer is the most frequently consumed beverage. The frequency of beer-drinking shows some fluctuation among men in the latest decades. For women, wine is becoming increasingly popular and is today consumed as frequently as beer.

Other remarks

None.

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Portugal

Background from other ECAS reports

Today, Portugal shares the top position within the EU with France, when it comes to per capita alcohol consumption, both recorded and unrecorded (see Leifman, 2001a, b). During the late 1990s, the recorded Portuguese alcohol consumption per capita was slightly below 14 litres (in the population 15 years of age or more), and the unrecorded consumption was estimated to add another litre, making about 15 litres in all (Leifman, 2001b, 65). The estimated correction figures resulting from touristic consumption abroad and tax-free purchases was virtually zero (Trollidal, 2001). In long-term trends, the per capita consumption was high in the 1950s and peaked in the 1960s to decline thereafter by 30 per cent in 3 decades. All throughout the ECAS study period (1950–1995), wine has been the dominant beverage, although beer has increased its proportion rapidly since the 1980s. Today, wine covers about 60 per cent and beer about 30 per cent of Portuguese alcohol consumption. The prevalence of alcohol-related problems roughly follows the trends in per capita alcohol consumption (see the articles in Norström (Ed.), 2001). For instance, liver cirrhosis mortality peaked in the 1970s, slightly after the peak in per capita consumption, the mortality rates for liver cirrhosis in Portugal being at a high level, similar to those in France (Ramstedt, 2001). In econometric demand analysis of the ECAS study (Leppänen *et al.*, 2001a, b), Portugal shows a pattern similar to other wine-drinking countries, with a price elasticity that is almost zero, although differing significantly in the statistical sense. In addition, it is evident that the decline in alcohol consumption in Portugal has been produced mainly by noneconomic factors. The ECAS study on changes in living conditions (Karlsson & Simpura, 2001a,b) shows, however, that the changes (urbanisation, modernisation) have been slower in Portugal than in other EU member countries, but a true

acceleration has occurred since the late 1970s. When it comes to the scope of alcohol policy measures, the number of activities have increased substantially since 1980 (Karlsson & Österberg, 2001a; see also the country report by Karlsson & Österberg, 2001b).

Main findings on trends in drinking patterns since 1950¹²

Data on trends in drinking patterns in Portugal is scarce and scattered. However, a few recent health behaviour surveys and respective studies (from 1985, 1991 and 1995/1996; see Gameiro, 1995; 1998 and Dias *et al.*, 1998) also provide some information on drinking patterns, although not on trends. These data suggest that, lifetime abstinence rates in the population over 15 years of age were about 5 per cent for men and over 25 per cent for women in the mid-1990s. Respectively, 60 per cent of men and about 20 per cent of women were regular drinkers who drank at almost all meals or more frequently. The remaining 35 per cent of men and 55 per cent of women were infrequent drinkers or other than lifetime abstainers. There is no information on binge drinking. When it comes to differences between age-groups, the highest drinking frequencies were met in the age-group between 35 and 44 years. Findings from the 1995/1996 national health survey (Inquérito Nacional de Saúde; see e.g. Dias *et al.*, 1998) suggest that the women's proportion of alcohol consumption is about 30 per cent.

Main studies and reports on drinking patterns since 1950

As stated above, no studies from previous decades are available. The 3 studies from the 1980s, mentioned by Gameiro (1995; 1998), are very small and hardly provide a basis for any inspection of trends. A more extensive study was

¹² We thank the ECAS contact persons in Portugal, Carlos Morais and Rosa Encarnaçao, both from the Regional Alcoholology Centre, Porto, for help in searching for Portuguese sources on drinking patterns. Also, special thanks to Dr. Carlos Matias Dias, Ministry of Health, Lisbon, for providing information on National Health Surveys and other related sources.

conducted in 1991 (almost 2000 respondents over 15 years of age). Gameiro (1995) gives a summary of its findings. The 1995/1996 National Health Surveys (Inquérito Nacional de Saúde 1995/1996 (1997)), provides a good overall picture, although no alcohol-specific reports are available. An earlier national health survey was conducted in 1987 and a later one in 1998. Alcohol-related results from the former have not been published separately. The report of the 1998 study was published in winter 2001 (Inquérito Nacional de Saúde 1998/1999 (2001)). Another source on drinking patterns is a study conducted in 1997 on alcohol and the family (Gameiro, 1998). Portuguese data were included in the international comparative reports by Hupkens *et al.* (1993) and Reader's Digest Eurodata (1991).

Indicators of drinking patterns since 1950

Here, we can only briefly summarise some findings from different studies conducted in Portugal in the 1990s. No discussion on trends is possible on the basis of the existing data. However, Gameiro (1998) compiled findings from the years 1985, 1991 and 1997.

Abstainers

In the nationwide study from 1991 (1980 respondents, 15 years of age and more), 11 per cent of men and 39.5 per cent of women reported that they had not consumed any alcoholic beverages during at least the previous 10 years, if ever (Gameiro, 1995). The short-term trend results from 1985 to 1996 by Gameiro (1998) show an increase in the share of 'nondrinkers'. In the compilation by Gameiro, 'nondrinkers' also included those who had not imbibed during the previous 5 years. The respective proportions of nondrinkers were 17 per cent for men and 49 per cent for women in 1996. For the sake of comparison, the National Health Survey from 1995/1996 reported that 20 per cent of men and almost 60 per cent of women (15 years of age and more) consumed no alcoholic beverages in the 12 months before the study.

Women's proportion of alcohol consumption

On the basis of results published on weekly alcohol consumption in the National Health Survey 1995/1996, it is possible to estimate that women drank about one third of all alcohol consumed in Portugal. This is, however, a very crude estimate based on secondary sources.

Proportion of different age-groups in total alcohol consumption

The results from the National Health Survey 1995/1996 show that drinking is most common in age groups between 30 and 50 years of age, with fairly small variation within this fraction. Thus, the Portuguese follow the fairly common pattern observed in the EU countries and Norway, in which adolescents, young adults and the elderly in most cases drink less than those in their middle years.

Proportion of daily drinkers in the adult population

In Portugal, as in many other wine-drinking countries, daily drinking is common and occurs mostly at meals. In the 1995/1996 National Health Survey, about 70 per cent of men between 25 and 55 years of age reported drinking 'several times a week', with the respective proportion among women of the same age-groups varying around 25 and 30 per cent.

Features of drinking contexts

Occasions of heavy intake

There is no information available on occasions of heavy intake.

Occasions during or at work

There is no information available on occasions during or at work. However, statistical data about work-related accidents suggest that about 20-30 per cent of accidents may be related to alcohol (regional data from Coimbra's Alcoholology Regional Centre).

Occasions related to driving

Drinking habit surveys contain no data on the prevalence of drunk driving. Statistics on roadside control of drivers suggest that in the mid-1990s, about 2 to 3 per cent of drivers had a blood alcohol concentration exceeding 0.05 per cent (Report of the General Directorate of Driving, 1997).

Weekly rhythm of drinking

There is no information available on the weekly rhythm of drinking.

Drinking at meals

Drinking at meals is an essential part of the Portuguese alcohol culture, to the extent that in some of the few Portuguese studies on drinking patterns (Gameiro, 1998) drinking outside meals is taken as an indication of a possible problematic pattern. In different years, between 15 and 20 per cent of men and less than 10 per cent of women have reported drinking at all meals. Another 20–30 per cent of men and 10–20 per cent of women drank at almost all meals. According to the data from Gameiro (1998), there may be a slight decline in the prevalence of drinking at meals between 1985 and 1997.

Overall drinking frequency by beverage types

The 1995/1996 National Health Survey contains a detailed description of consuming various beverage types during the week before the interview. The results repeat the expected pattern in which at least some wine was consumed by a large majority of adults, at least some beer by a majority of adult men but by very few women and other beverages by small minorities only. It should be remembered that these figures are on the previous week's consumption and exclude those who consume the beverages only on occasion.

Other remarks

None.

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N.B.: References marked with an asterisk () contain original data on Portuguese drinking patterns*

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Spain

Background from other ECAS reports

In Spain, as in all other wine-drinking countries except Greece, per capita alcohol consumption has undergone a decline during the last few decades, due mainly to decreasing wine consumption. Before the decline, a rapid increase had occurred in the 1960s (Leifman, 2001a). Today, the country's alcohol consumption is about 13 litres (including the estimated unrecorded consumption) of 100 per cent alcohol per capita in the population 15 years of age or more (Leifman, 2001b, 65). With this figure, Spain is in fifth place among the 15 ECAS countries. No net correction is needed for consumption during journeys abroad and tax-free purchases (Trolldal, 2001). Wine has been the overwhelmingly dominant beverage type throughout the period in Spain, although its proportion has been in constant decline and is now less than half of all consumption (Leifman, 2001a). Trends in liver cirrhosis mortality in Spain reflect the trends in per capita alcohol consumption, the cirrhosis mortality being roughly on the same levels with West Germany and somewhat lower than in the other wine-drinking countries and Austria (Ramstedt, 2001). Similarly, other indicators of alcohol-related mortality roughly follow the fluctuations in per capita consumption (see the articles in Norström, 2001). As in other wine-drinking countries, the demand for alcoholic beverages is less sensitive to price fluctuations than in beer-drinking countries of central Europe and the former spirits-drinking countries of Northern Europe (Leppänen *et al.*, 2001a, b). Changes in living conditions, e.g. urbanisation and internationalisation, have played a role in the decline of traditional wine drinking and in changing beverage preferences. These processes have proceeded relatively smoothly in Spain all throughout the study period of 1950-1995 (see Karlsson & Simpura, 2001a, b). The effort to create alcohol policy measures in Spain was very weak until the

1980s; thereafter, more and increasing numbers of measures have been introduced (Karlsson & Österberg, 2001a; for details, see the country report on Spain by Karlsson & Österberg, 2001b).

Main findings on trends in drinking patterns since 1950¹³

Data on long-term trends in drinking patterns on the national level in Spain are also almost nonexistent. After an extensive survey on drinking patterns in 1980 (Enriquez de Salamanca, 1984), studies have been available mostly on a regional basis only. Since the 1980s, some data on drinking patterns have been included in general health surveys. In the cross-sectional study from 1980, the abstinence rate was 17 per cent of the population between 18 and 75 years of age (no consumption of alcoholic beverages during the previous 12 months; Enriquez de Salamanca 1984, 41). At the other end of the scale, 52 per cent of the respondents were 'daily drinkers'. Women drank about 20 per cent of all alcohol (Enriquez de Salamanca, 1984, 88), and the highest consumption levels were met among the youngest persons (18–24 and 25–34 years of age). The study also gave information on the shape of the overall consumption distribution, showing that the heaviest drinkers (15 per cent) consumed more than half of all alcohol (calculated from the text below Table 1 on page 93 in Enriquez de Salamanca, 1984). There was no information on binge drinking. Reports from general health surveys (Gutierrez-Fisac, 1999, 225–231) provide crude indicators of nondrinking and excessive drinking and show a trend towards increasing moderation and declining excess.

¹³ We thank our ECAS contact person, Dr. Antoni Gual, Unitat de Alcohologia de Generalitat de Catalunya, Barcelona, for help in search for Spanish sources. Special thanks to Dr. Teresa Robledo de Dias, Ministry of Health and Consumption, Madrid, for providing materials from general health surveys in Spain.

Main studies and reports on drinking patterns since 1950

The above-mentioned nationwide study on drinking patterns in 1980 (Enriquez de Salamanca, 1980) is still the only detailed representative survey on Spanish drinking patterns. Only scattered regional studies could be found from previous decades regional studies also became available later on (e.g. Gili *et al.*, 1989; Alvarez *et al.*, 1993). National health surveys from the years 1987, 1993, 1995 and 1997 have contained a set of 4 basic questions on drinking patterns (Gutierrez-Fisac (1999) gives a brief comparison of findings from 1987 and 1997; for annual reports, see Encuesta Nacional de Salud de España from respective years). In addition, it should be mentioned that extensive national studies on drinking patterns among adolescents are available from the years 1994, 1996 and 1998 (see Observatorio, 2000). Spanish data have been included in the comparative reports by Hupkens *et al.* (1993) and Reader's Digest Eurodata (1991).

Trends in drinking patterns since 1950

Some of the findings from the drinking habits survey from 1980 were mentioned above. Subsequent general health studies are not comparable with the 1980 data; thus only results based on the latter studies will be briefly presented here. The findings concern the population 16 years of age or more.

Abstainers

The definition of abstainer in the Spanish health surveys is not given in the reports. Evidently, it refers to nondrinking during the 2 weeks preceding the interview. The following table gives the findings that are based on a typology of drinkers (as shown on page 229 in Gutierrez-Fisac (1999) and respective tables in the annual reports). It appears that the typology used by Gutierrez-Fisac (1999, 229) differs from that applied in the annual report, probably due to the need for making the data from 1997 comparable with the data from 1987.

Table SPA 1. Distribution of the population into drinking categories in National Health Surveys in Spain, 1987 and 1997 (% of respondents 16 years of age and more)

<i>Type of drinking</i>	<i>1987</i>	<i>1997</i>
Nondrinkers (previous 2 weeks)	30.7	37.4
Infrequent drinkers	10.6	3.8
Moderate drinkers	48.8	52.1
Excessive drinkers	3.9	2.5
Heavy drinkers	6.0	4.2

Excessive drinkers: those drinking more than 100 millilitres (cubic centimetres) absolute alcohol per day.

Source: Gutierrez-Fisac, 1999, 29.

The figures in the table show quite large fluctuations. Due to the lack of more detailed reports, it remains only to be said that the results indicate a trend towards increasing nondrinking. This finding is hardly comparable with findings on abstinence in most other countries, due to the definition of abstinence.

Women's proportion of alcohol consumption

The data from the 1990 general health surveys contain a set of questions that would make it possible to calculate survey-based estimates of the volume of alcohol consumption in different socio-economic groups (see the questionnaires appended in the annual reports). However, these findings have not been reported. A very rough estimation of the proportion of different socioeconomic groups can be made on the basis of the typology tables included in the annual reports (e.g. Enquesta, 1997, 239). Such calculations are of course arbitrary, but suggest that the women's proportion would also have been about 20 per cent in the late 1990s. Thus, no significant change would have occurred since 1980.

In a comparative qualitative study on drinking cultures among young adults in Spain, and Finland, Pyörälä (1995) found that in Spain, drinking appeared to bring men and women together, whereas in Finland it seemed to set them apart.

Proportion of different age-groups in total alcohol consumption

Again, results on the volume of consumption have not been reported by age-groups. Results on the typology presented above are available by age, suggesting that the age-groups between 25 and 64 years show somewhat similar consumption levels. Those younger than 25 years and those over 65 years consume less.

Proportion of daily drinkers in the adult population

The results from the general health surveys give information on drinking different beverage types on weekdays, weekends and other festive days or on both types of days equally. About half of Spanish adults in 1997 stated that they drink wine and beer both on weekdays and on festive days. Although this is not a very good indicator of daily drinking, it suggests that a remarkable proportion of the adult population drinks daily.

Features of drinking contexts

Occasions of heavy intake

No information on trends is available. Outside the survey tradition, qualitative studies by Pyörälä (1994, 1995) suggest that young adults generally had some experience of drunkenness and that drunkenness coexisted with sociable drinking. Another study related to heavy drinking (Alvarez & del Rio, 1994) found that over 5 per cent of adults could be classified as problem drinkers according to the CAGE scale. This result does not, however, only reflect the prevalence of occasions of heavy intake, but refers more to long-term experience with alcohol-related problems.

Occasions during or at work

No information on trends is available.

Occasions related to drinking

No information on trends is available.

Weekly rhythm of drinking

No information on trends is available.

Drinking at meals

No information on trends is available

Overall drinking frequency by beverage type

The general health surveys indicate that drinking apéritifs, cider and distilled beverages is more concentrated on festive days than is the case with drinking wine and beer. This may be an indication that wine drinking and beer drinking occur more frequently than the drinking of other beverages.

Other remarks

Gual & Colom (1997) suggest a number of mechanisms that may have worked behind the decline of alcohol consumption in the Mediterranean countries: increasing advertising of beer and spirits, the entrance of new, mostly nonalcoholic beverages to be used at meals and at occasions of sociability, the rise of public health policies that include alcohol as a policy object, economic factors such as the economic recession in the early 1980s, EU policies that cut down wine production and lead to higher prices and lower consumption, and finally a change in public opinion that increasingly finds wine and spirits, but not beer, to be a health risk. Given the limited empirical database, it is difficult to show what would have been the peculiar effects of these factors in changes of drinking patterns in Spain.

The studies by Pyörälä (1990, 1994, 1995) provide some interpretations on the dynamics of change behind the Spanish trends in alcohol consumption. New beverages entering the scene (beer in particular) and new patterns of drinking adopted slowly by the younger generation (drinking outside the family and meal, mixing sociability and intoxication) have been involved in the changes.

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Sweden

Background from other ECAS reports

Today, Sweden is the country with the lowest registered per capita alcohol consumption within the EU. Among the ECAS countries, only Norway has lower alcohol consumption. Although alcohol consumption has been low in Sweden all throughout the ECAS study period, the country's relative position has changed slightly. In the 1950s, Sweden had a higher consumption than the other 'former spirits-drinking countries' (i.e. Norway, Finland and the Netherlands; see Leifman, 2001a). In the 1960s and 1970s, the increase in consumption remained small in Sweden when compared with many other countries, and the officially recorded consumption turned into a decline in the late 1970s, to continue on an even level from the mid-1980s onwards. Thus, Sweden is a slightly deviating case among the ECAS countries. Although the proportion of unrecorded consumption is high in Sweden (Leifman, 2001b; Trollidal 2001), it does not change the ranking of the country as the next to the last in the ECAS consumption statistics. The indicators of alcohol-related mortality also show less fluctuation in Sweden than in many other countries. Still, the link between mortality and alcohol consumption is strong in Sweden (Norström, 2001a, b). In the development of living conditions, Sweden was 1 or 2 decades ahead of most of the other ECAS countries in the 1950s and 1960s (Karlsson & Simpura, 2001a, b). Thus even in this sense development in Sweden has been smoother since 1950 compared with the other countries. Econometric demand analysis of alcoholic beverage consumption shows Sweden again as a country of smooth development. A minor special feature in Sweden is that expenditure elasticities are above the value of 1 suggesting that alcoholic beverages are luxury goods in the country (Leppänen *et al.*, 2001a, b). Belgium is the only other country with similar expenditure elasticities. In the field of

alcohol policies, Sweden (together with Norway and Finland) has always been among the strictest the ECAS countries (Karlsson & Österberg, 2001a; see also the country report by Karlsson & Österberg, 2001b). Even with respect to the extent and scope of alcohol policies, development in Sweden has been smooth. A small tightening of policies from the 1950s to the 1960s and a small liberalisation from 1990 to 2000 are the only fluctuations in the control policy scale.

Main findings on trends in drinking patterns since 1950¹⁴

A slow shift that has operated over generations appears to have occurred in drinking patterns in Sweden, as in the other former spirits-drinking countries (Norway, Finland and, with some reservations, the Netherlands). This shift occurs as a slow disappearance of the older temperance-minded generation, and a respective rise of the younger, 'wetter' generation. In Sweden, these changes have been smoother than in the other countries. Abstinence rates (12-month abstinence) have declined from between 25 and 35 per cent in the 1950s to the present level around 10 per cent (slightly less among men, slightly more among women). The women's proportion of alcohol consumption increased from a level of about 20 per cent in the 1960s to about 30 per cent in the 1980s and thereafter. In the 1960s, the age-group of 26–45 years had the highest alcohol consumption, but young adults since then have been the heaviest drinking group. Daily drinking is still rare, but it is difficult to be certain about the trends. In a study from 1999, 9 per cent of adult men and 2 per cent of women reported drinking at least 4 times a week. Data on binge drinking are available on an annual basis from studies of army conscripts (18–19 years of age) since the 1970s. The results show a decrease in binge drinking from the 1970s to the 1980s and a new rise in the 1990s. A similar trend is visible in the more scattered studies on the adult population. In 1998, 14 per cent of men and 3.5 per cent of women consumed 6 glasses or more per occasion at least once a month.

¹⁴ We thank Dr. Ola Arvidsson, Ms. Linnea Rask & Mr. Daniel Svensson, from the National Public Health Institute, Stockholm, for compiling detailed information on studies of drinking patterns in Sweden.

Main studies and reports on drinking patterns since 1950

An extensive record of studies on drinking patterns has been available since 1960. From the 1980s onwards, annual reports have been available on development of the use of alcohol and drugs (see e.g. *Drogutvecklingen i Sverige*, 2000, with a summary in English). The earliest reports are parts of committee reports and thus not easily accessible (1944 års nykterhetskommittée, *Alkoholpolitisk utredning*; for the latter, see Nilsson & Svensson, 1971). A summary of trends from the late 1960s to 1980 is available in the report 'Alkoholvanor' (1984). Another compilation of research findings is available in Kühlhorn & Björ (1998). A detailed study of alcohol consumption in the 1990s (Kühlhorn *et al.*, 1999) reports some of the recent trends. In addition, Sweden has participated in a number of comparative Nordic studies on drinking patterns (e.g. Jonsson & Nilsson (1972; data on men from 1963); Hauge & Irgens-Jensen (1986; 1987a, b; 1990; data from 1979), and Mäkelä *et al.* (1999, 2001; data from 1996)). Swedish data have been included in international comparative reports by Bloomfield *et al.* (1999), Ahlström *et al.* (2001) and Reader's Digest Eurodata (1991). Importantly, much has been done in Sweden to analyse changes in drinking patterns for the purposes of national alcohol policy debates (e.g. the major effort KALK in the late 1990s (using many different sets of questionnaire data) in the above-mentioned book by Kühlhorn *et al.*, 1999), but little of this work is available in international sources. A major issue behind the recent Swedish interest in the study of drinking patterns has been domestic debate over alcohol policies after the country's entry in the EU in 1995, and a question of particular interest has been the extent of unrecorded alcohol consumption. Less attention has been focused on other aspects of drinking patterns. However, a special longitudinal study of drinking patterns among women (Bengtsson *et al.* 1997) shows, among other things, how an increase in alcohol consumption was seen in the study period, mainly due to the increase in moderate drinking. A historical perspective on Swedish drinking patterns is provided by Bruun & Frånberg (1985).

Indicators of drinking patterns since 1950

Abstainers

In studies before the 1960s, information is available only on those who did not drink at all, with specification of a time period. The study by Nelker (1955) gives abstinence rates of 22 and 10 per cent for men between 20 and 25 years of age, and over 25 years, respectively, and 35 and 36 per cent for women. From 1967 onwards, the following figures of nondrinking during the previous 12 months were compiled by the Swedish ECAS contact persons (Table SWE 1):

Table SWE 1. Abstinence rates in different age-groups, by gender, in Sweden for selected years from 1967 to 1997

Year Age	1967		1978		1997	
	Males	Females	Males	Females	Males	Females
18–25	42	23	8	3	9	8
26–45	10	19	5	8	5	11
46–65	16	39	13	23	8	15
66+	17	40	21	42	16	36

Source: Backhans (no year given).

The abstinence rates in this table and other sources (e.g. Hauge & Irgens-Jensen, 1987a; Ramstedt & Kühlnhorn, 1998; Mäkelä *et al.*, 1999) describe a fairly large decline in abstinence among women over 45 years of age from the 1960s to the 1970s.

Women's proportion of alcohol consumption

Earlier reports from 1967 (Nilsson & Svensson, 1971) and 1979 (Hauge & Irgens-Jensen, 1987) give, respectively, proportions of 20 and 28 per cent of the total alcohol consumption for women in Sweden. Since 1982, annual national reports show some fluctuation in women's proportions between 28 and 33 per cent, with the most typical values around 30 per cent (Drogutvecklingen in Sverige, 1999). There are signs of a slow increase in women's proportions.

Proportions of different age-groups in total alcohol consumption

In 1967, consumption levels were highest among men between 26 and 45 years of age (Nilsson & Svensson, 1972), while respondents over 45 years of age drank significantly less, this age gradient was smaller among men. In the Nordic study from 1979, the heaviest drinking group in Sweden were those between 20 and 29 years of age (Hauge & Irgens-Jensen, 1987a). Annual national surveys since 1982 systematically show highest consumption levels for age-groups between 18 and 29 years of age (Drogutvecklingen i Sverige, 1999). The differences between different age-groups have, however, diminished slowly.

Proportion of daily drinkers in the adult population

Information on the prevalence of daily drinking in Sweden is available for the first time from the comparative Nordic study in 1979 (Hauge & Irgens-Jensen, 1987a). At this time, less than 4 per cent of men and less than 0.5 per cent of women reported daily drinking. A national survey from 1996/1997 gives prevalence of 4.5 per cent for men and 1.3 per cent for women. This and some other studies support the view that daily drinking is still rare, although perhaps slowly increasing in Sweden.

Features of drinking contexts

Occasions of heavy intake

A rich set of annual findings has been available from studies of drinking patterns among army conscripts since 1972 (e.g. Mönstrandens drogvanor, 1998). The results concern the subjective experience of intoxication ('How often do you drink yourself into intoxication?'). The findings show a clear decline in the prevalence of frequent intoxication ('some times a week'). No time-series description of the prevalence of intoxication or heavy drinking occasions ('a couple of times a week') is available for the adult population.

Occasions during or at work

No survey data are available. The normative climate today is strongly against drinking at work or at work-related meals. In the period of 'medium beer' (mellanöl; 1965–1977) there was an increase in the prevalence of having a beer with the work day lunch.

Occasions related to driving

In the comparative Nordic Study from 1979, 6 per cent of Swedish drinkers said that they had driven intoxicated at least once during the previous 12 months (Hauge & Irgens-Jensen, 1987a). Other sources come mostly from official statistics on traffic control. The normative climate today is strongly against drunk driving, and Sweden in 1999 adopted an extremely strict legal BAC limit (blood alcohol concentration) of 0.02 per cent for alcohol in traffic.

Weekly rhythm of drinking

Data on weekly rhythm are available from only 2 questionnaires from the late 1990s. The findings show that about one third or even more of alcohol is consumed on Saturdays, one quarter or more on Fridays, and the rest somewhat evenly on the remaining days of the week.

Drinking at meals

Drinking alcohol at ordinary work day meals has never been very common in Sweden. Drinking with meals occurs mainly at weekend dinners. In the 1950s, wine was still relatively unknown at meals. Beer was consumed on some rare occasion. In the mid-1960s, the introduction of medium beer brought more beer to the dining tables, and in the 1970s wine started to become more common.

Overall drinking frequency by beverage types

A decline in the frequency of beer drinking has occurred among men since the 1970s. Wine drinking has become more frequent since the 1970s both among men and women. Spirits drinking has been slowly declining since the 1970s.

Other remarks

None.

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N.B.: References marked with an asterisk () contain original materials from Swedish studies on drinking patterns.*

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The United Kingdom

Background from other ECAS reports

In alcohol consumption statistics, the United Kingdom shows a pattern similar to many other countries: a continuous increase till the end of the 1970s, and thereafter a slight decrease and perhaps some signs of increase in the 1990s (see Leifman, 2001a). A major problem in the UK is the possibility that unrecorded consumption may have increased significantly in the 1990s in particular. Leifman's (2001b) estimate for the total consumption (recorded + unrecorded) was 11.4 litres per capita in the population 15 years of age or more. Of this figure, 2 litres would be unrecorded consumption. Trolldal (2001) suggests that less than 3 per cent should be added to recorded consumption figures due to consumption abroad and tax-free purchases. The UK consumption levels included to the lower middle category among the EU member countries and Norway. In the UK, as in practically all other countries, there is also a link between per capita alcohol consumption and alcohol-related problems, as shown in the time-series analyses on drinking and mortality in the ECAS study (see Norström, 2001a, b). It should be noted, however, that the link is not mechanically identical for all causes of death, although the overall picture supports the existence of the link. Changes in living conditions, in terms of modernisation, have been slightly lower in the UK than in the other countries, mostly because the country ranked high on indicators of modernisation already at the beginning of the ECAS study period (Karlsson & Simpura, 2001). The effects of economic factors on alcohol consumption in the UK are fairly similar to those in other beer-drinking countries in central Europe (Leppänen *et al.*, 2001a, b). When it comes to alcohol policy, the UK has been on a high-medium level throughout the ECAS study period, with slowly increasing scope and extent of alcohol policy measures (Karlsson & Österberg, 2001; for more details see the country

report by Britton *et al.*, 2001). Today, the extent of alcohol control policies lies on the same level as in Italy and the Netherlands, slightly lower than Finland, but higher than France.

Main findings on trends in drinking patterns since 1950¹⁵

From the 1970s onwards, a number of extensive studies on drinking patterns have been conducted in the UK (Dight, 1976) on Scotland (data from 1972); Wilson (1980) on England and Wales (data from 1978); Goddard & Ikin, 1988 (data from 1987) and Goddard (1991, 1997). Moreover, a number of health surveys and General Household Surveys (GHSs) have contained data on drinking patterns since the 1970s (see e.g. Statistics on Alcohol, 1999). However, no summaries of the trends are available. The GHS studies show fairly stable abstinence rates in the adult population (18 years of age or more) since 1980 among men (ranging from 5–7 per cent) and women (ranging from 12–14 per cent). The women's proportion of alcohol consumption varied between 28 and 32 per cent in GHS studies from the 1990s. All throughout the 1990s, the highest per capita alcohol consumption was found in the youngest age-groups (16–24 years in the GHS). Results on binge drinking have been recorded since the 1970s. In 1978, 28 per cent of males drank more than 8 units at least once in the previous week (Wilson, 1980); in 1996, 37 per cent of men drank 5 or more units in one drinking session at least once a week (GHS, 1996). The respective figures for women were 12 per cent (with the limit of binge drinking being 6 units rather than 8) in 1978 and 10 per cent in 1996. For the sake of comparison, Bennett *et al.* (1991) report that 30 per cent of men and 8.5 per cent of women (ages 18–64 years) consumed 7 drinks or more in one session at least once a week.

¹⁵ We thank the ECAS contact person in the UK, Dr. Annie Britton from the London School of Hygiene and Tropical Medicine, for compiling detailed information on British studies on drinking patterns.

Main studies and reports on drinking patterns since 1950

No systematic summaries of trends in drinking patterns are available. Very few if any nationwide surveys are available from the years before 1970. In 1972, a general population survey on drinking habits was conducted in Scotland (Dight, 1976), and in 1978 in England and Wales (Wilson, 1980). Another source from the 1970s is a study on drinking habits and attitudes to possible changes in licensing regulation (Bradley & Fenwick, 1974; data from 1970). In the 1980s, 2 major studies were conducted before and after implementation of the 1988 Licensing Act (Goddard & Ikin, 1988; Goddard, 1991). In the 1990s, the annual Health Survey series for England since 1991 contained data on drinking, of which the 1995 study is especially important. In 1997, a special study was conducted on drinking throughout Great Britain (Goddard, 1997). In addition to these special studies, the biannual GHS since 1978 have provided data on alcohol (see e.g. Drinking, 1989; Thomas *et al.*, 1999). Various studies with commercial interests, such as the Public Attitude Surveys funded by the beverage industry, give additional information. Most of these studies cover the adult population only. The Health Surveys of England from 1995 and onwards also contain data on alcohol consumption of those 8–15 years of age. It should also be mentioned that various regional studies (e.g. Bennett *et al.*, 1991) and studies on nutrition (e.g. Harding, 1991) contain material on drinking. International comparative reports by Hupkens *et al.* (1993), Ahlström *et al.* (2001), Bloomfield *et al.* (2001) and Reader's Digest Eurodata (1991) also contain materials on drinking patterns in Britain.

Indicators of drinking patterns since 1950

A brief summary of various statistical sources can be found in Statistics Alcohol (1999). Otherwise, systematic trend analyses have not been conducted.

Abstainers

The following is a summary of findings from General Health Surveys since 1980 concerning the population 18 years of age or more.

*Table UK 1. Abstinence rates in General Health Surveys in the United Kingdom, 1978–1996 (per cent of respondents 18 years of age and over)**

<i>Year</i>	<i>Men</i>	<i>Women</i>
1978	5	11
1980	5	12
1982	6	12
1984	7	13
1986	6	11
1988	7	12
1990	6	12
1992	6	12
1994	7	14
1996	7	13

* Definition of abstinence: no drinking in the previous 12 months or in lifetime

The abstinence rates have been quite stable over the 18-year period covered in Table UK 1. From other studies we learn that the abstinence rates were 12 per cent for men and 18 per cent for women in the 1996 Public Attitude Survey, and, respectively, 9 and 16 per cent in a special study from 1996 (Goddard, 1997; definition: ‘Not in the last year’). Among the elderly and among women under 25 years of age, abstinence rates have been higher than in other groups by gender and age.

Women’s proportion of alcohol consumption

In GHSs from the 1990s, the women’s proportion has varied between 28 and 32 per cent of the total alcohol consumption, possibly with an increasing trend.

Proportion of different age-groups in total alcohol consumption

The GHSs from the 1990s show higher per capita consumption for the age-groups 16–24 years and from 25–44 years than for the elderly. Age differences were larger among women than among men. The GHS reports from 1996 on trends since the 1980s conclude the following: ‘Since 1984, the proportion of men aged 18–24 who were exceeding 21 units per week has fluctuated but in 1996 reached its highest level at 41 per cent although there was no change between 1984 and 1996 for any other age groups, there was continuing evidence of an increase in consumption among men aged 65 and over from 12 per cent in 1984 through to 18 per cent in 1996 for women in every age group there has been an increase in alcohol consumption since 1984; the largest increase was among the youngest women (18–24). The proportion of women aged 65 and over who drink more than 14 units a week doubled between 1984 and 1996 – from 3 per cent to 7 per cent’.

Proportion of daily drinkers in the adult population

Based on reports from England and Wales in the late 1980s (Goddard & Ikin, 1988; Goddard, 1991), about 10 per cent of men (16 years of age and older) and 4–5 per cent of women were daily drinkers. The prevalence of daily drinking was higher in the age-group 55 years or older than among the younger respondents. The 1995 Health Survey enquired about drinking ‘almost every day’ and found prevalences around 15 per cent for men and between 10 and 15 per cent for women. The 1997 survey (Goddard, 1997) gave a prevalence of 14 per cent for men and 9 per cent for women drinking ‘almost every day’.

Features of drinking contexts

Occasions of heavy intake

No comparable long-term trend data are available. In 1978 (Wilson, 1980), 28 per cent of male drinkers consumed more than 8 units at least once a week, the respective figure (with a limit of 6 units) for women was 12 per cent. In 1996, the rates of those who drank more than 8 units (men) or 6 units (women) in one day were 21 per cent of men and 8 per cent of women (Goddard, 1997). The prevalence of heavy intake was higher in the younger age-groups and among 16–24-year-olds in particular. In a study of the adult population (18–64 years) in Wales, 28 per cent of men and 8 per cent of women reported binge drinking at least once weekly (Bennett *et al.*, 1991). Binge drinking was defined to be at least half of the recommended weekly safe limits during any one drinking session, so that the intake per occasion was at least 10 units for men and 7 units for women.

Occasions during or at work

In the late 1980s, Goddard & Ikin (1988) and Goddard (1991) write the following: “11 per cent of working men and 6 per cent of working women had had an alcoholic drink during working hours at least once during the previous week. ... it is likely that in most cases people were drinking at lunchtime.” The reports also discuss the issue of drinking at work more extensively.

Occasions related to driving

British surveys have contained questions on drinking and driving since the 1970s, although the questions have not always been technically comparable and thus do not provide data on trends. In 1978 (Wilson, 1980), 26 per cent of men and 6 per cent of women drove home after drinking. In 1987, 22 per cent of male and 7 per cent of female drinkers with a driving licence reported that they had at least once driven under the influence during the previous year. In the same quota, 8 per cent of men and 3 per cent of women drove home at least once after drinking 5 or more units.

Weekly rhythm of drinking

Again, no systematic trend data are available, but studies from the 1970s (Wilson, 1980) and 1980s (Goddard & Ikin, 1988; Goddard, 1991) show that Saturdays, Sundays and Fridays have much higher prevalences of drinking than do the other weekdays. It is impossible to say the percentage that the weekend days constitute of the total consumption.

Drinking at meals

No specific information is available.

Overall drinking frequency by beverage type

No specific information is available.

Other remarks

None.

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N.B.: The reports marked with an asterisk () contain original materials from the British surveys on drinking habits.*

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Appendix 2

ECAS

A comparative analysis of alcohol policy and its effects in the EU-states

Questionnaire to contact persons on

Drinking Patterns, 1950–1998

Enquiries concerning the filling of the questionnaire to the coordinators of this questionnaire:

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or

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Studie

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The aim of the questionnaire

This part of the ECAS project has two major aims:

1. To provide information that helps to estimate changes in the distribution of alcohol consumption into different socio-economic groups
2. To provide information that helps to estimate changes in the distribution of alcohol consumption over different drinking occasions (occasions of heavy intake, drinking at or during the work, occasions with risk of accidents etc. (e.g. drunken driving))

Additional information to be collected by the coordinators

The coordinators will collect information that helps to locate such changes in the overall context of drinking (meals, sociability, leisure activities, labour force participation in different population groups, ethnic composition of the population) that may be relevant from the point of view of dynamics of drinking and the prevalence of alcohol-related harm. This information will be collected from the ordinary international statistical sources. The coordinators' interpretation of the link between additional information and drinking patterns questionnaire will be sent to the contact persons for comments in a later step of the project.

Important:

Notice that this questionnaire has a modular structure. That is, each page is a separate entity. If you have the opportunity of using other persons as informants, please feel free to send each page to the best expert you may contact. In such a case, the task of each contact person is only to collect the pages back and send them to the coordinator.

Country:

Respondent:

Date:

1. MAIN DATA SOURCES AND REPORTS ON DRINKING PATTERNS
(You may refer to these sources on later pages where specific sources of information are requested)

First of all, please give a list of main reports from major studies on drinking patterns in your country from the following periods (publications in any language accepted; please use a separate sheet if needed)

a. 1950s

b. 1960s

c. 1970s

d. 1980s

e. 1990s

f. Summarial reports covering results from different years (indicate the years, too)

Country:

Respondent:

Date:

2. BASIC INDICATORS OF DRINKING PATTERNS

- a. Proportion of abstainers in adult population (%)
- b. Women's share of total alcohol consumption (%)
- c. Differences in drinking between age groups (overall average = 100)
- d. Proportion of daily drinkers in the adult population (%)

Each section (2a–2d) has a separate sheet on the following pages.

In this part, exact numerical data may be available for many countries, although not directly in the units requested below. The overall aim of this information is to locate such changes in population distributions of drinking that may have significance in explaining variation of alcohol-related harm.

General remarks on this part:

ECAS Questionnaire on drinking patterns

Country:

Respondent:

Date:

2a. Abstainers Age
Indicator (mark the figures in resp.column) brackets Source/

lifetime	last 12 month	last month	last week
*	*	*	*

Notes
on the
accuracy

1950s

1960s

1970s

1980s

1990s

General remarks on changes of abstinence:

Country:

Respondent:

Date:

- 2b. Women's share of total alcohol consumption Sources/Notes on the accuracy of the estimate
How much of total alcohol consumption was consumed by women (% of aggregate alcohol consumption)

1950s

1960s

1970s

1980s

1990s

General remarks on women's share of alcohol consumption

Country:

Respondent:

Date:

2c. Share of different age groups in total alcohol consumption

* Use age brackets that are available or can be reasonably used.

* Give the estimates separately for men and women

For all men, mark the average with 100. If, for instance, men between 50 and 60 drink 20 percent more than men on the average, mark 120, etc.

Respectively, for all women, mark the average with 100. If, for instance, women between 40 and 50 years of age drink 20 percent less than women on the average, mark 80, etc.

How much each age group consumed compared to the average consumption of all men/all women

	AVERAGE	Age brackets				Sources and notes on accuracy
		*	*	*	*	
1950s						
Men	100					
Women	100					
1960s						
Men	100					
Women	100					
1970s						
Men	100					
Women	100					
1980s						
Men	100					
Women	100					
1990s						
Men	100					
Women	100					

General remarks on which age groups have had highest/lowest consumption levels in different decades

Country:

Respondent:

Date:

2.d. Proportion of daily drinkers in the adult population

<i>Daily drinkers % of all men/all women</i>	Age brackets	Source/Notes on the accuracy of the estimates
--	--------------	--

1950s

Men

Women

1960s

Men

Women

1970s

Men

Women

1980s

Men

Women

1990s

Men

Women

General remarks on the changes in the prevalence of daily drinking:

ECAS Questionnaire on drinking patterns

Country:

Respondent:

Date:

Date:

3. FEATURES OF SPECIFIC TYPES OF DRINKING CONTEXTS
- 3.a. Proportion of occasions of heavy intake
- 3.b. Occasions during or at work
- 3.c. Occasions related to driving
- 3.d. Weekly rhythm of drinking
- 3.e. Drinking at meals
- 3.f. Overall drinking frequency

In this part, it is evidently difficult to arrive at exact quantitative information in the points 3.b. and 3.c. Therefore, estimates with broad range will be accepted, and verbal characterizations of the issues are warmly welcomed.

General remarks on this part as a whole:

Country:

Respondent:

Date:

3.a. Proportion of occasions of heavy intake

Indicate the proportion of occasions with 5 or more standard drinks (% of all drinking occasions), separately for men and women

	Sources/Remarks on accuracy of information
1950s	
Men	
Women	
1960s	
Men	
Women	
1970s	
Men	
Women	
1980s	
Men	
Women	
1990s	
Men	
Women	

General remarks on changes in the prevalence of occasions of heavy intake

Country:

Respondent:

Date:

3b. Drinking at or during the work

Notes on patterns of drinking related to work, if possible separately for men and women and for special major large occupational groups

*Here you need not indicate numbers,
but give a verbal comment*

Source/Remarks on
accuracy of information

1950s

1960s

1970s

1980s

1990s

General remarks on drinking during or at work

ECAS Questionnaire on drinking patterns

Country:

Respondent:

Date:

3c. Drinking related to driving

Notes on patterns of drinking related to driving, if possible separate for men and women and different age categories

*Here again, you may give
a verbal comment and then
add numbers if available*

Sources and notes on
accuracy of information

Also, indicate for each decade whether driving after 4 drinks
was regarded as “natural” behavior

1950s

1960s

1970s

1980s

1990s

General remarks on drinking patterns and driving

Country:

Respondent:

Date:

3.d. Weekly rhythm of drinking

Distribution of weekly alcohol consumption over weekdays (percent of weekly consumption)

Notice that we are here interested in the distribution of the volume consumed, not the distribution of drinking occasions

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total	Source/Notes on accuracy
	%	%	%	%	%	%	%	100	
1950s									
1960s									
1970s									
1980s									
1990s									

General remarks on changes in weekly rhythm of drinking

Country:

Respondent:

Date:

3.e. Drinking at meals

Describe the use of alcoholic beverages at meals. Circle on each row and for each type of meal the alternative that best suits for the decade in question and add a verbal comment

The numbers in small tables are numbers of units of each beverage. E.g., if it was customary to drink two glasses wine at lunch, circle 2, etc.

So, four circles on each row!

Typical amounts consumed at meals:

		*	*	*	*
		Breakfast	Working-day lunch	Working-day dinner	Weekend dinner
1950s	Beer	0 1 2 3+	0 1 2 3+	0 1 2 3+	0 1 2 3+
	Wine	0 1 2 3+	0 1 2 3+	0 1 2 3+	0 1 2 3+
	Spirits	0 1 2 3+	0 1 2 3+	0 1 2 3+	0 1 2 3+
Comment:					
1960s	Beer	0 1 2 3+	0 1 2 3+	0 1 2 3+	0 1 2 3+
	Wine	0 1 2 3+	0 1 2 3+	0 1 2 3+	0 1 2 3+
	Spirits	0 1 2 3+	0 1 2 3+	0 1 2 3+	0 1 2 3+
Comment:					
1970s	Beer	0 1 2 3+	0 1 2 3+	0 1 2 3+	0 1 2 3+
	Wine	0 1 2 3+	0 1 2 3+	0 1 2 3+	0 1 2 3+
	Spirits	0 1 2 3+	0 1 2 3+	0 1 2 3+	0 1 2 3+
Comment:					
1980s	Beer	0 1 2 3+	0 1 2 3+	0 1 2 3+	0 1 2 3+
	Wine	0 1 2 3+	0 1 2 3+	0 1 2 3+	0 1 2 3+
	Spirits	0 1 2 3+	0 1 2 3+	0 1 2 3+	0 1 2 3+
Comment:					
1990s	Beer	0 1 2 3+	0 1 2 3+	0 1 2 3+	0 1 2 3+
	Wine	0 1 2 3+	0 1 2 3+	0 1 2 3+	0 1 2 3+
	Spirits	0 1 2 3+	0 1 2 3+	0 1 2 3+	0 1 2 3+
Comment:					

3.f. Overall drinking frequencies by beverage type

Describe the typical patterns of consuming different alcoholic beverages by indicating,

How many times per week different beverages were typically consumed

The numbers in the small tables are numbers of drinking occasions per week.

Two circles on each row, one for men and the other for women. Only adults are considered here

	Men: how many times a week? Circle!	Women: how many times a week? Circle!
1950s		
Beer	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+
Wine	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+
Spirits	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+
OVERALL	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+
Comment:		
1960s		
Beer	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+
Wine	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+
Spirits	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+
OVERALL	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+
Comment:		
1970s		
Beer	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+
Wine	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+
Spirits	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+
OVERALL	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+
Comment:		
1980s		
Beer	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+
Wine	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+
Spirits	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+
OVERALL	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+
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1990s		
Beer	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+
Wine	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+
Spirits	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+
OVERALL	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15+
Comment:		