ESPAD Report 2003

Alcohol and Other Drug Use Among Students in 35 European Countries

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Preface

This is the third report published within the ESPAD project. It presents data on more than 100,000 European students in numerous diagrams and maps and around 150 tables. Independent researchers in 35 European countries have collaborated in planning, methodological discussions, the data collections and the reporting of the national results.

The two earlier reports presented data from 1995 and 1999. The first report covered 26 European countries, the second included data from 30 countries. The project now covers most of the European continent and has become an important source of information on young people's alcohol and drug use.

Moreover, the body of articles with analyses published in international scientific journals is growing. The enormous data mass now kept in each individual

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Björn Hibell, Ph.D. Director, ESPAD Co-ordinator country will soon be gathered into a common database for further analyses.

The work with this report would not have been possible without the economic support from the Swedish Government. We are also grateful for the support we have got from the Pompidou Group at the Council of Europe and the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) in Lisbon.

We would like to take this opportunity to thank our colleagues in all ESPAD countries for the inspiring work, the good spirit and the always friendly and collaborative atmosphere that have characterised our meetings and seminars. We are also grateful to the teachers and huge number of students across Europe that participated in the 2003 data collection.

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Table of Contents

Acknowledgements	9
Introduction	13
Summary of the 2003 findings	19
Study design and procedures	27
The target population	27
The data collection instrument	27
Sampling procedure	28
Field procedure	28
Methodological considerations	31
Introduction	31
Representativeness	33
Reliability	41
Validity	45
Comparisons with other survey data	55
Conclusions	60
Changes in the use of alcohol	(2)
Changes in cigarette smoking	64
Changes in alcohol consumption	65
Changes in illicit drug use prevalence	89
Changes in perceived availability of drugs	107
Summary	124
The alcohol and drug	
situation 2003	129
Tobacco use	129
Alcohol consumption	133
Expected personal consequences	160
Illicit drugs	165
Lifetime abstinence from various substances	177
Attitudes towards drugs	182
Purchase of alcoholic beverages	187
Perceived cigarette, alcohol and drug use	100
Cigarette, alcohol and drug consumption	100
among elder siblings	189
Correlates of adolescent	
substance use	191
Introduction	191
Parental education	191
Family structure	193
Economic situation	196
Parental control	197
Truancy	198

Sibling substance use	198
Summary	199
Kev results country by country	201
Austria	201
Belgium	202
Bulgaria	202
Croatia	203
Cyprus	203
The Czech Republic	204
Denmark	204
Estonia	205
The Faroe Islands	205
Finland	206
France	206
Germany (six Bundesländer)	207
Greece	207
Greenland	208
Hungary	208
Iceland	209
Ireland	209
Isle of Man	210
Italy	210
Latvia	211
Lithuania	211
Malta	212
The Netherlands	212
Norway	213
Poland	213
Portugal	214
Romania	214
Russia (Moscow)	215
The Slovak Republic	215
Slovenia	216
Sweden	216
Switzerland	217
Turkey (six cities)	217
Ukraine	218
The United Kingdom	218
References	219
Appendices	
I. Sampling and data collection	
in participating countries	223
II. Tables	293
III. Student questionnaire	437

Tables

A. Characteristics of the ESPAD surveys in participating countries.

34

37

40

43

47

49

51

55

56

68

72

74

- B. Not participating schools and classes, eliminated questionnaires and average time to complete the questionnaire.
- C. Participating students and response rates. Numbers and percentages among boys and girls.
- D. Some aspects of reliability. Two measures of inconsistency between two questions in a single administration. Percentages and quotients among all students.
- E. Opinions of the data collection leaders. Percentages.
- F. Proportions of unanswered questions. All students.
- G. Some aspects of validity: Inconsistent answers, unwillingness to admit drug use and reported knowledge and use of the dummy drug relevin. Percentages among all students.
- H. Alcohol and drug use in Norway. Frequency of lifetime, last 12 months and last 30 days use. Data from ESPAD and a national survey in 2003. Percentages among all respondents.
- Alcohol and drug use in Sweden. Frequency of lifetime and last 30 days use. Data from ESPAD and the annual Swedish school survey 2003 in grade 9. Percentages among boys and girls.

- J. Alcohol and drug use in the Netherlands. 57 Frequency of lifetime, last 12 months and last 30 days use. Data from ESPAD and a parallell school survey (PEIL). Percentages among all respondents.
- K. Alcohol use in the ESPAD and HBSC surveys. Students answering 3 times or more often during the last 30 days (ESPAD) or at least weekly (HBSC). Percentages among boys and girls, r_{xy} and Spearmans rangcorrelation cofficient (r_{rank}).
 - L. Drunkenness in the ESPAD and HBSC surveys. Students who have ever been drunk (ESPAD) and drunk at least twice (HBSC). Percentages among boys and girls, r_{xy} and Spearmans rangcorrelation cofficient (r_{rank}).
- M. Lifetime use of cannabis in the ESPAD and 59 HBSC surveys. Percentages among boys and girls, r_{xy} and Spearmans rangcorrelation cofficient (r_{rank}).
- N. 12 months prevalence of cannabis use in 59 the ESPAD and HBSC surveys. Percentages among boys and girls, r_{xy} and Spearmans rangcorrelation cofficient (r_{rank}).
- O. Drunkenness measured with a new 274 "softer" and an old translation in a splithalf test in Moscow schools in 2003.

Figures

- 1a-c. Changes between 1995 and 2003 in lifetime use of cigarettes 40 times or more. Percentages among boys, girls and all students.
- 2a-c. Changes between 1995 and 2003 in cigarette smoking during the last 30 days. Percentages among boys, girls and all students.
- 4a-c. Changes between 1995 and 2003 in lifetime use of any alcoholic beverages 40 times or more. Percentages among boys, girls and all students.
- 5a–c. Changes between 1995 and 2003 in use of any alcoholic beverages 20 times or more during the last 12 months. Percentages among boys, girls and all students.

- 66 6a–c. Changes between 1995 and 2003 in use of 76 any alcoholic beverages 10 times or more during the last 30 days. Percentages among boys, girls and all students.
 - 7a–c. Changes between 1995 and 2003 in beer 78 consumption 3 times or more during the last 30 days. Percentages among boys, girls and all students.
 - 8a–c. Changes between 1999 and 2003 in wine consumption 3 times or more during the last 30 days. Percentages among boys, girls and all students 2003.
 - 9a–c. Changes between 1999 and 2003 in consumption of spirits 3 times or more during the last 30 days. Percentages among boys, girls and all students.

10a–c. Changes between 1995 and 2003 in consumption of 101 cl beer or more on the last drinking occasion. Percentages among boys, girls and all students. 86

90

94

- 11a-b. Changes between 1995 and 2003 in consumption of 101 cl alcopops or more on the last drinking occasion. Percentages among boys, girls and all students.
- 12a–c. Changes between 1995 and 2003 in consumption of 15 cl wine or more on the last drinking occasion. Percentages among boys, girls and all students.
- 13a-c. Changes between 1995 and 2003 in consumption of 11 cl spirits or more on the last drinking occasion. Percentages among boys, girls and all students.
- 14a–c. Changes between 1995 and 2003 in the proportion who have been drunk 20 times or more in lifetime. Percentages among boys, girls and all students.
- 15a-c. Changes between 1995 and 2003 in the proportion who have been drunk 10 times or more during last 12 months. Percentages among boys, girls and all students.
- 16a–c. Changes between 1995 and 2003 in the proportion who have been drunk 3 times or more during last 30 days. Percentages among boys, girls and all students.
- 17a-c. Changes between 1995 and 2003 in the proportion who have reported "binge drinking" 3 times or more during last 30 days. Percentages among boys, girls and all students. 2003.
- 18a-c. Changes between 1995 and 2003 in the proportion of all students who have been drunk at the age of 13 or younger. Percentages among boys, girls and all students.
- 19a–c. Changes between 1995 and 2003 in lifetime experience of any illicit drug.
- 20a–c. Changes between 1995 and 2003 in lifetime experience of marijuana or hashish.
- 21a–c. Changes between 1995 and 2003 in the proportion of all students who have used marijuana or hashish during the last 30 days.
- 22a–c. Changes between 1995 and 2003 in lifetime experience of any illicit drug other than marijuana or hashish.
- 23a–c. Changes between 1995 and 2003 in lifetime experience of tranquillisers or sedatives without a doctor's prescription.

- 24a–c. Changes between 1995 and 2003 in lifetime experience of alcohol together with pills.
 - 25a–c. Changes between 1995 and 2003 in lifetime experience of inhalants.
 - 26a–c. Changes between 1995 and 2003 in the proportion of all students who perceive inhalants "very easy" or "fairly easy" to obtain.
 - 27a–c. Changes between 1995 and 2003 in the proportion of all students who perceive marijuana or hashish "very easy" or "fairly easy" to obtain.
 - 28a-c. Changes between 1995 and 2003 in the proportion of all students who perceive LSD or other hallucinogens "very easy" or "fairly easy" to obtain.
 - 29a-b. Lifetime use of cigarettes 40 times or 130 more. Percentages among boys, girls and all students. 2003.
- 30a–b. Cigarette smoking during the last 30 days. 132 Percentages among boys, girls and all students. 2003.
- 31a-b. Daily smoking at the age of 13 or younger. 134 Percentages among boys, girls anf all students. 2003.
- 32a–b. Lifetime use of any alcoholic beverage 40 135 times or more. Percentages among boys, girls and all students. 2003.
- 33a-b. Use of any alcoholic beverage 20 times or more during the last 12 months. Percentages among boys, girls and all students. 2003.
- 34a-b. Use of any alcoholic beverage 10 times or more during the last 30 days. Percentages among boys, girls all students. 2003.
- 35a–b. Beer consumption 3 times or more during the last 30 days. Percentages among boys, girls and all students. 2003.
- 36a-b. Wine consumption 3 times or more during the last 30 days. Percentages among boys, girls aand all students. 2003.
- 37a-b. Consumption of spirits 3 times or more during the last 30 days. Percentages among boys, girls and all students. 2003.
- 38a-b. Consumption of 101 cl beer or more on the last drinking occasion. Percentages among boys, girls and all students. 2003.
- 39a-b. Consumption of 15 cl wine or more on the last drinking occasion. Percentages among boys, girls and all students. 2003.

40a–b. Consumption of 11 cl of spirits or more on the last drinking occasion. Percentages among boys, girls and all students. 2003.

147

- 41a–b. Estimated average consumption of beer, wine and spirits, in cl 100% alcohol, on the last drinking occasion. Boys, girls and all students. 2003.
- 42a–b. Proportion of boys and girls who have 152 been drunk 20 times or more in lifetime. 2003.
- 43a–b. Proportion of boys, girls and all students 153 who have been drunk 10 times or more during last 12 months. 2003.
- 44a–b. Proportion of boys, girls and all students 155 who have been drunk 3 times or more during the last 30 days. 2003.
- 45a–b. Proportion of boys, girls and all students 156 who reported "binge drinking" 3 times or more during the last 30 days. 2003.
- 46a–b. Proportion of boys, girls and all students 159 who have been drunk at the age of 13 or younger. 2003.
- 47. Anticipated positive and negative consequences of alcohol consumption. Number of statements for which the percentage of all students answering "likely" or "very likely" exceeds the average of all countries.
- 48. Experienced problems caused by alcohol. 162 The number of variables within each "problem group" for which a country's percentage exceeds the average of all countries. All students.
- 49. Cross-national average of students who report having each of 14 problems because of their alcohol use and because of other reasons.

- 50a–b. Lifetime experience of any illicit drug. 164 Percentages among boys, girls and all students. 2003.
- 51a–b. Lifetime experience of marijuana or hashish. Percentages among boys, girls and all students. 2003.
- 52a–b. Proportion of boys, girls and all students 167 who have used marijuana or hashish during the last 30 days.2003.
- 53a–b. Lifetime experience of any illicit drug other than marijuana or hashish. Percentages among boys, girls and all students. 2003.
- 54a–b. Lifetime experience of tranquillisers or 171 sedatives without a doctors prescription. Percentages among boys, girls and all students. 2003.
- 55a–b. Lifetime experience of alcohol together 172 with pills. Percentages among boys, girls and all students. 2003.
- 56a–b. Lifetime experience of inhalants. Percentages among boys, girls and all students. 2003.
- 57. The proportion of students who reported that 175 cannabis was easily available in schools and any other place respectively.
 - 58a–b. Proportion of boys, girls and all students 179 who perceive inhalants "very easy" or "fairly easy" to obtain. 2003.
- 59a–b. Proportion of boys, girls all students who perceive marijuana or hashish "very easy" or "fairly easy" to obtain. 2003.
- 60a–b. Proportion of boys, girls all students who perceive LSD or other hallucinogen "very easy" or "fairly easy" to obtain. 2003.

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Each country has been represented in the project by a researcher, who is also a contributing author of this report (see title page). There are, however, a number of persons who have done important work with the 2003 ESPAD study. They are presented below in alphabetical order by country.

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Introduction

Health effects of tobacco, alcohol and drug consumption are apparent on the individual as well as the societal level as a whole. The negative aspects are of great concern in municipalities and countries and for that matter the international community. Governments and major international bodies as the United Nations and the European Union are constantly looking for policy measures to reduce the negative impact of the use of different substances.

The wellbeing of young people is of special concern in all societies and ongoing efforts are made to reduce all types of dangerous behaviour. These include many aspects of the consumption of tobacco, alcohol and different kinds of illegal drugs. Most countries have laws in place that restrict the availability of these substances. The legal regulations may vary between countries but many of them include limitations especially targeted to young people.

The wellbeing of young people is visible in the Action plans of the European Union. The first covered the years from 1995 to 1999 and the second, the period from 2000 to 2004. A new plan from 2005 is in the preparative stage. The plan for 2000–2004 included the following six targets:

- To reduce significantly over five years the prevalence of illicit drug use, as well as new recruitment to it, particularly among young people under 18 years of age.
- To reduce substantially over five years the incidence of drug-related health damage (HIV, hepatitis B and C, TBC, etc.) and the number of drug-related deaths.
- To increase substantially the number of successfully treated addicts.
- To reduce substantially over five years the availability of illicit drugs.
- To reduce substantially over five years the number of drug related crimes.
- To reduce substantially over five years moneylaundering and illicit trafficking of precursors.

The European Union established the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) in Lisbon. The centre is responsible for supplying objective, reliable and comparable data to provide the Community and member states with an overall view of drugs, drug addiction and their consequences. The tasks of EMCDDA include; to collect and analyse existing data, to improve datacomparison methods, to disseminate data and to cooperate with European and international organisations and third countries.

WHO formulated a European Alcohol action plan for the years 2000 to 2005 with the aim to reduce the harm caused by alcohol. To complement this broad plan a declaration on young people and alcohol was released in 2001. The declaration includes the following targets:

- To substantially reduce the number of young people who start consuming alcohol.
- To delay the age of onset of drinking by young people.
- To substantially reduce the occurrence and frequency of high-risk drinking among young people, especially adolescents and young adults.
- To increase education for young people on alcohol.
- To substantially reduce alcohol-related harm, especially accidents, assaults and violence, and particularly as experienced by young people.

The Pompidou Group at the Council of Europe provides a forum for European ministers, officials and other professionals to co-operate and exchange information about drugs. The main mission is the facilitation of the triangulation between policy, practice and research with the aim to promote evidence-based policy with focus on day-to-day practice as well as local level policy and practice.

Platforms are the main instruments through which the mission of the Pompidou Group has been implemented. The functions of the research platform includes to signal developments in the use of data and research as a basis for policy and practice. In relation to the ESPAD project this includes examination of the impact of the ESPAD project on policy and practice and to better understand risk factors and communicate this information to policymakers and practitioners to elaborate evidencebased prevention policies and programmes.

The ESPAD project can play a key role in relation to the actions proposed by all these actors. One of the goals of the ESPAD project is to provide data that can be used as a part of the evaluation of the EU action plan on drugs as well as the WHO Europe declaration on young people and alcohol. In relation to the evaluation of the EU action plan co-operation with EMCDDA is essential. The same is true in relation to the Pompidou Group and its role to promote evidence-based drug policy measures. There is a growing concern from policy makers and other decision makers about the negative effects of young peoples' consumption of different substances. Informed and well supported decisions demand comprehensive information, which is a key mission for the ESPAD project. With three data collections in 1995, 1999 and 2003 the ESPAD project provides a reliable overview of trends in licit and illicit drug use among European adolescents between 1995–2003 as well as a comprehensive picture of young peoples' use of tobacco, alcohol, cannabis and other drugs in Europe.

Background

The use of tobacco, alcohol and other drugs among young people is of great concern in most countries and many studies have been conducted to better understand consumption patterns. Traditionally, in spite of the significant number of studies conducted in many countries, it was rather difficult to obtain a comprehensive picture and more to the point compare the levels of alcohol and drug use prevalence in different countries. The main reason for this was that the studies involved different age groups with different questionnaires and at different times, i.e. too many disparate factors that made comparisons difficult.

During the 1980's a subgroup of collaborating investigators was formed within the Pompidou Expert Committee on Drug Epidemiology, Council of Europe, to develop a standardised school survey questionnaire and methodology. The purpose and rationale for the work was to produce a standard survey instrument, which would permit different countries to compare alcohol and drug use in student populations. The common questionnaire was used by eight countries in a pilot study. Unfortunately the studies differed in sample size, representativeness and range of ages studied and they were not performed simultaneously. Due to these differences data were not directly comparable. However, the survey instrument proved to be valid and reliable (Johnston et al. 1994).

Another study, who's primary objective is the

health behaviour of children in Europe (aged 11, 13 and 15), was initiated by a small group of researchers in the beginning of the 1980s. The project was adopted by WHO and now has an increasing number of countries involved in it. Surveys have been conducted since 1983/84 and to date total some six, the last one in 2001/02. However, the focus of these studies is mainly health issues, although in later studies a few questions were asked on smoking, alcohol consumption and cannabis use (Currie et. al. 2004).

Some few countries conduct school surveys on a more or less regularl basis. However, the long series of annual school surveys in Sweden since 1971 is unique. Over the years however there has been a growing interest to compare the results from the Swedish school surveys with comparable data from other countries.

In the light of the experiences described above, the Swedish Council for Information on Alcohol and Other Drugs (CAN) initiated a collaborative project in 1993 by contacting researchers in most European countries, to explore the possibility of simultaneously performed school surveys on tobacco, alcohol and drugs in co-operation with the Pompidou Group. These contacts resulted in the first ESPAD study involving 26 European countries in 1995. The second study was conducted in 1999.

Purpose of the project

A main purpose of the ESPAD project is to collect comparable data on alcohol, tobacco and drug use among 15–16 year old students in European countries. The studies are conducted as school surveys by researchers in each participating country, during the same period of time and with a common methodology. By adopting this ESPAD format, comprehensive and comparable data on alcohol, tobacco and drug use among European students are produced.

The most important goal of this project is to monitor trends in alcohol and drug habits among students in Europe and to compare trends between countries and between groups of countries. The knowledge thus gained will be important in the future when changes in one part of Europe may serve as a possible forecast for other countries where changes have not yet appeared. Such trends may also function as the basis for future prevention initiatives.

In relations to the EU action plan on drugs and the WHO Europe declaration on young people and alcohol, a third goal of the ESPAD project is to provide data that can be used as a part of the evaluation of these charters.

The surveys are planned to be repeated every fourth year, thus providing long-term data on changes in alcohol and drug consumption among young people. The collected data should also be analysed in depth for a better understanding of young peoples' alcohol and drug behaviour. European countries which are not yet involved in the ESPAD project are welcome to join the next wave in 2007, to further the coverage across Europe as completely as possible.

The use of surveys

Knowledge pertaining to the levels of alcohol and drug use can be derived in different ways depending on which part of the phenomenon one wants to address. In many countries household surveys are conducted with the aim of measuring alcohol and drug habits in general populations. School surveys are also often performed, either complementary to other investigations or as the only measure.

A problem with surveys is that they usually do not reach some segments of the population, including heavy abuser populations, homeless or dropouts from school. The latter is a group of young persons known to be vulnerable to alcohol and drug use. There are, however, other techniques available to measure drug use among these populations, e.g. snowball sampling, first treatment demand rates or estimates based on capture-recapture methods.

The rationale for school surveys is that students represent age-groups when onset of different substance use is likely to occur and therefore important to monitor. Another reason is ease of accessibility, students are as such within the school system, which also reduces the costs.

With student studies, it is a well accepted method to use group administrated questionnaires in a classroom setting where data are collected under the same conditions as a written test. The experience of using school surveys to collect information on alcohol and drug use certainly differs between countries. However, when students are the selected population for study, there are usually no other realistic ways of collecting data other than using group administrated questionnaires in the schools (usually in the classrooms).

A handbook on the methods usually required in the conduct of school surveys on drug abuse has recently been published by United Nations Office on Drugs and Crime (Hibell et al 2003). It includes information on the planning of school surveys, methodological issues, sampling issues, questionnaire development, data collection procedure as well as report writing.

National project plans and regional seminars

Prior to the survey each country produced a national project plan, following a standardised outline, describing the target population's distribution over the grades in school and the proportion of students expected to be enrolled in school (Hibell and Andersson 2002). The plans for sampling and field procedures were also described in detail.

In an effort to standardise the methodology regional seminars were held with small groups of investigators. The purpose of the seminars was to maximise the standardisation of the data collection procedure and to discuss and suggest which of the sampling procedures were most appropriate for the different countries with different conditions in terms of available school statistics. The seminars per se also functioned as training courses for the less experienced participants.

Participants and ownership

Each researcher raised funds in his or her own country and participated in the project and at project meetings independently and at own costs. Data collected in the project are owned by each country independently. The co-ordination of the project is financed by a mutual agreement between the Swedish Council for Information on Alcohol and Other Drugs (CAN) and the Swedish Government.

Participating countries

About 30 countries were involved in the planning process of the 1995 ESPAD study. Unfortunately a few of them were unable to raise the funding needed for data collection and thus the 1995 ES-PAD Report included information gathered from 26 countries (Hibell et al 1997). In the second round of data collection held in 1999 data was collected from 30 countries.

For the 2003 survey, new countries have joined and this report includes data from 35 participating countries including Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, the Faroe Islands, Finland, France, Germany, Greece, Greenland, Hungary, Iceland, Ireland, Isle of Man, Italy, Latvia, Lithuania, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Russia (Moscow), the Slovak Republic, Slovenia, Sweden, Switzerland, Turkey, Ukraine and United Kingdom.

Five of these countries participated in the ESPAD project for the first time in 2003. They are Austria, Belgium, Germany, Isle of Man and Switzerland. Turkey collected data in 1995, but not in 1999, and re-joined for the 2003 survey. One country (FYROM – Former Yugoslav Republic of Macedonia) that participated in the 1999 study did not take part in the 2003 data collection exercise. Besides the 35 ESPAD countries the report also includes data from Spain and USA.

The structure of the 2003 ESPAD report

The structure of this report follows to a large extent the structure of previous ESPAD reports. A major difference is a new more analytical chapter about the relationship between some background variables and the consumption of alcohol and other drugs. Moreover, one of the first chapters includes an overview of the study design and procedures. As mentioned earlier, a goal of the ESPAD project has of course been to standardise the procedures as much as possible, including the target population, the questionnaire, the sampling procedure as well as the way in which data are collected. A complement to this overview can be found in Appendix I in which the sampling and field procedures are presented and commented on country by country.

Changes between the three data collections in 1995, 1999 and 2003 are presented in the first of the result chapters. This is the only part of the report that includes data from previous data collections. (An exception is the last of the tables in the table section, where recalculated data on estimates for alcohol consumption from the 1999 study are presented.) To give an overview of major changes from 1999 to 2003 in the countries that participated in both studies the chapter is made more explicit by the significant use of a number of diagrams. In addition to this, a new type of diagram has been introduced that provides information on the trends between all the three data collections country by country.

Major results from the 2003 data collection are presented in a separate chapter. As in previous reports, it includes maps that illustrate the differences between high and low prevalence countries for a large number of variables. The maps are complemented by bar graphs that _rank" all countries with available information.

The key results for individual countries are gathered in a separate chapter. It includes a country by country overview in which the findings of each country are compared with the averages of all 35 ESPAD countries.

Some of the most relevant variables describing the alcohol and drug situation among students across Europe are summarised in a short chapter. The overview includes information on cigarette smoking, alcohol consumption, drunkenness as well as the use of cannabis and other illicit drugs.

The last chapter includes correlates of adolescent substance use. The use of cigarettes, alcohol and cannabis use correlated to parental education, family structure, economic situation, parental control, truancy and sibling substance use.

The tables of the methodological chapter are presented in the text. However, the tables that include data related to the consumption of alcohol and other drugs are to be found in Appendix II.

Summary of the 2003 findings

Data on young people's alcohol and drug habits have been collected in three waves of the European School Survey Project on Alcohol and Other Drugs, ESPAD. The first study was conducted in 26 countries in 1995. The second survey was done in 1999 and reached 30 participating countries.

The focus of this chapter is on the findings from the surveys that were performed in 35 countries in 2003.

The participating countries include Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, the Faroe Islands, Finland, France, Germany (6 Bundesländer), Greece, Greenland, Hungary, Iceland, Ireland, Isle of Man, Italy, Latvia, Lithuania, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Russia (Moscow), the Slovak Republic, Slovenia, Sweden, Switzerland, Turkey (6 cities), Ukraine and the United Kingdom. The project is a collaborative project between independent research teams in the participating countries. More than 100,000 students participated in the 2003 data collection.

In this chapter a short version of the 2003 findings is presented. Key data on important variables are presented in summary tables 1–3. The behaviours included are cigarette smoking, alcohol consumption, drunkenness and use of illicit drugs.

Methodology

As in earlier studies, the surveys were conducted with a standardised methodology and a common questionnaire to provide as comparable data as possible. Data were mainly collected during Spring 2003 and the target population was students born in 1987. Thus, the age group studied turned 16 during the year of data collection. At the time of the data collections the average age was 15.8 years. Data were collected by group-administered questionnaires in schools on nationally representative samples of classes. Exceptions include Russia, where the study was restricted to Moscow only, Germany, where the study was performed in six Bundesländer and Turkey, where the study was restricted to six major cities in the six main regions in Turkey.

Teachers or research assistants collected the data.

The students answered the questionnaires anonymously in the classroom under conditions similar to a written test. The sample sizes in participating countries ranges between 555 in Greenland to almost 6,000 in Poland. However, small study groups are only found in small countries where no sampling was done. In all remaining countries, the sample size was close to or above the recommended number of 2,400.

The results of the survey were reported in a standardised format. These country reports form the basis of the content of this report.

Data quality

Every effort was made to standardise the methodology of the ESPAD project across countries. Nevertheless, some methodological issues inevitably arise in a comparative survey of 35 countries.

The validity is deemed to be high in most ES-PAD countries. The cultural context in which the students have answered the questions has most probably differed between countries. However, this does not necessarily indicate large differences in the willingness to give honest answers. A few countries have experienced modest validity problems, but such problems are not of the magnitude necessary to seriously threaten the comparability of results.

For various reasons it was not possible to give precise levels of statistical significance in this report. Small differences in point estimates between countries or over time should therefore be interpreted with caution. However, given the size of the national samples and the sampling methods employed, differences of more than a few percentage points can with considerable confidence be considered significant.

Tobacco

he use of cigarettes 40 times or more in lifetime and the 30 days prevalence rates are presented in the summary tables. In nearly all ESPAD countries 50–80% of the students had smoked cigarettes at least once in their lifetime, and those who had smoked 40 times or more are mainly found in countries where the lifetime prevalence is high. In Austria, the Czech Republic, the Faroe Islands, Greenland, Germany, Lithuania and Russia (Moscow) about 40% had smoked 40 times or more in their lifetime. The lowest prevalence rates are found in Turkey (13%), Malta (16%), Iceland and Portugal (18% each).

In eight of the 35 ESPAD countries more boys than girls had smoked 40 times or more in their lifetime. These countries are mainly found in the eastern parts of Europe such as Estonia, Latvia, Lithuania, Poland, Romania and Ukraine, but also in Cyprus and Turkey. Large differences in the other direction with more girls reporting this behaviour are mainly found in two northern islands, Greenland and the Isle of Man.

The highest percentage of students, which reported smoking during the last 30 days is found in Greenland, which stands apart from other countries on this variable (60%). High rates are also found in Austria, Bulgaria, Germany, Russia (Moscow) and the Czech Republic (43–49%). Particularly low proportions are found in Cyprus, Iceland, Sweden and Turkey with figures ranging between 18 and 25%.

Countries with substantially higher rates of last month smoking among boys include Cyprus, Latvia, Lithuania, Turkey and Ukraine. Considerably higher rates among girls are found in Greenland, Ireland, Isle of Man and the United Kingdom.

Alcohol consumption

Prevalence of alcohol consumption 40 times or more in lifetime is presented in the summary tables. They also contain the 30 days prevalence of alcohol consumption 10 times or more, as well as the 30 days prevalence of consuming beer, wine and spirits 3 times or more.

In two thirds of the ESPAD countries the vast majority (90% or more) of the students have drank alcohol at least once in their lifetime. However, these students do not all drink on a regular basis. A student who has been drinking at least 40 times can be labelled as more of a regular consumer. The prevalence rates of this frequency of drinking are much lower than the total lifetime prevalence.

The highest rates reporting use of alcohol 40 times or more in lifetime are primarily found in the same countries as reported the highest lifetime figures. They include Denmark, Austria, the Czech Republic, Isle of Man, the Netherlands and the United Kingdom (43–50%). The lowest proportion is reported from Turkey (7%) followed by Greenland, Iceland, Norway and Portugal (13–15%).

More boys than girls report this level of alcohol consumption. In a few countries, Isle of Man, Finland and Norway, the gender distribution is about equal. However, no country reports prevalence rates among girls that exceed those of the boys.

A higher frequency of alcohol use is revealed among students who had consumed alcohol 10 times or more during the last 30 days, i.e. at least every third day on average. About one quarter of the students in the Netherlands (25%) and about one fifth of the respondents in Austria, Belgium, Malta and the United Kingdom (17–21%) reported this frequency of alcohol use. In some countries, this drinking frequency is hardly reported at all. Proportions of 3% or less were found in Finland, Greenland, Iceland, Norway and Sweden. Thus, the very low prevalence rates are mainly concentrated to the Nordic countries.

Many students report rather frequent beer consumption. The percentages of students who had consumed beer 3 times or more during the last 30 days varies between 10 and 44%. The highest figures are found in Denmark, Bulgaria, the Netherlands and Poland (40–44%). The smallest proportions were reported from Norway and Turkey (10 and 14% respectively). Other countries where less than 20% had consumed beer that often include Finland, Hungary, Iceland and Portugal.

Drinking beer is a predominantly male behaviour in most ESPAD countries. The only exceptions are two countries in the North Atlantic, Greenland and Iceland, where almost equal proportions of girls and boys report frequent beer drinking.

A smaller number of students had been drinking wine than beer during the last 30 days. The proportions of students reporting a wine consumption frequency of 3 times or more during last 30 days are in most cases lower than 20%. However, one country stands out in this respect, as one third (35%) of the students in Malta reported this frequency of wine drinking. Other high prevalence countries include Austria, the Czech Republic, Greece, Italy and Slovenia (21–23%). The lowest proportions that reported this frequency of wine consumption are found in Finland, Iceland, Norway and Turkey (5% or less).

The number of students who had been drinking spirits during the last 30 days vary considerably between the ESPAD countries. This also holds true also when looking at the number of students who had been drinking 3 times or more during last month. The British Isles are at the top but also two Mediterranean countries. The highest proportion is found in Malta, where 43% of the students reported this frequency of spirits consumption. The countries that come next include the Faroe Islands, Greece, Ireland, Isle of Man and the United Kingdom (37–39%).

In about half of the countries, more boys than girls report such frequent consumption of spirits. However, almost the same number of countries report prevalence rates that are equal or almost equal between the sexes. Only three countries report proportions among the girls that exceed those of the boys. These countries are all high frequency countries and they are all parts of the British Isles, i.e. Ireland, Isle of Man and the United Kingdom.

Drunkenness

Lifetime prevalence of having been drunk 20 times or more and the 30 days prevalence of being drunk 3 times or more are presented in the summary tables.

Some students have a rather limited experience of getting drunk, while others get intoxicated more frequently. However, in 30 of the 35 countries studied a majority of the students have been drunk at least once. The countries with the highest percentages indicating that they had been drunk 20 times or more in lifetime include Denmark, Ireland, Isle of Man, the United Kingdom, Estonia and Finland (26–36%). In other countries only a few report this frequency of drunkenness. In Turkey only 1% had been drunk 20 times or more and in Cyprus, France, Greece and Portugal this was reported by about 3% of the students.

In a majority of the countries there are more boys than girls that report this frequency of intoxication. In no country are the girls in majority. However, in relatively many countries the gender distribution is rather even. These countries include both the British Isles and most of the Nordic countries (Finland, the Faroe Islands, Iceland, Ireland, Isle of Man, Norway, Sweden and the United Kingdom).

The number of students who have been drunk 3 times or more during the last 30 days is of course much smaller, but the highest ranked countries are in most cases the same. Thus, in Denmark and Ireland about one fourth of the students had been drunk that often. Other countries with high prevalence rates include Isle of Man and the United Kingdom.

However, in about half of the ESPAD countries the number of students reporting this frequency of intoxication is 10% or less. The lowest figures are reported from Cyprus, France, Greece, Portugal and Turkey (1-4%).

Binge drinking

The frequency of having 5 or more drinks in a row, sometimes referred to as "binge drinking", provides an alternative measure of heavy alcohol use. The proportion indicating such consumption 3 times or more during the last 30 days vary considerably over the ESPAD countries. This is reported by one fifth to one third of the students in about half of the ESPAD countries.

The highest number of students reporting this behaviour is found in Denmark, Ireland, Isle of Man, Malta, the Netherlands, Norway, Poland, Sweden and the United Kingdom (24–32%). Thus, there is a concentration of countries to the northern and western parts of Europe with Malta as the only exception. Countries with the lowest binge drinking figures are Cyprus, France, Greece, Hungary, Iceland, Romania and Turkey (5–11%).

Illicit drugs

Lifetime use of various illicit drugs are presented in the summary tables, including cannabis, amphetamines, LSD, Ecstasy, tranquillisers or sedatives without a doctor's prescription and the use of inhalants. In addition the 30 days prevalence of cannabis is included.

The vast majority of students in all ESPAD countries that have tried any illicit drug have used marijuana or hashish. Thus, the number of students reporting cannabis use is almost identical with the total illicit drug prevalence.

The top country in this respect is the Czech Republic where 44% of the students have used marijuana or hashish. High prevalence rates are also reported in France, Ireland, Isle of Man, Switzerland and the United Kingdom (38–40%). Other countries where more than one fourth have used cannabis include Belgium, Germany, Greenland, Italy, the Netherlands, the Slovak Republic and Slovenia (27–32%).

The lowest levels are reported in Cyprus, Greece, Sweden, Romania and Turkey (3–7%), but also in the Faroe Islands, Finland and Norway (around 10%).

The use of cannabis during the last 30 days may indicate regular use. In some countries about one fifth of the students report this, in others much lower prevalence rates are noted. The countries with the highest 30 days prevalence include the Czech Republic, France, Isle of Man, Switzerland and the United Kingdom (19–22%). In most ESPAD countries there are more boys than girls who have used cannabis. However, the gender differences are small in Bulgaria, Croatia, Greenland, Hungary, Iceland, Ireland, Russia (Moscow) the Slovak Republic and Slovenia.

The countries with the highest percentages of students reporting use of amphetamines are Estonia, Germany, Iceland, Lithuania and Poland (5–7%). In 13 countries 1% or less reported use of amphetamines.

The ESPAD students do not use LSD very frequently. The highest percentages are found in the Czech Republic and Isle of Man where 5-6% reported such use.

Ecstasy is the most used drug of those included in the questionnaire apart from cannabis. In the Czech Republic 8% had used it, followed by Croatia, Estonia, Ireland, Isle of Man, the Netherlands and the United Kingdom (5-7%).

Tranquillisers or sedatives can be used both as a legally prescribed medicine and as an illicit drug. The use of such substances without prescription is most common in Poland (17%) followed by Lithuania (14%), France and the Czech Republic (11–13%). The lowest prevalence rates are found in Austria, Bulgaria, Germany, Ireland, Ukraine and the United Kingdom (2% each).

The highest prevalence of inhalants is reported in Greenland, where 22% had ever used them. Other countries with high levels of inhalant use include Cyprus, Greece, Ireland, Isle of Man, Malta and Slovenia (15–19%).

Very small gender differences are found in relation to the use of inhalants. In a majority of the countries there are no gender differences, but in Belgium, Cyprus, Greece, Portugal and Ukraine more boys than girls reported this behaviour. Girls only reported more use than boys in one country, Ireland.

Conclusions

In summary, the pattern of alcohol consumption reveals that frequent drinking is most prevalent among students in the western parts of Europe, such as the British Isles, the Netherlands, Belgium but also in Austria, the Czech Republic and Malta. Very few students in the northern parts of Europe drink that often.

Beer consumption is most prevalent in Bulgaria, Denmark, the Netherlands and Poland, while wine consumption is most prevalent in typical wine producing countries such as Austria, the Czech Republic, Greece, Italy, Malta and Slovenia. The consumption of spirits is less uniform, with high prevalence rates in as disparate countries as the Faroe Islands, Greece, Ireland, Isle of Man, Malta and the United Kingdom.

The prevalence of drunkenness seem to be most concentrated to countries in the western parts of Europe, such as Denmark, Ireland, Isle of Man and the United Kingdom. Very few students report frequent drunkenness in Mediterranean countries such as Cyprus, France, Greece, Portugal, Romania and Turkey.

The illicit drug use is dominated by use of marijuana or hashish. Frequent use is mainly reported from countries in the central and western parts of Europe, where more than one third of the students have used it. The high prevalence countries include the Czech Republic, France, Ireland, Isle of Man, Switzerland and the United Kingdom. The low prevalence countries are found in the north as well as the south of Europe.

Country	Cigarette	Cigarette smoking		Cigarette smoking		onsumption				Drunkenn	ess	Binge drinking ^{a)}	Cannabis		Lifetime use	e of other i	illicit drugs	Lifetime use of	Lifetime use of
	Lifetime use 40 times or more	Smoked during the last 30 days	Lifetime use 40 times or more	Last 30 da Any alco- hol 10 times or more	ys Beer 3 times or more	Wine 3 times or more	Spirits 3 times or more	Lifetime 20 times or more	Last 30 days 3 times or more	last 30 days 3 times or more	Lifetime	Last 30 days	Ampheta- mines	LSD	Ecstasy	tranquill- in isers or sedatives ^{b)}	inhalants		
Austria	41	48	53	27	50	20	36	37	22		23	12	4	2	3	1	14		
Belgium	28	32	46	28	49	21	33	11	12	28	37	20	3	4	5	9	9		
Bulgaria	32	42	33	13	55	16	27	15	17	26	23	10	2	2	3	2	4		
Croatia	32	36	38	15	42	23	20	14	12	19	24	9	2	2	5	4	14		
Cyprus	28	30	34	18	40	15	39	2	6	17	7	4	1	2	2	7	19		
Czech Rep.	39	43	54	17	52	18	30	25	17	24	48	21	3	6	8	8	9		
Denmark	26	27	57	18	54	6	34	41	30	31	27	10	5	1	3	4	9		
Estonia	41	40	38	8	35	12	27	33	23	26	28	8	7	3	5	5	9		
Faroe Isl.	39	42	34	6	38	7	42	26	20	21	9	2	1	0	0	5	10		
Finland	32	35	20	3	22	4	10	25	15	18	11	3	1	1	1	4	8		
France		31	30	10	26	11	21	4	5	13	42	26	3	1	4	10	12		
Germany	40	43	43	15	45	12	28	16	11	31	31	14	5	3	3	1	12		
Greece	19	27	43	17	39	27	41	4	3	14	7	2	0	1	2	3	17		
Greenland	34	56	17	5	33	5	33	24	20	23	29	12	0	1	2	3	23		
Hungary	33	39	27	8	23	20	23	16	11	12	18	7	3	2	3	7	6		
Iceland	19	20	16	2	19	5	15	16	9	13	14	4	5	2	2	8	12		
Ireland	25	28	42	17	47	6	29	32	27	31	38	16	1	2	4	2	14		
Isle of Man	15	23	45	19	41	15	32	28	20	26	41	24	4	6	7	6	18		
Italy	25	35	33	17	45	29	30	8	9	19	31	19	3	4	4	5	8		
Latvia	39	46	30	7	42	12	13	19	12	24	20	5	3	1	3	2	8		
Lithuania	49	49	45	13	38	12	15	29	17	19	18	8	6	3	3	10	6		
Malta	17	28	41	25	45	42	44	7	7	32	13	5	1	1	1	2	16		
Netherlands	28	32	55	34	55	7	36	9	10	37	32	17	2	3	6	7	7		
Norway	23	24	17	3	16	5	17	14	12	25	9	3	2	1	2	3	6		
Poland	32	35	36	13	50	9	18	15	13	17	23	10	6	3	3	12	10		
Portugal	19	28	20	11	27	8	29	5	6	20	18	11	3	3	5	4	10		
Romania	26	32	26	9	47	20	10	7	6	19	4	1	1	0	1	3	2		
Russia	42	44	44	16	47	16	17	18	13	22	26	7	1	2	3	2	7		
Slovak Rep.	35	39	42	12	32	21	27	20	14	20	32	10	2	2	3	3	10		
Slovenia	26	35	32	10	31	28	19	20	16	23	31	14	0	1	3	3	15		
Sweden	20	20	21	2	26	9	19	18	12	27	9	2	1	2	2	5	8		
Switzerland	24	33	33	18	39	12	37	14	12	21	44	23	3	1	2	4	9		
Turkey	17	22	10	4	14	4	7	3	4	9	6	3	3	2	3	3	5		
Ukraine	38	49	24	6	45	17	18	24	18	28	29	8	1	1	2	3	9		
United Kingdom	19	25	47	18	42	15	33	27	22	26	41	23	2	3	5	2	12		

Summary table 1. Selected variables on tobacco, alcohol and drug consumption. Boys.

a) Binge drinking: 5 drinks or more in a row.b) Without a doctor's prescription.

Country	Cigarette	Cigarette smoking		Cigarette smoking		Cigarette smoking		Cigarette smoking		Cigarette smoking		onsumption				Drunkenn	iess	Binge drinking ^{a)}	Cannabis		Lifetime us	e of other i	llicit drugs	Lifetime use of	Lifetime use of
	Lifetime use 40 times or more	Smoked during the last 30 days	Lifetime use 40 times or more	Last 30 da Any alco- hol 10 times or more	Beer 3 times or more	Wine 3 times or more	Spirits 3 times or more	Lifetime 20 times or more	Last 30 days 3 times or more	last 30 days 3 times or more	Lifetime	Last 30 days	Ampheta- mines	LSD	Ecstasy	tranquili- isers or sedatives	innaiants								
Austria	44	56	41	15	18	23	23	13	11		18	7	5	2	3	2	14								
Belgium	26	33	27	13	24	15	26	3	4	14	28	13	2	1	4	10	5								
Bulgaria	37	50	21	7	33	9	25	7	8	16	19	7	2	2	2	2	3								
Croatia	29	37	16	11	14	15	18	5	5	10	20	7	3	1	4	9	14								
Cyprus	12	14	12	6	16	8	23	0	1	6	2	1	1	0	1	5	15								
Czech Rep.	38	43	40	10	28	24	27	13	10	13	40	17	5	5	8	14	9								
Denmark	28	32	42	10	35	10	31	31	21	18	18	5	3	1	2	5	7								
Estonia	29	33	26	5	16	15	21	19	13	15	18	4	8	2	5	13	7								
Faroe Isl.	42	41	30	4	21	4	34	23	16	17	10	1	0	2	2	5	13								
Finland	32	41	20	2	13	6	10	28	17	15	11	2	1	1	2	9	8								
France		36	15	5	16	4	16	2	2	7	35	18	2	1	3	15	10								
Germany	39	46	31	9	18	21	23	8	8	24	24	9	6	4	4	2	11								
Greece	21	30	28	9	18	15	32	3	3	8	5	2	0	1	1	5	13								
Greenland	49	65	9	4	32	6	20	18	19	16	26	11	0	0	2	4	22								
Hungary	30	40	14	4	9	16	21	5	5	5	13	5	3	2	4	13	4								
Iceland	17	20	12	1	17	5	13	15	9	9	11	4	5	1	3	10	11								
Ireland	29	37	36	14	25	13	46	29	25	33	39	17	2	2	5	2	21								
Isle of Man	28	36	44	13	13	20	46	29	25	30	38	19	2	3	6	4	20								
Italy	25	40	16	6	22	16	21	3	3	8	23	12	2	2	2	7	5								
Latvia	25	36	23	4	22	14	10	10	7	18	12	2	3	1	3	4	7								
Lithuania	28	33	31	5	20	16	12	12	8	7	9	3	4	1	1	18	4								
Malta	16	26	27	16	16	32	42	3	4	19	8	3	1	0	1	3	15								
Netherlands	26	31	35	17	23	12	30	4	4	20	24	9	1	2	3	10	5								
Norway	29	32	14	2	11	4	18	13	10	24	9	2	2	1	1	3	4								
Poland	21	27	18	6	32	7	11	5	5	5	13	5	4	1	2	22	8								
Portugal	17	27	8	4	10	3	24	2	2	10	12	5	3	1	3	7	6								
Romania	15	26	12	3	22	9	5	2	2	5	2	0	0	0	0	7	1								
Russia	38	44	34	10	30	19	14	13	9	12	18	6	1	1	2	3	6								
Slovak Rep.	30	36	28	6	14	17	22	10	8	12	22	9	2	2	3	5	7								
Slovenia	28	38	18	4	12	17	21	10	8	18	26	14	1	1	4	8	15								
Sweden	24	27	14	1	14	8	17	15	9	22	6	1	1	1	1	7	8								
Switzerland	24	34	20	7	18	8	33	6	6	11	36	17	3	1	2	7	6								
Turkey	7	12	4	1	5	3	1	0	1	2	2	1	1	1	1	3	3								
Ukraine	19	28	19	4	21	18	12	11	10	15	12	2	1	1	0	1	4								
United Kingdom	24	34	39	15	17	22	43	27	25	29	35	16	3	1	5	1	13								

Summary table 2. Selected variables on tobacco, alcohol and drug consumption. Girls

a) Binge drinking: 5 drinks or more in a row.b) Without a doctor's prescription..

Country	Cigarette	Cigarette smoking		Cigarette smoking		Cigarette smoking		Cigarette smoking		onsumption				Drunkenn	ess	Binge drinking ^{a)}	Cannabis		Lifetime us	e of other	illicit drugs	Lifetime use of	Lifetime use of
	Lifetime use 40 times or more	Smoked during the last 30 days	Lifetime use 40 times or more	Last 30 da Any alco- hol 10 times or more	Beer 3 times or more	Wine 3 times or more	Spirits 3 times or more	Lifetime 20 times or more	Last 30 days 3 times or more	last 30 days 3 times or more	Lifetime	Last 30 days	Ampheta- mines	LSD	Ecstasy	tranquill- isers or sedatives	inhalants						
Austria	42	49	48	21	36	22	30	21	17		21	10	4	2	3	2	14						
Belgium	27	32	36	20	36	18	29	7	8	22	32	17	2	3	4	9	7						
Bulgaria	35	46	27	9	43	14	25	10	10	21	21	8	2	2	3	2	3						
Croatia	30	36	27	13	28	19	17	9	8	15	22	8	2	1	5	6	14						
Cyprus	20	22	21	11	28	13	31	2	2	11	4	2	1	1	2	6	17						
Czech Rep.	39	43	46	13	39	21	28	18	13	18	44	19	4	6	8	11	9						
Denmark	27	30	50	13	44	9	31	36	26	24	23	8	4	1	2	4	8						
Estonia	35	37	32	6	25	15	24	26	17	20	23	6	7	2	5	9	8						
Faroe Isl.	41	41	32	4	31	7	37	24	18	19	9	1	1	1	1	5	11						
Finland	32	38	20	2	18	5	10	26	16	15	11	3	1	1	1	7	8						
France		33	22	7	20	8	19	3	3	9	38	22	2	1	3	13	11						
Germany	40	45	37	11	30	17	24	12	10	28	27	12	5	3	3	2	11						
Greece	20	28	35	13	28	21	37	3	3	11	6	2	0	1	2	4	15						
Greenland	42	60	13	3	32	6	26	21	19	19	27	11	0	0	2	3	22						
Hungary	31	39	21	6	17	19	22	11	9	8	16	6	3	2	3	10	5						
Iceland	18	20	14	1	19	5	13	16	10	11	13	4	5	1	3	9	12						
Ireland	27	33	39	16	36	10	38	30	26	32	39	17	1	2	5	2	18						
Isle of Man	22	30	45	15	25	18	38	29	23	27	39	21	3	5	7	5	19						
Italv	25	38	24	12	34	23	25	5	7	13	27	15	3	3	3	6	6						
Latvia	32	40	26	6	32	12	12	14	8	22	16	4	3	1	3	3	7						
Lithuania	39	41	38	8	28	13	14	21	12	13	13	6	5	2	2	14	5						
Malta	16	27	33	20	29	35	43	4	5	25	10	4	- 1	1	1	3	16						
Netherlands	27	31	45	25	40	11	34	6	7	28	28	13	1	2	5	8	6						
Norway	26	28	15	3	14	3	17	14	12	24	9	3	2	1	2	3	5						
Poland	26	31	27	10	41	8	14	10	10	11	18	8	5	2	3	17	9						
Portugal	18	28	14	7	18	6	26	3	3	16	15	8	3	2	4	5	8						
Romania	20	29	18	5	33	13	6	3	3	11	3	0	0	0	1	5	1						
Russia	40	44	39	12	38	17	16	15	11	17	22	7	- 1	1	3	3	7						
Slovak Rep.	32	37	34	9	38	19	25	14	11	15	27	10	2	2	3	4	9						
Slovenia	27	36	25	7	21	21	20	15	12	22	28	14	1	1	3	5	15						
Sweden	22	23	17	1	20	8	18	17		25	7	1	1	1	2	6	8						
Switzerland	24	34	27	13	28	10	35	10	9	15	, 40	20	3	1	2	6	7						
Turkey	13	18	7	4	10	4	5	1	1	5	4	2	2	2	2	3	4						
Ukraine	28	39	22	5	34	17	16	18	16	22	21	5	- 1	1	1	2	6						
United Kingdom	22	29	43	17	31	18	39	27	23	27	38	20	3	2	5	2	12						
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Summary table 3. Selected variables on tobacco, alcohol and drug consumption. All students.

a) Binge drinking: 5 drinks or more in a row.b) Without a doctor's prescription.

The target population

The target population for the ESPAD project is students that will become 16 years old during the year of the data collection i.e. they should all be born a specific year. The 1995 study focussed on students born in 1979 and in the second data collection in 1999 they were born in 1983. The third survey in 2003 targeted students born in 1987. The main idea behind the choice of this agegroup for the study is that the students should still be available in schools, but not too young to have had any experience of alcohol or drug use.

The mean age among surveyed students have been about the same in all three data collections. In 2003 the approximate mean age was 15.8 years with a range of 15.6–15.9 years (Table A in the chapter "Methodological considerations").

There are, however, differences between coun-

tries in how well the samples represent the agegroup. In some countries schooling is compulsory until the age of 15–16 years, while in others the students begin secondary school at this age. Furthermore, many students do not continue to secondary school, but leave for other training or for work. Table A shows the approximate proportion of the age cohort expected to be enrolled in school in different countries.

Available information about the proportion of the actual age cohort still in school shows that there are some differences between countries in this respect. However, with a few exceptions 85% or more of the 1987 age cohort was to be found at school at the time of the data collection. The lower this proportion, the less representative are the results for the 1987 birth cohort.

The data collection instrument

The work of the Pompidou School Survey Subgroup in the 1980's resulted in a battery of questions to be used by researchers in different countries that were interested in performing school surveys. The content was very much influenced by the questionnaire already developed and used within the Monitoring the Future project in Michigan. Dr Lloyd Johnston, who was the chair of the School Survey Subgroup, is also head of the group of researchers engaged in the Monitoring the Future project.

The first ESPAD questionnaire was developed from the battery of questions that was tested by the Pompidou School Survey Subgroup. However, every question was discussed and agreed upon by the large group of collaborating investigators. A very large part of the first questionnaire was kept also in the 1999 and 2003 surveys.

The main part of the questionnaire constitutes of core questions to be used in all countries. In addition a number of module and optional questions were included to be used at the choice of each country. The questionnaire is presented in Appendix III. It was also decided that each country might add questions of special interest provided that those questions were not of a nature that would affect the students' willingness to respond, or that their number would overload the questionnaire.

It was decided that each country should translate the questionnaire into its own language and thereby adjust the wordings to make the questions as appropriate as possible in the cultural context. Drug streetnames etc. should be adjusted to what was common in the country. Once the translation was ready, it should be back translated into English again. By doing this, discrepancies from the original might be discovered and corrected.

It was also recommended that each country should test the questionnaire in a small pilot study in order to discover any faults or difficulties while answering it. A test would also indicate how long time the students needed to complete the questionnaire. In the 2003 survey a little more than half of the countries did a pilot study (Table A). However, some of the countries that did not do so this time had tested the questionnaire in relation to earlier surveys.

Table A shows the number of core, optional and own questions included in different countries' questionnaires. For each question every single subquestion is counted as one variable.

All countries but one asked all, or nearly all, core questions. The main exception is France that only used 174 of the 309 core questions (56%). However, only a few own questions were put within the core questions. Hence, the context of the French core questions have most probably not affected the possibilities to compare with data from other countries.

The Swiss questionnaire includes a battery of questions in the midst of the ESPAD questions because they belonged thematically to this section. However, before doing so two versions of the questionnaire were piloted and no effects on the response pattern were identified.

Despite all efforts to standardise the data collection instrument, some discrepancies were inevitable. However, it may not be too optimistic to think that the discrepancies in the questionnaires only have had a very limited negative effect on the comparability of the findings from different countries. In the few cases when discrepancies are important enough to make a question less comparable, this will be commented in the result chapters.

Sampling procedure

The sample size and sampling procedures have been discussed at some ESPAD project meetings. It soon became clear that the ESPAD countries were very different in terms of what kind of school statistics are available. Some countries had detailed information about the number of schools, classes and students, while in others only e.g. the total number of schools, but not the size of them, was known. The sample should consist of randomly selected classes. As mentioned in an earlier part of this report, regional seminars were organised aimed at discussing the project plans in detail, including problems and opportunities for the sampling procedure in each country.

It was recommended that each country, with some minor exceptions, should draw a sample of about 2,800 students as a minimum, regardless of the size of the country (Bjarnason and Morgan, 2002). This was calculated to give about 2400 answered questionnaires, which would allow for breakdowns by sex plus another variable. However, in a few countries a lesser number of students participated, simply because the study population was smaller.

The target population of students born in 1987 was very differently distributed over schooltypes (academic, vocational etc.) and grades in different countries. At the regional seminars solutions to the sampling problems were discussed and suggested. In some countries the vast majority of the agegroup was found in one grade only. In others there were two or more grades where this agegroup was taught. Whenever possible it was recommended to include all grades with students born in 1987. However, in some countries the grade with the highest proportion of students born in 1987 was the only chosen.

Field procedure

In line with what was decided about the sampling and the data collection instrument, also the field procedures should be standardised as much as possible (Hibell and Andersson, 2002a). Due to cultural differences there are of course many factors, which make it difficult to follow exactly the same schedule in every country. The recommended data collection period was March–April 2003. Most countries adhered to these dates, but the length of the period varied quite a lot, from one day only to about 2–3 months in some countries. For practical reasons the time of the data collection was different from the planned period in a few countries, including Malta (January), the

Netherlands (October–November), Poland (May– June), Portugal (May), Romania (June), Switzerland (May–June) and Turkey (May).

The data collection in a country was planned to take place during a certain week, which should not be proceeded by any holiday, ensuring that the students referred to a "normal" week when answering the questions, i.e. no extraordinary alcohol or drug consumption due to any celebration should be reflected in the answers. Schools unable to perform the survey during the assigned week were allowed to do so in the preceding week instead.

The headmaster of the participating schools were contacted and informed of the planned study. He or she was asked to inform the teacher(s) of the chosen class(es), but not to inform the students in order to avoid discussions among them, which could lead to biased data. The class teacher was asked to schedule the survey for one lecture following the same procedure as for a written test.

Data were collected by group administered questionnaires, under the supervision of a teacher or a research assistant. At some ESPAD project meetings much discussion have been directed towards this issue. It was thought that in many countries teachers would not be trusted by the students and therefore cause biased data. The solution to this problem was that in countries where it was judged to be possible to use teachers this ought to be done, while in others research assistants were used. It was considered crucial not whether a teacher or a research assistant was present, but whether they were trusted by the students or not. In a methodological study by Bjarnason (1995) no significant differences were found between teachers' or research assistants' modes of questionnaire administration. These findings suggest that, at least in some countries, the effect of administration mode is negligible.

It was recommended that each student should get an (unmarked) envelope to put his or her completed questionnaire in, before it was sealed by him- or herself. When the data collection was over the teacher/research assistant had to collect the sealed envelopes and send them back to the research institute.

The information to the survey leader included a written instruction, which described how to perform the data collection. The anonymous character of the study was stressed and the survey leader should refrain from walking around in the classroom while the forms were completed.

A standardised classroom report was used. On this form the survey leader gave information about the average time needed to complete the questionnaires, the number of absent and present students, the reasons for absence and other important information about the situation in the classroom. The classroom report also contained information about whether the students were interested in the study and worked seriously.

Introduction

All surveys encounter methodological problems which have to be considered when analysing the results. The 2003 ESPAD project is based on 35 national surveys united by a single project plan. The methodological issues that have been identified and resolved could fill several thick volumes such as this report. This chapter provides a brief overview of the issues of representativeness, reliability and validity in the ESPAD project. The chapter ends with a short summary of the most important conclusions.

In the first ESPAD survey in 1995 it was apparent that several of the participating countries were also conducting a school survey on alcohol and drug use for the first time. In this third ESPAD study, increased experience and a long co-operation have contributed to a more robust and standardises methodology. There are still some discrepancies and areas of concern that need to be addressed, but it should be stressed that overall the ESPAD project has accomplished a high degree of representativeness, reliability and validity.

In 1988 the Pompidou group of the Council of Europe initiated a pilot study of adolescent substance use. One of the main goals of the pilot study was to test the methodology, which resulted in a rather detailed discussion about the methodological results (Johnston et al. 1994). The discussion was a critical part of the report and has been very useful for the ESPAD project. The experiences of the pilot study were positive and implied that valid international research on substance use among students is feasible.

The ESPAD project relies on experiences from more than 30 years of school surveys in Sweden, the Pompidou pilot project as well as knowledge gained by individual researchers from all over Europe in earlier ESPAD data collections. Many of the questions in the ESPAD questionnaire originate from the Pompidou pilot study that, in turn, to a large extent was based on the questionnaire used in the Monitoring the Future Project in the USA.

The standardisation of survey methodology is one of the most important issues in the ESPAD

project. However, it should be stressed that standardisation alone does not ensure that data are directly comparable between countries. It is not possible to control for everything and some influences are not even possible to measure. The cultural contexts in which the students have given their answers varies and formally identical measures may have very different meanings in different contexts.

In addition, one can never be certain of whether results from one country are more or less valid than those from another. This is one reason why the long-term goal, and one of the most characteristic features of the ESPAD project, is to compare trends in participating countries.

In the figures two dots (..) symbolise that data does not exist or is not available. A zero (0) means that the information is related to at least one person but to less than 0.5%. A short line (–) signifies that no one has given that answer.

To better ascertain the role of cultural context in different countries, and how it may impact on validity, a methodological study was conducted as one of the preparative measures prior to the ESPAD 99 data collection (Hibell et al. 2000). The methodology study was conducted in 1998 and included aspects of reliability as well as validity.

Data were collected in countries from different parts of Europe. Two countries hailed from northern/western parts of Europe (Denmark and Sweden), two from the Mediterranean (Cyprus and Malta) while three were situated in the central and eastern parts of Europe (Lithuania, the Slovak Republic and Ukraine).

The study indicated that the reliability as well as the validity was high in all seven countries. With a few modifications, the survey leader questionnaire (the classroom report) of the methodology study was used in the 1999 and 2003 data collections.

Changes over time

One of the important long-term goals of the ES-PAD project is to track changes in adolescent substance use over time. While cultural context may affect the meaning of responses to formally stand -



Figur A. Lifetime prevalence of any illicit drug among girls in the ESPAD studies and in the annual Swedish school surveys. Source: Hvitfeldt et al. (2004)

ardised measures, changes in such responses over time may be relatively less affected by context. In other words, even if the percentages using a particular drug were not directly comparable between two countries, the increase or decrease in those two countries could still be compared.

It should be noted that the ESPAD survey is repeated every four years. In the next chapter changes between 1995 and 1999 as well as between 1999 and 2003 are shown country by country in simple graphs in which a straight line is drawn between the dots of each of the three data collections. However, four years is a relatively long period during which many changes might have occurred. In other words, the straight lines may mask considerable annual fluctuation. An example of this can be seen in figure A. Data from the annual Swedish school surveys show that there was an increasing trend from 1998 to 2001 in the proportion of girls that tried any illicit drug. After that there is a downward trend. However, the figures from the three ESPAD data collections are indicative of a weak increasing trend.

A note on statistical significance

As will be discussed in detail below, the sampling procedures in the ESPAD survey differ considerably between countries. This affects the precision of the estimates in each country but should in principle not bias the point estimate itself (Bjarna son and Morgan 2002). The calculation of standard errors is therefore rather complicated in many countries and the necessary software and resources to calculate them were in many cases unavailable. As a result, confidence intervals are not calculated for this report. This issue is an ongoing concern in the ESPAD project and will hopefully be resolved in future reports

In the current report figures are compared between countries and over time in terms of substantive rather than statistical significance. In general it can be assumed that differences that are large enough to have policy implications far exceed the limit of statistically significance differences. However, considerably caution should be exercised in comparing small differences in percentages.

Leena Metso (2000) has examined these issues in some detail using the Finnish ESPAD data collected in 1995 and 1999. As she points out, cluster sampling does not affect the estimates of percentages. However, she found a moderate level of intracluster correlation in the Finnish data. This implies that standard errors calculated for these data under the assumptions of simple random sampling would be too small and the precision of the results is therefore less than standard significance tests would suggest. This further underscores the importance of resolving the problems surrounding the calculation of standard errors in the future.

It is important to note that a certain difference in a particular variable between 1999 and 2003 maybe significant in one country but note so in another. Differences have to be tested separately from each country's results to make it possible to decide whether a difference is significant or not. However, to be able to do so it is necessary to have access to the whole data set and to use a statistical programme that accounts for cluster effects.

Representativeness

The target population of the ESPAD study is defined as the national population of students whose sixteenth birthday is in the calendar year of the survey (Bjarnason and Morgan 2002). In 2003 the goal of a national survey was reached in 32 of the 35 countries. In Russia the ESPAD survey targeted only students living in Moscow, the capital of the Russian Federation with about 8.5 million inhabitants. In Germany the data collection was limited to the six out of 16 federal states (Bundesländer) that agreed to participate. They were Bavaria, Brandenburg, Berlin, Hesse, Mecklenburg-Western Pomerania and Thuringia. The population in these Bundesländer are about 28.6 million out of 82.5 million in the whole of Germany. Finally, in Turkey data were collected in one major city in each of six different regions in the country. Participating cities were Adana, Ankara, Diyarbakir, Istanbul, Izmir and Samsun. While the results in these countries may to some degree reflect the situation in the country as a whole, they can only be representative of the population from which they are drawn.

Average age and time of the data collection

With the exception of the Netherlands, data were collected during the first half of 2003, with a majority conducted between the period March to May (Table A). The Dutch ESPAD researchers did not find it possible to collect data during springtime since this would most probably have resulted in substantially more refusals from schools and classes. Instead the questionnaires were administrated in October and November.

Based on the time of data collection, an approximate average age of the students has been estimated for each country (Table A). In all but one of the 35 ESPAD countries the average age varies between 15.7 and 15.9 years, which is the same range in average age as in 1999¹. The only minor exception is Malta with the average age of 15.6 years. In the Netherlands the target population was redefined to be students born from August 1987 through July 1998, which gives an average age of 15.7 years. (A further discussion of this redefinition can be found in Appendix 1).

In 1999 data in Greece were collected in October which gave an average age of about 16.3 years, while the corresponding figure in 2003 is 15.8 years. This age difference of seven months must be kept in mind when interpreting changes in the substance use figures between 1999 and 2003.

Representativeness of the samples

Sampling in the ESPAD project is based on classes as the final sampling unit (Bjarnason and Morgan 2002). This procedure is vastly more economical than sampling individual students and also has some desirable methodological properties. In particular, sampling entire classes can be expected to increase student perceptions of anonymity. Sampling individual students and asking them to fill out a questionnaire individually could affect the truthfulness of their answers and therefore bias the results of this study.

If students born in 1987 were in two or more grades it was recommended that it was advisable to sample classes from all those grades and then screen the target population by using a question on the year of birth. If it was not possible to sample more than one grade, the grade chosen should include the majority of students born in 1987. In countries where sampling was not so straightforward it was recommended that one seek co-operation of an experienced sociologist or statistician.

An overview of the sampling procedure in each country is provided in Table A. Further information can be found in chapter 2 and Appendix 1. The number of students born in 1987 in Faroe Islands, Greenland, Iceland, Isle of Man and Malta was similar to the number of students to be sampled according to the ESPAD guidelines (Bjarnason and Morgan 2002). In these countries all students were therefore targeted for sampling. In all other countries but one, classes were the sampling units. The only exception was Denmark where a small part of the sample was composed of schools (see Appendix 1). In some countries classes were the only sampling units, i.e. they were drawn from comprehensive lists of classes. In other countries school classes were the last units in a multistage stratified sampling process. In these countries schools were sampled before the final sampling of classes was done. In many countries sampled schools were asked to provide lists of classes before the final sample of classes could be effectively drawn.

¹ The calculated averages ages in the ESPAD 99 report were systematically 0.5 years too low.

Country	Born in 1983 still in school (approx. %)	Sampling unit(s)	Sample type	Grade level(s) included	Approx. mean age ^{a)}	Represent- ativeness ^{b)}
Austria	90	class	stratified random	grades 9–10	15.8	national (86%)
Belgium	99	school, class	systematic random	grades 8–10 ^{c)}	15.8	national (95%)
Bulgaria	72	school	stratified random	grades 9–10	15.9	national (100%)
Croatia	95	class	stratified random	grades 1–2	15.8	national (97%)
Cyprus		school	stratified random	grades 1–2	15.8	national (74%)
Czech Republic	95	school	stratified random	grade 1	15.7	national (~68%)
Denmark	98	school, class	stratified random	grade 9	15.8	national (85%)
Estonia	~80	school, class	systematic random	grades 8–10	15.7	national (~80%)
Faroe Islands	95	no sampling	total	grade 9	15.7	national (92%)
Finland	~100	school, class	systematic random	grade 9	15.7	national (93%)
France	98	school	stratified random	grades 8–11	15.8	national (93%)
Germany	92	class	systematic random	grades 9–10	15.7	6 Bundesl. (84%)
Greece	~100	class	stratified random	gymn 3rd, lycee A, B, C	15.8	national (93%)
Greenland	88	no sampling	total	grades 9–11	15.7	national (~100%)
Hungary	91	class	stratified random	grades 8–10	15.7	national (91%)
Iceland	99	no sampling	total	grade 10	15.7	national (99%)
Ireland	93	school, class	stratified random	grade 5	15.8	national (67%)
Isle of Man	≥ 80	no sampling	total	grades 10-11	15.8	national (100%)
Italy	~93	school	stratified random	grades 1-4	15.8	national (100%)
Latvia	87	classes	stratified random	grades 8–10, grade 1 vocational	15.8	national (89%)
Lithuania	96	school, class	systematic random	grades 8–10	15.7	national (97%)
Malta	95	no sampling	total	grade 5	15.6	national (75%)
Netherlands	~92	school, class	stratified random	grades 3–4 secondary school	15.7	national (92%)
Norway	100	classes	stratified random	grade 10	15.7	national (~100%)
Poland	95	class	systematic random	gymn. grade 3	15.9	national (92%)
Portugal	81	class	stratified random	grades 7–10	15.9	national (99%)
Romania	93	school, class	stratified random	grades 9–10	15.9	national (79%)
Russia (Moscow)	~95	school, class	systematic random ^{I)}	9–10th secondary, 1st techn., profess., nurses	15.7	Moscow (98%)
Slovak Republic	98	school	stratified random	grades 1-4	15.7	national (~67%)
Slovenia	90–95	class	systematic random	grade 1	15.8	national (84%)
Sweden	95	class	systematic random	grade 9	15.7	national (95%)
Switzerland	98	class	strat syst random	grades 8–10	15.9	national (85%)
Turkey	60	school	stratified random	grades 9–10	15.9	six cities (90%)
Ukraine	90	school, class	stratified random	9–10th secondary, 1st vocat., techn., colleges	15.9	national (97%)
United Kingdom	>90	school, class	proportionate random	grades 4–6	15.8	national (100%)

Table A. Characteristics of the ESPAD surveys in participating countries. Continues...

a) A calculated figure based on the time of the data collection. In the 1999 report the calculated mean averages were systematically 0.5 years too low. b) Representativiness in relation to the target population, i.e. students (not persons) born in 1987. The figure within brackets show the approximate population

of students born in 1987 that attended participating grades.

c) Grade 8 was included only in the French speaking part.

d) Teachers in French and research assistants in Dutch speaking areas.

e) Individual envelopes were used in the French speaking parts. In the Flemish speaking parts where research assistants collected data the questionnaires were put in a class envelope.

f) Flemish and French speaking respectively.

g) Staff members from Department of Occupational and Public Health.

h) The students put their questionnaire in a locked letter box.

i) Class envelopes were used.

j) Two questionnaires were used. Form A contained 27 own questions and form B 43.

k) Staff members from Regional Health Services, research assistants and researchers.

I) 40 out of 208 classes were sampled via a two step random sample.

m) Only a small questionnaire test among data collection leaders.

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	leader	period	ual en- velopes	study	Core Module		Optional Own		weighted	
Austria	teacher	March 31–April 4	no	yes	294	36		13	no	
Belgium	teacher, research assistant ^{d)}	March-May	yes ^{e)}	yes	309	57/0 ^{f)}	-	35/120 ^{f)}	no	
Bulgaria	research assistant	May 15–26	yes	no	300	147	-	-	no	
Croatia	school councellor	April 1–15	yes	no	308	62	-	-	no	
Cyprus	research assistant	March–April	no	yes	308	36	-	-	no	
Czech Republic	research assistant	April 3–16	yes	no	309	25	-	36	no	
Denmark	teacher	March 6–May 2	yes	no	307	24	-	8	no	
Estonia	research assistant	March	yes	yes	309	54	-	2	no	
Faroe Islands	staff from g)	March 10-21	no ^{h)}	yes	309	82	9	149	no	
Finland	teacher	March–April	yes	no	306	16	3	6	no	
France	doctor, nurse	March 17–May 18	no	yes	174	14	-	122	no	
Germany	teacher	March–April	no ⁱ⁾	no	308	17	-	8	yes	
Greece	research assistant	March 1– April 30	no	yes	308	36	-	77	no	
Greenland	teacher	March	yes	no	306	24	-	8	no	
Hungary	research assistant	March 5–20	no	yes	308	5	-	-	yes	
Iceland	teacher, research assistant	March 8–28	yes	yes	309	67	7	27/43 ^{j)}	no	
Ireland	teacher	April	yes	no	309	16	-	-	no	
Isle of Man	teacher	March 31–May 3	yes	no	309	71	-	26	no	
Italy	teacher	March/April	yes	no	309	147	10	-	no	
Latvia	research assistant	March-May	yes	no	309	57	-	38	yes	
Lithuania	teacher	March-April	yes	no	309	41	-	-	no	
Malta	teacher	January 22	no	no	303	74	-	-	no	
Netherlands	research assistant k)	October-November	no ⁱ⁾	yes	309	-	-	4	yes	
Norway	teacher	March-April	yes	no	309	12	-	6	yes	
Poland	research assistant	May–June	yes	yes	309	22	-	32	yes	
Portugal	teacher	May 28	yes	yes	294	-	-	117	no	
Romania	research assistant	June 3–12	yes	yes	309	66	-	2	yes	
Russia (Moscow)	research assistant	March–April	yes	no ^{m)}	309	36	-	-	no	
Slovak Republic	health staff	March 24–28	yes	yes	307	62	-	23	no	
Slovenia	health staff	April 7–18	yes	yes	308	62	-	14	no	
Sweden	teacher	March 17-21	yes	yes	309	38	10	3	no	
Switzerland	teacher	May–June	yes	yes	309	59	-	96	no	
Turkey	research assistant	Мау	yes	yes	308	36	-	-	no	
Ukraine	research assistant	May 10–24	yes	yes	309	71	10	-	yes	

Individ-

Pilot

Number of questions (variables)

Data

Table A. Continued.

Data collection

Data collection

Country

a) A calculated figure based on the time of the data collection. In the 1999 report the calculated mean averages were systematically 0.5 years too low.

yes

b) Representativiness in relation to the target population, i.e. students (not persons) born in 1987. The figure within brackets show the approximate population of students born in 1987 that attended participating grades.

yes

301

71

26

no

c) Grade 8 was included only in the French speaking part.

school staff

d) Teachers in French and research assistants in Dutch speaking areas.

e) Individual envelopes were used in the French speaking parts. In the Flemish speaking parts where research assistants collected data the questionnaires were put in a class envelope.

f) Flemish and French speaking respectively.

g) Staff members from Department of Occupational and Public Health.

h) The students put their questionnaire in a locked letter box.

i) Class envelopes were used.

United Kingdom

j) Two questionnaires were used. Form A contained 27 own questions and form B 43.

 $\ddot{\rm k})$ Staff members from Regional Health Services, research assistants and researchers.

March-May

I) 40 out of 208 classes were sampled via a two step random sample.

m) Only a small questionnaire test among data collection leaders.

Some countries have not considered what might be called "the problem of small and large classes". In some countries all schools/classes have had the same probability to be sampled, independent of the size of the class and the school. In practice this means that students in small classes and schools are overrepresented in the samples. If students in these classes and schools have different alcohol and/or drug habits compared to students in large classes or schools, data are not entirely representative of the population. However, in many countries where this might be the case a stratified sample has been used and it seems reasonable to assume that the sizes of schools and classes are rather similar within strata. Furthermore, class size is rather standardised in many countries. As a whole the "problem of small and large classes" is not considered a major problem in the context of the entire ESPAD project.

Representativeness of participating grades

The target population of the ESPAD project is students who's 16th birthday falls during the year of data collection. For the 2003 study that they should be born in 1987. If possible, data were to be collected in March or April, which occurred in a large majority of the countries (Table A).

The definition of the ESPAD target population excludes individuals who are no longer in school. Thus, it should be kept in mind that the student populations are not coextensive with the birth cohorts, and those who have left school are more likely to have used different substances and are likely to use them at higher rates than students. However, in about three fourths of the countries with available information 90% or more of the birth cohort was enrolled in school (Table A). Important exceptions include Turkey, where only 60% of the cohort was enrolled in school, and Bulgaria, where 72% of the cohort was enrolled.

In some countries nearly all students born in 1987 were assigned to one grade only, while in other countries it was in two or more grades. When this was the case, it was recommended, if necessary resources were available, to include as many grades as possible that catered for students born in 1987. If only one of these grades could be included it should be the grade with the largest proportion of students born in 1987. In countries where not all grades with students in the target age group were included in the data collection the sample is only representative of the students found in the grades targeted.

In more than half of the countries 90% or more

of the students born in 1987 were in the grades studied (Table A). In addition, the proportion was also rather high (85–89%) in some other countries. However, in some few countries the corresponding figure was considerably lower, including the Czech Republic, Ireland and the Slovak Republic (about 67% each), Cyprus (74%), Malta (75%) and Romania (79%). Due to changes in the Slovak school system the proportion of the 15–16 year old cohort diminished from 99% in 1999 to 67% in 2003. It is of course not possible to know how the results in countries with the smallest proportion of the 1987 cohort would have been affected if all relevant grades/school types had been included. This uncertainty should be kept in mind when reading the results and comparing countries.

In nearly all countries students born in other years than 1987 have usually also answered the questionnaire. However, the results in this report only reflect the answers of students born in 1987. It should be noted that the results from the USA are based on students in tenth grade, not students born in 1987. However, a large majority of the tenth graders in the USA were born in 1987, which yields some modest degree of non-comparability with the ESPAD countries. In addition, data from the Spanish school survey are included in some tables and are based only on students born in 1987.

School co-operation

The number of non-participating schools and classes are shown in Table B. As already mentioned, classes were the (final) sampling units in all countries but one. However, in most countries a multistage sample was drawn, which means that schools usually were sampled in the step before classes. Denmark had two samples. One was a sample of classes in public schools and the other a small sample of private and boarding schools. In the second sample schools were the final sampling unit since most private and boarding schools were rather small and did not have a class system. Consequently, all students born in 1987 in schools in the second sample were supposed to participate in the study.

With some exceptions the number of refusing schools and refusing classes was low or very low. The highest proportion were found in Belgium (54%), Denmark (47%), the United Kingdom (45%) and the Netherlands (28%). The number of non-participating classes was usually low. However, it was above 20% in four countries, including Denmark (35%), Austria (24%), Norway (23%) and Estonia (20%).
Country	Non-participati	ng	Eliminated questionnaires (%) ^{a)}	Average time to complete the questionnaire (minutes)
	Schools	Classes		
Austria		79/331 ^{b)}	0.9	41
Belgium	153/284	52/442 ^{c)}	1.5	40/50 ^{d)}
Bulgaria	1/278	1/278	0.8	51
Croatia	1/113	2/238	0.6	45
Cyprus	1/43		5.0	57
Czech Republic	0/180	0/180	0.7	47
Denmark	35/74 ^{e)}	74/214 ^{e)}	0.3	37
Estonia	10/119	66/324	0.1	35
Faroe Islands	1/19	1/38	_	55
Finland	7/200 ^{f)}	7/200 ^{f)}	0.6	31
France	50/450	127/900	1.8	45
Germany		49/557 ^{g)}	0.7	40
Greece	5/221h)	13/448	2.3	52
Greenland				69
Hungary	6/407	8/432 ⁱ⁾	0.1	48
Iceland	3/132	4/250	0.8	55
Ireland	12/120	20/216	0.7	37
Isle of Man	0/7		3.6	60
Italy	12/336	12/336 ^{j)}	1.5	40
Latvia		14/436	1.2	49
Lithuania	1/277	1/316	0.0	44
Malta	4/65	3/245	0.4	50
Netherlands	76/268	5/194	0.5	31
Norway		60/265	0.3	36
Poland	6/390	6/390	0.9	37
Portugal	25/554	16/658	2.3	50
Romania	1/208	0/414	0.5	60
Russia (Moscow)	16/208	16/210	0.5	33
Slovak Republic	1/109	3/118 ^{k)}	0.4	47
Slovenia	0/150	0/150	1.2	40
Sweden	27/200	27/200	1.4	35
Switzerland		65/473	0.6	42
Turkey	0/88	0/167	0.3	30
Ukraine	6/243	6/243	0.1	60
United Kingdom	64/141	••	0.8	

Table B. Not participating schools and classes, eliminated questionnaires and average time to complete the questionnaire.

a) Proportion of all answered questionnaires judged not to be seriosly answered when the questionnaires were scrutinised.

b) 28 classes were replaced.

c) In addition to this 17 classes were replaced.

d) Flemish and French speaking respectively.

e) Two samples were drawn in Denmark. One sample of 74 private and boarding schools and another of 214 classes i public schools.

f) The seven classes in the seven schools were replaced by substitutive schools/classes.

g) 15 classes were replaced.

h) 5 schools were replaced.

i) 16 classes were replaced.

j) 13 schools/classes were replaced.

k) 3 classes were replaced.

Information about non-participating schools and classes is not available from Greenland, which was cause for some concern since Greenland was one of the countries with highest school dropout rate in the ESPAD 99 data collection (24%).

In some countries, including Austria, Belgium, Finland, Germany, Greece, Hungary, Italy, Portugal and Slovak Republic non-participating schools or classes were replaced by other randomly selected schools/classes. The same was also done in the Monitoring the Future Survey in the United States. This procedure assumes that the replaced schools and classes are equivalent to those refusing. However, some of the schools/classes might have refused due to supposed "bad drug habits" among the students.

In nearly all countries school co-operation is reported to have been very good. In countries with few non-participating schools or classes the main reasons for not doing so were usually different kinds of schoolwork, examinations or other reasons that can be considered random occurrences. Hence for countries with few schools or classes that did not take part in the data collection there is reason to assume that non-participating schools and classes have not influenced the representativeness of the samples drawn.

Altogether seven countries reported a loss of schools and/or classes that represented at least 20% of the original sample. A recurring reason provided in these countries has been that schools are asked to take part in so many school surveys that they simply don't have the time to participate in all of them.

Austria used a particular technique that involved random replacement of refusing or non-responding schools. Despite this, a relatively large number of classes (24%) did not participate in the end. There is no information available on the drop-outs and whether the loss was systematic or not. However, the assumption adopted was that the non-participating classes were randomly distributed.

About 20% of the sampled classes in Estonia did not take part in the data collection exercise. However, in most of these classes no or only a few students born in 1987 were to be found. The proportion of missing students is much lower than the 20% indicate. Hence, there is reason to assume that the rather high proportion of non-participating Estonian schools and classes has not caused any important problems about the representativity.

The proportion of classes that did not participate in the Norwegian study increased from 14% in 1999 to 23% in 2003. A major reason was the impossibility of schools to accede to every request to participate in school surveys. The non-participating classes were spread all over the country and there were no indications that students in these classes have different alcohol and drug habits. However, since this conclusion is not based on any a systematic follow up, the high proportion of non-participating classes remains an uncertainty.

About 28% of all sampled schools in the Netherlands did not participate. Participating and nonparticipating classes were compared for school size and proportion of immigrant students. No significant differences were found. Compared to similar school surveys in the Netherlands the response rate was high. Even if there are reasons to assume that the non-participating schools did not bias the results to any degree that the comparability with other ESPAD countries was jeopardised, the rather high proportion of schools that did not participate should be noted.

In the United Kingdom 45% of the sampled schools did not participate in the data collection. The most common reason given for school refusals was that the school had taken part in other research projects. There were no discernible differences in the types of schools co-operating and not co-operating. Hence, there is reason to believe that the high proportion of non-participating schools has not biased the sample to any degree and hence it should be representative. However, the fact that relatively many schools did not want to participate should be borne in mind.

In Denmark two samples were drawn. One consisted of private and boarding schools in which 47% of the schools did not participate. In the other, and larger, sample of classes in public schools 35% of the schools did not take part in the survey. Non-participating schools were contacted and the most common explanation was that the schools did not have the time and that they had received too many inquiries to participate in lifestyle surveys. A comparison between participating and non-participating schools did not show any systematic differences. Taken together this would suggest that the relatively large number of non-participating schools and classes may not have caused major problems as far as representativeness is concerned. However, some uncertainty still remains.

The large proportion of school refusals in Belgium (54%) was in line with what was expected from earlier experiences. The major reason for nonparticipation was that Belgian schools were asked to take part in so many school surveys that many of them simply did not have the time to accede to all requests. A comparison between participating and refusing Flemish speaking schools did not reveal any notable differences. If this was also so for French speaking schools then the problem of the large number of non-participating schools is not sufficient to jeopardise the possibilities for comparisons with data from other ESPAD countries.

In summary, the rather high drop-out rate of schools and classes in some countries raises questions about representativeness. The refusals nevertheless do not appear to be linked to any particular characteristics of the students but rather the attitudes and working conditions of the school staff. It should be noted that the problem is mainly related to countries from the western parts of Europe where the use of school surveys is most widespread.

Participating students

In order to obtain satisfactory precision of estimates for various subgroups of the population the ESPAD guidelines recommend a net sample of 2,400 participating students in each country (Bjarnason and Morgan 2002). Assuming that 10% of students would be absent and that some selected classes would be unable to participate, a sample size of 2,800 students was recommended. However, for countries where the target cohort was less than about 30,000, it could be advisable to reduce the sample size by a factor of (1-sf), where the sampling fraction (sf) equals sample size divided by cohort size.

In small countries with fewer than 2,800 students in each cohort, the total population was targeted. This was the case in the three countries with the smallest sample sizes; Greenland (555), the Faroe Islands (640) and Isle of Man (721) (Table C). In other ESPAD countries the figure varies from 1,906 (Greece), 1,925 (Russia/Moscow), 2,068 (United Kingdom) and 2,095 (the Netherlands) to 5,964 (Poland). (In USA 16,244 students took part in the study.) Thus, the number of participating students is satisfactory for international comparisons between countries.

In this report the results for all students are not weighted by gender. In other words, in countries where the proportion of boys in girls is not equal, the results are slightly skewed toward the patterns among the majority gender. However, in a large majority of the countries the distribution by sex was close to even. In three countries the difference between the sexes was more than 10 percentage points (i.e. 45–55%). In Austria 56% of the sample were boys, in Malta 44% and in Romania 42%.

The uneven gender distribution in Austria, with 56% boys in the data set is due to an uneven sex distribution in grade 10. The proportion of participating boys in Romania (42%) is most probably too low compared to the proportion of boys in the target population. For certain purposes it may be advisable to calculate a weighted proportion for these countries by taking the average of the numbers for boys and for girls.

The target population of Malta consisted of 47% boys, which is close to the 44% among those who participated. Thus, in practice Malta is within "the margin" of $\pm 5\%$.

Response rates

The response rates in each country are shown in Table C. With the exception of Greenland the response rates are calculated as the proportion of students who completed the questionnaire out of all students in participating classes. Thus, the difference consists of students in participating classes who were ill or absent for other reasons on the day of the survey. Students in non-participating schools or classes are not included among the non-respondents. They are shown separately in Table B and discussed in the section above about school co-operation.

The response rates in participating classes are good or very good in nearly all countries. In 24 of the 35 countries 85% or more of the students in participating classes answered the questionnaire. The only country with a response rate below 80% is Greenland with 68%. However, this is not calculated in the same way as the response rate in the other countries. Due to a lack of information the response rate for Greenland is calculated as the proportion of participating students out of all individuals born in 1987 in the country. In other words, the figure includes young people in the birth cohort that were not enrolled in school as well as students in possible schools and classes that did not take part in the survey. Hence, the response rate in Greenland would have been substantially higher if it had been possible to calculate in the same way as in other countries.

In all countries that provided information on non-participation, the main reason to emerge was that students were ill or absent for other apparently random reasons. No country reported any major methodological problems in connection with absent students. Student refusal to participate was

Country	Number of	f participating st	udents	Response rates (%) a)		
	Boys	Girls	Total	Boys	Girls	Total
Austria	1,340	1,062	2,402			90
Belgium	1,112	1,208	2,320			81 ^{b, c)}
Bulgaria	1,291	1,449	2,740	84	86	85
Croatia	1,446	1,438	2,884	88	88	88
Cyprus	999	1,153	2,152			88
Czech Republic	1,472	1,723	3,195	96	94	95
Denmark	1,504	1,474	2,978	90	88	89
Estonia	1,246	1,217	2,463	87	86	86
Faroe Islands	322	318	640	85	87	86
Finland	1,739	1,804	3,543	92	91	91
France	1,087	1,112	2,199			91
Germany	2,402	2,685	5,110			89 ^{b)}
Greece	886	1,020	1,906			83
Greenland	281	274	555	68 ^{d)}	69 ^{d)}	68 ^{d)}
Hungary	1,398	1,279	2,677			82
Iceland	1,728	1,604	3,348	82	80	81
Ireland	1,219	1,188	2,407	96	97	96
Isle of Man	340	381	721			85 ^{b)}
Italy	2,300	2,571	4,871	99	98	98
Latvia	1,372	1,469	2,841	83 ^{b)}	85 ^{b)}	84 ^{b)}
Lithuania	2,517	2,519	5,036	90	85	88
Malta	1,557	1,943	3,500	79	88	83
Netherlands	1,061	1,034	2,095	93 ^{b)}	93 ^{b)}	93 ^{b)}
Norway	1,945	1,888	3,833			87 ^{d)}
Poland	2,930	3,025	5,964	84	85	85
Portugal	1,389	1,557	2,946	97	96	96
Romania	1,823	2,548	4,371	82	84	84
Russia (Moscow)	880	1,045	1,925	78 ^{b)}	82 ^{b)}	80 ^{b)}
Slovak Republic	1,056	1,220	2,276	86	89	87
Slovenia	1,406	1,379	2,785	88	88	88
Sweden	1,592	1,640	3,232	87	87	87
Switzerland	1,278	1,335	2,613			83
Turkey	2,273	1,904	4,177	91	91	91
Ukraine	1,918	2,255	4,173	81	86	83
United Kingdom	1,083	985	2,068			84 ^{b)}

Table C. Participating students and response rates. Numbers and percentages among boys and girls.

a) Participating students in participating classes.

b) Calculated on all students in participating classes.

c) 93% in Flemish and 74% in French speaking schools.

d) An estimate not based on classrooms reports. It shows the proportion of participating students out of all 1987 born students in the country and not the number of students in participating classes.

very low in nearly all countries. The rather high response rates in nearly all countries and the reports about the reasons for not participating, do not indicate any major methodological problems connected with the response rates.

Absent students are somewhat more prone to be involved in the use of various substances than is the case with students who are consistently in school (Grube and Morgan, 1989, Andersson and Hibell, 1995). A follow up study of students in Sweden shows that absent students had tried alcohol and illegal drugs more often than those present at the regular data collection (Andersson and Hibell ibid). Because of the relatively small number of absent students, the figures for the population as a whole were unchanged or only changed by one percentage point if absent students were included. In the school surveys in USA the corresponding average figure has been calculated to be 1.4% (Johnston et al, 2004). The difference in drug use between present and absent students may of course differ between countries and the effect of such differences is dependent upon the response rate. However, in the ESPAD context the alcohol and drug involvement among absent students is not a major methodological problem when students in different countries are compared.

Summary

To summarise the issues related to representativeness one can conclude that the average age of participating students across countries was 15.7–15.9 years, that the samples were representative and that the number of participating students was in line with the ESPAD protocol. In all countries but two a very large majority of those born in 1987 were enrolled in school (usually 90% or more). In a large majority of participating countries the proportion of students born in 1987 that were found in participating schools categories/grades was high (usually 90% or more). However, it was relatively low (below 80%) in five countries. School co-operation was satisfactory in most countries, even though many countries report problems with schools that were asked to participate in too many school surveys. Seven countries reported that 20% or more of the sampled schools or classes did not participate in the survey for this very reason.

The representativeness of the surveys in some countries is somewhat uncertain. Austria, Belgium, Denmark, the Netherlands, Norway and the United Kingdom have a relatively large number of nonparticipating schools or classes. In Austria and Romania the gender distribution was skewed. In Bulgaria and Turkey a substantial proportion of the 1987 birth cohort were not enrolled in school. In Cyprus, Ireland and Romania a substantial proportion of the target population were not in the selected grades and in Greenland the response rate is unknown. The results of the surveys in these countries are nevertheless deemed to be sufficiently representative of students born in 1987.

The fact that the Greek students in 2003 were seven months younger than in 1999 must be kept in mind when interpreting changes in the substance use figures from 1999 to 2003.

Reliability

Reliability, which is a necessary condition for validity, is the extent to which repeated measurements used under the same conditions produce the same result.

Data from different questions within the ESPAD questionnaire have been used to measure reliability. Two measures will be discussed. One is the inconsistency between two sets of questions measuring the lifetime prevalence for different drugs. The other is a quotient between the proportion of students who on the "honesty question" answered that they "already said" that they had used cannabis and the proportion who actually gave this answer.

In the ESPAD methodology study in 1998 students in seven countries were asked to complete the questionnaire on their use of alcohol and drugs on two separate occasions with a delay period on 3–5 days (Hibell et al. 2000). Since the studies were completely anonymous it was not possible to do a test-retest study limited only to individuals who participated in both data collections. No significant differences in the consumption patterns were found between the two data collections in any of the countries. This was true for alcohol consumption as well as drug prevalence which suggests that the reliability was very high in all seven ESPAD countries. Similar results with no significant differences were also reported from two repeated studies in Iceland and Hungary (Hibell et al. 1997).

Inconsistency in relation to lifetime use

For many drugs the questionnaire contained questions about lifetime use. A later set of questions dealt with the age at first use of different drugs. These questions included the alternative "never", which makes it possible to compare the prevalence of users of each drug according to these two questions.

Table D includes information on the proportion of students reporting drug use on one question and not on the other, i.e. giving inconsistent answers. The lowest inconsistency figures were found for anabolic steroids and other illicit drugs than cannabis (explained in Table D). In nearly all countries inconsistency rates are 0 or 1%, demonstrating that 99–100% gave consistent answers in relation to the consumption of these substances. With some very few exceptions the figures were nearly as low for tranquillisers and sedatives without a doctor's prescription. In about 80% of the countries the proportions with inconsistent answers were 3% or less. The highest figures were 6–7% and were reported from the Netherlands and Poland.

The figures are in many cases low also for cannabis. In a majority of the countries inconsistent answers were given by 3% or less of the students. The highest figures were found in Belgium, Bulgaria, Greenland and Ukraine (6–8%). The figures are also rather similar for the use of inhalants as well as tranquillisers or sedatives without a doctor's prescription. In about half of the countries 3% or less of the students gave inconsistent answers on their use of inhalants. The highest inconsistency figures are found in Greenland and Malta (10– 11%) followed by Cyprus, Greece, Iceland, Isle of Man, Latvia, Poland and Slovenia (6–7%).

For cigarette smoking the proportion of inconsistent answers is somewhat higher (4-5%) with a majority of 5% or less. The highest figure is found in Turkey (15%), followed by Bulgaria, the Faroe Islands, Greenland, Latvia and Switzerland in which 7–8% of the students gave inconsistent answers on the lifetime prevalence of smoking cigarettes.

Some countries had rather high inconsistency rates for the variable been drunk. The highest are found in Greenland (16%), Bulgaria, Latvia, Ukraine (12–14%) and Portugal (10%). However, rather low figures are found in most countries and in about half of them they are 5% or less.

In most countries the inconsistency rates are low for all drugs. However, it is often lowest for anabolic steroids and "other illicit drugs" followed by tranquillisers and sedatives without a doctor's prescription, cannabis and inhalants. Somewhat less consistency is reported for the variables cigarette and drunkenness.

Some of the high inconsistency rates can to a certain extent be explained by differences in the questions being matched. For instance the first question on inhalants was "On how many occasions (if any) have you sniffed a substance (glue, aerosols etc.) to get high?" In the second question some examples were omitted and it was written "When (if ever) did you FIRST do each of the following things?" One of the sub-questions was "Try inhalants (glue, etc) to get high". The different examples might give rise to different perceptions of the variable content. Students may also have been ambivalent when answering the question about the age of the first use of a drug. If a student had only used a drug once or twice and did not define himself or herself as a user and therefore may not have found it appropriate to give an age when he or she started. These students may have answered "never" since they think of their consumption as an experiment rather than use.

The question about the age at first use did not include a category like "I do not remember". If a student did not remember there is probably a risk that he/she answers never instead of "guessing" about an age, especially if the person has used the substance a few times only. An other possibility could be that the student simply do not answer the question.

There may also be other factors that complicate the interpretation of inconsistency rates. One is that the inconsistency rate may be affected by the prevalence rate. In other words, there are more people who can report their use inconsistently when there are more users in a country. However, there does not seem to be a strong relationship between high prevalence figures and high inconsistency figures. For none of the drugs the highest inconsistency figures are found in countries with the highest prevalence rates or the lowest found in countries with the lowest prevalence rates.

It could also be argued that a given inconsistency figure (e.g. 1%) is more "serious" in country A where 5% admit drug use than in country B where 50% do so. In country A the inconsistency is 20% of the prevalence rate, but in country B it is only 2% of the prevalence rate. The importance of the size of the inconsistency in relation to the prevalence figure can be illustrated by the cannabis figures. In a majority of the countries the inconsistency figures are between 0-3%. The Romanian inconsistency figure of 1% might be seen as high

Country	Students reporting lifetime drug use on one question and not on the other (%) ^{a)}							Quotient between two questions ^{b)}	
	Cigar- ettes	Been drunk	Inhal- ants	Canna- bis	Other illicit drugs ^{c)}	Tranq. or sedat. ^{d)}	Anabolic steroids	Cannabis	
Austria	3	6	5	3	1	1	1	0.9	
Belgium	3	6	3	6	1	4	1	0.7	
Bulgaria	8	12	3	7	1	2	2	1.1	
Croatia	2	7	4	2	0	2	1	0.8	
Cyprus	4	5	6	1	1	3	1	1.5	
Czech Republic	2	3	3	3	1	5	0	0.8	
Denmark	3	2	3	1	0	2	0	0.9	
Estonia	5	4	3	5	1	3	1	0.8	
Faroe Islands	7	3	3	2	1	1	0	1.2	
Finland	4	2	3	1	0	2	0	0.9	
France									
Germany	2	6	3	2	1	1	0	0.9	
Greece	3	5	6	1	0	2	1	1.2	
Greenland	7	16	11	6	1	1	0	0.9	
Hungary	4	4	2	5	1	4	1	0.8	
Iceland	2	2	7	1	0	3		1.1	
Ireland	1	1	1	1	1	1	1	0.9	
Isle of Man	0	0	7	1	0	0	0	0.9	
Italy	5	6	5	5	2	4	1	0.8	
Latvia	7	13	6	5	1	3	1	1.0	
Lithuania	3	6	1	2	0	1	1	0.8	
Malta	3	7	10	2	1	2	1	1.0	
Netherlands	4	5		2	1	6	0	0.8	
Norway	5	3	2	1	0	1	0	1.0	
Poland	6	8	6	4	1	7	1	1.6	
Portugal	3	10	5	4	1	3	1	0.9	
Romania	6	7	1	1	0	2	0	1.7	
Russia (Moscow)	5	7	5	3	1	1	1	0.8	
Slovak Republic	6	5	3	3	0	2	0	0.8	
Slovenia	5	8	6	3	1	2	1	0.9	
Sweden	3	3	3	1	0	0	0	1.2	
Switzerland	7	4	3	0	0	1	0	0.8	
Turkey	15	8	3	2	3	2	4	0.7	
Ukraine	6	14	4	8	1	1	1	0.4	
United Kingdom	3	4	5	2	0	1	0	0.9	

Table D. Some aspects of reliability. Two measures of inconsistency between two questions in a single administration. Percentages and quotients among all students.

a) The first question is the self-reported lifetime prevalence question for the drug, while the second is a later one about the age at first use of the drug. b) Quotient a/b between the proportion answering "I already said that I have used it" to the question "If you ever used marijuana or hashish, do you think that you would have said so in this questionnaire?" (a) and the proportion who reported that they ever used it (b).

c) Other illicit drugs include amphetamines, LSD and other hallucinogenes, crack, cocaine, ecstasy and heroin. The figure is an average for these drugs. d) Tranquillisers or sedatives without a doctor's prescription.

considering that only 3% answered that they had used cannabis. Thus for Romania as a country the prevalence figure of 3% could be seen as uncertain. However, in the ESPAD context, when data are compared with results from other countries, it is not of "vital importance" whether the "true figure" is 2 or 4%, if the "true figures" in all other countries are (much) above this level. In the ESPAD context Romania is still a country where very few students have used cannabis.

A more problematic inconsistency is found in Ukraine, where 21% admit that they have used cannabis but 8% give inconsistent answers, which means that "the true prevalence figure" may vary quite a lot (13–29%).

In 27 of the 34 countries with available information, consistent answers were provided by 92% or more of the respondents, which must be seen as a satisfactory result. In 8 cases the values were 10% or above, which is a cause for concern since "the true prevalence" may very quite substantially compared to the reported figure. However, it seems rather unlikely that (nearly) all students would opt for one of the "extreme positions", i.e. either denying real use or admitting use that never has occurred.

With the exception of cigarette smoking in Turkey and the use of inhalants in Greenland and Malta all 10+ inconsistency rates were found for the variable been drunk. With the exception of Greenland no country has more than one 10+ figure. If one also includes inconsistency figures that are high in comparison to other figures for the same drug, a few countries with relatively high figures might include Bulgaria (been drunk and cannabis use), Greenland (been drunk, use of inhalants and cannabis use), Latvia (been drunk), Malta (use of inhalants), Poland (tranquillisers and sedatives without a doctor's prescription), Portugal (been drunk), Turkey (cigarette smoking and use of anabolic steroids) and Ukraine (been drunk and cannabis use).

An inconsistency quotient

The other measure of reliability is the quotient between the answers to two questions. One is about the willingness to admit the use of marijuana or hashish (the so called "honesty question"). The students were asked: "If you had ever used marijuana or hashish, do you think you would have said so in this questionnaire?". The question could be used as a measure of validity and it is from this perspective that it is discussed in the next section. However, one of the response alternatives was "I already said I have used it" and this proportion has been compared with the proportion that reported cannabis use on the lifetime prevalence question.

Table D includes the quotient between these two proportions, with the "honesty answer" as the numerator and the "lifetime answer" as the denominator. A value of 1.0 means that the proportions are the same on both measures. The quotient is above 1.0 if more students answered that they already had said they have used the drug than actually reporting so on the direct question. Conversely, the quotient is below 1.0 if fewer students indicated that they have already admitted drug use than actually did admit to it on the direct question.

The quotient is 1.0 ± 0.2 in 28 out of the 34 countries where it was possible to calculate. It was above 1.2 in Romania (1.7), Poland (1.6) and Cyprus (1.5) and below 0.8 in Ukraine (0.4), Belgium (0.7) and Turkey (0.7). The Ukrainian ESPAD researcher has found that amongst those who reported lifetime cannabis use 7.3% answered "definitely yes" on the honesty question, which in some way also is a correct answer. If these answers are added to the 8.7% that answered "I have already said I have used it" the figure is 16.0%, which is rather close to the lifetime prevalence figure. This seems like a plausible explanation. However, if so, why does this mainly occur in Ukraine? (If one accepts this "recalculation" the quotient is changed to 0.8).

For Romania, Cyprus and Turkey the deviant quotient measures are in part due to the low prevalence figures. Only 3–4% reported cannabis use on the lifetime prevalence question, which implies that only a rather few individuals can "cause" a high or a low quotient figure.

Summary

In the ESPAD methodology study in 1998 reliability was high in all the seven participating countries. In the 2003 ESPAD study the inconsistency rates are rather satisfactory in most countries and for most measured variables. No country scores high on all variables. However, Greenland shows rather high inconsistencies on three out of the seven measures – having been drunk, inhalants and cannabis. Three countries showed high inconsistency measures for two variables. They are Bulgaria (been drunk and cannabis use), Turkey (cigarette smoking and use of anabolic steroids) and Ukraine (been drunk and cannabis use). Ukraine also reports a low inconsistency quotient for cannabis. Four countries reported a high inconsistency figure for one variable, including Latvia (been drunk), Malta (use of inhalants), Poland (tranquillisers and sedatives without a doctor's prescription) and Portugal (been drunk). Altogether the inconsistency measures demonstrate that reliability is good in most ESPAD countries. However, in Bulgaria, Greenland, Latvia, Malta, Poland, Portugal, Turkey and Ukraine the reliability is probably somewhat lower for one or a few variables.

Validity

The validity of answers is a major concern in survey research, in particular in surveys of sensitive behaviours like substance use. In ESPAD terms, validity could be said to be the degree to which the ESPAD questionnaire (including how data are collected) measures aspects of students' consumption of different substances that we have decided to measure.

Some researchers have used biological tests to study the validity of school surveys. Campanelli, Dielman and Shope (1987) found no significant differences in reported alcohol use between a control group and a group where saliva samples were collected prior to the survey. Kokkevi and Stefanis (1991) used urine samples collected after a school survey on drug use. Their findings validated students' reports of recent cannabis use. In recent years hair analysis has also been used to validate survey data about drug use. However, Harrison (1997) has argued that most research conducted on validating self-report has focused on criminal justice and treatment populations and is thus limited in its ability to determine how accurately respondents report drug use in general population surveys, such as household and school surveys.

Despite of the concerns with the generalizability of the results of most validation studies Harrison (1997) emphasizes some general conclusions. One is that the pattern of reporting is consistent with the social desirability hypothesis, i.e. that more stigmatised drugs are less validly reported than less stigmatised drugs. A second conclusion is that respondents are most willing to report lifetime use and least willing to report use that occurred in the very recent past. Third, self-administrated questionnaires tends to produce more valid data than interviews in which the respondents are required to give a verbal response.

In a review of studies about drug use Morgan (1977) concludes that self-report methods for substance use are as reliable and valid as most other forms of behaviour. There are inconsistencies in such reports from time to time as in denial that of earlier admitted use in longitudinal studies, but these also occur with other behaviours. Adding special conditions to enhance validity (like the bogus pipeline) do not add anything to validity over and above anonymity and confidentiality. Morgan also concludes that when discrepancies occur between self-reports and other indices (physiological, collateral reports), it cannot be assumed that the self-reports are necessarily the less valid measure. Finally, self-reports have the greatest claim to construct validity, that is, the measures related in predicted ways to other outcomes and to antecedent factors.

In a discussion on validity in school surveys of USA Johnston and O'Malley (1985) also conclude on the bases of considerable inferential evidence that self report questions produce largely valid data.

High reliability is a necessary but not sufficient condition for validity. In the previous section it was concluded that the test-retest reliability was high in seven countries in the ESPAD methodology study as well as in two countries where such studies were conducted separately with the ESPAD questionnaire. It was also concluded that the inconsistency measures using a high level of reliability in most countries and for most drugs. However, this is in itself not enough to secure high validity.

Student co-operation

The primary condition for obtaining any data is that students in selected classes actually receive the questionnaire and are willing to respond to it. The first condition is nullified if the school or the teacher refuses to co-operate. If students do receive the questionnaire they must have enough time to complete it, understand the questions and they must be willing to answer the questions honestly.

The participation in the study was of course voluntary. However, in nearly all countries none or very few students were reported to have refused to participate. On the contrary, in many countries the classroom reports state that many students were very interested in answering the questionnaire.

In a few countries it was necessary to get parental permission before students were allowed to participate in the project. Countries where parental permission was compulsory include France, Norway and the United Kingdom. In France as well as in the United Kingdom 1% of the parents refused their children to take part in the study. The corresponding figure was low also in Norway. Thus, parents refusing their children to participate in the ESPAD study is only a very limited problem.

A visual inspection of each questionnaire, sometimes combined with computer screening, was undertaken before data entry into the national databases. With very few exceptions, only a small fraction of all questionnaires were excluded during the scrutinising process. On average 1.0% of the questionnaires were excluded for that reason (Table B). However, there are a few countries which reported higher proportions of eliminated questionnaires, including Cyprus (5.0%), Isle of Man (3.6%), Greece (2.3%) and Portugal (2.3%). Unfortunately, information is not available from two of the ESPAD countries.

The survey leaders were asked to fill out classroom reports about disturbances during the data collection, the students interest in the survey as well as whether the students worked seriously. In 21 of 32 countries with available information 60% or more of the survey leaders did not report any disturbances during data collection (Table E). The highest figures were found in Cyprus (100%), Ireland (97%) and Croatia (95%) and the lowest in Russia (Moscow) (24%), the Slovak Republic (36%) and Belgium (41%). The highest proportions which reported disturbances from more than a few students are found in Greece, Russia (Moscow) and Turkey (16–18%) together with Belgium and the Slovak Republic (14% each). In most countries giggles or eye makings were the most commonly reported disturbances.

It should be noted that research assistants were responsible for data collection in all countries with widespread reported disturbances. Since they are not used to the "normal level of disturbance" in a classroom they are probably much more sensitive than teachers for different kinds of disturbances and, consequently, report them to a much higher degree. In three of these countries (Belgium, Poland and Russia (Moscow)) the research assistants had received special instructions to report all kinds of disturbances. In nearly all countries a very large majority of the survey leaders (91–100%) reported that "all", "nearly all" or "a majority" of the students were interested in the study, and 75–100% reported that "all" or "nearly all" students were interested (Table E). The smallest proportions were reported from Slovenia (58%) and Turkey (68%).

The figures were very similar on the question of whether the students worked seriously. Nearly all data collection leaders (95–100%) answered that "all", "nearly all" or "a majority" of the students worked seriously on the questionnaire (Table E). With the exception of three countries the proportions answering "all" or "nearly all" were 75–100%. Again the exceptions were Turkey (65%) and Slovenia (69%), as well as Russia (Moscow) (69%).

Unfortunately, data from the survey leaders from Isle of Man and the United Kingdom were not available following an oversight in which the classroom reports were not used. However, from other indices gleaned from the country reports student co-operation was on par with that reported by other countries.

In summary, no countries reported problems with many students refusing to participate. The proportion of eliminated questionnaires was low in nearly all countries with 5.0% as the maximum figure. When disturbances did occur this rarely involved more than a few students. Even if some disturbances were reported in some countries, they seem very seldom to have negatively affected the student co-operation. Most survey leaders reported that the students were interested in the study and worked seriously.

Over all, student co-operation seems to have been good or very good in all participating countries.

Student comprehension

The number of questions included in the questionnaire varies somewhat between countries. Naturally, the length of the questionnaire has a direct effect on the time taken to complete it. In addition, a difference between students' experience in participating in these types of studies would also affect the time to complete questionnaires. For these and other reasons, it is not surprising that the time taken to complete the questionnaire varied between countries.

The average time to complete the questionnaire varied between 30 and 50 minutes in most countries (Table B). The highest figure (69 minutes) was reported from Greenland. A rather long time was

Country	Disturbances during the completion of the questionnaire			Kind of dist	Kind of disturbances ^{b)}			Student co-operation	
	No	A few students	More	Giggles or eye makings	Loud comm- ents	Other comm- ents	Students interested ^{c)}	Students worked seriously ^{d)}	
Austria	76	20	5	5	12	7	95(77)	99(86)	
Belgium ^{e)}	41	45	14	26	13	34	92(80)	93(78)	
Bulgaria	56	34	10	30	14	9	97(85)	97(89)	
Croatia	95	4	1	2	3	2	100(100)	100(95)	
Cyprus	100	_	_	5	3	3	95 (83)	95 (83)	
Czech Republic	61	32	6	31	5	3	99(92)	98(88)	
Denmark	84	13	2	7	8	9	99(95)	100(99)	
Estonia	51	39	10	41	14	_	89(72)	96(83)	
Faroe Islands	81	16	3	10	_	6	100(100)	100(91)	
Finland	76	22	2	8	13	13	96(84)	99(94)	
France	62			30	12	11	96(78)	••	
Germany	81	15	3	5 ^{f)}	10 ^{f)}	2 ^{f)}	96(72)	99(82)	
Greece	56	29	16		39	5	92(81)	92(81)	
Greenland	68	30	2	21	42	37	100(93)	97(93)	
Hungary	75	20	5	18	5	2	97(87)	98(91)	
Iceland	71	23	6	16	1	_	96(88)	100(96)	
Ireland	97	3	_	3	_	_	100(100)	100(100)	
Isle of Man ^{g)}							••		
Italy	56	37	7	30	21	2	94(79)	98(86)	
Latvia	67	27	6	21	14		94(79)	95(79)	
Lithuania	72	24	11	17	11	1	96(86)	99(88)	
Malta	83	17	_	17	_	_	98(86)	97(88)	
Netherlands	81	. <u> </u>	19 ^{h)} ——	5	4	18	••	99(96)	
Norway	81	18	1	10	7	6	96(89)	99(93)	
Poland	54	36	10	32	49	15	90(81)	92(74)	
Portugal	69	26	6	25	9	5	98(86)	99(88)	
Romania	90	8	2	10	2	0	98(92)	98(92)	
Russia (Moscow)	24	60	16	53	7	1	93(72)	92(69)	
Slovak Republic	36	50	14	46	16	21	97(86)	97(86)	
Slovenia	57		43 ^{h)}	24	13	9	92(58)	98(69)	
Sweden	59	34	6	24	15		90 (82)	100 (96)	
Switzerland	70	28	2	25	10	9	94(77)	100(94)	
Turkey	54	28	18	36	13	8	89 (68)	92 (65)	
Ukraine	48	41	11	40	15	7	99 (88)	100 (86)	
United Kingdom ^{g)}					••			••	

Table E. Opinions of the data collection leaders a). Percentages.

a) In countries where more than one age group participated, the information is usually based on all participating students.

b) Percent of participating classes.

c) "All", "Nearly all" or "A majority" of the students were reported to have been uninterested in the survey (within brackets: "All" or "Nearly all" students). d) "All", "Nearly all" or "A majority" of the students were reported to have worked seriously (within brackets: "All" or "Nearly all" students).

e) Information is only available from the Flemish speaking areas.

f) Classifications of free text answers.

g) The ESPAD classroom report was not used.

h) Only two answering categories were used (yes/no).

also utilised in Isle of Man and Romania with 60 minutes each. No countries reported that students refused to complete the questionnaire as a result of its length. On the other hand, one of the most frequent comments was that the questionnaire was long and repetitive.

Nor were there any countries that reported any major problems on the ability of students to understand the questionnaire.

Overall, student comprehension seems to have been satisfactory in all participating countries.

Anonymity

The validity of answers in surveys related to illegal behaviour, such as drug use, is dependent upon the respondents' trusting that reporting such behaviour would not result in any negative consequences. Thus, it is important that the students perceive the survey to be anonymous. Several measures were taken to ensure the perceived as well as the actual anonymity of the ESPAD survey.

The ESPAD protocol recommends distributing an envelope for each student to seal after having answered the questions. In 25 ESPAD countries individual envelopes were used (Table A). Countries that did not use individual envelopes used other methods to secure that the students felt that their anonymity was secured. These methods included a closed box and a large envelope for the entire class, often sealed in front of the class before being transported to the research institute.

It is also important that the students trust that the data collection leaders do not look at their answers. He or she could either be a teacher or a research assistant. In some countries with long traditions of school surveys students are used to teachers taking responsibility for the data collection. In other countries research assistants, or other persons not affiliated to the school, administered the questionnaire. The decision on the most suitable data collection leader was taken by each country independently. The base for that decision should of course be to choose the person most trusted by the students.

In a methodological study in Iceland, Bjarnason (1995) found no significant differences in either the reported prevalence or the reported frequency of drug use between randomly selected classes responding to the ESPAD questionnaire administered by their teachers and randomly selected classes that had the questionnaire administered to them by research assistants. These findings suggest that at least in some countries the mode of administration does not significantly affect the results of school

surveys on drug use. It can thus be inferred that results obtained by a teacher administrator are fully comparable with results obtained by research assistants in countries where mode of administration may be more sensible.

In about half of the ESPAD countries teachers were data collection leaders, while more than one third choose research assistants (Table A). A few schools used health staff. The data collection leader was asked to stress the question of anonymity and to refrain from walking around in the classroom while the questionnaires were completed. The students were instructed verbally and in writing on the first page of the questionnaire that they should not put their names on the questionnaires or the envelopes.

No country reported any serious doubts about the anonymity aspect. As a whole, the question of anonymity seems to have been handled satisfactory in all participating countries.

Missing data rates

In the instructions to the students it was stressed that it was important to answer each question as thoughtfully and frankly as possible. However, since participation in the study was voluntary they were told that they could skip any questions they found objectionable for any reason. Thus, missing data rates on drug questions can be seen as an indicator of the respondents' willingness to report drug use. Of special interest are possible differences in missing data rates between different drugs and between drug questions and other questions.

Looking at the questionnaire as a whole the proportion of unanswered questions is low in most countries. In about two thirds of the countries with available information only 0-2% of the questions were unanswered (Table F). In only two it exceeded 5%. Because of mistakes in the layout and coding of multiple questions 21% of the data were missing in Estonia. The proportion of unanswered questions in Greenland was 10%. The high rate of missing values in Estonia is limited to a relatively small number of questions and does therefore not signal a threat to validity of the questions about substance use. Some caution should however be exercised in the interpretation of Greenlandic results as the rate of missing values indicates a reluctance by students to provide honest responses.

In some few countries the proportion of unanswered questions varies a little between core, module and own questions. The core ESPAD questions are to be situated in the beginning of the national

Country	Cigar- ettes ^{a)}	Alco- hol ^{b)}	Been drunk ^{b)}	Inhal- ants ^{b)}	Canna- bis ^{b)}	Other illegal drugs ^{c)}	Tranq. or sed. ^{d)}	Anabol- ic stero- ids ^{e)}	Core quest- ions	Module quest- ions	Own quest- ions	All quest- ions
Austria	1	4(4)	5(2)	2(1)	2(1)	1	1	1	1	2	4	2
Belgium	1	2(3)	2(2)	1(1)	1(1)	1	1	2	2	3	7	3
Bulgaria	2	5(6)	5(4)	3(1)	3(1)	2	1	2	6	3	_	5
Croatia	0	1(1)	1(0)	1(0)	1(0)	0	0	0	1	2	4	1
Cyprus	0	2(2)	1(1)	0(1)	0(1)	0	0	0		••		
Czech Republic	1	2(2)	2(1)	1(0)	1(1)	0	0	0	1	4	4	2
Denmark	0	3(3)	3(2)	2(1)	2(1)	2	2	2	1	2	5	1
Estonia	1	3(3)	3(2)	1(1)	1(1)	2	2	2	25 ^{f)}	3	0	21 ^{f)}
Faroe Islands	1	5(2)	4(1)	3(1)	3(1)	2	2	2	6	3	5	5
Finland	0	1(0)	2(0)	2(0)	2(0)	1	1	1	1	1	2	1
France		5(3)	5(2)	2(1)	3(1)	2	1	3	3	3		3
Germany	0	2(2)	1(1)	1(0)	1(0)	0	0	1	1	1	2	1
Greece	1	2(2)	2(1)	1(0)	1(0)	1	0	1	1	1	1	1
Greenland	5	12(11)	13(14)	12(9)	12(10)	8	8	8	10	17	13	10
Hungary	1	4(3)	3(2)	1(0)	1(0)	1	0	1	2	3	_	2
Iceland	0	2(1)	2(1)	1(1)	1(0)	0	0	0	1 9)	1 g)	4 g)	2 ^{g)}
Ireland	0	4(4)	5(3)	3(1)	3(1)	2	2	2	2	2		2
Isle of Man	1	3(3)	3(2)	1(0)	1(1)	1	1	0		••		2
Italy	0	2(1)	2(1)	3(2)	3(2)	2	2	2	2	-	-	2
Latvia	0	3(2)	3(1)	0(0)	0(0)	0	0	0	1	3	4	2
Lithuania	0	0(0)	0(0)	0(0)	0(0)	0	0	0	0	0		0
Malta	1	4(3)	2(1)	2(1)	3(1)	1	1	1	3	2	_	3
Netherlands	1	4(3)	2(1)	2(0)	2(0)	1	1	2	3		13	3
Norway	1	7(3)	6(3)	7(3)	6(3)	4	4	5	3	4	10	3
Poland	1	2(2)	2(1)	1(0)	1(1)	1	1	1		••		
Portugal	1	7(7)	4(3)	3(1)	3(2)	1	1	1				
Romania	1	4(3)	3(1)	3(1)	3(1)	2	1	1	2	4	_	2
Russia (Moscow)) 1	3(3)	4(2)	2(0)	2(1)	1	1	1	2	1		2
Slovak Republic	1	2(2)	2(2)	1(0)	1(0)	1	1	1	1	3	11	2
Slovenia	0	3(1)	2(1)	1(0)	1(0)	1	1	1	1	3	1	1
Sweden	1	3(1)	3(1)	2(1)	2(1)	2	2	2	2	2	7	2
Switzerland	-	0(0)	1(1)	0(0)	0(0)	0	0	0	2	2	8	1
Turkey	0	5(1)	8(4)	6(2)	5(2)	4	2	5				
Ukraine	0	5(4)	4(3)	1(1)	2(1)	2	1	2	2	2		2
United Kingdom	0	3(3)	2(2)	1(1)	1(1)	1	1	1	1	5	7	1

Table F. Proportions of unanswered questions. All students.

a) Average for lifetime and 30 days prevalence.

b) Average for lifetime, 12 months and 30 days prevalence. Figures within brackets = lifetime prevalence only.

c) Other illegal drugs include amphetamines, LSD and other hallucinogenes, crack, cocaine, ecstasy, heroin and drugs by injection. The figure is an average of lifetime prevalence for these drugs.

d) Tranquillisers or sedatives without a doctor's prescription. Lifetime prevalence.

e) Lifetime prevalence.

f) The high proportion of unanswered core quesstions is related to mistakes in how Q37 and some other multiple questions were layouted and coded. This also "explain" the large number of unanswered questions in the questionnaire as a whole.

g) Based on those students that answered questionnaire A, i.e. the questionnaire that included almost all ESPAD core questions.

questionnaire and generally the rate of missing values for these questions was equal to or lower than the rate for country-specific question.

The proportions of unanswered questions for different substances are low for all drugs in most countries (usually 1-3%). It should be noticed, however, that they are higher in a few countries, including Greenland (high on all questions), Norway (rather high for illigal substances), Turkey (rather high for most substances) and Portugal (rather high for alcohol consumption). Apart from these concerns, the proportions of unanswered questions about the consumption of different substances does not constitute any methodological problems.

The proportion of unanswered questions in Greenland in the questionnaire as a whole (10%) was about the same as it was for most drug related variables. Consequently, it is mainly in Greenland that the proportion of unanswered questions, in the questionnaire as a whole as well as for questions on consumption of different substances, is so high that it needs careful consideration when interpreting the results.

Logical consistency

Closely related to the inconsistency measures discussed in the reliability section is the logical consistency. In the ESPAD project this is relevant for drug questions measuring the prevalence for the three time periods, namely lifetime, last 12 months and last 30 days. Logically the last 12 months prevalence cannot exceed the lifetime prevalence and the same is true for the last 30 days prevalence when compared with the last 12 months and lifetime prevalence.

Table G includes information on the proportion of inconsistent answers related to the three time periods for four variables; alcohol use (any alcoholic beverage), been drunk, cannabis use and use of inhalants. In nearly all countries and for all four variables, the reported proportions of inconsistent answers are very low. In other words, the proportion giving logically consistent answers across the three time periods is very high, usually 98% or more.

Rather high proportions of inconsistent answers are only found in a few countries and are concentrated on the two alcohol related variables. Inconsistent answers on these two questions are mainly reported from Greenland (10–12%), Bulgaria (9– 10%), Ukraine (8–10%) and Portugal (7–10%). A high figure for alcohol use is also found in Cyprus (10%).

Faking good

Social desirability is an important methodological problem in all surveys, i.e. the tendency of respondents to give answers that they believe show them in a desirable light in the eyes of others. This becomes particularly important in surveys on behaviour that is not accepted by some social groups or are even illegal. In addition to the methods discussed above, it is possible to gauge the magnitude of the social desirability effect by asking respondents directly about the honesty of their responses.

In the ESPAD methodology study in seven countries data were collected twice with a lag time of 3–5 days (Hibell et al. 2000). The second time the questionnaire included some additional questions about the first study. One of them was whether they answered honestly to the questions on their drug consumption and another whether they thought that their classmates answered honestly.

Nearly all students in the seven countries said that they answered honestly to the questions related to their alcohol and drug habits. With some few exceptions, 95% or more of the students said yes.

Students were more sceptical about the honesty of their classmates, but the large majority nevertheless thought that "all" or "most" of their classmates answered honestly about their use of alcohol and drugs. About 85% or more of the students said that all or most of their classmates answered honestly to the questions about their consumption of the different substances.

At the end of the international ESPAD questionnaire the students were asked two questions on their willingness to admit drug use in a hypothetical fashion. The wording of the first question was "If you had ever used marijuana or hashish, do you think that you would have said so in this questionnaire?" The second question asked in the same fashion about heroin use. The response alternatives were "I already said that I have used it", "Definitely yes", "Probably yes", "Probably not" and "Definitely not".

The proportion of students reporting that they would definitely not report drug use is shown in Table G. In two-thirds of the countries with available information 7% or less answered that they definitely were unwilling to admit cannabis use if they had used it. The highest figure is reported from Greenland (30%) followed by Malta (13%), Croatia (12%), Latvia (12%) and Lithuania (10%).

In line with social desirability concerns the willingness to admit heroin use is slightly lower than

Country	Inconsis	stent answe	ers ^{a)}		Unwillingr admit dru	ness to g use ^{b)}	Dummy drug "relevin"	
	Alco- hol ^{c)}	Been drunk	Canna- bis	Inhal- ants	Canna- bis	Heroin	Heard of	Reported own use
Austria	3	3	2	2	7	11	11	0.5
Belgium	4	2	1	0	5	9	8 g)	0.3 ^{g)}
Bulgaria	10	9	1	1	8	9	10	0.8
Croatia	3	2	1	0	12	15	14	0.2
Cyprus	10	4	1	2	6	6	10	0.3
Czech Republic	2	1	0	0	3	7	9	0.2
Denmark	1	1	0	0	3	5	6	0.1
Estonia	3	1	0	0	8	9	9	0.2
Faroe Islands	2	1	_	-	3	3	5	0.3
Finland	1	1	0	0	2	4	8	_
France	5	2	2	0			8 ^{d)}	0.4 ^{d)}
Germany	3	2	1	0	4	9	11	0.4
Greece	7	3	1	1	4	4	9	0.2
Greenland	10	12	3	2	30	46	5	0.2
Hungary	4	2	1	0	6	7	7	0.3
Iceland	2	1	1	1	5	8	11	0.7
Ireland	1	1	1	1	5	10	14	0.4
Isle of Man	_	_	_	_	7	12	16	0.6
Italy	5	3	1	1	4	7	11	1.2
Latvia	2	2	1	0	12	13	6	0.1
Lithuania	0	1	0	0	10	10	0	0.1
Malta	5	3	1	1	13	15	12	0.4
Netherlands	2	2	0	0	6	9	13 ^{e)}	0.9 ^{e)}
Norway	1	1	0	0	3	3	11	0.4
Poland	5	5	5	6	8	10	12	1.0
Portugal	10	7	2	1	4	5	9	0.8
Romania	5	4	0	0	8	7	11	0.1
Russia (Moscow)	6	7	4	2	5	8	10	0.1
Slovak Republic	3	3	2	1	3	5	8	0.0
Slovenia	5	3	1	1	4	6	7	0.1
Sweden	1	1	0	0	7	7	12	0.2
Switzerland	3 ^{f)}	2 ^{f)}	1 ^{f)}	O ^{f)}	5	9	8	0.4
Turkey	4	3	1	1	3	3	9	1.3
Ukraine	10	8	1	0	8	9	6	0.4
United Kingdom	2	2	1	0	7	14	16	0.1

Table G. Some aspects of validity: Inconsistent answers, unwillingness to admit drug use and reported knowledge and use of the dummy drug "relevin". Percentages among all students.

a) For each drug, inconsistent response pattern is defined as one in which any of the following is found: (a) thirty-day frequency is higher than annual frequency,

b) Students answering "definitely not" on the question "If you had ever used marijuana or hashish, do you think that you would have said so in this questionnaire?" and the corresponding question for heroin.

c) Any alcoholic beverage.

d) MOP was used as a dummy drug instead of relevin.

e) NSTC was used as a dummy drug instead of relevin.

f) Before the data cleaning process.

g) NTSC/BKR was used as a dummy drug instead of relevin.

b) thirty-day frequency is higher than lifetime frequency, or (c) annual frequency is higher than lifetime frequency.

for cannabis in many countries. Fifteen countries have proportions of 7% or less. The highest figures are found in Greenland (46%), Croatia (15%), Malta (15%), the United Kingdom (14%), Latvia (13%), Isle of Man (12%), Austria (11%) and Ireland (10%), i.e. to a large extent the same countries that also reported high proportions of students that were unwilling to admit to cannabis use.

A high proportion of students answering that they would not be willing to admit drug use may signal problems with validity, but this is not necessarily the case. Students who have never used drugs tend to be rather strongly opposed to their use and this opposition may in part be reflected in their answers to these questions. To the extent that responses to this question reflects the opinions of the non-drug using population these questions give a pessimistic view of the actual willingness of the drug using population to report their use of different substances.

It should also be born in mind that the questions are hypothetical. If a student really tries cannabis in the future, he or she might be willing to admit that in a survey even if he or she answered negatively in the ESPAD questionnaire.

Combining these two arguments give rise to a third reflection. If a student in the future decides to try an illegal drug for the first time, the same reasons behind that change might also be the reasons for a changed willingness to admit that use.

The questions on the hypothetical willingness to report drug use may be most useful in a crosscultural context. In countries where a high proportion would definitely not admit such use many adolescents apparently consider it so shameful that they could not hypothetically imagine reporting it. The figures of unwillingness to admit drug use are rather high in some countries but much smaller in others, indicating that a probable underreporting may differ somewhat between countries. Students in Greenland are extremely reluctant to admit the use of both cannabis (30%) and heroin (46%). Countries with rather high figures (12+%) for both drugs also include Croatia, Latvia and Malta.

It can be concluded that self-reported surveys most likely underestimate the prevalence of drug use and that underreporting probably differs somewhat between countries. It also seems reasonable to assume that underreporting to some extent differs between drugs. There is, however, no reason to believe that such differences undermine the overall conclusions of the study. However, the high figures for Greenland should be kept in mind.

Faking bad

In addition to the risk of underreporting in drug surveys, the tendency of some adolescents to pretend they have used drugs can pose a threat to validity. To test this, the non-existent dummy drug "relevin" was included among real drugs in the questionnaire. The plausibility of this drug name is reflected in the fact that on average 9% of the students believe they have heard about it before. However, as shown in Table G, very few students report having used the dummy drug. In all participating countries but three the figure is 0.9% or less, with an average of 0.4%. However, in neither of these three countries the figure exceeds 1.3%.

Very few students have answered that they have used the dummy drug relevin, which could be seen as a clear indicator that students do not routinely exaggerate drug experience. Thus, it seems reasonable to assume that high prevalence rates of drug use in practice nearly are unaffected by a possible general tendency to exaggerate drug use. However, these results also underline the need for caution in interpreting the prevalence of less common drugs such as heroin and LSD. For each country, the proportion reporting use of the non-existant drug relevin could be used as a baseline for plausibility. If 0.9% of students in a given country have used a non-existing drug, the first 0.9% of students reporting using existing drugs should be interpreted with extreme caution.

Construct validity

The using of existing theories, results from earlier studies and logical inference, makes it possible to evaluate the extent to which variables are related to one another in a valid fashion. Such construct validity was discussed rather extensively in the Pompidou six-country pilot study which provided the base for the ESPAD questionnaire. The conclusion was that "there is considerable evidence of construct validity in the current data sets" (Johnston et al. 1994).

For instance, it is logical to expect that countries with high proportions of students reporting use of different drugs also should have high proportions reporting drug use among friends. This was tested in the 1995 ESPAD report with the outcome of very strong relationships for LSD ($r_{xy} = 0.95$), cannabis ($r_{xy} = 0.92$) as well as for drunkenness ($r_{xy} = 0.87$), which indicate a high validity (Hibell et al. 1997).

The validity of the questionnaire

The comparability of the questionnaire across countries is of vital importance in any multi-national survey project. The equivalency of the translation of questions into different languages is therefore an important aspect of validity. The standard ESPAD questionnaire is written in English. In non-English speaking countries the questionnaire was translated to the native language and then translated back by another translator and then both the original and the back translated version were compared for anomalies.

However, the equivalency of questionnaires is not only a matter of literal translation. It is also a matter of equivalent understanding. Thus, the question per se should be "understood" in the same way in all countries irrespective of the original wording in the model questionnaire. When necessary, the questions have been "culturally adjusted" to the situation in a country. For instance drugs or nicknames should be adjusted to the situation in each single country. If this is not done correctly, it may pose difficulties for comparisons with other countries.

In Austria and Germany the fixed answering categories to the questions about alcohol consumption at the last drinking occasion were changed to open alternatives. However, the answers to these open ended questions are judged not to be comparable with the answers given in other countries that have used the fixed answering categories. Hence, these data will be presented separately in the tables.

For instance, the concept "drunkenness" is difficult to translate in equivalent terms into different languages. In the 2003 Russian (Moscow) survey a new translation of drunkenness was used. It was a little less harsh than the earlier translation and was tested in a split half test among participating students in Moscow. The new translation resulted in more students providing an affirmative answer on drunkenness (for example 24% compared with 15% for being drunk 20 times or more often). The Russian ESPAD researchers concluded that the new translation is more appropriate and that it should be used in the chapter that describes the situation in 2003. However, the old version will be used for comparisons between the 1995, 1999 and 2003 surveys.

With some few exceptions no country reported any major problems with the translation of the questionnaire. Thus, it seems reasonable to assume that the translation of the questionnaire is a non-issue and does not jeopardise the possibility to compare results between the ESPAD countries. In the few cases when this was not so it is commented on in the result chapter.

The cultural context

The standardisation of the different steps in the data collection procedure was the adopted method by the ESPAD project to provide as much as possible a suitable framework for comparability between countries. This included the target population, the questionnaire and how data were collected and treated, all of which have been described in earlier sections. However, as already stressed in the introduction of this chapter, it has not been possible to standardise every detail. This holds true for the cultural contexts in which the students have provided their replies.

The role of cultural context will be discussed from two perspectives. One is whether the questions are understood or perceived in the same way in all countries and the other the willingness to give true/valid answers.

To allow comparisons between countries it is necessary that students answer the same questions. All countries but one included (nearly) all core questions while others also used the module and optional questions of the ESPAD questionnaire.

In the section "The validity of the questionnaire" it was described how the questionnaires were translated and "culturally adjusted". No major problems were reported in this process.

However, even if no single researcher noticed any "problems" in his or her own country, i.e. that the questions were not technically correct, one cannot automatically assume that students in different countries did not perceive them any differently. Does, for example the word "solvent", even if exemplified, signify the same thing for a student in Ukraine, Norway or Italy? "Being drunk" may mean many different things for students in Iceland, Hungary and Portugal?

Apparently one cannot ascertain in total whether students in different countries have understood the questions in the same way. On the other hand, for most variables the differences between high and low prevalence countries are considerable and it seems very unlikely that possible differences in the understanding or perception of some questions paves the way to "explaining" these differences.

Earlier in this section, different indices for cultural context have been elaborated. Student co-operation, missing data rates and reported willingness to answer honestly differ somewhat between countries, which is suggestive that the cultural context in which the questions have been answered may vary between countries. However, for each of these indicators only a rather few countries seem to differ in any major way from any of the others.

Other validity indicators, including student comprehension and reported dummy drug use, do not prompt for any important differences between participating countries.

The willingness to admit drug use may be influenced by societal attitudes towards a given drug. The results from the ESPAD project show that perceived risk of substance use and disapproval of different types of substance use differ between countries. The same is also true in relation to the availability of different drugs. Taken together, these results indicate that social desirability may vary between countries. Thus, in a country with low availability and negative attitudes towards drugs a student might be less willing to admit drug use than a student in a country with high availability and positive attitudes towards drugs.

Similar issues may also be relevant when considering that in some countries drugs and drug use are often mentioned in mass media and discussed at school, while the situation may be the opposite in others.

Some ESPAD countries have long traditions in the conduct of school surveys while the ESPAD study was the first in others. These different traditions and, consequently, differences in the students experiences of surveys could in principle affect the willingness to answer honestly and thus this may differ between countries.

One of the conclusions of the methodological discussions in the ESPAD 95 report (Hibell et al. 1997) was that the cultural context in which the students answered the questions most probably differed between countries and that one could not exclude that these differences may have differently impacted on the willingness to answer honestly.

To obtain a better insight into the effects of cultural context, the ESPAD methodology project was conducted in 1998 (Hibell et al. 2000). The answers from the students about their own honesty and the expected honesty of their classmates, as well as data from the survey leaders, clearly indicated a high reliability and validity in the seven participating countries. It could not be excluded, however, that the validity might have been slightly lower in one or two out of the seven participating countries (Cyprus, Denmark, Lithuania, Malta, Ukraine, the Slovak Republic and Sweden; i.e. countries in different parts of Europe).

The cultural context in which the students answered the questions most probably differed between the seven countries. However, it does not seem plausible that validity differed very much. One reason for this outcome, indicated by the methodology study, might be that the students really trusted that anonymity and confidentiality would be observed.

Even if some doubts remain on the effect of cultural context for the validity, especially in countries that did not participate in the methodology study, it does not seem likely that the "true" answer in a low prevalence country (e.g. 2% admitting cannabis use) should be more than doubled or tripled (i.e. above 4–6%) and that the "true" figure in a high prevalence country (e.g. 30%) should not be somewhere between $\pm 5\%$ (i.e. between 25-35%). Thus, a low prevalence country is most probably still a low prevalence country "in reality" and a high prevalence country "still" a high prevalence country, even if the exact difference between the two countries is not known for certain. However, it may be difficult to draw any firm conclusions about significant differences between countries with only small differences in prevalence figures.

Summary

An analysis of available information strongly suggests that the validity of the ESPAD studies is high in most countries. These indicators include student co-operation, student comprehension, anonymity, reported dummy drug use and construct validity. The main threats to validity are related to missing data rates, logical inconsistencies and reported lack of willingness to answer honestly. Validity problems are encountered in a limited number of countries, mainly Greenland but to some extent also Croatia, Latvia and Malta. However, it should be noted that with the exception of Greenland, none of these countries are indicated on more than one of the validity measures. The importance of the cultural context should not be underestimated, but responses by students and survey leaders in the ESPAD methodology project indicated that the students usually answered rather honestly. These conclusions are also supported in the present study by the very large proportion of the data collection leaders that reported that students were interested in the study and worked seriously. Validity problems seem to be limited in scope and to affect only a few countries.

Comparisons with other survey data

In some ESPAD countries data are available from other studies measuring alcohol and drug habits among youth. Comparisons between those data and results from the ESPAD study can provide valuable information on whether differences in alcohol and drug habits between students in different ES-PAD countries are realistic. In this perspective, results from two studies in a country do not have to be exactly the same. What is important is that they are of the similar magnitude.

It could be questioned whether this is a measure of validity or not. Even if the results of two surveys are similar one could argue that this is not sufficient proof for validity. However, the general consensus is that school surveys usually do provide rather valid results, thus comparisons with other data should further provide valuable insights as to the validity of the ESPAD project, at least in countries with comparable data.

Comparable data are available in Sweden, Norway and the Netherlands. Comparisons on four variables from the Study of Health Behaviour in School-aged Children (HBSC) (Currie et al. 2004) are discussed below

Data accrued in the studies used for comparisons are not always collected in the same way, with the use of same questions or on exactly the same age groups. The most important methodological differences are mentioned in the tables (H–N). Again, these differences stress the importance of focusing on magnitudes rather than on exact figures.

In Norway the figures for most variables are similar in both studies (Table H). The proportion that said that they had used any alcohol in their lifetime was slightly higher in the ESPAD study compared to that obtained from a national survey that employed the use of mailed questionnaires. However, the latter survey specified a lower limit of at least a bottle of beer or 10 cl of wine or 2.5 cl of spirits but the ESPAD did not contain any minimum quantities so the difference between the two studies seems reasonable.

For all other variables the figures are remarkably similar, including measures related to three different time frames, i.e. lifetime (intoxication, use of cannabis, use of amphetamines and use of inhalants), last 12 months (intoxication, use of cannabis and use of inhalants) and last 30 days (any alcohol and cigarette smoking).

In Sweden slightly more boys in the ESPAD study answered that they have ever been drunk and

that they were drunk at the age of 13 or younger compared to estimates from the regular national school survey in 2003, while for the remaining five variables there were no differences of note (Table I). Among girls there were no differences at all for any of the seven variables. The questions on drunkenness were not the same in the two surveys, which may be a source for the difference in the answers. However, in the total ESPAD context, figures for lifetime prevalence for boys range from 25 to 87% while figures for being drunk at the age of 13 or earlier range from 8 to 42%, the differences between the two Swedish studies among boys are probably of minor importance.

A third country with information from another school survey is the Netherlands. It was conducted in parallel with the ESPAD study and used the same questionnaire with some minor differences. Hence, the Dutch comparison should be seen more

Table H. Alcohol and drug use in Norway. Frequency of lifetime, last 12 months and last 30 days use. Data from ESPAD and a national survey in 2003. Percentages among all respondents ^{a)}.

	ESPAD 15–16 years	National survey ^{b)} 15–16 years
Lifetime		
Any alcohol	84	72 ^{c)}
Intoxicated	59	56
Cannabis	9	8
Amphetamines	2	2
Inhalants	6	5
Last 12 months		
Intoxicated	54	52 (last 6 months)
Cannabis	6	6 (last 6 months)
Inhalants	3	2 (last 6 months)
Last 30 days		
Any alcohol	51	51
Smoke cigarettes	28	27 (smoke tobacco)
Number of respondents	3,833	563

a) Percentages are based on respondents answering respective question.

b) Data were collected by mailed surveys with a response rate of about 50%.c) Specified to at least a bottle of beer or 10cl of wine or 2,5 cl of spirits.Source: Skretting (2000, 2004).

	Boys		Girls		
	ESPAD	Annual school survey 2003	ESPAD	Annual school survey 2003	
Lifetime					
Been drunk	62	56	62	60	
Been drunk at the age of 13 or younger	25	19	19	18	
Used any illicit drug	10	7	7	7	
Used cannabis	9	6	6	6	
Used inhalants	8	8	8	6	
Used anabolic steroids	1	1	0	0	
Last 30 days					
Used cannabis	2	2	1	2	
Number of respondents	1,592	2,667	1,640	2,559	

Table I. Alcohol and drug use in Sweden. Frequency of lifetime and last 30 days use. Data from ESPAD and the annual Swedish school survey 2003 in grade 9. Percentages among boys and girls a).

a) Percentages are based on students answering respective question.

Source: Hvitfeldt et al. (2004).

as a measure of reliability than of validity.

Data from the two surveys are very similar for alcohol consumption and cannabis use during lifetime, last 12 months as well as last 30 days (Table J). This is also the case for cigarette smoking during the last 30 days. The slightly higher figures in the ESPAD study can be explained by a slightly larger number of boys in the ESPAD sample.

In the 1995 ESPAD report comparisons between ESPAD data and data from national surveys were presented for England, Hungary, Iceland and Scotland. None of them showed any important differences (Hibell et al. 1997).

The proportion of Finish ESPAD students that have ever used cannabis increased from 1995 to 1999 and was unchanged in 2003. A similar trend of an increase in the late 90's and a levelling out in the beginning of this century has also been reported from 15–19 year old Finns in a nation wide survey (Hakkarainen and Metso, 2003).

Many countries that participate in the ESPAD project are also involved in the HBSC study. Comparable information was available for alcohol consumption and drunkenness. Many countries in the HBSC study also asked questions on the use of cannabis.

The latest round of data collection for the HBSC study was conducted in 2001–2002 with the goal to

produce mean ages of 11.5, 13.5 and 15.5 years. Comparisons with the ESPAD study is therefore limited to the oldest age group in the HBSC survey. Table 3 in Annex 1 of the HBSC report (Currie et al. 2004) shows that the mean ages in the oldest age group varied from 14.8 to 16.4 years while the corresponding range in ESPAD was 15.6–15.9. Since a difference of only a few months might indeed have an impact on the experiences with different substances, comparisons between the HBSC and ES-PAD studies have been limited to countries in which the differences of the mean ages are not larger than ± 0.2 years.

There are some small differences between the two surveys in the way in which alcohol consumption and drunkenness have been measured. In ES-PAD the figures for alcohol consumption show the proportion of boys and girls that had used alcohol 3 or more times during the last 30 days, while the HBSC survey measured the proportion that drank alcohol at least weekly. ESPAD data for drunkenness show the proportion that have "ever been drunk" while HBSC reports the proportion that has been "drunk" 2 or more times. Possible differences in the measures of lifetime and 12 months prevalence of cannabis use are less obvious between the two surveys.

The relationship is rather strong on the alcohol

Table J. Alcohol and drug use in the Netherlands. Frequency of lifetime, last 12 months and last 30 days use. Data from ESPAD and a parallell school survey (PEIL). Percentages among all respondents ^a).

	ESPAD ^{b)}	PEIL ^{c)}
Lifetime		
Any alcohol	92	90
Cannabis	29	27
Last 12 months		
Any alcohol	88	86
Cannabis	23	22
Last 30 days		
Any alcohol	76	73
Cannabis	13	13
Smoke cigarettes	31	29

a) Percentages are based on respondents answering respective question. The questions were the same. However, in the PEIL study the answering categories were separate up to 10 (0, 1, 2 etc. till 10 times) while they were combined in ESPAD (1–2, 3–5, 6–9 times).

b) Since there are no weight factors for the PEIL study for the selected birth cohort ESPAD figures are also unweighted, wich means that there in a few cases are minor differences compared with data in the result sections.

c) The national sample of the PEIL study included students that were 10–18 years. However, for this comparison the selected age group is matced to the ESPAD target population.

Source: Dorsselaer and Monshouwer (2004).

use variable, with $r_{xy}=0.91$ for boys and 0.90 for girls and with Spearmans rank correlation (r_{rank}) on 0.89 and 0.78 respectively (Table K). The r_{xy} figures are about the same for drunkenness with 0.89 for boys and 0.90 for girls, while the r_{rank} values are

a little higher with 0.93 and 0.96 (Table L).

The cannabis variables also show a high correlation between the ESPAD and HBSC surveys. For lifetime use of cannabis the r_{xy} was 0.96 and r_{rank} 0.93 for boys as well as for girls (Table M). The r_{xy} values are more or less equivalent for both sexes (0.94 for boys and 0.95 for girls) on the 12 months prevalence figures for cannabis, while r_{rank} was a little higher for girls (0.94) than for boys (0.85) (Table N).

Overall, the comparisons between ESPAD data in Norway, Sweden and the Netherlands and results from other surveys in these three countries, as well as comparisons between the ESPAD and HBSC surveys, show very similar figures. The same conclusions were also drawn from earlier studies in England, Hungary, Iceland and Scotland.

Even if ESPAD data are "validated" by data from other studies, this really only applies to the countries involved and says nothing of the remaining ESPAD countries. On the other hand, it does not seem unrealistic to expect the situation to be rather equivalent in similar countries, i.e. mainly countries from the western part of Europe (since six of the seven countries included in the individual country comparisons were from this part of Europe as well as nine of the thirteen countries in the ESPAD – HBSC comparison).

It is more difficult to form an opinion on the countries of central and eastern Europe, even if the comparisons between the two 1995 Hungarian studies indicated very similar results and the comparisons between the ESPAD and HBSC studies included four countries from these parts of Europe.

Table K. Alcohol use in the ESPAD and HBSC surveys. Students answering 3 times or more often during the last 30 days (ESPAD) or at least weekly (HBSC). Percentages among boys and girls ^a), r_{xy} and Spearmans rangcorrelation cofficient (r_{rank}).

Country	Boys		Girls		
	ESPAD	HBSC	ESPAD	HBSC	
	3+ times last 30 days	1+ times a week	3+ times last 30 days	1+ times a week	
Netherlands	62	56	49	47	
Malta	60	56	48	40	
Denmark	59	50	50	44	
Italy	48	48	30	28	
Switzerland	47	39	37	28	
Poland	43	29	29	10	
Slovenia	35	42	24	26	
Portugal	34	21	19	11	
Ukraine	31	29	24	19	
Hungary	30	34	21	19	
Norway	22	20	22	19	
Finland	21	18	23	16	
Sweden	20	23	16	17	
	r _{xy} =0.9	91	r _{xy} =0.	90	
	r _{rank} =0).89	r _{rank} =0	0.78	

a) Percentages are based on students answering respective question. Source: Currie et al. (2004).

Table L. Drunkenness in the ESPAD and HBSC surveys. Students who have ever been drunk (ESPAD) and drunk at least twice (HBSC). Percentages among boys and girls ^a), r_{xy} and Spearmans rangcorrelation cofficient (r_{rank}).

Country	Boys		Girls	Girls		
	ESPAD	HBSC	ESPAD	HBSC		
	Ever been drunk	Drunk 2+ times	Ever been drunk	Drunk 2+ times		
Denmark	87	68	84	65		
Ukraine	80	61	75	45		
Slovenia	74	44	65	38		
Finland	68	53	70	56		
Poland	67	40	51	23		
Hungary	65	47	56	26		
Switzerland	64	39	53	27		
Sweden	62	40	62	38		
Netherlands	60	35	50	22		
Norway	55	39	62	41		
Italy	53	23	49	17		
Malta	52	25	44	18		
Portugal	36	26	29	19		
	r _{xy} =	0.89	r _{xy} =	0.90		
	r _{ran} l	<=0.93	r _{rank}	=0.96		

a) Percentages are based on students answering respective question. Source: Currie et al. (2004).

Country Switzerland Netherlands Italy Slovenia Ukraine Denmark Poland Hungary Portugal Malta Finland	Boys		Girls		
	ESPAD	HBSC	ESPAD	HBSC	
Switzerland	44	49	36	40	
Netherlands	32	29	24	23	
Italy	31	27	23	18	
Slovenia	31	31	26	25	
Ukraine	29	33	12	15	
Denmark	27	26	18	21	
Poland	23	25	13	12	
Hungary	18	17	13	11	
Portugal	18	25	12	15	
Malta	13	9	8	4	
Finland	11	11	11	10	
Sweden	9	8	6	7	
	r _{xy} =0	.96	r _{xy} =0.	96	
	r _{rank} =	=0.93	r _{rank} =	0.93	

Table M. Lifetime use of cannabis in the ESPAD and HBSC surveys. Percentages among boys and girls^{*a*}), r_{xy} and Spearmans rangeorrelation cofficient (r_{rank}).

a) Percentages are based on students answering respective question. Source: Currie et al. (2004).

Country	Boys		Girls	
	ESPAD	HBSC	ESPAD	HBSC
Switzerland	35	40	28	35
Netherlands	27	24	18	19
Italy	24	24	19	17
Slovenia	24	27	22	21
Denmark	21	24	13	19
Poland	19	21	9	9
Ukraine	18	21	6	8
Portugal	15	25	11	14
Hungary	13	15	9	10
Malta	10	8	7	4
Finland	7	8	8	7
Sweden	5	5	4	5
	r _{xy} =0.94		r _{xy} =0.95	
	r _{rank} =0.85		r _{rank} =0.94	

Table N. 12 months prevalence of cannabis use in the ESPAD and HBSC surveys. Percentages among boys and girls ^{*a*}), r_{xy} and Spearmans rangcorrelation cofficient (r_{rank}).

a) Percentages are based on students answering the respective question. Source: Currie et al. (2004).

Conclusions

The methodological discussion on representativeness, reliability and validity is rather extensive. The most salient conclusions are listed below (they are not ranked in any order).

General conclusions

- None of the countries experienced methodological problems that made it impossible to compare their data with the data of other countries.
- The drug use figures are probably somewhat underestimated and underreporting appears to differ somewhat between countries. However, the relative ranking of high and low prevalence countries is not likely to be affected by differences in underreporting between countries.
- Despite some differences in cultural context the validity of the ESPAD survey is assumed to be high in most ESPAD countries.
- The report does not provide confidence intervals for individual figures. It is important to interpret differences in point estimates with caution.
- Individual countries suffer from methodological problems that should be taken into account when analysing their figures. These problems are briefly reviewed below.
- The magnitude of various kinds of drug use in different ESPAD countries probably reflects country differences quite well, especially between distinguished groups of countries with different experiences of drug use.
- It is more important to concentrate on the magnitudes of the estimates than on single figures, both when analysing data in single countries as well as when interpreting trends and differences between countries.
- Small discrepancies between countries should be considered carefully. They may not reflect valid differences.

Country-specific conclusions

- In **Austria** there were rather many classes that did not participate, which indicate some uncertainty. Boys were slightly overrepresented, and thus data ought to have been weighted.
- A large number of schools and classes in **Belgium** did not participate in the data collection. There were sufficient reasons to believe that this did not impact on representativity, but the high figure calls for some caution.

- The proportion enrolled in school of those born in 1987 was also low in **Bulgaria** (72%). Inconsistency rates were rather high for alcohol consumption, drunkenness and cannabis use, which call for some caution when interpreting the figures of these variables.
- Relatively large proportions in **Croatia** answered that they were unwilling to report possible use of cannabis (12%) and heroin (15%), which points to some uncertainty.
- The sample in the **Czech Republic** only "covered" about 68% of all students born in 1987, which mainly limits the representativeness to students in grade 1.
- The sample in **Cyprus** only "covered" 74% of all students born in 1987, which mainly limits the representativeness to students in grades 1 and 2.
- A large number of schools and classes in **Denmark** refused to participate. Even though no systematic differences were found between participating and refusing schools, one cannot exclude the risk that the study is not fully representative for Danish students.
- The proportion of non-participating schools and classes is unknown in **Greenland**, which cause some concern since school drop-out rates was rather high in 1999. The proportions of inconsistent answers were rather high as well as the proportions of unanswered questions. Many students reported an unwillingness to admit drug use. Hence, some caution is recommended when comparing data from Greenland with those from other ESPAD countries.
- Students in **Greece** were seven months younger in 2003 than in the 1999 data collection, which must be kept in mind when interpreting changes in the substance use figures from 1999 to 2003.
- In **Ireland** a relatively small proportion of students born in 1987 were found in the only participating grade in the ESPAD study (67%). Consequently Irish data are mainly representative for students born in 1987 that attended grade 5.
- Compared with other countries rather large proportions in **Latvia** reported that they were unwilling to report possible use of cannabis (12%) and heroin (13%). Rather many students gave inconsistent answers to questions on drunkenness. Hence, some caution is recommended when interpreting the figures of these variables.

- The participating grade in **Malta** only included 75% of all students born in 1987. Hence, data are mainly representative for students attending grade 5. The inconsistency figure for inhalants was rather high and relatively large proportions reported that they were unwilling to report possible use of cannabis (13%) and heroin (15%). Hence, some caution is recommended when interpreting the figures of these variables.
- Rather many schools in **the Netherlands** refused to participate, which points to some uncertainty.
- Rather many classes in **Norway** did not participate, which raises some uncertainty. The proportions of unanswered questions on illegal substances were higher in Norway (4–7%) than in nearly all other countries, which might indicate an underreporting to a slightly higher degree than in some other ESPAD countries.
- Of all student born in 1987 in **Romania** only 79% were found in participating school categories and grades. Thus, data were mainly representative for students born in 1987 enrolled in grades 9 and 10 in regular high schools. Boys were underrepresented in the Romanian sample and data should have been weighted to correct for this.
- Participating grades in **the Slovak Republic** only included a rather small proportion of all students born in 1987 (67%), which was smaller than that in 1999 when the coverage was 99%.

Thus, data from the Slovak Republic are mainly representative for students born in 1987 that were found in grades 1–4. Some caution is recommended when comparisons are made between data from 1999 and 2003.

- The proportion of the survey leaders in **Slovenia** that reported that "all" or "nearly all" students were interested in the study and worked seriously was rather low. However, there are no other indications that the reliability or validity should be lower than in other ESPAD countries.
- The proportion of the 1987 birth cohort enrolled in school was low in **Turkey** (60%). The inconsistency figures were high for cigarette smoking and the proportion of unanswered questions on alcohol consumption, drunkenness and the use of inhalants, cannabis and other illegal drugs were rather high, which calls for some caution when interpreting many of the substance use variables.
- Some reliability and validity measures for drunkenness and cannabis use in **Ukraine** call for some caution when interpreting the figures for those variables.
- A large proportion of sampled schools in the **United Kingdom** did not participate. No differences were found when participating and non-participating schools were compared. However, the high proportion calls for some caution.

Changes in the use of alcohol and other drugs 1995–2003

This chapter presents changes in the use of alcohol and other drugs between 1995–2003 that are best exemplified by diagrams and scatter plots. Changes between 1999 and 2003 as well as between 1995 and 1999 are also included for selected variables. The variables selected are the same as those used in the 1999 ESPAD report. However, not all countries participated in 1995 or 1999 and in some instances data for one of the years may be missing on a specific variable. In both cases missing data are marked by two dots (..) in the bar graphs. A zero (0) signifies that at least 1 but less than 0.5 % have given this answer, while a short line (–) means that no student has given that answer.

A study that is based on a random sample from a specific population will always result in a point estimate within a certain confidence interval. This means that a small difference in proportions can be caused by random sampling fluctuations rather than true differences in the populations under study. The confidence intervals enable the researcher to establish whether a difference should be considered a true difference or not. For various reasons described elsewhere in this report, no confidence intervals have been calculated for the surveys included in this study (see the chapter "Methodical considerations"). Consequently, the comments in this section of the report are based on substantive differences and changes, while differences of only a few percentage points are disregarded.

In order to maintain consistency between this and the 1999 report we have only highlighted changes of more than three percentages points. Thus, values for a specific variable for a specific country that are unchanged or only changed within the range of three percentage points are coloured in yellow in the diagrams. Figures that have increases more than three percentage points are marked in red and figures that have decreased by more than three percentages points are marked in green. It should be pointed out however, that this is only to facilitate interpretation as a difference within the yellow section of the diagrams may very well be statistically significant.

The comments on each diagram focus mainly on the pattern of changes and the grouping of countries that fall within this pattern. The actual levels (percentages) of involvement in the various behaviours that are shown are usually disregarded as these findings are discussed in more detail in the next chapter, where the results are presented for each country that participated in the data collection in 2003. The gender pattern is demonstrated in the bar graphs, but is not discussed in the text. However, the next chapter includes some comments about gender differences.

When data from 2003 are compared to those from earlier data collections it should be observed that the Romanian figures from the 1999 data collection included in this report are in some cases not those as found in the ESPAD 99 report since it by mistake included answers from students not born in 1983. Hence, to rectify this anomaly in this report, the Romanian figures for 1999 are only based on students belonging to the target population. It should also be observed that the Slovenian figures for cigarette smoking during the last 30 days have been recalculated for 1995 as well as for 1999.

Greek students were seven months younger in 2003 than in the 1999 data collection, which must be kept in mind when interpreting changes from 1999 to 2003. A smaller proportion (67%) of the target population in the Slovak Republic participated in 2003 compared to 1999 (99%), which have limited the possibilities to compare data from the two surveys. The same is true for Portugal where the proportion of the target population that was included in the sampling frame increased from 66% in 1995 to 83% in 1999 and to 99% in 2003.

Changes in cigarette smoking Lifetime use of cigarettes 40 times or more

(Figures 1a-c)

In many of the countries the proportion of students that smoked at least 40 cigarettes in their lifetime was about the same in 2003 as it was in 1999. However, when changes occurred it was more common that these were downward rather than upward.

The highest prevalence of smoking cigarettes at least 40 times is in most cases found in the eastern parts of Europe including the Czech Republic, Estonia, Lithuania and Romania. However, the two countries at the very top are still the same as they were in 1999, Greenland and Faroe Islands, despite the fact that the proportion reporting this behaviour had decreased somewhat in Greenland. The prevalence rates are also almost unchanged for this variable in other countries. This would seem to suggest that in countries where the prevalence rates were quite high in 1999, they have remained so in 2003.

Countries where an increase can be observed were mainly found in eastern parts of Europe (the Czech Republic, Estonia, Lithuania and Romania). However, the prevalence rates in Romania are still among the lowest.

The proportions reporting lifetime use of cigarettes 40 times or more decreased in some of the ESPAD countries between 1999 and 2003. As mentioned above, this was apparent in the high prevalence country Greenland, but also in Denmark, Finland, Ireland and Norway, all of which were half way up the list in 1999. Decreases, however, were also observed in countries that reported rather low prevalence rates in 1999 (Greece, Iceland, Malta and United Kingdom).

When looking at the trend development for this particular behaviour between 1995 and 2003, only Lithuania has a clear upward tendency in this measure of lifetime use, while no country shows a continuous decrease over the years.

Cigarette smoking during the last 30 days

(Figures 2a-c)

Having smoked more than 40 times in a lifetime does not in itself refer to most recent habits. The last 30 days prevalence rates on the other hand, give an overall assessment of actual smoking habits.

As in 1999 the top countries are still to be found in the eastern parts of Europe together with Greenland and the Faroe Islands. The prevalence rates are extremely high in Greenland and surpass other top ESPAD countries by about 15 percentage points. It was, however, even higher in 1999 and thus they have somewhat decreased in 2003.

In many of the top countries the prevalence rates were relatively unchanged between 1999 and 2003. Despite a decrease in Bulgaria between the two surveys, this does not alter the fact that the country is still the second highest on this variable followed by Russia (Moscow) and the Czech Republic. Some countries with relatively high prevalence rates in 1999 have lower figures for 2003, including Denmark, Finland, France, Ireland and Norway. However, this also occurred in countries with somewhat lower prevalence rates such as Greece, Iceland, Malta, Sweden and the United Kingdom.

An increase in the prevalence rate for the 30 days smoking was observed in Cyprus, Estonia and Romania, although these countries' position in the prevalence hierarchy are different – Cyprus and Romania are among the countries with the lowest prevalence rates, while Estonia is somewhere in the middle with respect to all ESPAD countries.

Changes in 30 days smoking over the eight years in the countries that have conducted all three ES-PAD studies show that very few of them have any continuous trends. However, the Estonian students reported increases from 1995 to 1999 to 2003, while students' responses in Iceland and Ireland were indicative of a unidirectional decrease between the three surveys.

Daily smoking at the age of 13 or younger

(Figures 3a–c)

Many young people who experiment with smoking do so a few times but do not necessarily continue to smoke on a regular basis. Others, however, have already started daily smoking at an early age. Countries where smoking is highly prevalent also generally have a higher proportion of students that started to smoke at the age of 13.

From 1999 to 2003 very small changes occurred on this variable in most of the countries. In Estonia, Faroe Islands and Latvia, however, a rather big increase was noted. A change in the opposite direction only occurred in two countries, Ireland and United Kingdom, where a rather big decrease was observed. This results in a change in these countries 1999 position in the prevalence hierarchy; they are replaced at the top of list by the Faroe Islands and Estonia in 2003.

In many countries the prevalence rates for daily

smoking at the age of 13 have been rather stable over the three ESPAD data collections. No country

shows either a continuous increase or decrease between the three surveys.

Changes in alcohol consumption Alcohol use 40 times or more in lifetime

(Figures 4a–c)

The diagrams show that the prevalence rates on this variable were relatively unchanged in many ES-PAD countries. However, in some of them the proportion of students who report this behaviour have noticeably increased. The twelve countries where this was observed include Bulgaria, Croatia, the Czech Republic, Estonia, the Faroe Islands, Hungary, Italy, Latvia, Lithuania, Russia (Moscow), the Slovak Republic and Ukraine. From the above list it would appear that the increases have predominantly occurred in the eastern parts of Europe, but also in the Faroe Islands and Italy.

Changes in the opposite direction were only found in three countries, all of which were among the top countries in 1999: Denmark, Greece and the United Kingdom. Denmark and the United Kingdom still hold onto their top ranking despite the recent decrease, but Greece has fallen down the list.

The trend development for this variable over the period 1995 to 2003 shows that in some of the countries there has been a unidirectional increase over the years. An upward trend can be observed in six countries, all of which are found in the eastern parts of Europe and include Croatia, the Czech Republic, Estonia, Lithuania, the Slovak Republic and Ukraine.

Alcohol use 20 times or more during the last 12 months

(Figures 5a–c)

Changes in the proportion of students who drank alcohol 20 times or more during the last 12 months are very similar to the lifetime prevalence of drinking 40 times or more. Thus, an increase was observed in a large number of countries, mainly in the eastern parts of Europe.

The twelve countries where increasing proportions of students report such frequency of drinking include Bulgaria, Croatia, the Czech Republic, Estonia, the Faroe Islands, Hungary, Italy, Latvia, Lithuania, Russia (Moscow), the Slovak Republic and Ukraine. A decrease was found in Denmark, Greece and Ireland. Over the years from 1995 to 2003 a continuous increasing number of students reported drinking 20 times or more in the last 12 months in the Czech Republic, Estonia, Lithuania, and the Slovak Republic. Others were relatively unchanged over the same time period but in no country was there evidence for a decrease in this trend.

Alcohol use 10 times or more during the last 30 days

(Figures 6a–c)

Among 15–16 year old students in Europe, an alcohol consumption frequency of 10 times or more over the last 30 days is relatively uncommon but the prevalence rates differ substantially.

However, between 1999 and 2003 rather small changes were observed and in the main the situation is one of status quo. Nevertheless, changes occurred in a few of the countries, some of which were rather noteworthy. Thus, increased figures were observed in Bulgaria, Croatia, Italy, Latvia and Russia (Moscow). A decrease was reported by only one country, Denmark.

From the rather stable situation between 1999 and 2003 it follows that the top countries remain, including Malta, the United Kingdom, Ireland and Denmark.

Looking at the trends over the eight years no continuous changes were found, neither in a positive nor negative direction.

Beer consumption 3 times or more during the last 30 days

(Figures 7a–c)

The pattern of frequent beer consumption has changed in different directions among young people in Europe over the actual four years. Moreover, it is not simply a pattern of an increase in low prevalence countries and a decrease in high prevalence countries, but a mixture of both. However, the increases tend to be mainly found in the eastern parts of Europe.

Increases in the proportions reporting that they had consumed beer three times or more during the last 30 days were found in Bulgaria, Croatia, the



Figure 1a. Changes between 1999 and 2003 in lifetime use of cigarettes 40 times or more. Countries above the line have increased prevalence rates, and countries below have decreased. All students.







Figure 1c. Changes between 1995 and 2003 in lifetime use of cigarettes 40 times or more, by country. All students.









Figure 2b. Changes between 1995 and 2003 in cigarette smoking during the last 30 days. Percentages among boys and girls (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.





Figure 2c. Changes between 1995 and 2003 in cigarette smoking during the last 30 days, by country. All students.





2003

Figure 3b. Changes between 1995 and 2003 in daily smoking at the age of 13 or younger. Percentages among boys and girls (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.

25 %



Figure 3c. Changes between 1995 and 2003 in daily smoking at the age of 13, by country. All students.







Figure 4b. Changes between 1995 and 2003 in lifetime use of any alcoholic beverages 40 times or more. Percentages among boys and girls (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.


Figure 4c. Changes between 1995 and 2003 in lifetime use of any alcoholic beverages 40 times or more, by country. All students.







Figure 5b. Changes between 1995 and 2003 in use of any alcoholic beverages 20 times or more during the last 12 months. Percentages among boys and girls (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.



Figure 5c. Changes between 1995 and 2003 in use of any alcoholic beverages 20 times or more during the last 12 months, by country. All students.



Lithuania (2, 8, 8)

Slovenia (5, 8, 7)

France (.., 8, 7)

Portugal (5, 7, 7)

Hungary (4, 5, 6)

Estonia (2, 4, 6)

Latvia (.., 2, 6)

Ukraine (3, 5, 5) Romania (.., 4, 5)

Faroe Isl. (4, 4, 4)

Norway (1, 3, 3)

Greenland (.., 3, 3) Finland (1, 1, 2) Sweden (1, 2, 1)

Iceland (1, 1, 1)

10

12

2003

20

15

10

5

0

% 25

11 8

Figure 6a. Changes between 1999 and 2003 in use of any alcoholic beverages 10 times or more during the last 30 days. Countries above the line have increased prevalence rates, and countries below have decreased. All students.





5

10

15

0

1995 1999

2003

20



Figure 6c. Changes between 1995 and 2003 in use of any alcoholic beverages 10 times or more during the last 30 days, by country. All students.





Figure 7b. Changes between 1995 and 2003 in beer consumption 3 times or more during the last 30 days. Percentages among boys and girls (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.



Figure 7c. Changes between 1995 and 2003 in beer consumption 3 times or more during the last 30 days, by country. All students.

Faroe Islands, Hungary, Poland, Romania, the Slovak Republic and Ukraine. Decreases were not only observed in the top two countries in 1999 (Denmark and Greenland) but also in France, Greece, Slovenia and the United Kingdom.

Despite the decrease Denmark still ranks highest in this regard in 2003. Other countries that have joined this group after rather pertinent increases in the prevalence figures include Bulgaria, Poland and the Slovak Republic.

Over the years 1995 to 2003 an increase in the prevalence rates of having consumed beer 3 times or more in the last 30 days were found in Croatia, the Faroe Islands, the Slovak Republic and Ukraine. No country showed a continuous decreasing trend over the last eight years.

Wine consumption

3 times or more during the last 30 days (Figures 8a–c)

The proportions of students who reported wine consumption as frequent as 3 times or more during the last 30 days were unchanged between 1999 and 2003 in most countries, including the highest ranking country in 1999 and 2003 (Malta). In five countries, however, an increase was observed. These were Croatia, Greece, Hungary, Italy and Russia (Moscow). In only Denmark and France was there a notable decrease in the prevalence rate of wine consumption at this frequency.

When focusing on the development of this behaviour over the eight years of the ESPAD project, it is clear that the proportions to a large extent remain rather unchanged in many countries. No countries show a unidirectional increasing or decreasing trend between 1995 and 2003.

Consumption of spirits 3 times or more during the last 30 days

(Figures 9a-c)

There is a wide variety in the 30 days prevalence rates in the consumption of spirits 3 times or more in the past 30 days in the participating countries. In many of them, the figure for 2003 was similar to that in 1999. Hence, the high and low prevalence countries hold their positions.

However, an increase in the reported consumption of spirits 3 times or more over the last 30 days was observed in nine countries. They include Cyprus, Estonia, the Faroe Islands, Greece, Greenland, Ireland, Italy, Poland, Portugal, the Slovak Republic and the United Kingdom. The consumption of spirits has declined in Denmark and France. For this variable there was a continuous upward trend between 1995 and 2003 in the Faroe Islands, Ireland, Portugal, the Slovak Republic and the United Kingdom. No country showed a continuous decrease over the period.

Consumption of 101 cl of beer or more on the last drinking occasion

(Figures 10a-c)

The proportion of students in 2003 that reported that they had consumed at least 101 cl beer the last time they drank any alcohol, were very much the same as they were in 1999. There were some notable decreases, especially among the top prevalence countries like Denmark, Greenland and Ireland. Other countries where decreases were observed include Norway, Sweden and the United Kingdom. An increase was only noted in two countries (Croatia and Latvia). Despite the drop in prevalence rates on this variable, Denmark and Ireland remain ranked higher than other countries in this regard, while Greenland drops to a similar level as several other countries.

The overall assessment of the findings from 1995 to 2003 is that the prevalence rates on this variable have remained rather stable over the years in most ESPAD countries. A long term decreasing trend was only found in one country (Sweden).

Consumption of 101 cl of alcopops or more on the last drinking occasion (Figures 11a–b)

Alcopops are not available in all ESPAD countries. Thus, only some countries included this beverage when asking about consumption on the last drinking occasion. However, the pattern of consumption of at least 101 cl alcopops on the last drinking occasion is of course of interest to those countries where it is available. The results are very diverse. Generally, the prevalence rates are very low. Moreover, only a few countries showed any change from 1999 to 2003.

However, the changes that did occur are relevant and are apparent in only four countries. These are Denmark, Ireland, Norway and the United Kingdom, where big increases in alcopops consumption were in evidence between 1999 and 2003.

Consumption of 15 cl of wine or more on the last drinking occasion

(Figures 12a-c)

The question related to wine consumption on the last drinking occasion was slightly altered for the

2003 survey. The amount indicating one glass was increased from 10 to 15 centilitres. This must be borne in mind when comparing the results on this variable between surveys, although it may not have changed the estimated number of glasses consumed by students. It can be argued, however, that most students would appear to consider 1–2 glasses of wine rather similar irrespective of whether in parenthesis it stated 10–20 cl or 15–30 cl.

The proportion of students that indicated 15 centilitres or more on last drinking occasion decreased in ten countries. They include Denmark, the Faroe Islands, Finland, France, Iceland, Latvia, Lithuania, Norway, Romania and the Slovak Republic. The only countries with increasing proportions were Croatia and Russia (Moscow). Since the definition of the volume that relates to a glass of wine was larger in 2003 than it was in 1999, this in itself might have tilted the bias in favour of the number of countries reporting a decrease and thus should be taken into consideration when viewing such figures.

A unidirectional increase from 1995 to 2003 was only observed in Croatia.

Consumption of 11 cl of spirits on the last drinking occasion

(Figures 13a–c)

In many ESPAD countries the prevalence rates for the consumption of a relatively large quantity of spirits on last drinking occasion did not change between 1999 and 2003. This is true for high prevalence as well as low prevalence countries.

However, in a few countries increases were observed and in one of them, the Faroe Islands, which topped the list last time, the increase was 12 percentage points. Other countries where increases were observed include the Czech Republic, Estonia, Italy and the Slovak Republic.

Countries where the prevalence decreased include four of the Nordic countries (Denmark, Iceland, Norway, Sweden) together with Russia (Moscow) and the United Kingdom.

The highest ranked countries in 1999 were again in the top group in 2003 (the Faroe Islands, Malta and Ireland). However, the top group now also includes some of the countries that showed increased prevalence rates for this variable between the two data collections (the Czech Republic and Estonia).

Looking at the development of this variable over the years reveals that in only one country, the Slovak Republic, was there a continuous upward trend. A continuous decreasing trend was also only found in one country (Iceland).

Drunkenness, 20 times or more in lifetime (Figures 14a–c)

The proportion of students who reported been drunk 20 times or more in a lifetime was relatively stable between 1999 and 2003 in many of the ESPAD countries. The increases that were observed were mainly found in the eastern parts of Europe. Increased prevalence rates were reported from Estonia, the Faroe Islands, Hungary, Ireland, Latvia, Lithuania, Russia (Moscow), the Slovak Republic and Ukraine. The only decreases in this respect were reported from Denmark and Iceland. Denmark nevertheless remained the highest ranked country in students reporting having been drunk 20 times or more in their lifetime.

Over the years a unidirectional increase in the proportion of students that reported this behaviour was observed in five countries. They include Estonia, Ireland, Lithuania, the Slovak Republic and Ukraine. No one of the countries showed unidirectional decrease from 1995 to 2003.

Drunkenness, 10 times or more in the last 12 months

(Figures 15a–c)

In the 15–16 age group, the experience of being drunk is a rather recent event for most of the students. Therefore, the prevalence rates of been drunk 10 times or more over the last year is not very different from been drunk 20 times or more in a lifetime.

The response pattern on this variable revealed that the figures were relatively unchanged between 1999 and 2003 in most countries. Increased values were reported from two Baltic States (Estonia and Lithuania) as well as from the Faroe Islands and the Slovak Republic. A decrease was observed in countries, which in 1999 were among the top group, including Denmark, Finland, Iceland and the United Kingdom, i.e. all four from the northern parts of Europe. With the exception of Iceland, these countries along with Ireland rank highest on this measure of adolescent drunkenness in the past 12 months.

A long-term increase in the prevalence rates for been drunk 10 times or more in the last 12 months was observed only in Estonia for the period 1995– 2003.



Figure 8a. Changes between 1999 and 2003 in wine consumption 3 times or more during the last 30 days. Countries above the line have increased prevalence rates, and countries below have decreased. All students.

50 %

dents 2003.



Figure 8c. Changes between 1995 and 2003 in wine consumption 3 times or more during the last 30 days, by country. All students.







Figure 9b. Changes between 1999 and 2003 in consumption of spirits 3 times or more during the last 30 days. Percentages among boys and girls (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.



Figure 9c. Changes between 1995 and 2003 in consumption of spirits 3 times or more during the last 30 days, by country. All students.





sumption of 101 cl beer or more on the last drinking occasion. Countries above the line have increased prevalence rates, and countries below have decreased. All students.



Figure 10b. Changes between 1995 and 2003 in consumption of 101 cl beer or more on the last drinking occasion. Percentages among boys and girls (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.



Figure 10c. Changes between 1995 and 2003 in consumption of 101 cl beer or more on the last drinking occasion, by country. All students.







Figure 11b. Changes between 1995 and 2003 in consumption of 101 cl alcopops or more on the last drinking occasion. Percentages among boys and girls (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.

Drunkenness, 3 times or more during the last 30 days

(Figures 16a–c)

The prevalence rates for been drunk 3 times or more in the last 30 days did not change very much in the participating countries between 1999 and 2003. Countries where an increase was found include Estonia, the Faroe Islands, Italy and Ukraine, i.e. countries that are rather disparate geographically. A decrease was only reported in Denmark and Sweden. The former remained, despite the decrease, in the top position for this behaviour followed by Ireland and the United Kingdom.

During the eight years of the ESPAD project a continued increasing in prevalence rates were found in Estonia and Ukraine.

Binge drinking 3 times or more in the last 30 days

(Figures 17a–c)

The proportion of students, who reported "binge drinking", i.e. drinking five or more drinks in a row at one drinking occasion, have increased in many ESPAD countries between 1999 and 2003. These countries include Bulgaria, Estonia, the Faroe Islands, Latvia, Lithuania, Portugal, the Slovak Republic, Sweden and Ukraine. Thus increases predominantly occurred in low prevalence countries across disparate parts of the European map. Decreasing figures were reported from Denmark, Greece, Greenland, Hungary, Iceland and Poland. Despite these changes the top countries more or less retained their positions, although two of them, Denmark and Poland, dropped down somewhat from 1999 to 2003. In both surveys the highest figures were reported from Ireland.

A continuous increase in the prevalence rates for binge drinking between 1995, 1999 and 2003 was only found in Estonia.

Drunk at the age of 13 or younger

(Figures 18a–c)

Many young people start drinking alcohol at a rather early age and some of them drink to the point of intoxication, as showed in the previous parts of this chapter. The proportion of students who reported been drunk at the age of 13 or younger differed to quite a degree among ESPAD countries. From 1999 to 2003 the proportions that report this behaviour remain rather unchanged in many of them, while in others rather large changes occurred.

The proportion of students that have been drunk at the age of 13 or younger mainly increased in the eastern parts of Europe, including Bulgaria, Croatia, Estonia, Latvia, Lithuania, Russia (Moscow), the Slovak Republic, Slovenia and Ukraine. However, an increase was also reported in the Faroe Islands. Decreased percentages were only found in Denmark, Greenland and Romania. The top group still includes Denmark, Finland, Russia (Moscow) and the United Kingdom and they have been joined by Estonia. Greenland, which was in the top group in 1999 reported a decrease in 2003.

Between 1995 and 2003 Ukraine was the only country in which a continuous increasing proportion of students reported been drunk at the age of 13. No country showed a continuous trend in the opposite direction.

Changes in illicit drug use prevalence Lifetime use of any illicit drug

(Figures 19a–c)

The proportion of students that have tried illicit drugs varies to a significant extent amongst countries, from less than 5% to almost half (44%) of the student population. Between 1999 and 2003 the prevalence rates for this variable increased in nine of the ESPAD countries. They include Bulgaria, Croatia, the Czech Republic, Estonia, Greenland, Hungary, Ireland, Portugal and the Slovak Republic. Decreasing prevalence rates were found in Greece, Latvia, Norway and Romania. Among the four top countries from 1999 a further increase occurred in the Czech Republic and Ireland, while France and the United Kingdom remained relatively unchanged. Increases of 7–8 percentage points in the lifetime experiences of any illicit drug use were found in Bulgaria, the Czech Republic, Ireland and the Slovak Republic.

The trend in prevalence rates over time between 1995 and 2003 show that a continuous increase has occurred in six ESPAD countries. The sizes of these increases vary but in many countries the rates have doubled or tripled. The countries in which increases





Boys

39 43 37 38

% 50

40



Figure 12b. Changes between 1995 and 2003 in consumption of 15 cl wine or more on the last drinking occasion. Percentages among boys and girls (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.



Figure 12c. Changes between 1995 and 2003 in consumption of 15 cl wine or more on the last drinking occasion, by country. All students.





2003

Changes in the use of alcohol and other drugs 2003

2003 in consumption of 11 cl spirits or more on the last drinking occasion. Percentages among boys and girls (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.



Figure 13c. Changes between 1995 and 2003 in consumption of 11 cl spirits or more on the last drinking occasion, by country. All students.











Figure 14c. Changes between 1995 and 2003 in the proportion who have been drunk 20 times or more in lifetime, by country. All students



Figure 15a. Changes between 1999 and 2003 in the proportion who have been drunk 10 times or more during last 12 months. Countries above the line have increased prevalence rates, and countries below have decreased. All students.



Figure 15b. Changes between 1995 and 2003 in the proportion who have been drunk 10 times or more during last 12 months. Percentages among boys and girls (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.



Figure 15c. Changes between 1995 and 2003 in the proportion who have been drunk 10 times or more during last 12 months, by country. All students.





2003

Changes in the use of alcohol and other drugs 2003

between 1995 and 2003 in the proportion who have been drunk 3 times or more during last 30 days. Percentages among boys and girls (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.



Figure 16c. Changes between 1995 and 2003 in the proportion who have been drunk 3 times or more during last 30 days, by country. All students.





Boys



Figure 17b. Changes between 1995 and 2003 in the proportion who have reported "binge drinking" 3 times or more during last 30 days. Percentages among boys and girls (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.



Figure 17c. Changes between 1995 and 2003 in the proportion who have reported "binge drinking" 3 times or more during last 30 days, by country. All students.





Figure 18b. Changes between 1995 and 2003 in the proportion of all students who have been drunk at the age of 13 or younger. Percentages among boys and girls (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.



Figure 18c. Changes between 1995 and 2003 in the proportion of all students who have been drunk at the age of 13 or younger, by country. All students.





Figure 19b. Changes between 1995 and 2003 in lifetime experience of any illicit drug (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.





Figure 19c. Changes between 1995 and 2003 in lifetime experience of any illicit drug, by country. All students.

occurred between 1995 and 2003 include Croatia, the Czech Republic, Estonia, Hungary, Portugal and the Slovak Republic. No country showed a continuous decrease between the three data collections.

Lifetime use of cannabis

(Figures 20a-c)

The majority of those who tried any illicit drug have used marijuana or hashish. The lifetime prevalence rates for cannabis use are thus rather similar to the figures presented above and the changes that are found are almost all in the same countries. Increased prevalence rates were reported from Bulgaria, Croatia, the Czech Republic, Estonia, Greenland, Hungary, Ireland, Poland, Portugal and the Slovak Republic. The top four countries in 2003 are the same as those in 1999. The Czech Republic and Ireland report further increases while France and the United Kingdom remain relatively unchanged.

No country had decreasing figures on this variable. Thus, in a majority of the countries the figures for 2003 are as they were in 1999.

Looking at the trend development since 1995 reveals that a continuous increase over time seems in order for Croatia, the Czech Republic, Estonia, Hungary, Poland, and the Slovak Republic, i.e. countries in the eastern part of Europe. In no ES-PAD country was there a continuous development in the opposite direction.

Cannabis use during the last 30 days

(Figures 21a-c)

The proportion of students in various ESPAD countries that used marijuana or hashish during the last 30 days as expected were much lower than the lifetime prevalence rates. In most of the countries there were no changes from 1999 to 2003. Only a few countries show increasing figures. They include Bulgaria, the Slovak Republic and the United Kingdom. No country has decreasing values for this variable.

The seven top countries in 1999 were again at the top in 2003, with France, the United Kingdom and the Czech Republic in the top 3 positions.

The impression that the situation was rather constant is reinforced on viewing the trends from 1995 to 2003. No continuous long term increases or decreases were evident.

Lifetime use of any illicit drug other than cannabis

(Figures 22a-c)

The drugs included in this definition are amphetamines, LSD or other hallucinogens, cocaine/crack, ecstasy and heroin. The proportion of students that used any illicit drug other than cannabis is much lower than the cannabis prevalence rates in all ESPASD countries. In most countries the relatively low figures are unchanged. No country reported an increase, while lower figures for 2003 as compared to 1999 were found in four countries including Latvia, Poland, Russia (Moscow) and Romania.

There were no continuous upward or downward trends in the lifetime use of any illicit drug other than cannabis between 1995 and 2003.

Lifetime use of tranquillisers or sedatives without a doctor's prescription

(Figures 23a–c)

The prevalence rates for the use of tranquillisers or sedatives without a doctor's prescription are relatively low in most ESPAD countries. Moreover, there were very few changes from 1999 to 2003. In only one country, Estonia, a substantial increase occurred whereas there was a decrease the Czech Republic, one of the two top countries in 1999 together with Poland. The other two top countries in 1999 (Lithuania and France) show no change for 2003, and alas they still form part of the top group.

From 1995 to 2003 only small changes have been noted in this behaviour. In no country, however, has a continuous upward or downward trend been observed.

Lifetime use of alcohol together with pills (Figures 24a–c)

In many ESPAD countries students have tried the combination of alcohol and pills of various types. The assumption for such use is based on the expectation that mixing products induces a higher degree of intoxication. Whatever the assumption or for that matter reason for the use of this cocktail, it would appear to be a rather common, yet dangerous, phenomenon in many ESPAD countries, especially amongst girls.

In a large majority of the countries the proportion of students reporting this behaviour remained relatively stable between 1999 and 2003. However, there was an increase in the Slovak Republic, one of the high prevalence countries in 1999, which became the highest ranked country in this regard in 2003. Decreasing prevalence rates for this variable were only reported in Denmark, Sweden and the United Kingdom. As a result Denmark drops from being ranked 1st on this measure to being ranked 12th, and Sweden drops from 2nd to 10th place in this ranking.

The tendency for the increase in the prevalence rates for the Slovak Republic is visible through out the period 1995 to 2003. In Sweden and the United Kingdom the proportion of students that reported this behaviour have decreased continuously during the same period.

Lifetime use of inhalants

(Figures 25a–c) The lifetime prevalence rates for the use of inhalants have not changed very much between the two last surveys in a large majority of the ESPAD countries. The differences between countries are rather great; from a few percentages to about one fourth of the student population. Increases were mainly found in the Faroe Islands and Portugal, and decreases in Ireland and Lithuania. The decrease in Ireland, however, did not effect its top position together with Greenland and Malta.

The trends over the three surveys revealed the same pattern of relatively unchanged prevalence rates. Only two countries showed continuous changes. A substantial increase was indicated in Cyprus (that did not have any data in 1999) whereas a decrease was observed in Lithuania.

Changes in perceived availability of drugs

The perceived availability of different substances varies substantially between the ESPAD countries. The students were asked to indicate their opinion about how easy or difficult it would be for them to acquire any of the substances listed in the questionnaire.

Proportion of students who perceive inhalants "very easy" or "fairly easy" to obtain

(Figures 26a–c)

The proportion of students who indicated that inhalants would be "very easy" or "fairly easy" for them to obtain, increased in eleven countries between 1999 and 2003. These changes occurred in both low and high prevalence countries. They include Bulgaria, Croatia, the Czech Republic, Estonia, the Faroe Islands, Finland, Greenland, Ireland, Malta, Romania and the United Kingdom. Interestingly, a decrease was observed in more or less an equal number of countries (12). They include Cyprus, Denmark, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Norway, Portugal, Russia (Moscow) and Slovenia. Unchanged figures were thus only found in a small number of countries (6).

Two of the top three countries in 1999 were also in this group in 2003 (Ireland and Slovenia). However, Cyprus has moved down the order to be replaced by Finland.

The trends from 1995 to 2003 are rather divergent. There are, however, indications of continuous increasing rise in this figure over time in Estonia, the Faroe Islands, Finland and Malta. During the same period this figure has decreased in Norway.

Proportion of students who perceive cannabis "very easy" or "fairly easy" to obtain.

(Figures 27a-c)

An increasing proportion of the ESPAD students perceive cannabis to be easy to obtain. Increased proportions indicating "very easy" and "fairly easy" in relation to cannabis were found in fourteen countries, including Bulgaria, Croatian, the Czech Republic, Estonia, the Faroe Islands, Greenland, Latvia, Lithuania, Malta, Poland, Romania, the Slovak Republic, Slovenia, Romania and the United Kingdom. Decreased proportions were mainly found in Denmark, Greece and Norway, the outcome of which resulted in Denmark falling within the top group and both Greece and Norway from their position in the upper half of the table.

From 1995 to 2003 there was a continuous increase in perceived availability of cannabis in seven ESPAD countries. They include Croatia, the Czech Republic, Estonia, Lithuania, Poland, the Slovak Republic and Slovenia, all of which are in the eastern parts of Europe. In five of these countries, the proportion doubled over the eight years. In Estonia the increase was threefold while in Lithuania it was six fold (starting from a low level). No country reported a continuous decrease between 1995, 1999 and 2003.





Figure 20b. Changes between 1995 and 2003 in lifetime experience of marijuana or hashish (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.


Figure 20c. Changes between 1995 and 2003 in lifetime experience of marijuana or hashish, by country. All students.





Iceland (4, 4, 4) Malta (2, 3, 4) Norway (3, 4, 3)

Greece (.., 4, 3)

Finland (1, 2, 3)

Cyprus (2, 1, 2) Sweden (1, 2, 1) Faroe Isl. (2, 1, 1) Romania (.., 0, 1)

1

0

5

Figure 21b. Changes between 1995 and 2003 in the proportion of all students who have used marijuana or hashish during the last 30 days (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.

1995

1999

% 30

2003

25

15 10

20

5

10 15 20 25

0

1995 1999

30 %

2003



Figure 21c. Changes between 1995 and 2003 in the proportion of all students who have used marijuana or hashish during the last 30 days, by country. All students.



Figure 22a. Changes between 1999 and 2003 in lifetime experience of any illicit drug other than marijuana or hashish. Countries above the line have increased prevalence rates, and countries below have decreased. All students.

2003

30 %

2003.



Figure 22c. Changes between 1995 and 2003 in lifetime experience of any illicit drug other than marijuana or hashish, by country. All students.







Figure 23b. Changes between 1995 and 2003 in lifetime experience of tranquillisers or sedatives without a doctor's prescription (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.



Figure 23c. Changes between 1995 and 2003 in lifetime experience of tranquillisers or sedatives without a doctor's prescription, by country. All students.









Changes in the use of alcohol and other drugs 2003



Figure 24c. Changes between 1995 and 2003 in lifetime experience of alcohol together with pills, by country. All students.







Figure 25b. Changes between 1995 and 2003 in lifetime experience of inhalants (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.



Figure 25c. Changes between 1995 and 2003 in lifetime experience of inhalants, by country. All students.



Figure 25c. Changes between 1995 and 2003 in lifetime experience of inhalants, by country. All students.







Figure 26b. Changes between 1995 and 2003 in the proportion of all students who per*ceive inhalants "very* easy" or "fairly easy" to obtain (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.



Figure 26c. Changes between 1995 and 2003 in the proportion of all students who perceive inhalants "very easy" or "fairly easy" to obtain, by country.







Figure 27b. Changes between 1995 and 2003 in the proportion of all students who perceive marijuana or hashish "very easy" or "fairly easy" to obtain (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.



Figure 27c. Changes between 1995 and 2003 in the proportion of all students who perceive marijuana or hashish "very easy" or "fairly easy" to obtain, by country.

Proportion of students who perceive LSD or other hallucinogens "very easy" or "fairly easy" to obtain

(Figure 28a–c)

The proportion of students who perceive LSD or other hallucinogens easy to obtain differ substantially between countries. In some countries only very few students think so, while about one fifth of the students in the top prevalence countries think that it would be "very easy" or "fairly easy" to obtain LSD or other hallucinogens.

In most countries the figures for 2003 were more or less equivalent to those reported in 1999. Increases were mainly found in Bulgaria and Croatia, while seven countries reported a decrease. They include Denmark, Greece, Hungary, Ireland, Norway, Russia (Moscow), Slovenia and the United Kingdom.

The most pronounced decrease was found in Ireland that resulted in the accompanying drop down the table from its previous top position in 1999. In 2003 Poland was in the top group together with one of the countries with a clear increase, Croatia.

From 1995 to 2003 a continuous increasing in the proportion of students thinking that LSD or other hallucinogens are easy to obtain were mainly found in Bulgaria and Croatia. A continuous downward trend was observed in Ireland and the United Kingdom. In both of these countries the figures have approximately halved, from 43% in 1995 to 17% in 2003.

Summary

The prevalence figures for smoking provide a relative stable trend pattern in a majority of the ESPAD countries. Increasing figures were mainly found in countries in the eastern parts of Europe and decreasing figures in the western parts.

The more recent smokers, those who had smoked during the last 30 days, only increased in a few countries. All but one of the twelve countries with decreasing figures is found in the northern, western and southern parts of Europe. Still, however, proportions varying between 20 and 50% had smoked during the last 30 days in the ESPAD countries.

The proportions reporting daily smoking at the age of 13 were also relatively unchanged between 1999 and 2003 in a large majority of the countries. Only a few countries reported increased figures (Estonia, the Faroe Islands and Latvia) on this variable.

Only a minority of the ESPAD students have drank alcohol as many times as 40 or more. In almost half of the countries only a quarter of the students report such behaviour and in no country has the proportion exceeded 50%. There was, however, a clear increase in the prevalence rates, especially in countries from the eastern part of Europe.

It is clear that alcohol consumption among students in most cases is a relatively new experience. The proportions answering that they had consumed alcohol 20 times or more over the last 12 months were not very unlike the rates reported for lifetime prevalence. Accordingly, nearly all countries with increasing figures were found in the eastern part of Europe.

Much lower proportions have drank alcohol 10 times or more during the last 30 days. A very large majority show rather unchanged figures. However, four of the five countries with increases are found in the eastern part of Europe.

For all these variables concerning prevalence rates of alcohol consumption, the increases in the eastern parts of Europe do result in them moving up the ladder to occupy the top positions for these behaviours. However, for most variables Malta, the United Kingdom, Ireland, Denmark, the Czech Republic and Greece are still the top ranked countries.

Some students drink alcohol rather frequently. A comparison between students that had drank 3 times or more during the last 30 days shows that spirits was the beverage of choice in 2003. The figure for spirits (12 countries) was about twice as high as it was for beer or wine (6–7). A decreased proportion reporting such a high drinking frequency was mainly reported for beer (5 countries). In Denmark and France the figures dropped between 1999 and 2003 for all three beverages.

For beer most of the increases occurred in the eastern parts of Europe, while for wine it was most apparent in countries that traditionally are viewed as wine countries like Croatia, Cyprus, Greece, Hungary and Italy. The increase in the frequent consumption of spirits is on the other hand more diverse from a geographical point of view. There are more countries that report a reduced rather than an increased number of students that drank large quantities on the last drinking occasion for beer (>100 cl) and wine (>15 cl). For spirits (>10 cl) the number of countries showing an increase and a decrease was more or less the same. Four countries (Denmark, Ireland, Norway and the United Kingdom) reported rather remarkable increases in the proportion of students that drank more than 100 cl of alcopops at the last drinking occasion, while the remaining countries in which this beverage is sold remained at rather low levels.

The proportion of students who had been drunk 20 times or more in a lifetime increased mainly in some countries in the eastern part of Europe. However, this also occurred in some countries in the western part that in turn were already high prevalence countries in 1999, like Ireland and the Faroe Islands. Moreover, the same pattern was found in relation to the 12 months prevalence rates.

The pattern of the prevalence rates for being drunk 3 times or more during the last 30 days were rather unchanged in a large majority of the ESPAD countries. This is suggestive of the fact that the prevalence rates have remained low in the Mediterranean countries, e.g. Greece, France, Italy, Malta and Portugal, but also in Romania. Much higher figures were recorded for Denmark, Finland, Greenland, Ireland and the United Kingdom, which in the main reinforces the apparent accepted pattern of frequent intoxication in the north but much less so in the southern part of Europe.

The figures for binge drinking 3 times or more often during the last 30 days changed more than the drunkenness figures. Six of the nine countries with an increased proportion were found in the eastern parts of Europe.

The lifetime prevalence for any illicit drug use was mainly stable in about half of the countries. The increases that occurred in nine countries were geographically rather spread, without any clear pattern. The top countries in 2003 are still those that were in the same position in 1999 (the Czech Republic, France, Ireland and the United Kingdom), but further increases were noted in two of them; the Czech Republic and Ireland.

Changes in the prevalence rates of cannabis use were very similar to the changed rates for any illicit drug use.

The use of other kinds of drugs is not that prevalent and the number of countries that have changed are rather few. Four countries reported lower figures in 2003 (Latvia, Poland, Russia (Moscow) and Romania). The former top countries in 1999 are still on top in 2003, i.e. the Czech Republic, Estonia, Ireland, Italy and the United Kingdom.

Tranquillisers or sedatives are mostly used in the Czech Republic (although a decrease was noted between 1999 and 2003), France, Lithuania and Poland, and the prevalence rates have not changed very much. Only one country, Estonia, showed an increased prevalence rate between 1999 and 2003.

Taking pills together with alcohol is about as common in terms of prevalence rates as those for tranquillisers or sedatives, and the proportions were about the same in the two last surveys. However, the top country in this respect in 2003, the Slovak Republic, showed an increase. Other countries at the top were Finland, Hungary and the Czech Republic.

The use of inhalants is rather spread geographically and the proportions indulging in such behaviour vary between 2 and 22%. Only two countries reported increased prevalence rates from 1999 to 2003 (the Faroe Islands and Portugal) and two decreased rates (Ireland and Lithuania). The top country for this variable is Greenland, which remained so together with Ireland and Malta. Figures were missing for Cyprus in 1999 but following the latest survey the country joined the top group of countries.

Even though the proportion of students that had ever tried inhalants were rather unchanged the perceived availability changed in a large number of countries. In about 10, the students reported an increased availability and in about the same number of countries the figures dropped, without any clear geographical pattern.

An increased availability of cannabis between 1999 and 2003 was reported from more than half of the countries while only three changed in the opposite direction (Denmark, Norway and Greece). The large number of countries reporting an increase was spread all over Europe. However, if looking only at countries with more extensive increases (8 percentage points or more) six of the seven are found in the eastern parts of Europe.

The perceived availability of LSD or other hallucinogens is unchanged in a majority of the countries. However, there are more countries (8) that report a decreased availability than an increased (Croatia and Bulgaria). The decreases were remarkable in Ireland and the United Kingdom, especially if one also includes the 1995 exercise. Between 1995 and 2003 the proportion answering "very easy" or "fairly easy" dropped in both countries from







Figure 28b. Changes between 1995 and 2003 in the proportion of all students who perceive LSD or other hallucinogens "very easy" or "fairly easy" to obtain (values within brackets refer to all students 1995, 1999, 2003). Data sorted by all students 2003.



Figure 28c. Changes between 1995 and 2003 in the proportion of all students who perceive LSD or other hallucinogens "very easy" or "fairly easy" to obtain, by country.

about 43% to about 17%.

To sum up, the trend development over the 8 years of the ESPAD history is indicative of the fact that smoking remains at about the same level or decreased in a majority of the countries. With regard to alcohol an unchanged or a somewhat decreasing consumption was observed in the western parts of Europe while increases mainly were found

in the eastern parts. The use of drugs is still dominated by the use of cannabis. The high prevalence countries in 1999 are still at the top in 2003, but a clear increasing tendency can be observed in the eastern parts of Europe. It is also clear that an increasing number of students in many European countries find cannabis easily available.

The alcohol and drug situation 2003

This chapter presents the results of the 2003 ES-PAD survey, mainly following the same structure as in the two earlier reports from 1995 and 1999. Each variable is presented with reference to the relevant table in the table section (Appendix II). In addition, the results of many of the variables are illustrated by a map, a bar graph by sex and a graph describing the changes from 1995 to 2003.

In the maps the prevalence rates of each variable have been divided into five groups. The cut-off points for the intervals have been chosen to fit the emerging pattern, with the aim of giving a picture as comprehensive as possible. Thus, the maps show the differences in prevalence rates over the countries for all students, while in the bar graphs the variables are presented by sex. The order of appearance in the bar graphs is determined by the results for all students (the figure within brackets). However, the differences between countries are sometimes very small.

When available, corresponding figures from USA and Spain are presented in tables, maps and bar graphs. The American figures origins from the "Monitoring the Future" study in Michigan, from which many of the ESPAD questions originally are taken. It ought to be observed that data from USA relates to students in grade 10, in which the large majority, but not all students, were born in 1987. The Spanish data are from a national survey in 2002 and calculated for the same agegroup as the ESPAD target group, i.e. students born in 1987.

Since Spain and USA are not parts of the ESPAD project and data not collected with the same proto-

col, their results are not fully comparable as data are between the ESPAD countries. To show this, data from these two countries are presented below the bottom line in the tables and marked differently in the maps and graphs. In some few cases also an ESPAD country is found below the line in a table. It happens if the formulation of a question or the answering categories differ so much from the standardised ESPAD questionnaire that the results are judged not to be fully comparable.

The first part of the chapter deals with tobacco use, followed by a section on alcohol consumption, including prevalence rates of consumption as well as drunkenness and binge drinking. The alcohol section also includes findings from some related variables like expected consequences of alcohol consumption, risk perception etc.

The third part presents prevalence rates of illicit drug use, use of inhalants and tranquillisers or sedatives, with and without a doctor's prescription, onset of drug use and the students' perception of the availability of drugs. The students' views of possible drug use among friends and siblings are also included.

In the maps, a few of the smallest countries (islands) have been enlarged. This has been done to entrance the visibility of the 5-colour division of the countries into different prevalence groups. In the tables a zero represents a value ranging from 0.1 to 0.4. Values ranging from 0.5 to 0.9 are rounded to 1. The mark "–" means that no student has given that answer, while "…" means that data are not comparable or available.

Tobacco use

In this section the lifetime prevalence rates of smoking cigarettes, the rates of smoking 40 times or more during lifetime, the last 30 days prevalence rates and the prevalence of daily smoking at the age of 13 are presented.

Lifetime use of cigarettes

(Tables 1a–c, figures 29a–b)

In nearly all the ESPAD countries 50–80% of the students had smoked cigarettes, at least once in their lifetime. The highest lifetime prevalence rates of smoking cigarettes were found in the Faroe



Figure 29a. Lifetime use of cigarettes 40 times or more. Percentages among all students. 2003. Germany and Turkey: Limited geographical coverage.



Figure 29b. Lifetime use of cigarettes 40 times or more. Percentages among boys and girls. 2003. Values within brackets refer to all students. Data sorted by all students. Germany and Turkey: Limited geographical coverage.

Islands (83%) followed by Austria, the Czech Republic and Lithuania in which 80% had ever smoked. Next to those are Estonia, Germany, Greenland and Latvia, with lifetime prevalence rates just below 80%.

The lowest figures are found in Cyprus, Greece, Iceland, Malta and Turkey, but also in these countries about half of the study population had ever tried to smoke (46 - 52%). Thus, it seems as if smoking is somewhat less prevalent in the eastern part of the Mediterranean area, while Iceland makes out a contrast as a Nordic country at the bottom of the list, especially in comparison with other Nordic islands like the Faroe Islands and Greenland where the prevalence rates are among the highest.

Looking at figures 29a–b, where the prevalence rates for smoking 40 times or more in lifetime are presented, it is obvious that there are more students reporting this frequency of smoking in countries where the lifetime prevalence figures are the highest. In Austria, the Czech Republic, the Faroe Islands, Greenland, Germany, Lithuania and Russia (Moscow) about 40% had smoked 40 times or more in their lifetime. The lowest prevalence rates are found in Turkey (13%), Malta (16%), Iceland and Portugal (18% each).

It is obvious that smoking is especially prevalent in the central and eastern parts of Europe, but also in the North Atlantic islands, the Faroe Islands and Greenland. On the other hand, the other island in the same area, Iceland, is one of the low prevalence countries.

In eight of the 35 ESPAD countries more boys than girls had smoked 40 times or more in their lifetime. They are mainly found in the eastern parts of Europe such as Estonia, Latvia, Lithuania, Poland, Romania and Ukraine, but also in Cyprus and Turkey. Large differences in the other direction with more girls reporting this behaviour are mainly found in two islands countries, Greenland and Isle of Man.

Cigarette smoking during the last 30 days

(Tables 2a-c, figures 30a-b)

The highest percentage of students having been smoking during the last 30 days is found in Greenland, which is outstanding on this variable (60%). High rates are also found in Austria (49%), Bulgaria (46%), Germany (45%), Russia (Moscow) (44%) and the Czech Republic (43%). Particularly low proportions were found in Cyprus, Iceland, Sweden and Turkey with figures varying between 18 and 25%. In Spain 27% of the students had been smoking during the last 30 days. The gender pattern reveals that countries with substantially higher rates of last month smoking among boys include Cyprus, Latvia, Lithuania, Turkey and Ukraine. The other way around, i.e. considerably higher figures among girls, are mainly found in Greenland, Ireland, Isle of Man and the United Kingdom. The distributions do not follow any strict geographical pattern although the male smokers are predominantly found in the eastern parts of Europe (and eastern Mediterranean) and females in the west, predominantly in the British Isles.

Some students are more or less occasional smokers and do not smoke every day. However, on average 2% of the students have smoked 21 cigarettes or more during the last 30 days. The variations between countries are not important and only in two countries as much as about 5% of the students reported this (Croatia and Ireland).

A closer look at those who have smoked 6 or more cigarettes during the last 30 days gives a better picture of high and low prevalence countries. The country where the highest number of students had done this is the Faroe Islands, where 30% reported this frequency of smoking. Other countries where this to a higher extent was reported are Austria and Bulgaria (24–25%), Germany, Greenland and Ireland (21–22%). Very few had been smoking that often in Malta, Sweden and Turkey (6%).

Age at first use

(Table 3)

Young people may have tried occasionally to smoke early in life, and some of them continue to a habitual smoking, while others do not. The number of students, who have smoked their first cigarette at the age of 13 or younger, vary considerably over the countries, from 20 to 60%.

In eleven countries more than half of the students have tried to smoke at the age of 13 or younger. The highest percentages are found in the Faroe Islands and Germany (59% each), Latvia (57%), Austria, Estonia and Greenland (56% each). The lowest proportions of students who have tried to smoke at this early age are found in Greece (20%), Turkey (23%), Cyprus and Iceland (26% each) and in Malta (29%).

In many ESPAD countries the prevalence rates of early initiation to cigarette smoking is rather equal between boys and girls. In some countries, however, there are more boys that report early use of cigarettes. The largest gender differences are found in Cyprus, Estonia, Latvia, Lithuania, Poland, Romania, the Slovak Republic, Switzerland



Figure 30a. Cigarette smoking during the last 30 days. Percentages among all students. 2003. Germany and Turkey: Limited geographical coverage. Spain: Limited comparability.



Figure 30b. Cigarette smoking during the last 30 days. Percentages among boys and girls. 2003. Values within brackets refer to all students. Data sorted by all students. Germany and Turkey: Limited geographical coverage. Spain: Limited comparability.

and Ukraine. Not so many countries are reporting more girls than boys that have tried their first cigarette by the age of 13 years. The most important include Greenland, Ireland, Isle of Man and the United Kingdom. Overall, there seem to be more early smokers among boys in the eastern parts of Europe than in the western. Countries with more female early smokers are mainly found in the British Isles.

Daily smoking at the age of 13

(Table 3, figures 31a–b)

The number of students who have been daily smokers at the age of 13 or younger is rather high in some countries in the northern parts of Europe, but lower in the south. The highest proportions are found in the Faroe Islands (20%), Germany (18%) and Estonia (17%) followed by Finland, Greenland

and Russia (Moscow) (15% each). The lowest percentages are found in Turkey (3%), Greece (4%), Romania (5%), Hungary and Italy (6% each). However, in most countries the prevalence rates range from 7 to 14%.

In a majority of the ESPAD countries, both in the north and the south, the number of students that report daily smoking at this early age are rather equally distributed between the sexes. However, in some countries the gender differences are important and they go in different directions. In a number of countries the proportions among boys double (or more than double) those of the girls. This is true in Cyprus, Latvia, Lithuania, Poland, Romania and Ukraine. Another country with a male majority of early smokers is Estonia. Gender differences in the opposite direction are mainly found in Greenland, Isle of Man and the United Kingdom.

Alcohol consumption Lifetime use of any alcoholic beverage

(Tables 4a-c, figures 32a-b)

In two thirds of the ESPAD countries the vast majority (90% or more) of the students have been drinking alcohol at least once in their lifetime. The highest percentages are found in the Czech Republic, Lithuania (98% each), the Slovak Republic (97%), Austria, Denmark, Estonia, Germany, Greece, Isle of Man and Latvia (96% each).

In some few countries, however, smaller proportions report this experience. The country that deviates the most from this pattern is Turkey, where only slightly less than half of the students (45%) report having been drinking any alcohol at all. Other countries with low prevalence rates include Iceland (75%), Greenland and Portugal (78–80%).

Not all of those who have tried alcohol at least once in their lifetime drink on a regular basis. Thus the number of students that have been drinking at least 40 times can be viewed as more of a regular customer. The prevalence rates of this frequency of drinking are much lower than the total lifetime prevalence.

The highest percentages reporting use of alcohol 40 times or more in their lifetime are found in more or less the same countries that also had the highest lifetime prevalence rates. They include Denmark (50%), Austria (48%), the Czech Republic (46%), Isle of Man, the Netherlands (45% each) and the

United Kingdom (43%). The lowest proportion is reported from Turkey (7%) followed by Greenland, Iceland, Norway and Portugal (13–15%).

The gender pattern reveals that in almost all countries there are more boys than girls who report this behaviour. In a few countries, Isle of Man, Finland and Norway, the gender distribution is about equal. However, no country reports prevalence rates among girls that exceed those of the boys.

Last 12 months

(Tables 5a–c, figures 33a–b)

Not all students who have reported lifetime experience of alcohol have used it as recently as during the last 12 months. Only in 10 of the 35 countries 90% or more had indicated alcohol use during the last 12 months. They include the Czech Republic, Denmark (95% each), Isle of Man, Lithuania (94% each), Austria, Germany (93% each), Greece, the United Kingdom (91% each), Malta and the Slovak Republic (90% each).

Of those reporting the lowest 12 months prevalence rates Turkey is again the country with the lowest frequency. Only 35% of the Turkish students had been drinking alcohol during the last 12 months. Other countries with low numbers include Iceland (64%) together with the Faroe Islands, Greenland, Norway, Portugal and Sweden (73–77%).

The percentage that report drinking 20 times or



Figure 31a. Daily smoking at the age of 13 or younger. Percentages among all students. 2003. Germany and Turkey: Limited geographical coverage. USA: Limited comparability.



Figure 31b. Daily smoking at the age of 13 or younger. Percentages among boys and girls. 2003. Values within brackets refer to all students. Data sorted by all students. Germany and Turkey: Limited geographical coverage. USA: Limited comparability.



Figure 32a. Lifetime use of any alcoholic beverage 40 times or more. Percentages among all students. 2003. Germany and Turkey: Limited geographical coverage. USA: Limited comparability.



Figure 32b. Lifetime use of any alcoholic beverage 40 times or more. Percentages among boys and girls. 2003. Values within brackets refer to all students. Data sorted by all students. Germany and Turkey: Limited geographical coverage. USA: Limited comparability.



Figure 33a. Use of any alcoholic beverage 20 times or more during the last 12 months. Percentages among all students. 2003. Germany and Turkey: Limited geographical coverage. USA: Limited comparability.



Figure 33b. Use of any alcoholic beverage 20 times or more during the last 12 months. Percentages among boys and girls. 2003.

Values within brackets refer to all students. Data sorted by all students. Germany and Turkey: Limited geographical coverage. USA: Limited comparability.

more during the last year gives a picture of a more frequent alcohol use. The highest numbers are found in Denmark and Austria (41–42%), the Netherlands (37%) and Ireland (35%) followed by the Czech Republic and the United Kingdom (34%). The lowest frequencies are found in Turkey (5%), Iceland and Portugal (9–10%).

In most ESPAD countries, such frequent drinking during the last 12 months is a typical male behaviour. Thus, in about three fourths of the ES-PAD countries a majority of those reporting this were boys. In only one country, Ireland, more girls than boys (39 vs. 31%) indicated this drinking behaviour. About equal proportions, however, are reported from almost only Nordic countries including the Faroe Islands, Finland, Greenland, Iceland, Isle of Man, Norway and Sweden.

Last 30 days

Any alcohol

(Tables 6a–c, figures 34a–b)

The number of students who had been drinking any alcohol during the last 30 days varies quite a lot between the ESPAD countries. In Austria, Denmark and Isle of Man a vast majority of the students (79–82%) had been drinking alcohol during this period. Other countries where about three quarters of the students reported this include Germany (78%), the Czech Republic, Lithuania (77% each), Greece, Malta, and Switzerland (75% each).

Much lower prevalence rates are reported from Turkey, where only 20% of the students reported any alcohol use during the last month, but also Iceland reports a rather low figure on this variable (37%). Countries where about half of the students had been drinking any alcohol during the last 30 days include Portugal (48%), Greenland, Norway, Sweden (51% each), Finland and Romania (54% each).

A higher frequency of alcohol use is revealed in the number of students who had been consuming alcohol 10 times or more during the last 30 days, i.e. at least every third day if a drinking occasion is defined as a day when you drink alcohol. In the Netherlands one quarter of the students report this behaviour (25%), while about one fifth of the respondents in Austria, Belgium, Malta and the United Kingdom did so (17–21%). In some other countries, this drinking frequency is hardly reported at all. Proportions of 3% or less were found in Finland, Greenland, Iceland, Norway and Sweden. Thus, the very low prevalence rates were mainly found in the Nordic countries. In a majority of the countries more boys than girls are reporting this frequency of drinking. With two exceptions this is clearly related to the prevalence rates, i.e. there are more males reporting this in the high prevalence countries. The two exceptions are the United Kingdom and Ireland where the sex distribution is about equal. No country is reporting more girls than boys with this behaviour, but in a number of countries the proportions are about equal between the sexes, especially so in the low prevalence countries.

The students were asked what kind of beverage they had been drinking during the last 30 days. In the next three sections their choice of beverage is reported. The presentation is focused on the consumption of beer, wine and spirits.

Beer

(Tables 7a–c, Figures 35a–b)

The largest proportions that report having been drinking beer during last 30 days were found in Bulgaria (70%), Denmark (69%), Poland (68%), Romania (67%), the Czech Republic (63%) and Ukraine (61%). As a contrast, only 21% of the Turkish students had done so. In some other countries the prevalence rates are also rather low. They include Hungary, Norway and Portugal where about 35% had had beer.

Many students report rather frequent beer consumption. The percentages of students who had been drinking beer 3 times or more during the last 30 days varies between 10 and 44%. The highest figures are found in Denmark (44%), Bulgaria (43%), Poland (41%) and the Netherlands (40%). Other countries with high levels include the Czech Republic (39%), Russia (Moscow) and the Slovak Republic (38% each).

The smallest proportions were reported from Turkey (10%) and Norway (14%). Other countries where less than 20% had consumed beer that often include Finland, Hungary, Iceland, and Portugal.

Beer drinking does not follow any geographical pattern, neither among the high nor the low prevalence countries.

Drinking beer is a predominantly male behaviour. This is true also in relation to frequent consumption. In almost all ESPAD countries more boys than girls reported that they had been drinking beer 3 times or more often over the last 30 days. The only exceptions where the distributions are almost equal between the sexes are found in two countries in the North Atlantic, Greenland and Iceland.



Figure 34a. Use of any alcoholic beverage 10 times or more during the last 30 days. Percentages among all students. 2003. Germany and Turkey: Limited geographical coverage. USA: Limited comparability.



Figure 34b. Use of any alcoholic beverage 10 times or more during the last 30 days. Percentages among boys and girls. 2003.

Values within brackets refer to all students. Data sorted by all students. Germany and Turkey: Limited geographical coverage. USA: Limited comparability.



Figure 35a. Beer consumption 3 times or more during the last 30 days. Percentages among all students. 2003. Germany and Turkey: Limited geographical coverage. USA: Limited comparability.



Figure 35b. Beer consumption 3 times or more during the last 30 days. Percentages among boys and girls. 2003. Values within brackets refer to all students. Data sorted by all students. Germany and Turkey: Limited geographical coverage. USA: Limited comparability.

Wine

(Tables 8a-c, figures 36a-b)

Much less students had been drinking wine during the last 30 days compared to beer. The country with the most outstanding figure reporting this behaviour is Malta where 68% had been drinking wine during the last 30 days. Other relatively high prevalence countries include Austria, the Czech Republic and Lithuania, where a little more than half of the students had consumed wine during this period.

In some countries very few students had been drinking wine during the last month. The two with the lowest frequencies are Turkey (10%) and Portugal (15%). Other low prevalence countries include the Faroe Islands, Greenland, Iceland and Norway (around 19%). Apparently there is no clear geographical pattern in the distribution of low prevalence countries on wine consumption. They include one low alcohol prevalence country like Turkey, one wine producing country and four North Atlantic countries.

The proportions of students reporting a wine consumption frequency of 3 times or more during the last 30 days are mainly lower than 20%. However, one country is outstanding in this respect since one third (35%) of the students in Malta reported this frequency of wine consumption. Other high prevalence countries include Austria and Italy (about 23%), the Czech Republic, Greece and Slovenia (21% each). Thus, all high prevalence countries are wine producing countries.

The lowest proportions that reported this frequency of wine consumption are found in Norway (3%), Turkey (4%), Finland and Iceland (5% each). Other low prevalence countries (below 9%) are found in northern Europe such as Greenland, the Faroe Islands, Poland and Sweden, but also in "wine countries" like France and Portugal.

In about one third of the ESPAD countries boys are in majority when it comes to drinking wine 3 times or more during the last 30 days. In about the same number of countries there are hardly any gender differences at all. In some countries, however, the girls are in majority among these consumers. Findings in this direction are mainly found in the Czech Republic, Germany, Ireland and the United Kingdom.

Spirits

(Tables 9a-c, figures 37a-b)

The number of students who had been drinking spirits during the last 30 days varies considerably between the ESPAD countries. The highest percentages, around two thirds of the student population, are found in countries spread geographically all over Europe. They include Isle of Man (66%), Denmark, Malta (65% each), Greece, Switzerland (63% each), the United Kingdom (61%) and Ireland (60%). Much lower numbers are found in a few countries in different parts of Europe. They mainly include Turkey (11%) and Romania (23%).

A similar picture of high and low prevalence countries is found when looking at the percentage of students that had been drinking spirits at least 3 times during the last 30 days. Again the British Isles are appearing at the top, but also the two Mediterranean countries. The highest proportion is found in Malta, where 43% of the students reported this frequency of spirits consumption. Next come the United Kingdom (39%), Ireland, Isle of Man (38% each), the Faroe Islands and Greece (37% each).

Countries where rather few students reported this frequency of drinking spirits include Turkey (5%), Romania (6%) and Finland (10%). Other countries with low prevalence rates are Latvia, Iceland, Lithuania and Poland (12–14%).

In about half of the countries there are more boys than girls reporting such a frequent consumption of spirits. However, in about the same number of countries the prevalence rates are equal or almost equal between the sexes. Only three countries reported proportions among the girls that exceeded those of the boys. These countries were all high frequency countries and they were all parts of the British Isles, i.e. Ireland, Isle of Man and the United Kingdom.

Last drinking occasion

The questionnaire included five questions regarding the consumed quantities on the last drinking occasion, beverage by beverage. The students were asked: "The last time you had an alcoholic drink, did you drink any beer (/cider/alcopops/wine/spirits)? If so, how much?" The format of the response categories was set as fixed quantities relevant for each beverage in terms of centilitres.

Since glasses, bottles and cans differ in size between countries, each ESPAD researcher described the fixed response categories in the best possible way. The question also included the response categories "I never drink beer (/cider/alcopops/wine/ spirits)" and "I did not drink beer (/cider/alcopops/ wine/spirits) on my last drinking occasion". Countries in which cider or alcopops are virtually nonexistent did not include questions about these beverages.



Figure 36a. Wine consumption 3 times or more during the last 30 days. Percentages among all students. 2003. Germany and Turkey: Limited geographical coverage.



Figure 36b. Wine consumption 3 times or more during the last 30 days. Percentages among boys and girls. 2003. Values within brackets refer to all students. Data sorted by all students. Germany and Turkey: Limited geographical coverage.



Figure 37a. Consumption of spirits 3 times or more during the last 30 days. Percentages among all students. 2003. Germany and Turkey: Limited geographical coverage. The Netherlands: Pre-mixed drinks not included.



Figure 37b. Consumption of spirits 3 times or more during the last 30 days. Percentages among boys and girls. 2003. Values within brackets refer to all students. Data sorted by all students. Germany and Turkey: Limited geographical coverage. The Netherlands: Pre-mixed drinks not included.

In a few countries (Austria and Germany) the response categories were changed into an open format to try to get as realistic and true alcohol volumes as possible. However, since this change of format is known to distort the distributions, the results of these countries are put below the line in the tables, and are excluded from the maps and bar graphs, in order to draw the reader's attention to the limited comparability. In Switzerland the response categories for cider and alcopops consumption are different from the ESPAD format, which is the reason for putting these results under the bottom line in relevant tables.

The results on these beverage specific questions are presented below. They include beer, cider, alcopops, wine and spirits.

Beer

(Tables 10a-c, figures 38a-b)

The proportions of students who had been drinking beer last time they had any alcohol vary between one third and two thirds. The highest percentage of students reporting this, are found in Poland and Romania (69% each), Denmark (65%), Lithuania (61%) and the Czech Republic (60%). The countries with relatively small proportions reporting this behaviour include Hungary and Turkey, where one third (33%) had been drinking beer on the last drinking occasion, but also in Norway (38%) and Croatia (37%).

Some of the students who had been drinking beer had consumed quite large quantities. In some countries about one third of the students had consumed at least 101 cl beer on the last drinking occasion. These countries are Denmark (37%), Ireland (32%) and the Netherlands (28%). Other countries where quite large proportions report this level of consumption include Finland (25%), Greenland, Iceland (24% each), the Czech Republic, the United Kingdom (23% each) and the Faroe Islands (22%).

Very few students reported this behaviour in Ukraine (4%), Turkey (5%), Portugal and Romania (6% each). Other low prevalence countries are Greece, Hungary and the Slovak Republic (7% each), Cyprus, Italy (8% each) and Slovenia (9%). An interesting detail is that the two countries which formerly were united as one country, the Czech Republic and the Slovak Republic, show completely different drinking pattern in relation to the consumption of beer.

The gender pattern reveals that beer drinking is a predominantly male behaviour. In all countries, from high to low prevalencies, there are more boys that reported this level of consumption. The only country with equal proportions between the sexes is Greenland.

Cider

(Tables 11a-c)

Not all ESPAD countries included the question about the consumption of cider in their questionnaire. The reason is that cider is not included in the alcoholic beverage assortments in these countries. However, the results show that not very many students had cider the last time they were drinking alcohol. The largest percentages of students reporting this are found in Romania (42%), Finland (38%), Sweden (35%), Estonia (34%) and Norway (32%).

In certain countries very few students indicated cider consumption on the last alcohol occasion. Less than 10% had cider in Poland (5%), Turkey (6%) and Cyprus (8%).

Also in the countries where the highest percentages of students had reported consumption of cider only rather few had been drinking large quantities. The highest figures in relation to a consumption of 101 cl or more are found in Ireland (14%), Sweden (9%), Finland (8%) and Norway (7%).

Very small gender differences are observed. More boys than girls had been drinking cider at the last drinking occasion in Ireland and Isle of Man. The only country where the opposite is true, i.e. more girls than boys reporting this behaviour, is Finland.

Alcopops

(Tables 12a-c)

Similar to the case of cider, not all countries have alcopops in the assortment of alcoholic beverages. In addition, there are mixtures of alcohol that may be considered as alcopops although it is labelled "mixed drinks" as is the case in the Netherlands. Since these beverages are very similar to alcopops and assumingly consumed in the same way, they are included in the alcopops category.

The countries that report the highest percentages of students who had alcopops the last time they had any alcohol are mainly found in the western parts of Europe, but also in a few Mediterranean countries. Thus, the highest figures are noted for Cyprus, Isle of Man (62% each), Denmark (61%), the Netherlands (52%), the United Kingdom (50%), Greece (49%), Belgium (48%), Greenland (46%) and Norway (43%).

The lowest figures are found in a few Baltic countries, but also in the Mediterranean country


Figure 38a. Consumption of 101 cl beer or more on the last drinking occasion. Percentages among all students. 2003. Turkey: Limited geographical coverage.



Figure 38b. Consumption of 101 cl beer or more on the last drinking occasion. Percentages among boys and girls. 2003. Values within brackets refer to all students. Data sorted by all students. Turkey: Limited geographical coverage.

Malta. Poland is the country that reports the smallest percentage of students who had alcopops to drink on the last drinking occasion (7%). Other countries with rather low figures include Sweden (14%), Latvia (17%) and, as mentioned above, Malta (18%).

There are large differences in the number of students who report having been drinking rather large quantities on their last occasion with alcopops. In a number of countries only 1-2% report this, while in others 20-30% have been drinking considerable amounts. The highest numbers are reported from Isle of Man, where 35% of the students had been drinking 101 cl of alcopops or more. The countries next to Isle of Man are all on a somewhat lower level such as the United Kingdom (24%), Ireland, the Netherlands (20% each), Norway (17%), Denmark and Greenland (15%). The lowest percentages in this respect are reported from Latvia, Ukraine (1% each), Hungary, Poland, Romania, Slovenia, Sweden (2% each), Lithuania, Malta and Russia (Moscow) (3% each).

The gender pattern is very homogenous. In a majority of the countries more girls than boys report having been drinking alcopops on their last drinking occasion. Deviant from this pattern are Cyprus, Greenland and Romania, where boys are in majority. On the other hand, in five countries no gender differences are observed. They include Greece, Malta, Poland, Slovenia and Sweden.

Wine

(Tables 13a–c, figures 39a–b)

There is a wide variation between countries in the consumption of wine on the last drinking occasion. In six countries half of the students or more had been drinking wine on this occasion. The highest numbers are observed in Malta where 61% of the students had wine. Other countries with high percentages are Slovenia (57%), Lithuania (54%), Estonia, the Slovak Republic (53% each) and the Czech Republic (50%).

The lowest figures are found in the North Atlantic area: the Faroe Islands (13%), Greenland and Iceland (15% each). Another country with a low prevalence rate is found at the other end of the European continent, since 14% of the students in Turkey had been drinking wine on the last drinking occasion.

Countries with the highest percentages reporting a consumption of 15 cl of wine or more on the last drinking occasion, slightly above one third of the study populations, are found both in the central and southern parts of Europe. In Slovenia 39% reported this, in Malta 36% and in the Czech Republic 35%. Other countries with somewhat high numbers of students reporting this behaviour include Croatia and Estonia (31% each), Lithuania and the Slovak Republic (29% each).

The lowest prevalence rates on this level of consumption are found in the Faroe Islands (4%), Iceland, Portugal (5% each), Turkey (7%), France and Greenland (8% each). Thus, there is no clear geographical pattern for the low prevalence countries.

The gender pattern does not seem to be related to the prevalence rates in any systematic way. In a little less than half of the countries more boys than girls report a consumption of 15 cl wine or more. The opposite was found in somewhat fewer countries. Countries where no, or small gender differences were observed include most of the Nordic countries, which at the same time are among the low prevalence countries. They include Belgium, Denmark, the Faroe Islands, Finland, Greenland, Iceland, the Netherlands and Norway.

Spirits

(Tables 14a-c, figures 40a-b)

Also the consumption of spirits on the last drinking occasion differs substantially between countries. In eight countries at least half of the students had been drinking spirits the last time they had any alcohol including Malta (67%), the Faroe Islands (62%), Denmark, Greenland (61% each), Greece (58%), the Czech Republic (55%), Estonia (54%) and Ireland (50%).

In some countries much smaller proportions of students report this behaviour. In Turkey 13% had indicated consumption of spirits on the last drinking occasion. The corresponding value for Romania is 15% but from Russia (Moscow) a somewhat higher percentage (24%) is reported.

Of those who had been drinking at least 11 cl of spirits on the last occasion the value reported from the Faroe Islands (39%) is outreaching the percentages recorded in other countries. The next highest value is reported from another island at the other end of Europe since 27% in Malta indicated this consumption. Other countries with somewhat high figures include the Czech Republic, Estonia, Ireland (23% each), Greenland (22%), Poland (21%), Denmark and the Isle of Man (20% each).

The lowest rates are reported from Romania (2%) and Turkey (3%), but also from Cyprus (6%) and Portugal (7%).



Figure 39a. Consumption of 15 cl wine or more on the last drinking occasion. Percentages among all students. 2003. Turkey: Limited geographical coverage.



Figure 39b. Consumption of 15 cl wine or more on the last drinking occasion. Percentages among boys and girls. 2003. Values within brackets refer to all students. Data sorted by all students. Turkey: Limited geographical coverage.



Figure 40a. Consumption of 11 cl of spirits or more on the last drinking occasion. Percentages among all students. 2003. Turkey: Limited geographical coverage.



Figure 40b. Consumption of 11 cl of spirits or more on the last drinking occasion. Percentages among boys and girls. 2003. Values within brackets refer to all students. Data sorted by all students. Turkey: Limited geographical coverage.

Among those who had been drinking 11 cl of spirits or more boys are dominating in a majority of the 35 ESPAD countries. In Ireland, Isle of Man and the United Kingdom, however, more girls than boys reported this level of consumption, i.e. on all the three British Isles. Countries where the figures are about the same among boys and girls include the Nordic countries Denmark, Finland, Iceland and Norway, but also Croatia, Portugal and Slovenia.

Beverages consumed

(Tables 15a-c)

Some of the information in tables 12–14 is summarised in table 15. It contains information about the proportions of students who consumed beer, wine and spirits on the last drinking occasion. The table also shows the proportion of students who drank relatively large quantities of beer (101 cl or more), wine (37 cl or more) or spirits (11 cl or more). As was pointed out above, data from Austria and Germany are not comparable on these variables and thus appearing under the bottom line in the tables.

The most commonly consumed beverage on the last drinking occasion is beer, which was reported by half (49%) of the ESPAD students. The second most reported beverage is spirits (42% on average), while one third of the students had been drinking wine on this occasion.

Beer is the dominating beverage in a little more than half of the countries, while spirits is the most common in six (the Faroe Islands, Greece, Greenland, Isle of Man, Malta and Portugal). In a few countries, however, about equal numbers of students have indicated both beer and spirits. These countries are Ireland, Norway, Sweden and the United Kingdom. Wine was the most commonly drunk beverage only in two countries, the Slovak Republic and Slovenia. In Estonia all three beverages were indicated in equal proportions and in Hungary the number of students who had been drinking wine was about the same as for spirits.

The consumption of beer is on average a male behaviour. Almost twice as many boys as girls had beer on the last drinking occasion (61 vs. 37%). The gender difference is even more obvious in relation to the consumption of 101 cl or more. There are three times more boys than girls reporting this consumption (23 vs. 8%).

Wine consumption on the last drinking occasion is more equally distributed between the sexes. About one third of both boys and girls had wine the last time they had any alcohol. A small minority (about 7%) had been drinking 37 cl wine or more on that occasion and no gender difference was established.

Also the percentages of students that had spirits on the last drinking occasion are very similar among boys and girls. Around 42% had been drinking spirits. There are, however, more boys (17%) than girls (12%) reporting a consumption of 11 cl spirits or more.

The countries reporting the largest number of students who had 101 cl of beer or more on the last drinking occasion are Denmark (37%), Ireland (32%), the Netherlands (28%) and Finland (25%). On the other hand, very low figures on this level of consumption are reported from Ukraine (4%), Turkey (5%), Portugal, Romania (6% each), Greece, Hungary and the Slovak Republic (7% each).

In no country more than one fifth of the students had been drinking 37 cl wine or more on their last drinking occasion. The largest numbers are found in Slovenia (19%), Croatia (16%), the Czech Republic and Malta (13% each). Very few students had indicated these amounts in the Faroe Islands (1%), France, Iceland, Portugal (2% each), Greenland, Switzerland and Turkey (3% each).

However, relatively large number of students reported a consumption of spirits equalling to 11 cl or more on the last occasion they had alcohol. The highest number is noted for the Faroe Islands, where 39% of the students had been drinking these amounts. Other countries with high prevalence rates include Malta (27%), Estonia and Ireland (23% each). Also for this variable there are large discrepancies between the high and low prevalence countries. The lowest numbers of students who indicated this level of consumption are found in Romania (2%), Turkey (3%) and Portugal (7%).

There are rather big discrepancies between boys and girls when it comes to the consumption of large quantities of beer. Among boys 23% on average have reported this consumption, compared to 8% among girls. For wine there is virtually no difference (8 vs. 6%), but for spirits the boys again are in majority (17 vs. 12%).

Estimated average consumption

(Tables 16a–c, 17a–b, figures 41a–b)

An attempt has been made to estimate the volumes consumed on the last drinking occasion in each country. For this purpose, the proportions in tables 10–14, indicating different volumes of alcohol, have been used. However, the questions on cider and/or alcopops are not relevant in all countries. The presentation begins with the calculated amounts of beer, wine and spirits that the students had been drinking, based on their answers on the last drinking occasion. In the next section the beverages cider and alcopops have been added when appropriate.

The calculations are based on the alcohol content for different beverage types and recalculated into pure alcohol. The alcohol content for alcopops it is assumed to be 4.5%, beer and cider 5%, wine 11% and spirits 40%.

It should be noted, that in the fixed answering categories in the 2003 survey the indications given within brackets for volumes of wine have been changed since the 1999 survey. The explanatory bracket for "less than a glass" now says (<15 cl) and for "1–2 glasses" it is (15–30 cl). In the 1999 survey this was measured as (<10 cl) and (10–20 cl).

Furthermore, the calculations are done only on students who had ever been drinking alcohol. This is different from the 1999 survey in which the calculations were based on the consumers of each beverage, which probably led to overestimations of the consumption. To help the reader who might want to compare the results of the two surveys, three additional tables (49 a–c) with recalculated figures for the 1999 data have been added.

Beer, wine and spirits

(Tables 16a-c, figures 41a-b)

For the calculations the mid points of each response category's range are used. For the last openended category the lowest value is used. This is most certainly a conservative estimate, since many of the students in this category probably had been drinking larger quantities. In some countries relatively large number of students indicated the highest category. They are often found in countries with the largest calculated quantities. This means in practice, that the calculated differences between the high consumption countries and the others probably are underestimations.

It must be stressed that these kinds of calculations always are uncertain and build on a lot of assumptions. Thus, it is important not to overestimate the differences in the estimates. On the other hand, it seems reasonable to assume that substantial differences in consumption patterns between countries, as well as between boys and girls, most probably also reflect true differences since the calculations are done in exactly the same way in all countries.

The total estimated average consumption of beer, wine and spirits that are calculated in tables 16a–c show that beer makes up almost half of the consumed quantities (45%). The next most important beverage is spirits, which forms 37% of the total average for all countries. Wine is contributing to the consumed alcohol only to a relatively limited extent and makes up 17% of the total consumption.

There are, however, rather large differences between countries in the distribution of beverages on the last drinking occasion. The consumption on the last occasion in the Faroe Islands is outreaching those of the other ESPAD countries. On average, the students in this country had consumed 8.3 cl of pure alcohol the last time they had an alcoholic beverage. The countries next at the top are Denmark (7.5 cl), Ireland (7.3 cl), Greenland, Malta (7.1 cl each) and the Czech Republic (7.0 cl). Countries where the students had been drinking rather small quantities include Romania, Portugal (3.3 cl each) and Ukraine (3.5 cl). Thus, students in the top countries had been drinking more than twice as much as students in the countries with the smallest consumption.

There are of course also differences in the consumption pattern as regards beverage types. The largest proportion of beer, out of the total amount consumed, was found in the Netherlands where 65% of the consumption on the last drinking occasion was beer. Other countries with a large proportion of beer are Romania (61%), Iceland (59%), Turkey (58%) and Denmark (56%). Countries with the highest proportions of wine out of the total consumption include Slovenia (35% of the total amount consumed), Croatia, Hungary (28%) and the Slovak Republic (27%). Spirits make up the highest proportion in Greece (61%), the Faroe Islands (59%), Greenland (46%), the Slovak Republic and Portugal (45%). It is of course important to remember that these countries are rather different in total amounts consumed - the percentages mentioned only show the relations between the consumed volumes of different beverages on the last drinking occasion.

The country that reports the highest average volume consumed among boys is the Faroe Islands. These boys had consumed 9.4 cl of pure alcohol on the last occasion. The countries next at the top are Malta (9.0 cl), the Czech Republic (8.8 cl), Denmark (8.7 cl) and Poland (8.4 cl). The top countries among girls are the Faroe Islands (6.7 cl), Greenland, Ireland (6.4 cl each) and Denmark (6.1 cl).

There are, however, large discrepancies in consumed quantities between the genders in some countries, while in others the differences are smaller. In Greenland, Iceland, Ireland, the Isle of Man and



Figure 41a. Estimated average consumption^{*a*}) of beer, wine and spirits, in cl 100% alcohol, on the last drinking occasion. All students. 2003. Turkey: Limited geographical coverage.



Figure 41b. Estimated average consumption^{a)} of beer, wine and spirits, in cl 100% alcohol, on the last drinking occasion. Boys and girls. 2003. Values within brackets refer to all students. Data sorted by all students. Turkey: Limited geographical coverage.



Figure 41a. Estimated average consumption^a) of beer, wine and spirits, in cl 100% alcohol, on the last drinking occasion. All students. 2003. Turkey: Limited geographical coverage.



Figure 41b. Estimated average consumption^{a)} of beer, wine and spirits, in cl 100% alcohol, on the last drinking occasion. Boys and girls. 2003. Values within brackets refer to all students. Data sorted by all students. Turkey: Limited geographical coverage.

Norway the girls' consumption on the last drinking occasion is about 80% of that of the boys. Other countries with relatively small differences are Denmark, the Faroe Islands, Slovenia, Sweden and the United Kingdom where the girls' consumption is about 70% of that of the boys'. The largest differences are found in Romania, where the girls had been drinking alcohol to an amount of 47% of the boys', and in Cyprus, Lithuania, the Netherlands, Poland and Switzerland where it makes up a little less than 50%.

Beer, wine, alcopops, cider and spirits

(Tables 17a–c)

In many countries cider and alcopops are parts of the alcohol assortment available in shops. These beverages are sometimes important in relation to young peoples consumption, they are often sweet and tasty and they are promoted with flashy attractive labels. However, they are not available in all ESPAD countries, why the addition of them into the calculation of quantities consumed at the last drinking occasion makes it difficult to make comparisons. In tables 17 a-c the average alcohol consumption on the last drinking occasion is presented with the inclusion of alcopops and cider for countries in which these beverages are available. As mentioned in previous section, the calculations are made under the assumption that alcopops contain 4.5% alcohol and cider 5.0%.

Questions on all five beverages were included in the questionnaires of 17 countries. However, in addition to Austria and Germany also Switzerland had changed the format for the questions on alcopops and cider, which puts a limit to the possibilities of doing comparisons. The question on alcopops was included in the questionnaires of 28 countries, out of which three countries used a format deviating from the ESPAD standard format (Austria, Germany and Switzerland). The results on cider and alcopops for these countries are presented below the line in the tables.

The addition of the two beverages is important in those countries where this is appropriate. The average consumption rises from 7.3 to 11.2 cl pure alcohol in Ireland, from 5.9 to 10.3 cl in Isle of Man, from 6.4 to 10.2 cl in the United Kingdom and from 5.7 to 9.5 cl in Norway. On average the consumption increases with 1 cl pure alcohol per beverage, i.e. from 5cl on average for beer, wine and spirits to 6cl including alcopops and to 7cl if also cider is included.

The effect on the distribution of beverages is

mainly affecting the girls' consumption. The alcopops and cider proportions of the total alcohol consumed is overall more important in relation to girls' alcohol consumption than to that of boys', i.e. these beverages add usually more to the amounts consumed by girls.

Drunkenness

Lifetime

(Tables 18a-c, figures 42a-b)

In 30 of the 35 countries studied the majority of the students have been drunk at least once. The countries with the highest figures in which three fourths or more of the student population have been drunk include Denmark (85%), Lithuania (81%), Estonia (80%), Isle of Man (79%), the Czech Republic, Ukraine (78% each), Austria, Ireland (76% each) and the United Kingdom (75%).

The lowest proportions are reported from Turkey (21%) and Portugal (32%). Other countries where less than half of the students have experienced drunkenness include Cyprus (38%), France (43%) and Malta (47%).

Some students who have been drunk have a rather limited experience of the phenomenon. Others, however, get intoxicated more frequently. The countries with the highest percentages indicating that students have been drunk 20 times or more in lifetime include Denmark (36%), Ireland (30%), Isle of Man (29%), the United Kingdom (27%), Estonia and Finland (26% each).

In other countries only a few students report this frequency of drunkenness. In Turkey 1% had been drunk 20 times or more, in Cyprus 2% and in France, Greece, Portugal and Romania 3% gave this answer.

In a majority of the countries there are more boys than girls reporting this frequency of intoxication. In no country are the girls in majority. However, in quite many countries the gender distribution is rather even. These countries include both the British Isles and most of the Nordic countries (Finland, the Faroe Islands, Iceland, Ireland, Isle of Man, Norway, Sweden and the United Kingdom).

Last 12 months

(Tables 19a–c, figures 43a–b)

Many students who report lifetime experience of drunkenness probably refer to a rather recent event. Consequently the 12 months prevalence rates are rather close to the lifetime measures. In about 20 of the 35 ESPAD countries a majority of the students report having been drunk during the last 12 months.



Figure 42a. Proportion of all students who have been drunk 20 times or more in lifetime. 2003. Germany and Turkey: Limited geographical coverage. USA: Limited comparability.



Figure 42b. Proportion of boys and girls who have been drunk 20 times or more in lifetime. 2003. Values within brackets refer to all students. Data sorted by all students. Germany and Turkey: Limited geographical coverage. USA: Limited comparability.



Figure 43a. Proportion of all students who have been drunk 10 times or more during last 12 months. 2003. Germany and Turkey: Limited geographical coverage. USA: Limited comparability.



Figure 43b. Proportion of boys and girls who have been drunk 10 times or more during last 12 months. 2003. Values within brackets refer to all students. Data sorted by all students. Germany and Turkey: Limited geographical coverage. USA: Limited comparability.

The highest 12 months prevalence rates were found in Denmark (82%), Ireland (72%), Isle of Man (71%), Greenland (70%), Austria (69%), the Czech Republic, Estonia, the United Kingdom (68% each), Lithuania and Ukraine (66% each). Much lower figures were recorded in Turkey (16%), Cyprus (25%), Portugal (28%) and France (29%).

The number of students who have been drunk 10 times or more during the last 12 months are highest in Denmark and Ireland, where about one third of the students reported this (34 and 29% respectively). Other countries with high proportions on this variable include the United Kingdom (24%), Finland (23%), the Faroe Islands, Isle of Man (22% each), Estonia (21%), Austria (20%) and Greenland (19%).

In half of the ESPAD countries, the number of students who had been drunk 10 times or more during the last 12 months make up one tenth of the populations. Very low percentages are reported from Cyprus, France, Greece, Portugal and Turkey (2% each).

In a majority of the ESPAD countries there are more boys than girls who had been drunk as often as 10 times or more during the last 12 months. In only two countries there are slightly more girls than boys (Finland and Isle of Man). In the Faroe Islands, Greenland, Iceland, Ireland, Norway, Sweden and the United Kingdom, however, no gender differences are found. Hence, in all British Isles and all Nordic countries but Denmark, girls have been intoxicated rather frequently and to at least the same extent as boys. In addition, in some low prevalence countries it can be observed that the gender differences are small mainly because the prevalence rates are small.

Last 30 days

(Tables 20a–c, figures 44a–b)

The response categories in Austria and Germany were changed into an open format. Since this is expected to influence the comparability with other countries, the results from these countries are put below the line in the tables and are excluded from the graphs.

The number of students who have been drunk as recently as during the last 30 days differs considerably between countries, from 8 to 60%. The highest figure is observed in Denmark, where 61% of the students had been drunk recently and which value is well above the second highest prevalence country, which is Ireland (53%). Other countries with high figures include Greenland, the Isle of Man (49% each) and the United Kingdom (46%). On the other hand, in some countries this frequency of drunkenness is much less common. They are mainly found in the south, including Turkey (8%), Cyprus (10%), Portugal (14%), France, Romania (15% each) and Greece (16%).

Looking at the number of students who have been drunk 3 times or more during the last 30 days implicates that the figures are smaller, but the pattern over the countries remain about the same. Thus, Denmark is still at the top together with Ireland, in which countries one fourth of the students had been drunk that often. Other countries with high prevalence rates include Isle of Man and the United Kingdom (23% each).

In about half of the ESPAD countries the number of students reporting this frequency of intoxication is 10% or less. The lowest figures are reported from Turkey (1%), Cyprus (2%), France, Greece, Portugal (3% each) and Romania (4%).

In a majority of the countries there are more boys than girls reporting this behaviour. A larger proportion of girls that report being drunk at least 3 times during the last 30 days is mainly found in Isle of Man. In others, the gender distribution is rather equal, which is the case in Finland, Greenland, Iceland, Ireland, Norway, Sweden and the United Kingdom. Thus in all British Isles and almost all Nordic countries there are at least as many girls as boys that had been drunk 3 times or more during the last 30 days.

Binge drinking

(Tables 21a–c, figures 45a–b)

Having five or more drinks in a row (binge drinking) would for most students of this age mean getting drunk. Thus, the distribution of responses in various countries to the question on how many times this amount had been consumed over the last 30 days would be expected to vary in about the same way as was the case in relation to drunkenness. This is also true to a large extent.

The response categories in Austria and Germany were changed into an open format. Since this is expected to influence the comparability with other countries, the results from these countries are put below the line in the tables and are excluded from the graphs.

The highest percentage of students who reported this is found in Denmark, where it was indicated by a majority of the students (60%). Other countries where more than half of the students had indicated this are the Netherlands (58%), Germany, Ireland, Isle of Man (57% each), the United Kingdom



Figure 44a. Proportion of all students who have been drunk 3 times or more during the last 30 days. 2003. Turkey: Limited geographical coverage. USA: Limited comparability.



Figure 44b. Proportion of boys and girls who have been drunk 3 times or more during the last 30 days. 2003. Values within brackets refer to all students. Data sorted by all students. Turkey: Limited geographical coverage. USA: Limited comparability.



Figure 45a. Proportion of all students who reported "binge drinking" 3 times or more during the last 30 days. 2003. Turkey: Limited geographical coverage. USA: Limited comparability.



Figure 45b. Proportion of boys and girls who reported "binge drinking" 3 times or more during the last 30 days. 2003. Values within brackets refer to all students. Data sorted by all students. Turkey: Limited geographical coverage. USA: Limited comparability.

(54%), Belgium and Malta (50% each).

As can be expected since many other alcohol variables in this country show low figures, very few students in Turkey (15%) had reported this. Other countries with rather few students indicating this behaviour include Romania (23%), Portugal (25%) and France (28%).

A more frequent binge drinking, i.e. 3 times or more during the last 30 days, is reported by one fifth to one third of the students in about half of the ESPAD countries. The ranking order is not exactly the same as for the total prevalence, even if many of them are appearing in both groups.

The highest numbers of students having been binge drinking 3 times or more during the last 30 days are found in Ireland (32%), Germany, the Netherlands (28% each), Isle of Man, the United Kingdom (27% each), Malta, Poland, Sweden (25% each), Denmark and Norway (24% each). Thus, there is a concentration of countries in the northern and western parts of Europe with Malta as the only exception.

The countries with the lowest binge drinking figures are Turkey (5%), Hungary (8%), France (9%), Cyprus, Greece, Iceland and Romania (11% each). The value for USA on this variable (9%) is comparable to that of France.

Age at first use of alcohol and first drunkenness

Beer, wine and spirits

(Table 22)

In a majority of the participating countries about half of the students or more have consumed at least one glass of beer or wine at the age of 13 years or younger. It is less common, however, to have tasted spirits (at least one glass) at this age – in about half of the countries this is reported by one third.

In countries with the highest number of students that have tried beer at the age of 13, about two thirds of the students or more had done so. Many of these countries can be categorised as traditional "beer countries", but this is not sufficient to explain the distribution over Europe. These high proportions are found in Latvia (72%), Slovenia (69%), Bulgaria, Denmark, Lithuania (67% each) and Ukraine (66%). Other countries with almost as high figures include Estonia (64%), Russia (Moscow) (62%), Isle of Man, the United Kingdom (61% each), Germany and the Slovak Republic (60% each).

The lowest percentage in relation to beer drinking at an early age is found in Turkey where 19% had this experience. Other countries with lower figures include Iceland (34%), Norway (39%), the Faroe Islands and Portugal (41% each).

In four countries about two thirds of the students had been drinking wine at the age of 13 or younger. They include Lithuania (73%), Isle of Man, Slovenia (66% each) and the United Kingdom (65%). Much less students reported this behaviour in Turkey (11%), Norway (26%), Iceland, Portugal (27% each), the Faroe Islands (28%) and the Netherlands (29%).

Rather few students had been drinking spirits at an early age. However, in four countries almost half of the students reported that they had done so. They include Denmark (48%), Isle of Man (47%), the United Kingdom (44%) and Malta (41%). Much lower figures were found in Turkey (7%), Romania (15%), Iceland and Norway (18% each).

In all countries but one, there are more boys than girls that had been drinking beer at the age of 13. The only exception is Russia (Moscow) where the proportions were the same. The tendency with higher frequencies among boys is the same in most countries when it comes to wine consumption. However, in six countries spread all over Europe the gender distributions were about the same (Austria, Bulgaria, Germany, Greenland, the Netherlands and Norway).

The same tendency with larger proportions among boys than girls are found for spirits in about two thirds of the countries. However, in about one third of the countries, spread all over Europe, there were rather equal proportions among boys and girls that had been drinking spirits at the age of 13.

There are clear differences between different types of beverages in the proportion of students that have reported use at the age of 13 or younger. When looking at the averages of all ESPAD countries many more have indicated beer or wine (54 and 49% respectively) compared to spirits (30%). When looking at individual countries the number of students that have been drinking spirits at this young age is smallest in all countries, while beer is dominant in more countries than wine. However, in about half of the countries there are no big difference between beer and wine. Overall, the figures indicates that beer is the most common beverage among the youngest consumers (13 years or younger) in the ESPAD countries.

In most countries the differences related to beverage types are about the same among boys as well as girls. However, the dominate role of beer is more visible among boys.

Drunkenness

(Table 22, figures 46a–b)

It is clear that many students in most ESPAD countries have tried alcohol at a fairly young age. The consumption has, however, not lead to intoxication to the same extent. The proportions of students that report having been drunk at the age of 13 or younger vary quite substantially between countries. About one fourth of the students in ten countries report that they experienced their first intoxication at the age of 13 or younger. In other countries the percentages are much lower, e.g. in two countries in which less than 10 percent reported this behaviour.

The top country in relation to having been drunk at the age of 13 or younger is Isle of Man (38%) followed by Russia (Moscow) (37%). The figures are also high (33–36%) in Denmark, Estonia, Finland and the United Kingdom.

The two countries with the lowest figures include Turkey (5%) and Cyprus (7%). In four countries this behaviour is reported by 10–11%, including Greece, Italy, Portugal and Switzerland.

In a large majority of the countries there are more boys than girls reporting drunkenness at the age of 13. However, the proportions are rather similar in quite many countries including Austria, Finland, the Faroe Islands, Greenland, Iceland, Ireland, Norway, Malta and the United Kingdom. With the exception of Austria and Malta they all are British Isles and Nordic countries.

Drinking places

(Tables 23a–c)

To explore in which context the students usually consume alcohol, they were asked: "Think about the last day on which you drank alcohol. Where were you when you drank?" The response categories were "I never drink alcohol", "At home", At someone else's home", "Out on the street, in a park, beach or other open area", "At a bar or a pub", "In a disco", "In a restaurant" and "Other place". To be able to group the countries according to the most common answers, the two highest scores in each country has been counted.

The response alternative "At someone else's home" scored highest in comparison to the others. The countries with the highest proportions on this alternative are found in the Nordic countries and in the Baltic states. They include Denmark (66%), Greenland (61%), Norway (50%), Finland, Sweden

(43% each), Estonia (42%) and Lithuania (41%).

The second most frequent choice was "At home". Countries where most students have indicated this alternative include Romania (38%), Isle of Man (34%), Cyprus (33%) and the United Kingdom (30%).

A disco is a place where many ESPAD students had been drinking alcohol on the last drinking occasion. Countries with most students indicating this alternative include Cyprus (48%), Austria (34%), Malta (32%), Greece (31%) and the Czech Republic (30%).

A bar or a pub was almost as frequently indicated as a disco as the place where students had a drink at the last drinking occasion. The highest scores are observed in Austria, Italy (36% each), the Czech Republic (35%), Croatia (34%), Portugal (31%) and the Slovak Republic (30%), i.e. only countries in the central and southern parts of Europe.

Outdoors, such as in the street, in a park or at a beach, was answered by 14% as an average. The highest proportions indicating this alternative were found in Russia, where 33% had said so, Latvia (31%) and Poland (30%).

Very few answered that they had been drinking in a restaurant the last time they had alcohol, and this alternative are not among the two most frequent chosen by the students in any country. "Other places", on the other hand, was frequently indicated in Greece (36%), Germany and Norway (22% each).

There are only small differences between places where boys and girls drink alcohol. The most important differences are found for outdoor places (the street, a park or the beach), which have been reported by more boys than girls.

To sum up, the places most frequently indicated by ESPAD students as the scene for their last drinking occasion are someone else's home or their own home. It would be of interest to know to which extent existing alcohol regulations and laws might influence the choice of a bar, pub or a disco as a place at which young people drink alcohol. At least in some countries this option is rather limited, since the personnel would not be allowed to serve underage people. Finally, many students in Greece, Germany and Norway indicated "other places" to a rather high extent. It is difficult to see what the students in these countries might have in common when choosing this alternative.



Figure 46a. Proportion of all students who have been drunk at the age of 13 or younger. 2003. Germany and Turkey: Limited geographical coverage. USA: Limited comparability.



Figure 46b. Proportion of boys and girls who have been drunk at the age of 13 or younger. 2003. Values within brackets refer to all students. Data sorted by all students. Germany and Turkey: Limited geographical coverage. USA: Limited comparability.

Expected personal consequences

(Table 24a–c, figure 47)

The expected consequences of alcohol use vary considerable both between individuals and across countries. Different cultures promote different patterns of alcohol consumption as well as different psychosocial effects of intoxication. Also within countries, individuals adopt different drinking patterns and are experiencing the effects of alcohol in different ways.

The students were asked to indicate how likely they thought that different positive and negative consequences would happen to them if they drink alcohol. The five proposed positive consequences included "Feel relaxed", "Feel happy", "Feel more friendly and outgoing", "Have a lot of fun" and "Forget my problems". The six proposed negative consequences included "Feel sick", "Get a hangover", "Not be able to stop drinking", "Harm my health", "Do something I would regret" and "Get into trouble with the police". The proportions of students in each country responding "likely" or "very likely" to each question are presented in tables 24a–24c.

Most students associate their alcohol consumption with having fun. A large majority (68% on average) anticipate this as a possible consequence. Other positive consequences, which more than half of the students on average had indicated, included "feel more friendly and outgoing", "feel happy", and "feel relaxed". Least support has the alternative "forget my problems" (45% on average).

Among the negative consequences "harm my health" is the most anticipated, which 42% on average indicated. In regressing order the following alternatives are "get a hangover", "do something I would regret", "feel sick" and "get into trouble with the police". The least expected consequence among these young people is "not be able to stop drinking", which on average was indicated by 14%.

Countries where most students on average had indicated positive consequences include Denmark, the Faroe Islands, Ireland, Isle of Man and the United Kingdom, which about three quarters of the students in these countries report. When looking at expected negative consequences the countries with the highest average proportions (around 45%) indicating any of those include Bulgaria, Croatia, the Faroe Islands, Romania, Slovenia and Italy. It seems as if the Faroese students to a high extent have anticipated positive as well as negative consequences when drinking.



Figure 47. Anticipated positive and negative consequences of alcohol consumption. Number of statements for which the percentage of all students answering "likely" or "very likely" exceeds the average of all countries. Germany and Turkey: Limited geographical coverage.

To give an overview of the anticipated positive and negative consequences of alcohol use, figure 46 presents the sums of the proportions of students in each country that agreed with the different statements. Thus, for each of the five positive consequences, if the individual country's proportion exceeds the average for all countries on this variable this country gets one point on this item. In the same way five of the negative consequences (the sixth, least anticipated consequence "not being able to stop drinking" was excluded to balance the scale) are used to summarise the negative side. To balance the positive and the negative consequences, each country's positive points minus its negative points make up the value for this country. This means that the result might be a positive or a negative value, or it might be indifferent. In the figure all countries are presented with their summarised points.

Thus, as can be seen in the figure students in Finland seem to be the most positive in their attitudes towards alcohol, with a total sum of +5 points. Other countries with most positive scores are Ireland, the United Kingdom (+4 points each) and the Czech Republic, Denmark, Isle of Man, Russia (Moscow) and Ukraine (+3 points each). In each of these countries students overall anticipate more positive and less negative consequences of their own alcohol consumption than in other ESPAD countries. It is notable that most of these countries are among those with highest drunkenness figures.

On the negative side we mainly find the countries that most often are associated with low prevalence rates on alcohol consumption and drunkenness. They include Romania (-5 points), Italy, Portugal (-4 points each) as well as Croatia, Poland and Turkey (-3 points each). In these countries, students overall anticipate more negative and less positive consequences of their alcohol consumption than their counterparts in other participating countries.

Experienced problems caused by own alcohol use

(Tables 25a:1 – 25c:2, figures 48–49)

The students were also asked if they had encountered any problems related to alcohol use, drug use or related to some other reasons. The number of students who had experienced problems related to drug use was very low in almost all ESPAD countries, and is therefore not presented in this report. Rather many, however, had experienced various problems in relation to their own alcohol use.

The fourteen problems listed in the question-

naire have been grouped into four categories. These categories are "Individual problems", "Relationship problems", "Sexual problems" and "Delinquency problems".

Included in "Individual problems" are the following items: "Performed poorly at school or at work", "Damage to objects or clothing", "Loss of money or other valuable items", "Accident or injury" and "Hospitalised or admixed to an emergency room".

The problem most often indicated by the students in this group is "damage to objects or clothing" which on average had been indicated by 12%. The next in ranking are "loss of money or other valuable items" and "accident or injury", which are indicated by about 8 and 6% respectively. The other two categories are only mentioned by 2-3%of the students.

The highest average percentages of students indicating any of the individual problems are found in Lithuania (14%), Ireland, Isle of Man, the United Kingdom (13%) and Denmark (12%). The smallest proportions are found in Cyprus, France, Greece, Turkey (2%), Belgium, Italy, Malta, Portugal and Switzerland (3%).

Included in "Relationship problems" are the following items: "Quarrel or argument", "Problems in relationships with friends", "Problems in relationships with parents", "Problems in relationships with teachers".

The problem most indicated in this group is "quarrel or argument" which on average is indicated by 11%. The next most frequently indicated items are "problems in relationships with parents" (8%) and "problems in relationships with friends" (6%). Only 2% had indicated problems with teachers.

The individual countries that for this group of problems have the highest average percentages include Lithuania (19%), Denmark (15%), Finland (12%), Greenland, Ireland and Isle of Man (10% each). Very few students have indicated these types of problems in Cyprus, Greece, Turkey (2%), Italy, the Netherlands and Portugal (3%).

The problem group "Sexual problems" includes two items: "Engaged in sex you regretted the next day" and "Engaged in unprotected sex (without a condom)". Both these alternatives are on average rather equally indicated (about 5%). One country (Ireland) had left out these two items in the questionnaire.

Looking at the countries individually reveals that these problems are by far most experienced by



Figure 48. Experienced problems caused by alcohol. The number of variables within each "problem group" for which a country's percentage exceeds the average of all countries. All students. Germany and Turkey: Limited geographical coverage. * Not all alternatives were included.



Figure 49. Cross-national average of students who report having each of 14 problems because of their alcohol use and because of other reasons.

the youth in Greenland and Isle of Man, where 17 and 13% respectively had indicated that they had experienced any of these two sexual experiences. Other countries with rather high figures on this variable are Denmark and the United Kingdom (9%) followed by Finland (8%).

"Delinquency problems" included the items "Scuffle or fight", "Victimised by robbery or theft" and "Trouble with police". Of these the first one is the most often indicated, although the average proportion for all countries is relatively low (7%).

The individual country that scores highest on this group of problems is Lithuania (10%), followed by Ireland, Isle of Man (9% each), Denmark and the United Kingdom (8% each). Very few students in Cyprus and Greece indicated this kind of problems (1% each), but also in Belgium, France, Italy, Malta, the Netherlands, Portugal, Switzerland and Turkey (2% each).

For most of the problem groups the average scores do not indicate any clear gender pattern. The average scores on individual, relationships and sexual problems are the same or about the same for both boys and girls. The only group of experienced problems that reveals a gender difference is the delinquency problems group. On average more boys than girls indicated this (6 vs. 3%). The individual consequence that boys by far are more involved in is a scuffle or fight, which on average 10% of the boys had indicated compared to 5% of the girls.

The pattern of rather small differences between boys and girls is also found in most individual countries. When there are differences the figure is usually higher among boys. However, in a few countries some of the problem types are mainly found among girls. This is the case in the Faroe Islands where more girls have reported sexual problems related to their alcohol consumption. Other countries include Finland (individual, relationship as well as sexual problems), Greenland (sexual problems), Iceland (sexual problems), Isle of Man (individual, relationship and sexual problems), Sweden (sexual problems) and the United Kingdom (individual, relationship and sexual problems). In all these seven countries, which only are found in the British Isles and among the Nordic countries, more girls have reported sexual problems related to their own alcohol consumption.

In figure 48 the pattern of experienced problems in different countries is shown by counting for each

country the number of items on which the country scores higher than average. Thus, for each of the 14 problems and for each country, the number of items for which it scores above average are counted and summarised.

The highest sum of items exceeding average was found in Denmark and Isle of Man (13 over average) followed by Finland, Lithuania (12 over), Ireland (11, however the two variables on sexual problems were omitted in the Irish questionnaire), Latvia and the United Kingdom (10). In other words, among the countries with most reported alcohol related problems are all the British Isles countries as well as Nordic countries and Baltic states.

Countries that have no variable scores exceeding average are predominantly Mediterranean countries. They are also found in all other parts of Europe with the exception of the British Isles, the Nordic countries and the Baltic states.

In order to assess the relative role of alcohol in different types of problems, the students were also asked about their experiences of the same problems for reasons other than their own alcohol use. Figure 49 shows the cross-national average of students who report having each of the 14 problems because of their alcohol use and because of other reasons. In most cases, the number of problems that the respondents specifically related to their own alcohol use was small in comparison with such problems caused by other factors. The exceptions from this pattern is the problem defined as "engaged in sexual intercourse you regretted the next day" (regret sex), which is indicated to the same extent because of alcohol as well as for other reasons. Two other variables that are only somewhat more connected with other reasons than alcohol are "unprotected sex" (engaged in sexual intercourses without a condom) (4 vs. 9%) and "trouble with police" (4 vs. 10%).

A conclusion that can be drawn from the results on the two variables "expected consequences" and "problems because of alcohol use" is that many of the countries with students that report expected positive experiences from alcohol consumption are found at the top of the list of countries that report problems. It also seems as if young people in the south of Europe expect more problems to be asso ciated with alcohol consumption, but report less experience of such problems.



Figure 50a. Lifetime experience of any illicit drug. Percentages among all students. 2003. Germany and Turkey: Limited geographical coverage. Spain and USA: Limited comparability.



Figure 50b. Lifetime experience of any illicit drug. Percentages among boys and girls. 2003. Values within brackets refer to all students. Data sorted by all students. Germany and Turkey: Limited geographical coverage. Spain and USA: Limited comparability.

Illicit drugs

In this section the prevalence of use of illicit drugs, tranquillisers or sedatives (with and without a doctor's prescription), anabolic steroids, alcohol in combination with pills and use of inhalants will be presented. Overall, the focus is on lifetime prevalence, except for illicit drugs for which also 12 months and 30 days prevalence rates are presented. The section begins with a presentation of the students' knowledge about various illicit drugs.

Knowledge about drugs

(Tables 26a–c)

The prevalence of drug use differs widely across countries. In some countries both the knowledge of a drug and the use of it are rather widespread, while students in other countries have never heard the name, let alone having used it. To explore how well known certain substances are, also in low prevalence countries, and to be able to monitor possible changes over time, the students were asked if they had ever heard of certain drugs. The drugs included in this question are amphetamines, crack, cocaine, ecstasy, heroin, LSD, marijuana/hashish, methadone and tranquillisers or sedatives.

On average, the most well known drugs are marijuana or hashish, cocaine and heroin, which a large majority (90% on average) indicated that they had heard of. The next substance in this hierarchy is ecstasy, which 83% on average had heard about. A group of drugs, including amphetamines, LSD and crack, were all known to about the same extent on average (60–66%) among the students. The least known substance was GHB which only 18% indicated knowledge about.

Countries that score highest on average in relation to familiarity with the drugs listed are Isle of Man (79%) and the United Kingdom(78%). Other countries with high values (75–76%) include the Czech Republic, Denmark, Ireland, the Netherlands and Sweden. Countries where rather few students were familiar with these drug names include Turkey (34%), Greenland (39%) and Ukraine (43%).

There are only small differences between boys and girls when averages are compared. However, it might be worth to note that, on average, there are more girls than boys that have heard about tranquillisers or sedatives (70 vs. 62%). The same tendency is also found in a vast majority of the countries.

For some of the drugs there are substantial differences between countries in relation to the students' knowledge. One example is LSD that only 17% of the Greenlandic and 20% of the Romanian students had heard of compared with 91% in Germany. Of the students in Turkey only 8% had heard about crack and in Romania only 19%. As typical countries at the other end of the scale, this was reported by about 90% in five countries (Germany, Ireland, Isle of Man, Sweden and the United Kingdom).

The knowledge about GHB differs substantially between countries, from 4–5% in the Faroe Islands and Turkey to 55% in Iceland and 48% in Norway. The discrepancies are also large in relation to methadone. The smallest proportions that had heard about methadone were found in Turkey (7%) and Greenland (11%) while this was the case among 77% in Norway and 72% in Ireland.

The range is wide also for magic mushrooms. For this drug the lowest figure was found in Turkey (11%) followed by Cyprus (13%). On the other hand, there are four countries in which around 90% of the students had heard about magic mushrooms (the Czech Republic, Ireland, Isle of Man and the United Kingdom).

Any illicit drug

Lifetime

(Tables 27a-c, figures 50a-b)

The concept "any illicit drug" includes marijuana or hashish, amphetamines, LSD or other hallucinogens, crack, cocaine, ecstasy and heroin. The lifetime prevalence of any illicit drug varies considerably across the ESPAD countries.

The highest prevalence rates of any illicit drug use are reported from the Czech Republic (44%), Switzerland (41%), Ireland and the Isle of Man (40% each). Other countries with high proportions include France, the United Kingdom (38% each), Belgium (33%), Germany (30%), the Netherlands, Slovenia (29% each), Italy (28%), Greenland and the Slovak Republic (27% each). A majority of these countries are found in the central and western parts of Europe, while only three are found in the eastern parts.

Less than 10% have reported such drug use in Romania (3%), Cyprus, Turkey (5% each), Sweden (8%) and Norway (9%). Other countries with proportions around ten percent are the Faroe Islands (10%), Finland and Malta (11% each).

In Spain 36% of the students have used an illicit drug. The corresponding figure for USA is 41%.

Many of the students have only tried a drug once



Figure 51a. Lifetime experience of marijuana or hashish. Percentages among all students. 2003. Germany and Turkey: Limited geographical coverage. Spain and USA: Limited comparability.



Figure 51b. Lifetime experience of marijuana or hashish. Percentages among boys and girls. 2003. Values within brackets refer to all students. Data sorted by all students. Germany and Turkey: Limited geographical coverage. Spain and USA: Limited comparability.



Figure 52a. Proportion of all students who have used marijuana or hashish during the last 30 days. 2003. Germany and Turkey: Limited geographical coverage. Spain and USA: Limited comparability.



Figure 52b. Proportion of boys and girls who have used marijuana or hashish during the last 30 days.2003. Values within brackets refer to all students. Data sorted by all students. Germany and Turkey: Limited geographical coverage. Spain and USA: Limited comparability.

or twice, while others have had a more or less regular habit of drug taking. Countries where the highest percentages of students have used any drug 20 times or more include Switzerland (16%), France (15%), the United Kingdom (14%), the Czech Republic, Isle of Man (13%), Belgium (11%), Ireland, Italy and the Netherlands (10% each), i.e. about the same top countries as for lifetime prevalence. In contrast, only 1% or less report this in Cyprus, the Faroe Islands, Romania and Sweden.

The gender pattern reveals that in a majority of the countries more boys than girls report that they have tried any illicit drug at least 20 times. In no country the opposite is true. On the other hand, in a number of countries the proportions are similar for boys and girls. If one exclude countries with only small percentages, this is mainly found in Croatia and Slovenia.

Marijuana or hashish

Lifetime

(Tables 28a–c, figures 51a–b)

The vast majority of the students in all ESPAD countries that have tried any illicit drug have used marijuana or hashish. Thus, the number of students reporting experience with cannabis are almost identical with the total illicit drug prevalences.

The top country in this respect is the Czech Republic where 44% of the students have used marijuana or hashish. Still high prevalence rates are reported from Switzerland (40%), Ireland, Isle of Man (39% each), France and the United Kingdom (38% each). Other countries where more than one fourth of the students have used cannabis include Belgium (32%), the Netherlands, Slovenia (28% each), Germany, Greenland, Italy and the Slovak Republic (27% each).

The lowest levels of cannabis use are reported from Romania (3%), Cyprus, Turkey (4% each), Greece (6%) and Sweden (7%). Low prevalence rates are also found in the Faroe Islands, Norway (9% each) and Finland (10%). These low prevalence countries are either found in the south of Europe or among the Nordic countries.

Data from Spain and the USA reveal that 36% of the students in both countries have ever used cannabis.

In no country there are more girls than boys that have tried cannabis, and boys are in majority in about two thirds of the ESPAD countries. In some of them, on the other hand, there are no real gender differences. Those countries are mainly found in the British Isles or among the Nordic countries, including the Faroe Islands, Finland, Greenland, Iceland, Ireland, Isle of Man, Norway and Sweden. However, included in the list is also a southern country (Greece). It may also be noted that the countries with about equal proportions between the sexes are both high and low prevalence countries.

Last 12 months and last 30 days

(Tables 29a–c, figures 52a–b)

Many of the students who have tried marijuana or hashish have apparently done so during the last year. Thus, the number of students indicating that they have used cannabis during the last 12 months is very similar to the lifetime prevalence of this drug.

The highest number of students that had used cannabis during the last year is found in the Czech Republic (36%). Other high prevalence countries are Isle of Man (34%), France, Ireland, Switzerland and the United Kingdom (31% each).

Countries where very few students have used cannabis during the last 12 months are to a large extent the same that reported low lifetime prevalence rates. Thus, the smallest number of students reporting this behaviour are found in Romania (2%), Cyprus, Turkey (3% each), the Faroe Islands (4%), Greece and Sweden (5% each).

In Spain 32% of the students have used cannabis during the last 12 months. The corresponding value for the USA is 28%.

Use of cannabis during the last 30 days usually indicates an active and ongoing habit. In some countries about one fifth of the students reports this, in others much lower prevalence rates are noted. The countries with the highest 30 days prevalence include France (22%), Isle of Man (21%), Switzerland, the United Kingdom (20% each) and the Czech Republic (19%). Other countries with somewhat high rates are Belgium, Ireland (17% each) and Italy (15%).

In some countries however, very few report cannabis use during the last 30 days. The six countries with the lowest figures include the Faroe Islands, Romania, Sweden (1% each), Cyprus, Greece and Turkey (2% each).

Data from Spain and USA reveals that 23% and 17% respectively of the students in these countries have used cannabis during the last 30 days.

In many of the high prevalence countries there are more boys than girls indicating that they have used cannabis during the last 12 months. However, countries where no or only small gender differences can be seen include Ireland, Slovenia, Greenland, the Slovak Republic, Bulgaria, Croatia, Rus-



Figure 53a. Lifetime experience of any illicit drug other than marijuana or hashish. Percentages among all students. 2003. Germany and Turkey: Limited geographical coverage. Spain: Limited comparability.



Figure 53b. Lifetime experience of any illicit drug other than marijuana or hashish. Percentages among boys and girls. 2003.

Values within brackets refer to all students. Data sorted by all students. Germany and Turkey: Limited geographical coverage. Spain: Limited comparability.

sia (Moscow), Hungary and Iceland. Thus, countries with rather equal gender pattern do not seem to have any geographical concentration. However, in some countries the prevalence rates are so low that no gender pattern can be established.

Any illicit drug other than marijuana or hashish

Lifetime, last 12 months and last 30 days

(Tables 30a–c, 31a–c, 32a–c, 33a–c, 34a–c, figures 53a–b)

As was established above, the most important and prevalent drug in all ESPAD countries is cannabis. Nevertheless, many students have also used other substances, and in some cases without any additional experience of cannabis. In tables 30 a–c and 31 a–c the lifetime, 12 months and 30 days prevalence rates of any other drug than cannabis are presented. In tables 32 a–c the lifetime prevalence of specific drugs such as amphetamines, LSD or other hallucinogens, crack, cocaine, heroin, ecstasy, magic mushrooms, GHB (gammahydroxybuturate), as well as any drug by injection are presented.

Overall, the prevalence rates on these substances are relatively low. The ESPAD average is 6% with a range of 2–11%. Of those who have used any other drug than cannabis a majority have done so 1–5 times in their lives. Students, who have used any illicit drug other than marijuana or hashish, make up about one tenth of the total study population in countries with the highest prevalence rates. They include the Czech Republic 11%, Estonia, Germany, Isle of Man (10% each), Ireland and the United Kingdom (9% each).

In nine ESPAD countries 3% or less report any experience of such drugs. The countries with the lowest prevalence rates include the Faroe Islands, Greece, Romania and Ukraine (2% each).

A majority of those who have ever used any drug other than cannabis have done so rather recently. Therefore the 12 months prevalence rates are rather similar to the lifetime rates. The average for all countries on lifetime use is 6% and the average for 12 months 4%.

The highest 12 months prevalence rates for these types of illicit drugs are found in Isle of Man (10%), Austria, the Czech Republic, Germany (7% each), Estonia, Ireland and Italy (6% each). Very few students had used such a drug during the last 12 months in the Faroe Islands, Finland, Romania and Turkey (1% each).

The 30 days prevalence is on average 2% for all countries. The highest figures are found in Austria

(4%), Belgium, the Czech Republic, Germany, Ireland, the Netherlands and the United Kingdom (3% each).

Very low prevalence rates are observed in some countries. Values of only 1% or below are reported from the Faroe Islands, Finland, Greece, Norway, Romania, Russia (Moscow), the Slovak Republic, Sweden, Turkey and Ukraine.

The gender pattern is rather homogeneous both for the lifetime, 12 months and 30 days prevalence rates.

Tables 32a–c show the prevalence rates for individual drugs. Overall the rates are low, but in a few individual countries they are higher. Besides cannabis, the most commonly used illicit drug is ecstasy, which 3% on average have indicated. The average rates for amphetamines, LSD or other hallucinogens, cocaine and magic mushrooms are all the same (2%). Crack, heroin and any drug by injection was on average mentioned by 1% of the students. Very few (0%) had indicated experience of GHB.

The countries with the highest percentages of students reporting use of amphetamines are Estonia (7%), Germany, Iceland, Lithuania and Poland (5% each). On the other hand, in 13 countries 1% or less reported such use.

Very few students have used LSD or other hallucinogens. The highest percentages are found in the Czech Republic and Isle of Man where 5–6% reported this.

The use of crack or cocaine is also very limited. The highest value is observed in relation to cocaine and this is found in the Isle of Man, Italy and the United Kingdom, where 4% reported use.

Around 1% on average had ever used heroin. The single highest value is found in Italy where 4% gave this answer.

Ecstasy is, apart from cannabis, the most used drug of those included in the questionnaire. In the Czech Republic 8% had used it, followed by Isle of Man (7%), Croatia, Estonia, Ireland, the Netherlands and the United Kingdom (5% each).

Magic mushrooms are not very frequently used in the majority of the countries. However, a few countries are more outstanding in reported use, such as the Czech Republic (8%), Isle of Man (7%), Belgium, France, Germany and the Netherlands (5% each).

The lifetime use of GHB is limited to 1% of the students or less in all ESPAD countries. Another practically non-existent habit is drug taking with use of a needle (drugs by injection).



Figure 54a. Lifetime experience of tranquillisers or sedatives without a doctors prescription. Percentages among all students. 2003. Germany and Turkey: Limited geographical coverage.



Figure 54b. Lifetime experience of tranquillisers or sedatives without a doctors prescription. Percentages among boys and girls. 2003. Values within brackets refer to all students. Data sorted by all students. Germany and Turkey: Limited geographical coverage.



Figure 55a. Lifetime experience of alcohol together with pills. Percentages among all students. 2003. Germany and Turkey: Limited geographical coverage.



Figure 55b. Lifetime experience of alcohol together with pills. Percentages among boys and girls. 2003. Values within brackets refer to all students. Data sorted by all students. Germany and Turkey: Limited geographical coverage.



Figure 56a. Lifetime experience of inhalants. Percentages among all students. 2003. Germany and Turkey: Limited geographical coverage.



Figure 56b. Lifetime experience of inhalants. Percentages among boys and girls. 2003. Values within brackets refer to all students. Data sorted by all students. Germany and Turkey: Limited geographical coverage.

The 12 months and 30 days prevalence of use of different drugs other than cannabis are overall very low in a majority of the countries; 1–2% or less report any use. However, in a few countries the 12 months figures mounts to 3–4%. Use of amphetamines during the last 12 months is reported by 4% in Austria and by 3% in Denmark, Estonia, Germany, Iceland, Lithuania and Poland.

LSD or other hallucinogens during the last 12 months are reported by 3% in the Czech Republic, cocaine by 3% in the United Kingdom, heroin by 3% in Italy, ecstasy by 5% in the Czech Republic and 3% in Belgium, the Netherlands and the United Kingdom. Magic mushrooms were used by 4% in the Czech Republic and by 3% in Belgium, Germany, Italy and the Netherlands.

The highest 30 days prevalence is noted for amphetamines in Austria (3%) and ecstasy in Croatia (3%).

Tranquillisers, anabolic steroids, alcohol together with pills Lifetime

(Tables 35a–c, figures 54a–b, 55a–b)

Tranquillisers or sedatives can be used both as a legally prescribed medicine and as an illicit drug. The majority of the students that have used any such drug have used a prescribed medicine, with an average of 8% for prescribed drugs and 4% when not prescribed. The prevalence rates differ however rather much over the countries. The highest percentages of students that have used tranquillisers or sedatives prescribed by a doctor are found in the Czech Republic (20%), France (17%), Belgium, Croatia, Iceland, Portugal and the Slovak Republic (14–15%).

Rather low figures, on the other hand, are found in Cyprus (1%), the Faroe Islands (3%), Austria, Bulgaria, Greece, Isle of Man and the United Kingdom (4% each).

Use of tranquillisers or sedatives without prescription is most common in Poland (17%) followed by Lithuania (14%), France (13%) and the Czech Republic (11%). Similar to the legally prescribed use, the lowest prevalence rates are found in Cyprus (1%), Austria, Bulgaria, Germany, Ireland, Ukraine and the United Kingdom (2% each).

Very few students in most ESPAD countries have ever used anabolic steroids. The use of these substances is mainly associated with athletic training and bodybuilding. Only few students in the ESPAD countries reported such use. The highest number of students is found in Poland and Turkey (3% each). It is well known that young people sometimes combine the use of pills with alcohol with the anticipation of getting a synergetic effect. The prevalence rates of "alcohol together with pills" are highest in Germany (16%), the Slovak Republic (15%), Austria (13%), the Czech Republic and Finland (12% each). Low prevalence countries for this variable are Cyprus (0%), Greece, Greenland and Turkey (2% each).

The ESPAD students were also asked if they used to combine alcohol and cannabis. This behaviour is much more frequent than to combine alcohol with a pill. Almost one third of the students in the Czech Republic, Ireland, Isle of Man, Switzerland and the United Kingdom reported use of alcohol and cannabis at the same time. As a contrast, only 1% of the students in Cyprus and Romania had experienced this.

Looking at the distributions by gender reveals that, on average, there are more girls that report having used tranquillisers or sedatives without prescription as well as alcohol together with pills. On the other hand, there are more boys than girls that have used alcohol and cannabis at the same time.

A more frequent use of alcohol together with pills among girls is reported from about half of the countries. In the remaining countries the figures are to a large extent the same for both sexes. However, no country reports that more boys than girls have done this.

The situation is similar for the use of alcohol and cannabis at the same time, but with boys in the majority. In about half of the countries there are more boys than girls that have tried this, while no country reported the opposite. In about half of them there are only small or no gender differences in the reported figures.

Use of inhalants

(Tables 36a–c, figures 56a–b)

The students were asked: "On how many occasions (if any) have you sniffed a substance (sniffing glue, aerosols etc.) to get high?" The highest lifetime prevalence rates are reported from countries in very different parts of Europe. The top country on lifetime prevalence is Greenland, where 22% had done so. Other countries with high levels of inhalants use include Isle of Man (19%), Cyprus, Ireland (18% each), Malta (16%), Greece and Slovenia (15% each). In Romania as well as Bulgaria the figures are as low as 2–3%. Other low prevalence countries include Turkey (4%), Hungary, Lithuania and Norway (5%).

Some of those who declared experience of inhalants may have tried it rather long time ago and is perhaps no longer using it. The last 12 months prevalence rates are lower, but the highest figures are found in about the same countries as for lifetime prevalence. The highest rates of use of inhalants during the last 12 months are reported from Greenland (16%), Cyprus, Isle of Man (11% each), Ireland and Malta (10% each).

As can be expected the 30 days prevalence rates are lower. The highest values are found, again, in about the same countries as for lifetime and 12 months prevalence figures. The highest percentages of students who have used inhalants during the last 30 days are found in Cyprus (6%), Greece and Malta (5% each).

Very small gender differences are found in the use of inhalants. In a majority of the countries there are no differences, but in Belgium, Cyprus, Greece, Portugal and Ukraine more boys than girls reported this behaviour. In one country only, Ireland, more girls than boys have used inhalants.

It is striking that the high prevalence countries to a large extent are islands. It is difficult to see why this is so. A possible explanation might be that the social control in smaller societies might make it more difficult for young people to get hold of other illegal substances.

Onset

First drug used

(Tables 37a-c)

The students were asked about the first illicit drug they ever used. The drugs listed were tranquillisers or sedatives, marijuana or hashish, LSD, amphetamines, crack, cocaine, heroin, ecstasy, magic mushrooms and GHB.

The most important illegal substance as a debut drug is cannabis. This was on average answered by 18% of all students, which corresponds to about 80% of all students that have tried any illicit drug. The "dominance" of cannabis is also found in all, but three, of the ESPAD countries. In more than half of them cannabis was mentioned as the first illicit drug by 80% or more of the students that had tried any such drug.

Second to cannabis, but with much lower figures, are tranquillisers or sedatives. This was reported by 2% of all students which is about 9% of all students that have tried any illicit drug. Rather high prevalence rates for tranquillisers and sedatives are mainly reported from Poland and Lithuania in which 35–40% of the "drug users" gave this answer.

A comparison between the sexes shows that more boys than girls used cannabis as their first drug. However, the opposite is true for tranquillisers and sedatives which, on average, was more common among girls, and this especially true in Lithuania and Poland.

How the first drug was obtained

(Tables 38a–c)

The students were asked how they obtained the drug on the first occasion. The responses were given in a fixed format including 13 alternatives. The results in the tables are summarised in nine groups, one of which is "I have never used any illicit drug".

There are three alternatives that seem to apply for most of the students. They are: "It was shared in a group", "Given by an older friend" and "Given by a friend of the same age or younger". Each of them was on average indicated by 5% of the student population, which corresponds to about 20–



Figure 57. The proportion of students who reported that cannabis was easily available in schools and any other place respectively. Germany and Turkey: Limited geographical coverage.

25% of those who have tried any illicit drug. This means that about 70% of all "drug users" had mentioned any of these three answers.

In individual countries one of these categories is more important than others. One example is "shared in a group", which was especially dominant in the Czech Republic, Estonia, Russia (Moscow) and Slovenia. Another, and even more striking example, is that "given by older friend" was by far the most frequent answer in Greenland. It means, that this is how about 60% of the Greenlandic "drug users" were introduced to illegal drugs.

Rather few students answered that they bought the first drug they used, either from a friend or someone else. Taken together, these answers are on average given by 13% of those that have tried any illicit drug. With one exception, this way of getting the first drug is uncommon in all countries. The only exception is Malta in which about one third of the those who had used any drug answered that their first drug was bought from a friend.

No specific gender pattern is observed for this variable.

Reasons for first use

By mistake the answers to the question about the reason for the first drug use were calculated on all students and not limited to "drug users" only. This was not realised until it was too late to ask for recalculated figures to be put in this report. However, in spite of this some written comments will be made.

The main results from the 2003 data collection reveals that the pattern of responses is very similar to the answers given in 1999. The dominant reason for the first drug use is that the students were curious. On average this was answered by about two thirds of all students that had tried any illicit drug. With one exception, this is the outstanding reason in all countries.

The major exception is Greenland in which the most important single reason for the first drug use was a wish to feel high. This was answered by about one third of the "drug users". There was also relatively many Greenlandic "drug users" (about 30%) that answered "other reasons".

The second most important reason for the first drug use was "wanted to get high", which on average was answered by about 20% of the "drug users". Other reasons were given to a much smaller extent than curiosity and a wish to feel high. This also includes "wanted to forget my problems", a category that was mentioned by a little more than 10% of all students that had used any illicit drug.

The gender differences are small. However, in some countries there are slightly more boys than girls that answered that they wanted to feel high the first time they tried an illegal drug.

Age at first use

(Table 39)

The two most common drugs that have been used at the age of 13 or younger are cannabis and inhalants. On average 4% had used cannabis and 3% inhalants at this very young age.

The highest figures on early consumption of cannabis are found in the United Kingdom and the Isle of Man, where about 13% answered this. Other countries with relatively high numbers reporting this are Switzerland (11%), Germany (9%), Ireland and the Netherlands (8% each). Marijuana or hashish is also the drug that most students in USA have used at the age of 13.

Students who reported that they used inhalants at the age of 13 are predominantly found in Cyprus (10%), but also in Croatia, Greenland and the Isle of Man (7%), followed by Austria, Greece, Ireland and Slovenia (6%).

The other drugs listed are only occasionally mentioned as debut drugs. No country reports that more than 1% indicated LSD or ecstasy as their first drug (with the exception of Isle of Man with 2% for LSD). Tranquillisers or sedatives are indicated by 2% on average. The country with the highest percentage indicating this is Poland (4%), followed by Belgium, Estonia, Greenland, Lithuania and the Netherlands (3%).

Very small gender differences are observed. As an average boys tend to indicate cannabis or inhalants at a somewhat higher degree than girls, but the differences are very small.

Places to buy cannabis

(Tables 40a–c, figure 57)

The students were asked: "In which of the following places do you think you could easily buy marijuana or hashish if you wanted to?" The results show that there are rather large differences between countries in the extent to which the students thought they had knowledge of any such place.

The European countries where most students think they know of any place to buy cannabis include the Czech Republic (82%), the Netherlands (77%), Ireland (73%), Italy (72%), Slovenia (71%) and Belgium (70%). In other countries, however, rather few students could specify a place where they would be able to buy cannabis. They include Turkey (17%), Ukraine (20%), Romania (27%), Russia (31%) and Sweden (35%).

It is obvious that the awareness of any possibility to buy drugs is closely related to the prevalence rates in a country. Among the alternatives given, the place that on average is most frequently indicated is a disco or a bar. This was on average answered by 27% of the students. On second "ranking place" is "street, park etc." (23%).

Within the group indicating "disco/bar" the Czech Republic students are those who most frequently gave this answer (55%), followed by the Slovak Republic (46%), Germany (44%), Belgium (43%), Austria (42%) and Denmark (40%). Least common was this category among students in Ukraine (7%), Sweden (8%), Turkey (10%), Russia (12%) and Greenland (13%).

Students who indicated "street/park etc." are mainly found in Italy (45%), Slovenia (39%), Belgium (38%), Norway (37%) and Ireland (36%). Very few students have given this answer in Turkey (4%), Cyprus (5%), Ukraine (6%), Russia (8%) and Romania (9%).

To have a possibility to buy cannabis at the house of a dealer was on average indicated by 21% of the students. Countries with rather high percentages of students giving this answer are Italy (43%), France (41%), the United Kingdom (39%) and Denmark (36%). Schools are least indicated on this question (apart from "other places"). Despite the quite low average of 16%, rather high proportions gave this answer in a number of countries. They include Italy (43%), the Czech Republic (36%), Belgium (34%), France (33%) and Ireland (30%).

In some countries many students answered "other places". The highest figures are found in the Netherlands (64%), Norway (48%) and Belgium (38%). A major reason for this high figure in Belgium and the Netherlands was that an extra answering category "coffee shop" was used in tables 40a–c. These answers are included in the category "Other places". The high figure for "Other places" in Norway include to a large extent names of places or streets where Norwegian students think that they can buy cannabis.

There are on average more girls than boys that think that they can buy cannabis at a disco or a bar (30 vs. 24%), while it is the other way around for "school" (14 vs. 17%). When there are differences between boys and girls within countries, they usually follow this general pattern.

Even though the averages are about the same for boys and girls when it comes to the category "house of a dealer", this is more frequently indicated by girls than boys in a few individual countries, including Finland, Ireland, Isle of Man, Malta, Norway and the United Kingdom. On the other hand, more boys than girls gave this answer in Greenland.

Lifetime abstinence from various substances

(Tables 41a–c)

In tables 41a–c the rates of lifetime abstainers are given for each of the following substances: cigarettes, alcohol, illicit drugs, tranquillisers or sedatives and inhalants. In addition four calculated variables are presented in the table, which reflect the proportion of those who abstained from using different combinations of the previously listed substances.

The average percentage of lifetime non-smokers is 34%. The highest rates of abstainers are found in Iceland (54%), Malta (52%), Greece and Turkey (50% each). On the other hand, the smallest numbers of lifetime non-smokers are found in the Faroe Islands (17%), Austria, the Czech Republic, Lithuania (20%), Greenland (21%), Latvia (22%) and Germany (23%). In most countries rather few students reported lifetime abstinence of drinking alcohol. The average for all ESPAD countries is 11%. The highest value in this respect for an individual country is found in Turkey, which by far outreach most other countries, since more than half of the students (55%) never had been drinking alcohol. Other countries with relatively high percentages of alcohol abstainers are Iceland (25%), Portugal (22%) and Greenland (20%). The lowest rates are found in ten countries where less than 5% of the students had never used any alcohol. They include the Czech Republic, Lithuania (2%), the Slovak Republic (3%), Austria, Denmark, Estonia, Germany, Greece, Isle of Man and Latvia (4%).

The average abstinence figure for illicit drug use (including marijuana or hashish, LSD, amphetamines, crack, cocaine, heroin and ecstasy) is 78% for all ESPAD countries. The highest percentages of abstainers from these drugs in the individual countries are found in Cyprus, Turkey (95%), Greece (93%), Sweden (92%), Faroe Islands, Norway (91% each) and Romania (90%). The lowest rates are observed in the Czech Republic (56%), Ireland, Isle of Man (60% each), France and the United Kingdom (62% each). The high abstinence countries are found in the south of Europe and among the Nordic countries while the low abstinence countries include all countries of the British Isles.

A large majority (95%) of the students in the ESPAD countries have never used tranquillisers or sedatives. There are, however, differences between individual countries, but they are not dramatic. The highest value, 98%, is observed in seven countries, including Austria, Germany, Ireland, Norway, the Slovak Republic, Ukraine and the United Kingdom. The lowest rate of non-users of these substances is found in Poland where 83% had never used it. Other countries with relatively low percentages are Lithuania (87%), France (88%) and the Czech Republic (89%).

The average rate of abstinence from inhalants is 90%. The variation around this value ranges from 78% (Greenland) to 97% (Bulgaria and Romania). Other countries with low percentages of abstainers from inhalants use also include Isle of Man (81%), Ireland (82%), Malta (84%), Greece and Slovenia (85%). Apart from Bulgaria and Romania high percentages of abstainers are found also in Turkey (96%), Hungary, Lithuania and Norway (95%).

Tables 41a–c also include figures representing abstinence rates for combinations of drugs. Thus, the a-category represents those that are abstainers from cigarettes as well as alcohol, b) cigarettes, alcohol and illicit drugs, c) cigarettes, alcohol, illicit drugs and tranquillisers/sedatives, d) cigarettes, alcohol, illicit drugs, tranquillisers/sedatives and inhalants.

The countries vary in the proportions of students who are abstainers from any of the drugs included. Analysis of the sequence of figures for the four substance combinations reveals no difference in most countries or a change of only one percentage point. This means that if students neither smoked nor used alcohol, they usually did not use any other substance either.

Looking closer at the data reveals that the only thing that differs between countries is if, and when, the possible change occurs. For example in Malta, the Netherlands and Ukraine the small difference occurs between a) and b), i.e. the value decreases when illicit drugs are added. This means that some students, which not already are among those who use cigarettes or drink alcohol, have used illicit drugs, thus making the group who did neither of this a little smaller.

In Cyprus (10, 10, 9, 9), Greenland (9, 9, 8, 8) and Lithuania (2, 2, 1, 1) the change happens when tranquillisers or sedatives are added, while in Portugal (14, 14, 14, 13) the inclusion of inhalants makes the total abstainers fewer.

The gender pattern is of course the opposite of the gender pattern of the prevalence figures for these drugs. The average number of abstainers from cigarettes or alcohol seems to be very similar between boys and girls. However, there are lesser abstainers from illicit drugs among boys (75% on average) than among girls (81%). For tranquillisers/sedatives and inhalants the gender differences are on average very small.

Changes in relation to the combinations are somewhat different between boys and girls. Among boys the changes occurred between a) and b) in Romania, between b) and c) in Italy and Malta and between c) and d) in Turkey.

Among girls there was a larger variation than among boys as to the extent the students had used a drug without first "starting" with alcohol or cigarettes. Thus, in Croatia, Cyprus and Slovenia the changes were observed between c) and d), in Greenland between both a) and b) and c). In four countries, Norway, Portugal, Russia and Switzerland the change occurred between b) and c) and in Poland, Romania and Slovenia it happened between c) and d).

These results indicate that in most ESPAD countries those who are abstainers from cigarettes and alcohol most probably also are abstainers from illicit drugs, tranquillisers/sedatives and inhalants.


Figure 58a. Proportion of all students who perceive inhalants "very easy" or "fairly easy" to obtain. 2003. Germany and Turkey: Limited geographical coverage.



Figure 58b. Proportion of boys and girls who perceive inhalants "very easy" or "fairly easy" to obtain. 2003. Values within brackets refer to all students. Data sorted by all students. Germany and Turkey: Limited geographical coverage.



Figure 59a. Proportion of all students who perceive marijuana or hashish "very easy" or "fairly easy" to obtain. 2003. Germany and Turkey: Limited geographical coverage.



Figure 59b. Proportion of all students who perceive marijuana or hashish "very easy" or "fairly easy" to obtain. 2003. Values within brackets refer to all students. Data sorted by all students. Germany and Turkey: Limited geographical coverage.



Figure 60a. Proportion of all students who perceive LSD or other hallucinogen "very easy" or "fairly easy" to obtain. 2003. Germany and Turkey: Limited geographical coverage.



Figure 60b. Proportion of all students who perceive LSD or other hallucinogen "very easy" or "fairly easy" to obtain. 2003. Values within brackets refer to all students. Data sorted by all students. Germany and Turkey. Limited geographical coverage.

Attitudes towards drugs Perceived availability of substances

(Tables 42a–c, figures 58a–b, 59a–b, 60a–b) The students were asked: "How difficult do you think it would be for you to get each of the following?" For each of the listed substances the response categories were: "Impossible", "Very difficult", "Fairly difficult", "Fairly easy", "Very easy" and "Don't know".

The proportions of students who indicated "very easy" or "fairly easy" to this question are discussed in this section. There are considerable differences in the availability of alcohol compared to illegal drugs. However, there are also substantial differences within the group of illegal substances.

Considering the averages, beer is perceived slightly more available than wine (87% and 82% respectively answering "very easy" or "fairly easy"), with spirits a little behind (72%)). In all countries except Cyprus, beer is estimated to be the easiest alcoholic beverage to obtain compared to wine and spirits, although the differences are very small in some of the countries. Spirits is, in comparison, estimated to be most difficult (i.e. least easy) to obtain in virtually all countries. However, in some countries there are hardly any differences in the perception of the availability between beer, wine and spirits.

On average, the largest proportions of students who claim that it is "very" or fairly" easy to get beer, wine and spirits are found in Denmark (96% on average), Greece (93%), the Czech Republic (92%) and the Slovak Republic (91%). These beverages seem to be least easy to obtain in Greenland (30%) and Turkey (46%). The lowest single figures are found for sprits and wine in Greenland (30 and 42% respectively) and for the same beverages in Turkey (34 and 46% respectively).

For other drugs the availability varies considerably across both countries and substances. Looking at the average figures, inhalants and cannabis are the two most mentioned substances (41 and 35% respectively).

Inhalants seem to be easiest to get in Ireland (77%) followed by Slovenia (61%) and Germany (60%). Least easy to find are inhalants in Italy, Portugal, Romania and Turkey in which 13–17% gave this answer.

In most countries anabolic steroids are perceived as less easy to get. The largest proportions answering "very" or "fairly" easy are found in Poland (27%), Bulgaria (24%) and Greece (20%). Smallest proportions were reported from the Faroe Islands (3%) followed by Finland, France, Greenland

and Ukraine (4-5%). The average of the ESPAD countries was 14% and the corresponding figure for USA 30%.

Marijuana or hashish is somewhat easier to get than all other drugs but inhalants. The average percentage of students who reported that cannabis was "very" or "fairly" easy to obtain was 35%. The largest figure was found in the Faroe Islands (83%). Other countries with rather many students giving these answers are the Czech Republic, Ireland and the United Kingdom (58–60%). The smallest proportions were found in Turkey (7%) and Romania (10%). The corresponding figures in Spain and USA were 67 and 74% respectively, i.e. higher than in all but one of the ESPAD countries.

The perceived availability for amphetamines is highest in Poland (27%), followed by Croatia and Denmark (22–23%) and Austria, Germany, Iceland and the United Kingdom (18–19%). The availability is judged to be much lower in some countries, including the Faroe Islands, Greenland, Turkey and Ukraine (4–5%) as well as Cyprus, Finland and Romania with 6–7%. In Spain this was reported by 43% and in USA by 36%, i.e. by more students than in any of the ESPAD countries.

On average, LSD or other hallucinogens are thought to be "very" or "fairly" easy to obtain by 12% of the ESPAD students. These answers were given by 21% in Croatia and Poland. Next comes a group of countries with 17–18%, including the Czech Republic, Slovenia and the United Kingdom. Very few students (4–5%) thought so in the Faroe Islands, Greenland, Romania, Turkey and Ukraine. Again, the figures for Spain (43%) and USA (23%) were higher than in any of the ESPAD countries.

Crack seems to be most available in Denmark, Ireland, Isle of Man, Poland, Slovenia and the United Kingdom in which 16–18% answered that this was "very" or "fairly" easy to obtain. Countries with the lowest figures (2–5%) include Cyprus, Finland, Greenland, Turkey and Ukraine. The corresponding figure in USA is much higher (30%).

The figures about the perceived availability of cocaine are in most countries very similar to those of crack. The highest figures are found in Denmark, Ireland, Poland, Slovenia and the United Kingdom in which 18–22% answered "very" or "fairly" easy. The low prevalence countries include Finland, Greenland, Turkey and Ukraine with 2–5% giving this answer. However, the mean value is 12%,

which means that also for cocaine the corresponding figures are higher in Spain (40%) and USA (30%).

There are big differences between countries in the perceived availability of ecstasy. Countries where the highest number of students answer that ecstasy is "very" or "fairly" easy to obtain include the Czech Republic, Ireland and Slovenia with 32–34%. Much lower figures (3–5%) are found in Greenland, Turkey and Ukraine. The average for all ESPAD countries is 17%, but the corresponding figures are much higher in Spain (48%) and USA (36%).

For heroin the largest percentages of students who think that this substance is easy to find are reported from Poland (20%) together with Croatia, Denmark, Ireland and Slovenia (15–17%). Very few students (2–5%) thought so in Finland, Greenland, Turkey and Ukraine. In Spain 31% gave this answer and in USA 19%.

On average 13% of the ESPAD students answered that magic mushrooms were "very" or "fairly" easy to obtain. It was most easily available in the Czech Republic and Isle of Man (28% each) followed by Ireland, Poland and the United Kingdom (22–24%). Much lower figures (3–4%) were found in Cyprus, Greenland, Turkey and Ukraine.

GHB has the lowest ESPAD average of all drugs (7%). However, there are big variations between countries and the figure was twice this high (14–15%) in Denmark and Poland. The lowest prevalences (2–4%) were reported from the Faroe Islands, Finland, Greenland and Ukraine.

Tranquillisers and sedatives is the "third easiest" drug to obtain with an ESPAD average of 21%. The country with the highest figure is Cyprus (42%) followed by Greece and Poland (39–40%). Only 4% of the students in Ukraine answered that tranquillisers and sedatives were "very" or "fairly" easy to obtain. The figures were also low in Greenland, Russia (Moscow) and Turkey (with 9–10%). The corresponding figure in Spain (66%) is much higher than in any ESPAD country.

To sum up, alcohol is considered to be "very" or" fairly" easy to obtain by a large majority of the students in most countries. Inhalants is the most available substance among other drugs. On average this was mentioned by 41% of the ESPAD students. Marijuana or hashish come next (35%) followed by tranquillisers or sedatives (27%). Among the remaining drugs listed, ecstasy is on average perceived most easy to obtain (17%). For all other drugs the corresponding figures vary between 7 and 13%.

The perceived availability of illegal drugs differs between countries. Among the ESPAD countries it seems to be highest in the Czech Republic, Denmark, Ireland, Poland, Slovenia and the United Kingdom. However, with a few exceptions, all illegal drugs (for which comparable figures are available) the perceived availability is higher in Spain and USA than in any of the ESPAD countries.

Also the lowest perceived availability of illegal drugs is mainly concentrated to a limited number of countries. These include Greenland, Romania and Ukraine.

Looking at the ESPAD average figures there are very few gender differences in the perceived availability of illegal drugs. There are more boys than girls answering that anabolic steroids, cannabis and magic mushrooms are "fairly" or "very" easy to obtain, while the opposite is true for tranquillisers and sedatives.

Perceived risks of substance use

(Tables 43a–c)

The students were asked: "How much do you think people risk harming themselves (physically or in other ways) if they a) smoke cigarettes occasionally, b) smoke one or more packs of cigarettes per day, etc". Eighteen items regarding cigarette smoking, alcohol consumption and illicit drug use suggesting different intensity of use were listed. The response categories were "no risk", "slight risk", "moderate risk", "great risk" and "don't know". The comments in this section is concentrated to answers indicating "great risk" for each of the items.

Many of the drugs included in the question is not known by students in Greenland, which makes the Greenlandic data less comparable with data from other countries. To stress this Greenland is put below the line in tables 43a–c.

The average values of risk assessment vary substantially between different substances. The highest average value is denoted for regular injections of drugs, which 81% of the ESPAD students would associate with a great risk. A little lesser students thought that regular use of cocaine/crack (76%) or regular use of ecstasy (73%) would put people at risk. The behaviours that rather few students indicate as risky are use of marijuana or hashish once or twice (32%), use of inhalants once or twice (35%) or use of amphetamine or GHB once or twice (37% each).

A majority of the students (69%) think that smoking a pack of cigarettes or more per day would mean a health risk. The individual countries where the highest percentage of students indicated this include the Faroe Islands (86%), Denmark, Romania (77% each), France, Isle of Man, Switzerland (76% each). Countries where least students considered this as a great risk are Ukraine (47%), Russia (Moscow) (51%), Slovenia (56%), Croatia and Portugal (59% each). In USA 72% thought that smoking one or more packs of cigarettes per day would mean a great risk.

Five or more drinks each weekend is not considered to be a great risk, and on average only 37% thought so. About half of the students in the countries that scored highest had indicated this to be associated with great risk. They include Turkey (52%), France (51%) and Poland (49%). However, in five countries only one fifth of the students or less would consider 5 or more drinks each weekend to be a risky behaviour. These countries are Ireland (15%), the Netherlands, Norway (19% each), the United Kingdom (21%), the Isle of Man (22%) and Belgium (23%). A majority of these countries are among the top countries as regards frequent alcohol use among students. In USA 53% indicated this to be a risky behaviour, thus being on the same level as the European countries scoring high on this variable.

Taking marijuana or hashish once or twice is on average not seen as a very risky behaviour. Only one third of the student think so, which is the lowest rate compared to all other variables included in this question. There are variations, but in only two countries (Lithuania with 58 and Romania with 51%) more than half of the students answered this. Other high prevalence rates are observed in Greece and Poland (48% each). In nine countries 15% or less considered use of cannabis once or twice as a risky behaviour. The lowest figure is found in Isle of Man (11%), followed by the Netherlands (12%), the Czech Republic, Switzerland, the United Kingdom (13% each), Belgium, Germany (14% each), Denmark and Ireland (15% each). The figure for USA (22%) is also rather low.

Regular use of cannabis is viewed upon quite differently compared to use on single occasions. On average 70% of the students thought such use would implicate great risk. In the Faroe Islands and Greece 87% of the students thought this would be risky. Other countries where rather many students thought so include Iceland, Sweden (83% each), Finland, Latvia and Poland (81%). On the other hand, less than half of the students in Isle of Man (44%), the United Kingdom (46%) and the Netherlands (47%) gave this answer. It is obviously so, that the students in low prevalence areas like the Nordic countries tend to have a stricter view on this than those in the high prevalence parts of Europe, such as the British Isles. In USA the corresponding figure is 66%.

In somewhat more than one third of the ESPAD countries occasional use, such as once or twice, of LSD was indicated as risky. The highest values are found in Iceland (70%), Lithuania (57%) and Poland (54%). Much less strict attitudes seem to be prevalent in the Netherlands (25%), the Czech Republic (26%), the Slovak Republic (27%) and Denmark (29%). Of the American students 54% thought that using LSD occasionally was associated with great risk.

Regular use of LSD is overall considered as a greater risk than occasional use, but the average is not higher than for regular use of cannabis (69%). The countries where most students thought that regular use of LSD would be risky include Finland, Iceland (86% each), Poland (81%), the Czech Republic and Lithuania (78%). The lowest number of students who agreed with this statement is found in Turkey with 44%. Other countries with somewhat low percentages are the Netherlands (55%) and Romania (58%). The corresponding figure for USA is 83%.

About one third of the ESPAD students thought that using amphetamines once or twice would be risky. In countries with the highest rates giving the answer "great risk" only somewhat more than half of the students thought so. In Iceland 60% gave this answer, in Lithuania 56% and in Poland 55%. About one-fifth in the Slovak Republic (22%) and Switzerland (23%) answered this and about one-fourth in Germany (25%), Austria and the Netherlands (26% each).

In some countries rather many students thought that using amphetamines regularly would mean a great risk. These countries are mainly found in the north or by the Baltic sea and include Finland (87%), the Czech Republic, Poland (85% each), Iceland (84%) and the Faroe Islands (80%). A much lower figures is found in Turkey (45)%. Other countries with rather low values all represent more than half of the students, e.g. Greece, the Netherlands, Romania, Switzerland and Ukraine (53–58%).

Many students seem to consider occasional use of cocaine or crack as a minor danger of personal harm. The highest percentages of students who think that using these substances once or twice would mean a great risk are found in Iceland (63%), Lithuania (60%) and Poland (58%). Other countries where more than half of the students gave this answer include Croatia and Russia (Moscow) (51– 54%). In some countries about one third of the students thought that occasional use of cocaine/ crack would be risky. They include the Netherlands (30%), Denmark (31%), Norway (34%) and Belgium (35%). In USA this item regarded cocaine powder only, but 55% of the students thought that occasional use would implicate a great risk.

Regular use of cocaine or crack was considered to be a great risk by about 85% in the Czech Republic, the Faroe Islands, Iceland and Poland (85–87%). The smallest figure in this respect was reported from Turkey (52%).

Occasional use (once or twice) of ecstasy was considered as a great risk by 42% on average. The highest numbers of students who indicate this are found in Iceland (68%) and Ireland (63%). In only five other countries more than half of the students answered this. They include the Faroe Islands, Isle of Man, Lithuania, Poland and the United Kingdom (52–54%). The lowest figures are found in the Czech Republic, the Slovak Republic (23% each) and the Netherlands (28%). In comparison, 55% of the American students indicated this.

Regular use of ecstasy is viewed upon in a different way than occasional use. On average 73% of the ESPAD students regard such use as a great risk. The highest numbers indicating this are found in Iceland (86%), the Faroe Islands (85%), Finland, France, Ireland, Malta, Poland (82% each) and Denmark (81%). Rather few students in Turkey (44%) and Ukraine (58%) thought this to be a great risk.

Occasional use of inhalants (once or twice) was on average considered as a great risk factor by 35% of the students. The highest numbers in individual countries were found in Iceland, Lithuania and Poland, where 55% in each country indicated this. In three countries, however, only one fifth of the students gave this answer, including Germany (19%), Austria, the Netherlands (21% each) and the Slovak Republic (23%). The corresponding figure in USA is 50%.

Regular use of inhalants was indicated as a risky behaviour by 68% on average. The highest rates were reported from the Czech Republic (85%), Iceland and Poland (82% each). Countries where only slightly more than half of the students thought that regular use of inhalants would be risky include Turkey (52%) and Malta (55% each). In USA 76% of the students thought that such use would implicate a great risk.

The use of GHB is not spread in all countries and it was therefore not included in all questionnaires. On average the occasional use (once or twice) was considered a great risk by 37% of the students. The highest values are found in Iceland (66%), Lithuania (55%) and Poland (54%). Small percentages are reported from the Slovak Republic (23%), Belgium, the Netherlands (25% each), Germany and Switzerland (26% each).

Regular use of GHB was on average judged as a risky behaviour by 62% of the ESPAD students. The highest figure is found in Iceland with 82%. Around three quarters of the students in Denmark, Lithuania, Poland and Sweden reported this (72–78%). Lower number of students gave this answer in Turkey (43%), Belgium (47%) and Ireland (49%).

Use of drugs by injection is rare in most countries in this age group. Thus, it might be expected that most students would associate such use with great risks. The average percentage of students viewing occasional use as a great risk is 62%. The highest proportion in the individual countries was found in Iceland (80%). Somewhat lower levels were found in Ireland, Lithuania (73% each), France, Poland (72% each) and Latvia (71%). The lowest figures are reported from Turkey (42%), the Netherlands (44%) and Sweden (45%).

Regular injections of drugs are on average thought to be a great risk by 81% of the ESPAD students. The highest values are reported from France (92%), the Czech Republic (91%) and Iceland (90%). A much lower figure is reported from Turkey (51%).

Overall more girls than boys perceive the different behaviours to be associated with great risks. However very small differences can be seen in relation to the occasional (once or twice) use, for all the included substances.

It might also be of interest to notice that the lowest risk perceptions to a large extent are found in a limited number of countries. This is mainly the case in the Netherlands, in which rather few students associated the different behaviours with risks. In other countries, however, it was the other way around. High percentages of students in Iceland and Poland considered the listed behaviours to implicate great health risks.

Perceived risks of heavy drinking

(Tables 44a–c)

The role of alcohol and the way that alcohol consumption is perceived differs between countries. However, all societies are concerned about drunkenness and problems that follow out of this. There is also a main general concern about risks related to alcohol consumption and especially problems related to heavy drinking.

The awareness of possible consequences of heavy drinking differ between countries, probably both among adults and young people. To learn more about the perception of heavy drinking among young people in different countries the students were asked the following question: "Do you think that heavy drinking influences the following problems?". The problems listed were "traffic accidents", "other accidents", "violent crime", "family problems", "health problems", "relationship problems" and "financial problems". Tables 44a–c show the percentages that have answered "Yes, considerably" and "Yes, quite a lot".

The problem that most ESPAD students relate to heavy drinking is traffic accidents, which on average was indicated by 85% of the students. Next to that come other accidents and health problems (74% each), closely followed by violent crime (70%). The corresponding figures are a little lower for family problems (69%), financial problems (66%) and relationship problem (63%).

In nearly half of the countries 90% of the students or more have related heavy drinking to traffic accidents. The highest figures are found in a group of countries with 93–96%, including Austria, Croatia, France, Greece, Italy, Poland, Russia (Moscow) and Turkey. Figures below 80% are found in Ukraine (74%), Hungary (77%) and in Norway (79%).

In Italy, Poland and Turkey a majority of the students (84–86%) thought that heavy drinking is related to other accidents. This was also indicated by 81–82% of the students in Austria, Croatia, Romania and Russia (Moscow). Percentages below 65% are found in Belgium, Hungary (56% each), Ukraine (62%) and the Netherlands (64%).

The figures related to heavy drinking are similar to those of other accidents. Six countries report figures above 80% of which the highest are found in Russia (Moscow) and Turkey (87–89%). Other countries with high figures (82–83%) include Croatia, Greece, Italy and Romania. Four countries have reported figures below 65%, including Belgium and Hungary (58–59%) as well as Iceland, the Netherlands and Norway (60–63%).

In Turkey 87% of the students relate heavy drinking to violent crime. Next to that come Croatia and Iceland (82–83%) followed by the Faroe Islands and Poland (80%). Belgium is the country with the lowest figure (47%) followed by Estonia and France (58– 60%). Other countries with low figures (61–62%) include Germany, Italy, Latvia and Ukraine.

The country in which the vast majority of the students relate family problems to heavy drinking is Turkey where 88% gave this answer. In a group of four countries the corresponding figure was 79–81% (Croatia, Poland, Romania and the Slovak Republic). Low figures are mainly reported from the Netherlands (50%) and Belgium (54%) but also from a group of countries including France, Germany, Isle of Man, Norway, Sweden, Ukraine and the United Kingdom, in which 60–62% of the students indicated this.

A supposed influence of heavy drinking on financial problems is mainly reported from Turkey in which 84% of the students answered this. Next come two countries with 79% (the Czech Republic and the Slovak Republic) followed by Austria and Poland with 75–76%. At the other end of the scale is Denmark (41%) and France (44%). A little bit behind follow Belgium with 53% and five countries with 56–59% (Bulgaria, Greece, Italy, the Netherlands and Ukraine).

Relationship problems is the category that the students consider being least related to heavy drinking. The ESPAD average is 63% but, like for all other variables, there is a considerable difference between the countries with the highest and lowest figures (83 and 49% respectively). Turkey is the country with the highest figure (83%). Second to this, but with substantially lower figures, follows a group of countries (Austria, the Czech Republic, Malta, Romania and the Slovak Republic), in which 70-74% had indicated that heavy drinking is related to problems with relations. The lowest figure (49%) is reported from three countries (Belgium, Lithuania and the Netherlands) closely followed by the Faroe Islands, Ukraine (51% each) and Norway (54%).

Some countries are repeatedly appearing in the comments above, either as a country in which many students relate most of the problem categories to heavy drinking, or the other way around, i.e. rather few students agree. Countries in which many students relate heavy drinking to many of the problems mentioned include Croatia, Poland and Turkey. In another group relatively few students relate heavy drinking to the different problems. Examples of countries in this group include Belgium, the Netherlands and Ukraine.

For all categories of problems but family problems, there are more girls than boys who think that they either "considerably" or "quite a lot" are related to heavy drinking. This is especially true for violent crime, which on average was answered by 73% of the girls and 67% of the boys.

The outcome on this variable show that the students' opinions vary over the countries. It is reasonable to think that this might reflect more aspects of the drinking cultures than just personal attitudes. Important variables that would need separate analyses are drinking cultures, traffic legislation etc.

Purchase of alcoholic beverages

(Tables 45a-c)

The legal drinking age differ between the ESPAD countries. In some countries you need to be 18 years old to drink alcohol in a restaurant or a pub and 20 to buy wine or spirits in a store. In other countries there are lower age limits while some countries do not have restrictions at all. Another difference in the availability of alcoholic beverages is that some countries have state owned monopoly stores or other specific outlets, while beer, wine and spirits in other countries are available in grocery stores as any other provisions. Hence, at least from a legal point of view, alcoholic beverages should be differently available for 16 year old persons in the ESPAD countries.

The students were asked the following question: "Think back over the LAST 30 DAYS. How many times (if any) have you bought beer, wine or spirits in a store (grocery store, liquor store, kiosk or gas station) for your own consumption?".

The answers to such a question mirror two things. One is of course the availability of beer, wine and spirits and the other is how common it is to drink each of the three different beverages. The more common it is to drink a beverage the more common it might be that it is bought in a store.

Beer is the beverage that most students have bought for their own consumption during the last 30 days. On average this was answered by 25% of the ESPAD students. A little less than one fifth said that they had bought spirits (19%) while wine was the beverage less commonly bought for own consumption (11%).

There are large differences in the number of students that during the last 30 days had bought beer for their own consumption in a store. This was answered by slightly more than half of the students in Poland (53%). Next came a group of four countries in which 46–47% of the students gave this answer (Bulgaria, Denmark, Russia (Moscow) and Ukraine). The lowest figure is reported from a group of countries in which 10–12% had done so

(Greenland, Isle of Man, Portugal and Sweden). Other countries with low figures (14–16%) include Hungary, Norway and Turkey.

The ranking of countries appear to be about the same when it comes to a purchase frequency of 3 times or more often. This was most common in Poland and Russia (Moscow) (28% each) followed by Bulgaria and Denmark (23–24%). Three countries report that this was done by only 4% of the students (Hungary, Portugal and Sweden) while another two reported 6% (France and Isle of Man).

The second most popular beverage to buy (and to drink) is spirits. It is first and foremost in Denmark that the students have bought spirits for their own consumption during the last 30 days. This was the case with as much as 45% of the students. Next in prevalence rate come the Faroe Islands and Malta (29–31%) followed by Belgium, Bulgaria and the United Kingdom (25% each). The lowest number of students that have done so are found in Sweden and Turkey (5–6%), followed by Finland (7%), Romania (9%) and Croatia, Iceland and Norway (11–13%).

The high and low prevalence countries are about the same when it comes to the purchase of spirits for own use at least 3 times during the last 30 days. This had been done by 16% of the students in Denmark and Malta and by 12–13% in Estonia, the Faroe Islands and the United Kingdom. This was least common in Finland, Romania, Sweden and Turkey (2% each).

The least commonly bought alcoholic beverage for own consumption is wine and the variations between countries is also smaller (2-26%). It is the Maltese students that have bought wine to the largest extent (26%). Next to them come the students in Russia (Moscow) (21%) followed by five countries in which 18% gave this answer (Austria, Estonia, Hungary, Slovenia and Ukraine). The countries where it is least common to buy wine include France, Sweden (2% each), Iceland, Portugal (3%each), the Faroe Islands, Finland, Greenland, the Netherlands and Norway (4% each).

It is unusual that students have bought wine in a store more often than twice during the last 30 days. The range goes from 0% in the Faroe Islands and the Netherlands to 10% in Malta.

Overall it is more common among boys than among girls to have bought alcoholic beverages in

a store during the last 30 days. This is true for beer as well as for wine and spirits, even if it is most pronounced in relation to beer. Whenever there is a discrepancy between boys and girls in a single country it usually follows this general trend. However, there are some very few exceptions, mainly for spirits.

Perceived cigarette, alcohol and drug use among friends

(Tables 46, 47a-b)

It would be reasonable to think that in countries with high prevalence rates on e.g. smoking, there should also be high percentages reporting that most or all friends are doing the same. The students were asked: "How many of your friends would you estimate smoke cigarettes?" as well as similar questions for alcohol consumption and the use of different illicit substances. The response categories were: "None", "A few", "Some", "Most" and "All". In the next paragraphs about cigarette smoking and alcohol use, the proportions who answered "most" or "all" friends will be presented.

Looking at the ESPAD averages the most common is that the students have friends that drink alcohol (60%) or are smoking cigarettes (47%). There are much fewer who have friends that get drunk at least once a week (17%).

Countries with high percentages reporting that most or all friends smoke cigarettes include Cyprus and Finland (88–89%) followed by Bulgaria and Russia (Moscow) (67–71%). The lowest figures are found in Iceland (17%) and Sweden (20%) but also in Denmark, Ireland, Norway, Portugal and Turkey with 27–29%.

Overall, there are more girls than boys reporting that their friends smoke. This holds true in more than two thirds of the participating countries.

Although drinking alcoholic beverages is a widespread behaviour in most of the ESPAD countries it is only in a little more than half of the countries that 50% or more report that most or all of their friends drink alcohol. The largest figure is to be found in Denmark where 89% of the students reported this. Next follow Ireland and Isle of Man with 80–81% but also Austria and Germany (75– 77%). The distance to Turkey is huge with only 19% in that country giving this answer. Second lowest is Hungary (26%) followed by Portugal (38%). In a majority of the countries the gender differences in this respect are very small or non-existent. Only in nine countries notably higher proportions of girls than of boys answered that most or all of their friends were drinking alcohol (Bulgaria, Estonia, the Faroe Islands, Finland, Iceland, Ireland, Isle of Man, Latvia and Norway), while the opposite was true in only two (Romania and the Slovak Republic).

Overall, there are rather few students that reported that most or all of their friends get drunk once a week or more often. There are, however, a few countries where one fourth or more of the students reported this. These include Isle of Man (39%), Denmark, Ireland and the United Kingdom (32–36%) as well as Bulgaria, Croatia and Estonia (27% each). This answer has only been given by 5–6% of the students in Cyprus, Greece, Portugal, Turkey and by 8–9% in Hungary, Iceland and Poland.

In a very large majority of the countries there are no substantial differences between the sexes in relation to possible drunkenness among friends.

This section also includes information about how common it is that students think that "some", "most" or "all" of their friends are using cannabis, LSD or other hallucinogens, amphetamines, tranquillisers or sedatives, cocaine or crack, ecstasy, heroin, inhalants, alcohol together with pills and anabolic steroids.

As expected, the highest proportion giving this answer is found for marijuana or hashish with an ESPAD average of 21%. However, the range is wide and goes from 3 to 46%. The highest figures (44–46%) are found in Isle of Man, Italy and the United Kingdom closely followed by Belgium, the Czech Republic and Switzerland (42–43%). The smallest figure is found in Romania (3%) followed by the Faroe Islands, Greece, Hungary, Malta, Sweden and Turkey (5–6%).

Even though there are huge differences between

countries there are practically no gender differences within countries.

With the exception of cannabis there are few countries in which as many as one tenth of the students report that their friends use any of the suggested drugs. One exception is inhalants for which two countries report rather high figures. One is Cyprus with 15% and the other Greenland with 12%.

In three countries at least 10% of the students report that friends are using alcohol together with pills. In Isle of Man 14% of the students answered that at least some of their friends do this. The second country was the United Kingdom with 12% and the third Croatia with 10%.

When it comes to ecstasy 10% of the students have answered this in Croatia, the Czech Republic and Isle of Man. The same figure is reported from two countries about the use of magic mushrooms. These countries are the Czech Republic and Isle of Man. For all other drugs the figures are smaller. They range from 1-7% for LSD or other hallucinogens, from 1-8% for amphetamines, from 1-8% for tranquillisers and sedatives without a doctors' prescription, from 1-8% for cocaine or crack, from 1-5% for heroin, from 1-4% for GHB and from 1-6% for anabolic steroids.

If the countries with the highest figures on each drug are counted some kind of a pattern is showing. Three countries belong to the "top countries" on five out of the twelve drugs on the list. They include Croatia, Isle of Man and Italy.

In general, there are hardly any gender differences in the student' perceived drug use among friends. However, in some countries there are more girls than boys estimating that their friends take alcohol together with pills. On the other hand, in some countries there are more boys than girls reporting that they have friends that use anabolic steroids.

Cigarette, alcohol and drug consumption among elder siblings

(Tables 48a-c)

Students who have any elder sibling were asked whether the sibling(s) ever smoke cigarettes, drink alcohol, get drunk, smoke marijuana or hashish, take tranquillisers or sedatives or take ecstasy. This information is perhaps most interesting in relation to the students' own behaviour and will be discussed from this perspective in the next chapter. However, it might also be of interest to see the findings as they are, and the number of students who indicated any of the listed behaviours are presented below.

The most common behaviour among the elder siblings is that they drink alcohol. On average this was answered by 62% of the ESPAD students. To have elder siblings who smoke cigarettes and who get drunk was equally common. Both alternatives were answered by 42%. Elder siblings smoking marijuana or hashish was on the average mentioned by 10% of the students while only 3% said that the elder siblings either took ecstasy or tranquillisers or sedatives without a doctors' prescription.

In about one third of the countries 50% or more of the elder siblings smoke cigarettes. This was reported to the highest extent in Greenland (68%) and the Faroe Islands (60%) followed by Austria, Belgium, the Czech Republic, Germany and Norway (52–53%). The lowest figures (26–28%) are found in Cyprus, Isle of Man, Italy, Malta, Romania and the Slovak Republic.

There are much more students reporting alcohol consumption among elder siblings. The top country is Ireland in which nearly nine out of ten elder siblings drink alcohol (89%). High figures are also reported from Denmark, Iceland and Norway (84–85%) as well as from the Czech Republic, France and the United Kingdom (80–81%). The lowest figures are found in Turkey (18%) and Romania (24%), but to some extent also in Italy (31%), Cyprus (34%) and the Slovak Republic (37%).

It is rather obvious that there are fewer students reporting that elder siblings get drunk than that they drink alcohol. However, high figures are also found for this variable with 76–79% in Denmark, Ireland and Norway and 72–74% in Greenland, Iceland and the United Kingdom. The discrepancy to the countries with the lowest figures is remarkable with 9% in Cyprus and Romania and 12% in Greece and Turkey. Other countries with low figures include Hungary and the Slovak Republic(15% each).

Even if the ESPAD average for elder siblings

who smoke cannabis is 10%, figures that are more than twice as high are found in some countries. Three countries report that this is the case for 24– 25% of the students (Belgium, Ireland and the United Kingdom) while the corresponding figure was 22% in the Czech Republic and Switzerland. The lowest number of students that gave this answer (2–3%) are found in Cyprus, Finland, Greece, Lithuania, Romania and Sweden.

As mentioned above, there are much fewer students that have answered that their elder siblings take ecstasy or that they take tranquillisers and sedatives without a doctors' prescription. For the latter drug the range goes from 1 to 5% and for ecstasy from 1 to 7%.

On average there are more girls than boys who have elder siblings that smoke cigarettes, drink alcohol and get drunk. These kinds of differences in relation to alcohol are found in a majority of countries, in about half of the countries for cigarette smoking and in about one third of the countries for drunkenness.

Introduction

The literature on adolescent substance use has identified a wide range of attitudinal, behavioural and structural factors that have a significant correlation with some types of substance use in some countries at some point in time. However, such statistical associations are far from deterministic, and there is hardly any such correlate of adolescent substance use that has not been found to be non-significant in some study. Furthermore, certain factors appear to have a positive association with substance use in some studies, but a negative association with such use in other studies. Given the methodological differences between studies, it is in most cases difficult to determine if such inconsistent patterns in the correlates of substance use reflect substantive or methodological differences.

The ESPAD study provides a unique opportunity to examine the patterns of association between substance use and various other factors. The ES-PAD data is collected according to a single research protocol and employs strictly comparable variables for cross-cultural comparisons. As in earlier studies, each country performs the statistical analysis needed for cross-national comparisons and files a standard country report with its results. This procedure limits the scope for this analysis somewhat, but the current comparison of raw correlations nevertheless offers a first glimpse of what could be achieved with a common database in future waves of the ESPAD project.

The following analysis examines the correlation between adolescent use of cigarettes, alcohol and cannabis on one hand, and various background factors on the other. The ESPAD study offers a wide variety of indicators of each type of substance use and patterns of correlation differ somewhat for different indicators. In the interest of simplicity, the correlations reported below are all based on frequency of lifetime use.

As discussed in the methodological chapter, the confidence intervals of ESPAD data do not take into account the clustered nature of the samples. Tests of statistical significance based on the assumption of simple random sampling will therefore provide a higher level of precision than would be obtained under the assumption of cluster sampling. In other words, associations that are found to be statistically significant with standard t-tests might not be significant if intracluster correlations were taken into account. In this section tests of statistical significance based on the assumption of simple random sampling are provided for general guidance, but they should be interpreted with considerable caution.

Parental education

Research has shown that educational attainment is associated with decreased smoking in particular, and somewhat less consistently with decreased alcohol consumption (Bjarnason, 2000). To the extent that educated parents are more knowledgeable about the dangers of adolescent substance use and communicate such information more effectively to their children, the educational attainment of parents should also be associated with less adolescent substance use. Interestingly, however, a number of earlier studies in various European countries (Glendinning, Shucksmith and Hendry, 1997; Morgan and Grube, 1989; Parker and Measham, 1994; Pedersen, 1990; Thorlindsson and Vilhjalmsson, 1991; Tuinstra et al., 1998) have failed to find any effects of parental education on adolescent substance use.

Contrary to these findings, the results of the 2003 ESPAD study suggest that there is some association between parental education and adolescent substance use, but this association is far from simple. As figures 61 and 62 show, the correlation between parental education and the use of ciga-





Figure 61. Use of cigarettes, alcohol and cannabis by father's education. *Filled bars: Significant correlations. Bars marked with lines: Non-significant correlations.*

Figure 62. Use of cigarettes, alcohol and cannabis by mother's education. *Filled bars: Significant correlations. Bars marked with lines: Non-significant correlations.* rettes, alcohol, and cannabis ranges from being significantly negative to being significantly positive across the 31 countries providing data on this association. Furthermore, none of the countries report a significant association between the education of both parents and all three substances. The education of the father is only significantly associated with all three types of substance use in the Isle of Man and the education of the mother only has such an association with all three types of substance use in Cyprus, the Netherlands and Switzerland.

Certain patterns do nevertheless emerge in these graphs. Cigarette use has a statistically significant negative correlation with parental education in 19 of the 31 reporting countries. A significant negative association was found with both mother's education and father's education in ten countries. Such a correlation was found with father's education only in five countries and with mother's education only in four countries. In contrast a significant positive correlation between cigarette smoking and father's education was only found in one country and between smoking and mother's education in two countries. The preponderance of the evidence thus points to a general, yet far from universal, pattern of parental education being associated with less smoking among European youths.

The evidence regarding parental education and adolescent alcohol use is much less clear. On the one hand, a significant *negative* correlation was found in eight of the 31 countries. In four of these countries the effect was found for both parents, in three for father's education only and in one for mother's education only. On the other hand, alcohol use has a significant *positive* correlation with parental education in 14 countries. This effect was found for both parents in nine countries, for father's education only in two countries and mother's education only in three countries. Six of the eight countries with a significant negative association were located in the northern part of Europe. In contrast seven of the 14 countries where a significant positive association was found are located in the eastern part of Europe, and the remaining seven are divided between Mediterranean countries and countries in the western part of Europe. The reason why parental education should operate in different ways in different countries and regions of Europe is unclear and warrants further research.

In the case of cannabis use a negative association with parental education was found in five countries. In two of these countries the negative association was found for the education of both parents, in two countries with father's education only and in one country with mother's education only. In contrast, a positive correlation was found between parental education and cannabis use in 12 countries. This correlation was found for the education of both parents in seven countries, with father's education only in one country and with mother's education only in four countries. No clear geographical patterns emerged in this context. The five countries with negative correlations include three countries in the northern part of Europe and two countries in the eastern part. The 12 countries with positive correlations include three Mediterranean countries, three in the western part of Europe, and five countries in the eastern part. Again, the reason for this inconsistent pattern of correlations between parental education and cannabis use calls for further research.

Overall, parental education has positive or nonsignificant associations only with different types of substance use in eight countries and negative or non-significant associations only in 10 countries. In 10 countries a mix of positive and negative associations was found, and in three no effects whatsoever were found for parental education. Tobacco use has the most consistent negative association with parental education. In the case of alcohol use and cannabis use there seems to be a certain tendency for negative effects to emerge in countries in the northern part of Europe and positive effects in countries in the eastern part.

Family structure

A large body of research in Europe and North-America has found that adolescents who reside with both biological parents are less likely to smoke cigarettes, drink alcohol, or use cannabis (see Bjarnason, 2000). While this research generally finds all types of substance use to be more prevalent among adolescents who live with a single parent, the evidence regarding the effect of living with one biological parent and a stepparent is somewhat less conclusive.

Research among adolescents in several European countries has found substance use among adolescents that live with one parent and a stepparent to be similar to such use among adolescents that live with a single parent (Adalbiarnardottir and Blondal, 1996; Bjarnason, Anderson, et al, 2003; Bjarnason, Davidaviciene, et al, 2003; Glendinning, Shucksmith and Hendry, 1997; Irgens-Jensen, 1991). However, some studies in North-America have found that the presence of a stepparent may counteract the effect of not living with both biological parents (Adlaf and Ivis, 1996; Amey and Albrecht, 1998; Thomas, Farrell and Barnes, 1996). It is not clear to what extent these differences in research findings reflect underlying causal or structural differences in the position of single or divorced parents in Europe and North-America.

The association between family structure and adolescent substance use in 29 reporting countries is shown in figures 63 and 64. These results shown are standardised regression coefficients where living with both biological parents serves as a reference category. For clarity of presentation the coefficients for living with a single parent and living with a stepparent are shown in separate graphs.

The results illustrate a rather consistent picture of the association between family structure and substance use among European youth. There were no countries where living with a single parent or a stepparent was associated with significantly lower use of tobacco, alcohol or cannabis. Living with a single parent was significantly and positively associated with increased tobacco use in 25 of the 29 reporting countries. Similarly, living with one parent and a stepparent was significantly and positively associated with increased tobacco use in 23 of the 29 reporting countries. There were only three countries where cigarette smoking was neither related to living with a single parent nor living with one parent and a stepparent. These results thus show a clear and consistent pattern of increased smoking among European adolescents that do not live with both biological parents, regardless of the presence of a stepparent.

The association between family structure and adolescent alcohol use was consistent with the association for cigarette smoking, but fewer significant coefficients were observed. Living with a single parent was associated with significantly more alcohol use in 12 of the 29 reporting countries. Living with one parent and a stepparent was associated with significantly more alcohol use in 15 of the 29 countries. Of the 10 countries that report no



Figure 63. Use of cigarettes, alcohol and cannabis by living with a single parent. *Filled bars: Significant correlations. Bars marked with lines: Non-significant correlations.*



Figure 64. Use of cigarettes, alcohol and cannabis by living with one parent and a stepparent. *Filled bars: Significant correlations. Bars marked with lines: Non-significant correlations.*

significant association between family structure and alcohol use, seven countries were in the eastern part of Europe, and one each in the northern, southern and western parts. The association between family structure and alcohol use thus appears to be variable between countries, and less likely to be observed in the eastern part of Europe than in other regions.

Finally, significantly more cannabis use was found among those who live with a single parent in 21 of the 29 countries. Similarly, such use was significantly higher among those who live with one parent and a stepparent in 22 of the 29 countries. There were only four countries where an association between family structure and cannabis use were not observed. These countries are all in the eastern part of Europe. Cannabis use thus appears to be higher among European adolescents that do not live with both biological parents.

These results seem to suggest that the association between family structure is dependent upon the type of family and type substance in question. Tobacco use was most clearly and consistently associated with living with either a single parent or a parent and a stepparent. Alcohol use was associated with living with a single parent in some countries, and with living with a parent and a stepparent in other countries. It was only associated with both in eight countries, while no association between family structure and alcohol use was found in ten countries, most of the latter hailing from the eastern part of Europe. Cannabis use falls somewhat in between the two previously discussed substances, with about two-thirds of the countries reporting a significant association with each type of family structure other than living with both parents, and all but four reporting an association with at least one type of non-intact family structure.

Economic situation

In most industrialised countries, lower economic and occupational status is associated with more smoking and alcohol use among adults (see Bjarnason, 2000). However, similar to parental education, the economic status of the family has generally not been found to be associated with adolescent substance use. There is nevertheless somewhat inconsistent evidence relating the socio-economic characteristics of residential neighbourhoods to adolescent substance use. Thus, research in the United States has tended to find substance use to be more prevalent in affluent, predominantly white towns and suburban neighbourhoods (Cronk and Sarvela, 1997; Ennett et al., 1997; Skager and Fisher, 1989), while research in England (Measham, 1996), Scotland (Glendinning, Shucksmith and Hendry, 1997) and Sweden (Hagquist, 1997) has found adolescent substance use to be positively associated with neighbourhood deprivation and proportion of blue-collar workers.

In the ESPAD project the socio-economic background of students was measured by asking how well off they think their families are compared to other families. In 24 of the 31 reporting countries this measure of a poor economic status had no relationship whatsoever with adolescent cigarette use (figure 65). Furthermore, a poor economic situation as suggested by this measure was not significantly related to *less* smoking in any of the 31 reporting countries. However, in the remaining seven countries adolescents who reported that their families were worse off economically compared to other families were also more likely to smoke cigarettes. Five of these countries were in the north of Europe and two were Mediterranean countries.

The findings were more mixed in relation to alcohol use. A poor economic status of the family was associated with significantly less drinking in eight of the reporting countries, and with significantly more drinking in six countries. In the remaining 17 countries there was no significant relationship between the reported economic status of the family and alcohol use among adolescents. There was no clear geographical pattern to these inconsistent results. Of the eight countries where poor economic status was associated with less drinking, two were located in the western, four in the eastern, one in the southern and one in the northern part of Europe. Of the six countries where the opposite correlation was observed, three were in the eastern part of Europe, one in the southern and two in the northern parts.



Figure 65. Use of cigarettes, alcohol and cannabis by poor economic situation of the family. *Filled bars: Significant correlations. Bars marked with lines: Non-significant correlations.*

Finally, a poor economic status of the family was associated with less cannabis use in seven countries. Two of these countries were in the western part of Europe, two in the eastern, two in the southern, and one in the northern part of Europe. Poor economic status was associated with more cannabis use in two countries, both of them in the northern part of Europe. In the remaining 22 countries there was no significant association between the economic status of the family and cannabis use. The preponderance of the evidence thus suggests that cannabis use is more prevalent in more affluent families in some European countries, but in the majority of countries there was no such association.

In general these findings suggest that cigarette use is either unrelated to economic status or more common in poorer families, while cannabis use shows the opposite tendency. Alcohol use showed an inconsistent pattern that warrants further investigation.

Parental control

Research on the effects of parenting styles on adolescent substance use has frequently distinguished between parental support, parental monitoring and parental rule-setting. In general, strong parental support has been found to be associated with less substance use among European youth (Foxcroft and Lowe, 1995; Shucksmith, Glendinning and Hendry, 1997; Thorlindsson and Vilhjalmsson, 1991). Similarly, research has generally found parental monitoring to be associated with less adolescent substance use (Adlaf and Ivis, 1996; Barnes and Farrell, 1992; Beck et al., 1999; Glendinning, Shucksmith and Hendry, 1997; Jackson, Hendriksen and Dickinson, 1999; Krohn et al., 1993; Mulhall, Stone and Stone, 1996; Reifman et al., 1998). In contrast, studies of parental rule-setting have either found no such association, net of other factors (Barnes and Farrell, 1992; Beck et al., 1999; Jackson, Hendriksen and Dickinson, 1999), or a positive association between rule-setting and substance use (Bjarnason, 200; Hundleby and Mercer, 1987; Reifman et al., 1998).

In the ESPAD study, students were asked if their parents know where they spend Saturday nights. The correlation between this single-item proxy measure of parental control and adolescent substance use is shown in figure 66. In 30 of the 31 reporting coun-





Filled bars: Significant correlations. Bars marked with lines: Non-significant correlations.



Figure 67. Use of cigarettes, alcohol and cannabis by truancy.

tries, adolescents used substantially and significantly more tobacco, alcohol and cannabis when their parents did not know where they spent Saturday nights. The only exception to this pattern was Greenland, where this association was weaker and the population smaller, resulting in non-significant findings. These results overwhelmingly support the conclusion that parental control is strongly associated with all types of substance use among European youth.

Truancy

Research in a variety of countries has rather consistently found adolescent substance use to be associated with higher levels of truancy and other measures of poor school performance (e.g. Arellano, Chaves and Deffenbacher, 1998; Costa, Jessor and Turbin, 1999; Ellickson et al., 1998; Thorlindsson et al., 1998). Furthermore, individual students are more likely to initiate substance use in schools where truancy is high and student commitment to school is low (Ennett et al., 1997; Hagquist, 1997).

Figure 67 shows the correlation between the number of days a student has skipped school in the past 30 days and the number of times he or she has used different types of substances. In each and every one of the 32 reporting countries a positive correlation was found between truancy and use of cigarettes, alcohol and cannabis. The strength of this association varies between substances and across countries, but it was statistically significant in all cases. It can therefore be concluded with considerable confidence that truancy is associated with increased use of cigarettes, alcohol and cannabis among European students.

Sibling substance use

Finally, substance use by siblings has been argued to be among the strongest predictors of adolescent substance use (Stormshak et al., 2004). The ES-PAD study provides an opportunity to examine the strength of this predictor across 31 reporting European countries.

In the ESPAD questionnaire, students were asked if their elder siblings use various substances. The response categories were "yes", "no", "don't know" and "don't have any older siblings". In the analysis



Figure 68. Use of cigarettes, alcohol and cannabis by sibling use.

shown in figure 68, only those students with older siblings were included. Following the argument that only sibling substance use known to the respondent can increase the probability of substance use initiation, this variable was coded 1: "yes", 2: "no" or "don't know". The correlations were calculated as standardised regression coefficients with sibling use of each substance as a binary independent variable, and the respondent's use as a continuos dependent variable.

The results show that having an elder sibling who uses a particular substance was associated with more use by the younger sibling. This significant positive association was found for cigarettes, alcohol and cannabis in all 31 countries, with the single exception of cannabis use not attaining statistical significance in the Faroe Islands. It can therefore be concluded that having an elder sibling who uses tobacco, alcohol or cannabis is associated with an increased use of those substances among European students.

Summary

The association between adolescent substance use and family background is complex and dependent upon the type of substance, the element of family background and the country under study. Parental education and the economic status of the family have a positive association with substance use in some countries, but a negative association in other countries. Living with both biological parents is not found to be associated with increased substance use in any country, but the relative impact of living with a single parent or a parent and a stepparent differs between countries. In some countries, there is no significant association between family background and some types of substance use. In contrast, such factors as lack of parental control, skip ping school, and having a sibling that uses various substances are almost universally associated with increased use of tobacco, alcohol, and cannabis.