



European Monitoring Centre  
for Drugs and Drug Addiction

**ESPAD**

The European School Survey Project on Alcohol  
and Other Drugs

# ESPAD Report 2015

Results from the European  
School Survey Project on  
Alcohol and Other Drugs

The ESPAD Group







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## **ESPAD Group**

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# Preface

This report presents the results of the sixth data-collection wave of the European School Survey Project on Alcohol and Other Drugs (ESPAD). The report marks the 20th anniversary of ESPAD data collection (1995-2015), which increases considerably the value of the information presented, allowing the identification of long-term trends with a standardised and comparable methodology.

This report is based on the information provided by 96 043 students from 35 European countries, 24 of them being Member States of the European Union. About 600 000 students have participated in the successive ESPAD data-collection waves, making the project the most extensive, harmonised data collection on substance use in Europe.

The immediate objective of ESPAD is to collect comparable and reliable information in as many European countries as possible, but the final purpose is to provide a solid basis to help formulate policies, in particular those aimed at young people.

The first ESPAD report, based on 1995 data, included information from 26 countries. The number of participating countries increased notably in the following waves of data collection. In the last two waves (2011 and 2015), the number of countries has stabilised at 35-36. A total of 46 countries have participated in at least one of the project's data-collection rounds.

ESPAD has a long history and a promising future. The project was initiated by the Swedish Council for Information on Alcohol and Other Drugs (CAN) following initial work carried out by the Pompidou Group of the Council of Europe. For 20 years CAN coordinated ESPAD with the support of the Swedish government. In recent years the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) has progressively increased its support to the network, and since 2013 it has been involved in the coordination of ESPAD. These developments have taken place at the instigation of the Swedish government and the EMCDDA Management Board, and in agreement with the ESPAD network. The EMCDDA is pleased now to have assumed responsibility for ensuring the production of this report and its accompanying website.

The results presented here are based on the substantial contribution of leading national experts, their collaborators and the institutions that supported and funded the data collection. The report would not have been possible without the contribution of many schools, teachers, research assistants and, notably, students who volunteered to give their time and information to the ESPAD project so that we can obtain a better understanding of European students' substance use and their attitudes towards it.

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# Summary



# Summary

The main purpose of the European School Survey Project on Alcohol and Other Drugs (ESPAD) is to collect comparable data on substance use among 15- to 16-year-old students in order to monitor trends within as well as between countries. Between 1995 and 2015, six surveys were conducted in 48 European countries. The present report differs from the earlier ESPAD reports in that it presents selected key results of the 2015 ESPAD survey rather than the full range of results and tables. The full set of data on which the current report is based, including all the usual tables in the familiar ESPAD format, is available online (<http://www.espad.org>). All of the tables can be downloaded in Excel format and used for further analysis.

The present report provides information on the perceived availability of substances, early onset of substance use and prevalence estimates of substance use (cigarettes, alcohol, illicit drugs, inhalants, new psychoactive substances and pharmaceuticals). The descriptive information includes indicators of intensive substance use and prevalence estimates of internet use, gaming and gambling by country and gender. Secondly, overall ESPAD trends between 1995 and 2015 are presented. For selected indicators, ESPAD trends are shown based on data from 25 countries that participated in at least four (including the 2015 data collection) of the six surveys. Finally, for some indicators, country-specific trends are shown.

In the 2015 ESPAD data collection, 96 043 students took part from 35 countries: Albania, Austria, Belgium (Flanders), Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, the Faroes, Finland, the former Yugoslav Republic of Macedonia, France, Georgia, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Malta, Moldova, Monaco, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Sweden and Ukraine. For comparative reasons, the tables of the 2015 ESPAD results contain, in addition to country-specific estimates, an average across all participating countries as well as prevalence estimates for two non-ESPAD countries: Spain and the United States. The instruments used in the Spanish and US surveys overlap to a large degree with the ESPAD questionnaire, and the methodology used in all three surveys allows for rough comparisons across the countries.

## Methodology

The ESPAD target population is defined as regular students who turn 16 in the calendar year of the survey and are present in the classroom on the day of the survey. Students

who were enrolled in regular, vocational, general or academic studies were included, excluding those who were enrolled in either special schools or special classes for students with learning disorders or severe physical disabilities. In each participating country, a cluster sampling design was used to sample the target population, except in the Faroes, Iceland, Liechtenstein, Malta, Monaco and Montenegro, where all 1999-born target students were included. Data were collected by self-administered questionnaires. All countries used a paper-and-pencil questionnaire except for Austria, Latvia, Liechtenstein and the Netherlands, where students answered a web-based questionnaire. The students answered the questionnaires anonymously in the classroom. All samples were nationally representative, apart from Belgium (Flanders), Cyprus (government-controlled areas) and Moldova (Transnistria region not included). Sample sizes varied from 316 students in Liechtenstein to 11 822 in Poland.

## Cigarette use

On average, over 60 % of the students in the participating countries replied that they would find it fairly or very easy (hereafter referred to as easy) to get hold of cigarettes if they wanted to. Students in the Czech Republic were most likely to find it easy (80 %), followed closely by Austria (79 %), Liechtenstein (77 %) and Denmark (76 %). Low figures of perceived availability were found in Moldova (22 %) and in three other countries in the eastern part of Europe: the former Yugoslav Republic of Macedonia (38 %), Romania (37 %) and Ukraine (39 %). Gender differences were negligible at the aggregate level (62 % for boys versus 60 % for girls).

More than one in five ESPAD students (23 %) had smoked cigarettes at the age of 13 or younger. The proportions vary considerably across countries, from 46 % in Estonia and 45 % in Lithuania to 9-13 % in the former Yugoslav Republic of Macedonia, Iceland, Malta and Norway. Both on average and in most individual countries, more boys than girls have smoked cigarettes at the age of 13 or younger. On average, 4 % of the students began smoking cigarettes on a daily basis at the age of 13 or younger. The rates were highest in Estonia and Slovakia (8 % each) and lowest in Norway (1 %).

In general, the results on cigarette smoking among European students can be interpreted as showing positive developments. Today, the majority of adolescents have never smoked (54 %) and less than one quarter (21 %) of the sample can be considered current smokers, i.e. having

smoked in the last 30 days. The average lifetime prevalence of cigarette smoking was about the same among boys (47 %) and girls (44 %). More than 10 % of the students reported that they had smoked every day in the last 30 days. Comparatively high percentages of daily smoking were found in Bulgaria, Croatia, Italy, Liechtenstein and Romania (20 % or more). Lower rates were observed in Albania, Iceland, Moldova and Norway (5 % and less).

The trend data indicate an overall decrease in lifetime, last-30-day and daily cigarette use. Moreover, gender differences have narrowed over time. In 1995, boys showed higher rates than girls with regard to all indicators. In 2015, these differences were no longer apparent or became smaller. However, gender convergence is more marked in prevalence of use, whereas problematic patterns of use (daily smoking, early onset) are still more prevalent among boys.

## Alcohol use

Alcoholic beverages were perceived to be easily available in most countries. More than three in four students (78 %) stated that alcoholic beverages would be easy to obtain if they wanted to. In the Czech Republic, Denmark and Greece, more than 90 % of the students reported easy access. The lowest proportions were found in Moldova (52 %), the former Yugoslav Republic of Macedonia (53 %) and Romania (60 %). In most countries, perceptions of availability among boys and girls were rather similar.

Nearly half of the students (47 %) reported alcohol use at the age of 13 or younger. The highest proportions were found in Georgia (72 %), the Czech Republic (68 %) and Cyprus (66 %). The countries with the lowest rates were Iceland (14 %) and Norway (19 %). Boys were more likely than girls to have used alcohol at an early age. One in twelve students had experienced intoxication at the age of 13 or younger. The proportion of students reporting intoxication at an early age varied quite substantially across countries: Georgia (22 %) and Estonia (15 %) were at the high end of the scale, and Iceland (2 %) and Belgium (Flanders) (3 %) were at the low end. Higher rates were more likely to be found in the eastern part of Europe.

In all ESPAD countries except Iceland (35 %), 50 % or more of the students have drunk alcohol at least once during their lifetime. The ESPAD average was 80 % (range: 35-96 %). The highest rates of lifetime alcohol prevalence (93 % or more) were found in the Czech Republic, Greece and Hungary. In addition to Iceland, countries with relatively low rates (60 % or less) were Albania, the former Yugoslav Republic of Macedonia and Norway. A total of 13 % of the students reported having been intoxicated during the last 30 days. Denmark scored highest, with almost one third of the

students (32 %). Countries with levels of 10 % or less were Albania, Estonia, the Faroes, the former Yugoslav Republic of Macedonia, Georgia, Greece, Iceland, Moldova, Montenegro, Norway, Portugal, Sweden and Ukraine. On average, slightly more boys (13 %) than girls (12 %) reported that they had been intoxicated during the last 30 days.

Students who reported alcohol use in the last 30 days drank alcohol on an average of 5.4 occasions. Students from Cyprus and Liechtenstein consumed alcohol on 8.2 and 9.1 occasions, respectively, and students from Estonia, Finland, Iceland, Lithuania, Moldova, Norway and Sweden drank alcohol on four or fewer occasions on average. In most countries, boys who drank did so more frequently than girls, with a difference of up to three occasions or more in the last 30 days in Bulgaria and the former Yugoslav Republic of Macedonia. Every third student (35 %) reported heavy episodic drinking in the past month. This drinking pattern was found more often in Austria, Cyprus and Denmark, where it was reported by about every second student. The lowest figures were found in Norway (19 %) and Iceland (8 %). The difference between boys and girls was about 5 percentage points on average, with generally higher percentages for boys. Students drank an average of 4.7 centilitres of ethanol on the last drinking day. Drinking volume was highest in Denmark (9.3 centilitres), Estonia (6.2 centilitres), Sweden (6.1 centilitres), Finland and Ireland (6.0 centilitres each), and lowest in Moldova (2.1 centilitres) and Romania (2.8 centilitres). Boys reported higher volumes than girls, with significant differences in most countries. On average, beer (35 %) and spirits (34 %) were the preferred alcoholic beverages. In Albania (68 %), Belgium (Flanders) (58 %), the former Yugoslav Republic of Macedonia (54 %), Romania (52 %) and Poland (52 %), more than half of the students preferred beer. Spirits were preferred in Malta (60 %), Portugal (53 %), Slovakia (53 %), France (48 %) and Monaco (48 %). A preference for wine was found in Ukraine (44 %), Moldova (41 %) and Georgia (39 %), and for alcopops in Liechtenstein (36 %). In Denmark, Estonia, the Faroes, Ireland, Norway and Sweden, cider accounted for approximately one quarter or more of total alcohol consumption. In these countries, cider was the second preferred alcoholic beverage next to beer or spirits.

Despite the continued high rates of alcohol use, in particular of heavy alcohol use, temporal trends over the past two decades indicate a positive development, with an overall decrease in lifetime and last-30-day use of alcohol between 1995 and 2015 from 89 % to 81 % and from 56 % to 47 %, respectively. Most interestingly, both lifetime and last-30-day prevalence decreased markedly after a peak in 2003. Unfortunately, changes in heavy episodic drinking were less pronounced and only observed among boys, with overall rates declining from 36 % to 35 % over the past 20 years.

## Illicit drug use

About three in ten students (30 %) rated cannabis to be easily available. In the Czech Republic (50 %), more students than in any other ESPAD country reported easy access. High proportions were also found in Slovenia (45 %), as well as in Bulgaria and Liechtenstein (44 % each). The countries with the lowest perceived availability of cannabis were Moldova (5 %) and Ukraine (11 %). Boys were more likely than girls to consider cannabis to be easily available (32 % versus 29 %).

The perceived availability of other illicit drugs was relatively low: ecstasy (12 %), cocaine (11 %), amphetamine (9 %), methamphetamine (7 %) and crack (8 %). In Bulgaria (e.g. amphetamine 23 %, methamphetamine 17 %), illicit drugs were perceived as more easily available than elsewhere in Europe. The perceived availability of ecstasy was highest in Bulgaria, the Czech Republic and Ireland (20 % or more), whereas for cocaine it was highest in Bulgaria, Ireland, Liechtenstein and Poland (17-19 %). Countries with the lowest perceived availability of nearly all illicit drugs were the Faroes, Finland, Georgia, Moldova and Ukraine.

On average, 3 % of the students reported that they had first used cannabis at the age of 13 or younger. The highest proportions were found in Monaco (8 %), France and Liechtenstein (6 % each). Rates of early onset of amphetamine/methamphetamine use were lower (1 % on average), with the highest proportions in Bulgaria (3 %) and Cyprus (2 %). Boys were more likely than girls to have used cannabis, amphetamine/methamphetamine, ecstasy or cocaine/crack at the age of 13 or younger.

Lifetime use of illicit drugs varied considerably across the ESPAD countries. In the Czech Republic, 37 % of the students reported having used any illicit drug at least once, which was more than twice the average of 18 %. Students in Bulgaria, France, Liechtenstein and Monaco also exhibited high levels of drug use experience (30-32 %). Particularly low levels (10 % or less) of illicit drug use were noted in Albania, Cyprus, the Faroes, Finland, the former Yugoslav Republic of Macedonia, Iceland, Moldova, Montenegro, Norway, Sweden and Ukraine. In all ESPAD countries apart from the Czech Republic, prevalence rates were higher among boys than girls. On average, 21 % of boys and 15 % of girls have tried illicit drugs at least once during their lifetime.

A general upward trend between 1995 and 2003 can be seen in the prevalence of illicit drug use. Since 2003, the prevalence has remained largely unchanged.

The most prevalent illicit drug in all ESPAD countries was cannabis. On average, 16 % of the students have used cannabis at least once in their lifetime. The country with the highest prevalence was the Czech Republic (37 %).

High prevalence rates (30 % or more) were also reported in France, Liechtenstein and Monaco. The lowest levels of cannabis use (4-7 %) were reported in Albania, Cyprus, the Faroes, the former Yugoslav Republic of Macedonia, Iceland, Moldova, Norway and Sweden. On average, more boys than girls reported lifetime cannabis use (19 % versus 14 %). On average, 7 % of the students had used cannabis in the last 30 days. Cannabis use in the last month was highest in France (17 %), Italy (15 %) and the Czech Republic (13 %). Cannabis use in the last 30 days was also reported by more boys than girls (8 % versus 5 %). Among students who had used cannabis in the last 12 months, the drug was used on average on 8.9 occasions, with higher frequencies in France, Iceland, Ireland, Italy and the Netherlands (11.5 or more times). Low frequencies of cannabis use were found in the Faroes and Moldova (3.6 or fewer times). Reported frequency of use was higher among boys than among girls.

Trends in cannabis use indicate a general increase in both lifetime and last-30-day use between 1995 and 2015, from 11 % to 17 % and from 4 % to 7 %, respectively, with prevalence peaking in 2003 and slightly decreasing thereafter.

On average, 1-2 % of the ESPAD students have used an illicit drug other than cannabis at least once. After cannabis, the most frequently tried illicit drugs are ecstasy, amphetamine, cocaine and LSD or other hallucinogens. Less frequently tried illicit drugs were methamphetamine, crack, heroin and GHB (1 % lifetime prevalence). At the country level, rates of 5 % or more were found in Bulgaria (ecstasy, amphetamine, methamphetamine, cocaine) and Poland (LSD or other hallucinogens).

## Other substance use

Across the ESPAD countries, 4 % of the students reported lifetime experience with new psychoactive substances (NPS), with the highest rates in Estonia and Poland (10 % each) and the lowest rates in Belgium (Flanders), Denmark, Finland, Norway and Portugal (1 % each). The average prevalence of lifetime use of NPS was slightly higher among boys (5 %) than girls (4 %). On average, 3 % of the students had used NPS in the last 12 months, with the highest prevalence in Bulgaria, Croatia, Estonia, Ireland, Italy and Poland (5-8 %) and lowest in Belgium (Flanders), Denmark, the Faroes, Finland, the former Yugoslav Republic of Macedonia, Moldova, the Netherlands, Norway and Portugal, all at 1 %. Generally, differences in NPS use in the last 12 months between boys and girls were small.

The average prevalence of lifetime inhalant use was 7 %, with large differences between countries. The country with the highest rate was Croatia (25 %), followed by Slovenia



(14 %). The lowest prevalence rates (1-2 %) were found in the Faroes, the former Yugoslav Republic of Macedonia and Moldova. The average prevalence of lifetime inhalant use among ESPAD students was the same for boys and girls. The use of inhalants shows generally stable lifetime prevalence rates over the observed period. The gender-specific trends reveal a narrowing of the gender gap, with rates among boys slightly decreasing but rather unchanged rates among girls.

Lifetime use of tranquillisers or sedatives without prescription was most prevalent in Poland (17 %) and the Czech Republic (16 %). The lowest level of non-prescription use of tranquillisers or sedatives (1-2 %) was reported by students from Denmark, the Faroes, Moldova, Romania and Ukraine. On average, slightly more girls than boys reported use of tranquillisers or sedatives without prescription (8 % versus 5 %). Use of painkillers to get high was reported by 4 % of the girls and 3 % of the boys on average. Over the past two decades, the lifetime prevalence rates for tranquillisers or sedatives show a slightly downward trend, with rather parallel trends for boys and girls.

## Conditional probabilities of substance use

Among the users across all countries who have used cigarettes at least once, 93 % have also used alcohol, 32 % cannabis, 12 % inhalants, 10 % tranquillisers or sedatives and 8 % NPS. Almost every student (87 % or more) that has used a licit or illicit substance also reported having used alcohol. Conversely, not every student who has tried alcohol has tried another substance. Among students who have used alcohol, 54 % have also used cigarettes, 19 % cannabis, 9 % inhalants, 7 % tranquillisers or sedatives and 5 % or less NPS or other illicit drugs. Of the students that have used cannabis, 91 % have also used cigarettes, 96 % alcohol, 18 % inhalants, 20 % NPS and 16 % tranquillisers or sedatives. Around one in ten has used ecstasy, cocaine, LSD or other hallucinogens (11 % each), painkillers (10 %) or amphetamines (9 %). Among the students who have used NPS, about a quarter have also used inhalants (26 %) or tranquillisers or sedatives (25 %) and around three quarters (74 %) have used cannabis.

## Internet use, gaming, gambling

Overall, the students stated that they had used the internet on average on 5.8 days within the last 7 days. The frequency of use was lower in Albania, Bulgaria, the former Yugoslav Republic of Macedonia, Georgia, Montenegro, Romania and Ukraine. Students in Denmark (6.8 days), Iceland (6.7 days), Finland, the Netherlands, Sweden (6.6 days each) and Estonia (6.5 days) were online every day of the week. No gender differences were observed. On average,

78 % of the students had used the internet for social media activities on 4 or more days in the last week and this was the predominant internet activity in all countries, with between 58 % (Albania) and 94 % (Finland) of students reporting this activity.

More than one in five students (23 %) regularly (at least four times in the last 7 days) used the internet for online gaming. Nearly half of the students from Denmark played regularly online (45 %). Regular online games were not so common in Georgia (13 %), the former Yugoslav Republic of Macedonia and Moldova (16 % each). More boys (39 %) than girls (7 %) reported playing online.

On average, 14 % of the students reported gambling for money at least once in the last 12 months, and 7 % gambled frequently (2-4 times a month or more often). The highest rates of students with gambling experience (30 %) and frequent gambling (16 %) in the last 12 months were found in Greece. Between a fifth and a quarter of the students in Cyprus, Finland, Montenegro and Slovenia reported gambling experience, and more than one in ten students in Finland and Ireland gambled frequently. In all countries, considerably more boys than girls have gambling experience (23 % versus 5 % on average) or gambled frequently (12 % versus 2 %) in the last 12 months.

### Acknowledgements

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# Introduction



# Introduction

Young people's well-being is of special concern in all societies and there are constant efforts to reduce all types of dangerous behaviour. These include consumption of tobacco, alcohol, illicit drugs and the use of non-prescribed pharmaceuticals, as well as extensive internet use, gaming and gambling. All countries have laws in place that restrict the availability of psychoactive substances and access to gambling activities. The legal framework may vary between countries but often includes restrictions specially meant to protect young people. Moreover, major international bodies such 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, for example the global strategy to reduce the harmful use of alcohol (World Health Organisation, 2014), the WHO Framework Convention on Tobacco Control (World Health Organisation, 2005), the European drugs strategy (Council of the European Union, 2012; Culley et al., 2012), or the European alcohol strategy (COWI Consortium, 2012).

Over the years, many studies have been conducted to improve the understanding of consumption patterns. However, despite the significant number of studies conducted in many countries, it has remained difficult to obtain a comprehensive picture of substance use in different European countries, especially of patterns of use among young people. With the launch of the European School Survey Project on Alcohol and Other Drugs (ESPAD) in 1995, data on substance use and risky behaviours became available that serve as a basis for the monitoring of substance use in Europe, as well as for analysing the risk factors, protective factors and time trends of such behaviours.

The main purpose of the ESPAD project is to collect comparable data on substance use among 15- to 16-year-old students in as many European countries as possible. The target group consists of students who turn 16 during the year of data collection, which in 2015 meant students born in 1999. The surveys are conducted in schools in the participating country, during the same period of time and using a common methodology. The ESPAD project provides comparable data in databases that have been and will be used by the research community for in-depth analyses to increase the understanding of substance use among European students (see <http://www.espad.org/en/References--Literature>).

Because of its common methodology, analyses based on ESPAD data have substantially contributed to the field of substance use. For instance, studies have been conducted on validity issues (Gmel et al., 2010; Molinaro et al., 2012; Steppan et al., 2013), methodological (Thrul et al., 2016) and theoretical issues (Brunborg et al., 2014), substance use policies (Bjarnason et al., 2010; Müller et al., 2010), risk and

resilience factors (Kraus et al., 2010; Vorobjov et al., 2014), polysubstance use (Kokkevi et al., 2012; Mammone et al., 2014; Olszewski et al., 2010), attitudes (Beck et al., 2014) and risk perceptions (Piontek et al., 2013). In addition, ESPAD results have been used for the development of international action plans and strategies related to alcohol and other drugs and as such have impacted on public discussion and served as a basis for policy measures and preventive activities targeting young people.

Although the comparison of cross-sectional data on substance use across similar populations in countries of various social, economic and cultural origins is important, the possibility of investigating temporal changes across the majority of European countries is quite unique. The ESPAD project provides data that can be used to monitor trends in substance use among students in Europe and to compare trends between countries and between groups of countries (Fotiou et al., 2014; Molinaro et al., 2011). With the 2015 survey, ESPAD data cover substance use behaviours of 15- to 16-year-old students over a period of 20 years. Since 1995, when information on substance use was collected in 26 countries (Hibell et al., 1997), the survey has been repeated every fourth year in the same age group. In the second wave, in 1999, data were collected in 30 countries (Hibell et al., 2000), and the surveys of 2003 and 2007 covered 35 countries each (Hibell et al., 2004, 2009), with an additional five countries collecting data in 2008. The number of participating countries in the 2011 survey was 36 (Hibell et al., 2012), with three more countries collecting data in the autumn (Hibell and Guttormsson, 2013), and 35 countries collected data in the most recent (2015) survey.

## Background to ESPAD

In the 1980s, a subgroup of collaborating investigators was formed within the Pompidou Expert Committee on Drug Epidemiology of the Council of Europe to develop a standardised school-survey questionnaire and methodology. The purpose of the work was to produce a standard survey instrument that would enable different countries to compare alcohol and drug use in student populations. A common questionnaire was used by eight countries, but the pilot study differed in sample size, representativeness and age range, and was not performed at the same time. The survey instrument, however, proved to be valid and reliable (Johnston et al., 1994). With the exception of Sweden, where school surveys had already been conducted on an annual basis since 1971, only a few countries conducted school surveys related to substance use on a more or less regular basis. In light of a growing

**Table 1.** Overview of countries participating in ESPAD. 1995-2015

Country	Principal investigator	1995	1999	2003	2007	2011	2015
Albania	Ervin Toçi	.	.	.	.	Yes	Yes
Armenia	Artak Musheghyan	.	.	.	Yes	.	.
Austria	Julian Strizek; Alfred Uhl	.	.	Yes	Yes	.	Yes
Belgium (Flanders)	Patrick Lambrecht	.	.	Yes	Yes <sup>a</sup>	Yes <sup>b</sup>	Yes <sup>b</sup>
Belgium (Wallonia)	Danielle Piette	.	.	Yes	.	.	.
Bosnia and Herzegovina (FBiH)	Aida Pilav	.	.	.	Yes <sup>c</sup>	Yes <sup>a</sup>	.
Bosnia and Herzegovina (RS)	Sladjana Siljak	.	.	.	Yes <sup>c</sup>	Yes	.
Bulgaria	Anina Chileva	.	Yes	Yes	Yes	Yes	Yes
Croatia	Iva Pejnović Franelić	Yes	Yes	Yes	Yes	Yes	Yes
Cyprus	Kyriakos Veresies	Yes	Yes	Yes	Yes	Yes	Yes
Czech Republic	Ladislav Csémy	Yes	Yes	Yes	Yes	Yes	Yes
Denmark	Mette Vinther Skriver	Yes	Yes	Yes	Yes	Yes	Yes
Estonia	Sigrid Vorobjov	Yes	Yes	Yes	Yes	Yes	Yes
Faroese	Pál Weihe	Yes	Yes	Yes	Yes	Yes	Yes
Finland	Kirsimarja Raitasalo	Yes	Yes	Yes	Yes	Yes	Yes
FYR Macedonia <sup>e</sup>	Silvana Oncheva	.	Yes	.	Yes <sup>c</sup>	.	Yes
France	Stanislas Spilka	.	Yes	Yes	Yes	Yes	Yes
Georgia	Lela Sturua	.	.	.	.	.	Yes <sup>a</sup>
Germany	Ludwig Kraus	.	.	6 Bundesl.	7 Bundesl.	5 Bundesl.	.
Greece	Anna Kokkevi	.	Yes	Yes	Yes	Yes	Yes
Greenland	Vacant	.	Yes	Yes	.	.	.
Hungary	Zsuzsanna Elekes	Yes	Yes	Yes	Yes	Yes	Yes
Iceland	Ársæll Már Arnarsson	Yes	Yes	Yes	Yes	Yes	Yes
Ireland	Luke Clancy	Yes	Yes	Yes	Yes	Yes	Yes
Isle of Man	Andreea Steriu	.	.	Yes	Yes	Yes <sup>d</sup>	.
Italy	Sabrina Molinaro	Yes	Yes	Yes	Yes	Yes	Yes
Kosovo (under UNSCR 1244)	Mytaher Haskuka	.	.	.	.	Yes <sup>a</sup>	.
Latvia	Marcis Trapencieris	Yes	Yes	Yes	Yes	Yes	Yes
Liechtenstein	Esther Kocsis	.	.	.	.	Yes	Yes
Lithuania	Liudmila Rupšienė	Yes	Yes	Yes	Yes	Yes	Yes
Malta	Sharon Arpa	Yes	Yes	Yes	Yes	Yes	Yes
Moldova	Mihai Ciocanu	.	.	.	Yes <sup>c</sup>	Yes	Yes
Monaco	Stanislas Spilka	.	.	.	Yes	Yes	Yes
Montenegro	Tatijana Djuricic	.	.	.	Yes <sup>c</sup>	Yes	Yes
Netherlands	Karin Monshouwer	.	Yes	Yes	Yes	Yes <sup>a</sup>	Yes <sup>a</sup>
Norway	Elin K. Bye	Yes	Yes	Yes	Yes	Yes	Yes
Poland	Janusz Sieroslawski	Yes	Yes	Yes	Yes	Yes	Yes
Portugal	Fernanda Feijão	Yes	Yes	Yes	Yes	Yes	Yes
Romania	Silvia Florescu	.	Yes	Yes	Yes	Yes	Yes
Russia	Eugenia Koshkina	.	Moscow	Moscow	Yes	Moscow	.
Serbia	Spomenka Ciric-Jankovic	.	.	.	Yes <sup>c</sup>	Yes	.
Slovakia	Alojz Nociar	Yes	Yes	Yes	Yes	Yes	Yes
Slovenia	Tanja Urdih Lazar	Yes	Yes	Yes	Yes	Yes	Yes
Sweden	Håkan Leifman	Yes	Yes	Yes	Yes	Yes	Yes
Switzerland	Gerhard Gmel	.	.	Yes	Yes	.	.
Turkey	Nesrin Dilbaz	Istanbul	.	6 cities	.	.	.
Ukraine	Olga Balakireva	Yes	Yes	Yes	Yes	Yes	Yes
United Kingdom	Mark Bellis	Yes	Yes	Yes	Yes	Yes	.

<sup>a</sup> Data collected in autumn. <sup>b</sup> Data collected in previous autumn. <sup>c</sup> Data collected in spring 2008. <sup>d</sup> Data collected but not delivered.

<sup>e</sup> Official name former Yugoslav Republic of Macedonia.

interest in school surveys in general and cross-country comparisons in particular, 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 conducting simultaneous school surveys on tobacco, alcohol and drug use in association with the Pompidou Group. This enterprise resulted in the first ESPAD study in 1995.

In 2008, a cooperation framework was set up between the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) and ESPAD. This framework was meant to deepen the collaboration that had already existed on an ad hoc basis since the mid 1990s. ESPAD data have been regularly included in the EMCDDA's annual reporting on the drug situation in Europe. These data have provided crucial information on substance use among 15- to 16-year-old students, allowing trends over time to be assessed. The areas of collaboration covered in the cooperation framework included: (1) the integration of the ESPAD approach into the broader data-collection system at EU level; (2) the encouragement of countries' participation in ESPAD; (3) an agreement on analytical use of ESPAD data, by placing them in the context of EMCDDA data; and (4) contact between ESPAD experts and those working within the EMCDDA. Furthermore, it was agreed to enhance the exchange of information and expertise, improve the availability, quality and comparability of school survey data and gain maximum analytical insight from data available in this area (see [http://www.espad.org/Uploads/Documents/EMCDDA\\_Cooperation\\_Agreement-2008.pdf](http://www.espad.org/Uploads/Documents/EMCDDA_Cooperation_Agreement-2008.pdf)).

ESPAD still is and will continue to be an independent research project owned by the researchers involved. The main researcher in each participating country is appointed by ESPAD and is referred to either as a 'principal investigator' (PI) or as an 'ESPAD contact person'. Each of them should raise funds in his or her country and participate in ESPAD and the general assemblies independently and at his or her own expense. The data collected in the framework of the project are owned by each country independently (see Acknowledgements). The PI or contact person is responsible for the use of his or her national data set. Table 1 gives an overview of data that have been collected since 1995 in participating countries and the responsible persons.

## ESPAD Report 2015

This report presents the key results of the 2015 ESPAD surveys that have been conducted in 35 countries: Albania, Austria, Belgium (Flanders), Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, the Faroes, Finland, the former Yugoslav Republic of Macedonia, France, Georgia, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Malta, Moldova, Monaco, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Sweden and Ukraine. Firstly, the present report provides information on the availability of substances, early onset of substance use and prevalence estimates of substance use (cigarettes, alcohol, cannabis, illicit drugs, inhalants, new psychoactive substances and pharmaceuticals). The descriptive information also includes indicators of intensive substance use and prevalence estimates of internet use, gaming and gambling by country and gender. Secondly, overall ESPAD trends between 1995 and 2015 are presented. For selected indicators, ESPAD trends are shown based on data from 25 countries that participated in at least four (including the 2015 data collection) of the six surveys. Finally, for some indicators, country-specific trends are shown. For comparative reasons the tables of the 2015 ESPAD results contain, in addition to country-specific estimates, an unweighted average across all participating countries as well as prevalence estimates for Spain and the United States, which are both non-ESPAD countries. Data for Spain come from the Spanish national school survey collected between November 2014 and April 2015 (Spanish Observatory on Drugs and Drug Addiction, 2016a, b), and the US data stem from the 2015 'Monitoring the future' project (Johnston et al., 2016). The instruments used in the Spanish and US surveys overlap to a large degree with the ESPAD questionnaire, and the methodology used in all three surveys allows for rough comparisons across the countries. Many of the ESPAD questions were originally taken from the 'Monitoring the future' study.

# Methodology



# Methodology

## ESPAD 2015

### Sample

The ESPAD target population is defined as students who turn 16 in the calendar year of the survey and are present in the classroom on the day of the survey. Students who were enrolled in regular, vocational, general or academic studies were included, excluding those who were enrolled in either special schools or special classes for students with learning disorders or severe physical disabilities. Table 2 shows the main sample characteristics. The methods are largely comparable in all countries, although there are characteristics, for example sample type, mode of administration or time of data collection, that may differ between countries.

In each participating country, a cluster sampling design was used to sample the target population, except in the Faroes, Iceland, Liechtenstein, Malta, Monaco and Montenegro, where all 1999-born target students were included. Data were collected by self-administered questionnaires. All countries used a paper-and-pencil questionnaire, except for Austria, Latvia, Liechtenstein and the Netherlands, where students answered a web-based questionnaire. Based on a methodological study in Latvia, only small differences in students' responses to online and traditional paper-and-pencil questionnaires were found (Trapencieris, 2013), and comparability was considered satisfactory. The students answered the questionnaires anonymously in the classroom, with teachers or research assistants functioning as survey leaders. The questionnaires were provided by school staff (18 countries), teachers (13 countries) or research assistants (four countries). In the majority of countries, data collection took place between February and May 2015, except for Belgium (Flanders), where data were collected 6 months earlier (autumn 2014), and Georgia and the Netherlands, where data were collected 6 months later (autumn 2015). In most countries, class was the last unit in a multistage stratified sampling process.

All samples were nationally representative, except for Belgium (only the Dutch-speaking part, Flanders), Cyprus (only government-controlled areas) and Moldova (Transnistria region not included). Sample sizes varied between 316 in Liechtenstein and 11 822 in Poland. In 2015, data on 96 043 students were collected in 35 countries covering 2.9 % of the population of adolescents born in 1999. The school participation rate (share of selected schools taking part in the survey) ranged from 21 % to 100 % and the class participation rate (share of selected classes participating)

varied between 17 % and 100 %. The proportion of students of selected classes that were present on the day of the survey and answered the questionnaire was high (80-84 %). At the time of data collection, students were on average 15.8 years old, with country means varying between 15.7 and 16.4 years. The coverage of students was very high, with 30 countries reaching 90 % of the target population or more. Lower rates were reported in Denmark (78 %) and Georgia (73 %). Data were weighted in 11 countries to account for the cluster sampling design and/or to adjust the sample to the sociodemographic composition of the target population.

### Measures

The questionnaire covers young people's awareness of and experience with different licit and illicit substances, internet, gaming and gambling with money. The questions are designed to collect information on the use of psychoactive substances and the use of the internet for various activities in the lifetime, the last 12 months, the last 30 days or the last week previous to the survey, and consumption patterns such as frequency or quantity (e.g. volume, hours).

### Availability of substances

The perceived availability of substances is a proxy measure for how easy or difficult it is for students to get a particular substance (cigarettes, alcohol or illicit drugs). Students were asked how easy they estimate it would be to get hold of particular substances within 24 hours if they wanted to. The response categories were 'impossible', 'very difficult', 'fairly difficult', 'fairly easy', 'very easy' and 'don't know'. The proportions of students in each country answering 'fairly easy' or 'very easy' were merged to indicate easy availability. Availability of each type of different alcoholic beverage (beer, wine and spirits) was evaluated separately. If considered relevant, countries included optional beverages such as cider or alcopops in the questionnaire.

### Age of first substance use

Students were asked how old they were when they used a particular substance for the first time, started to use it on a daily basis (cigarettes) or experienced excessive use (alcohol intoxication). The response categories ranged from '9 years old or less' to '16 years or older', in increments of 1 year, and 'never'. An age of initiation of 13 years or younger was taken as an indicator of early onset.



### Cigarette use

Students were asked on how many occasions they had ever smoked cigarettes, with the response categories being '0', '1-2', '3-5', '6-9', '10-19', '20-39' and '40 or more'. Quantity of cigarette use in the last 30 days was also collected. The response categories 'not at all', 'less than 1 cigarette per week', 'less than 1 cigarette per day', '1-5 cigarettes per day', '6-10 cigarettes per day', '11-20 cigarettes per day' and 'more than 20 cigarettes per day'. Lifetime prevalence (any use) and prevalence of daily use (at least 1-5 cigarettes per day) were calculated. Daily use of cigarettes was considered as having smoked a minimum of one cigarette each day.

### Alcohol use

Students were asked on how many occasions they had consumed alcoholic beverages and had been intoxicated in their lifetime and during the last 30 days. The response categories '0', '1-2', '3-5', '6-9', '10-19', '20-39' and '40 or more'. The average number of occasions was calculated as the average based on the mean value of each response category, for example 29.5 for the category '20-39'. For the category '40 or more', the value 41 was used. Prevalence of any use (lifetime, last-30-day) and prevalence of experiencing any intoxication were also calculated ( $\geq 1-2$  times). Moreover, heavy episodic drinking is defined as drinking a minimum of five alcoholic beverages on one occasion at least once in the last 30 days, which corresponds to a cut-off of approximately 9 centilitres of pure alcohol. The volume of alcohol intake was calculated as the total volume of pure ethanol summed across different alcoholic beverages (beer, wine, spirits, alcopops and cider).

### Illicit drug use

To measure lifetime experience with illicit drugs, students were asked on how many occasions they had tried different drugs in their lifetime, with the response categories being '0', '1-2', '3-5', '6-9', '10-19', '20-39' and '40 or more'. Frequency of use was asked for cannabis (marijuana or hashish), ecstasy, amphetamine, methamphetamine, cocaine, crack, LSD or other hallucinogens, heroin and GHB (gamma-hydroxybutyrate). The average number of occasions using cannabis was calculated as the average based on the mean value of each response category, for example 29.5 for the category '20-39'. For '40 or more' the value 41 was used.

### Inhalant use

Students were asked how often they had used inhalants in their life, with the response categories being '0', '1-2', '3-5',

'6-9', '10-19', '20-39' and '40 or more'. Prevalence of any use of inhalants was based on intake on at least one occasion.

### New psychoactive substance use

New psychoactive substances (NPS) were defined as 'substances that imitate the effects of illicit drugs such as cannabis or ecstasy and are sometimes called "legal highs", "ethnobotanicals" or "research chemicals" and can come in different forms (herbal mixtures, powders, crystals or tablets)'. Students were asked how often they had used NPS in their life, with the response categories being '0', '1-2', '3-5', '6-9', '10-19', '20-39' and '40 or more'. Prevalence of any use of NPS was based on intake on at least one occasion.

### Pharmaceutical use

To measure lifetime experience of use of pharmaceuticals, students were asked on how many occasions they had used tranquillisers or sedatives without a doctor's prescription, anabolic steroids or painkillers in order to get high, with the response categories being '0', '1-2', '3-5', '6-9', '10-19', '20-39' and '40 or more'. Prevalence of any use was based on intake on at least one occasion.

### Conditional probabilities of substance use

Conditional prevalence rates were calculated as the prevalence of use of one substance conditional on the use of another substance. This analysis is based on substance users across all countries. It is neither assumed that the use of a particular substance has occurred before the use of another substance nor assumed that the use of a substance is caused by the use of another substance.

### Internet use, gaming and gambling

To assess patterns of internet use, including online gaming and gambling (online and offline), students were asked on how many of the last 7 days had they used the internet, and how many hours had they spent on the internet on an average day on which they had used the internet. This information was asked for various online activities such as social media (communicating with others), searching for information, streaming or downloading music, buying/selling, gaming (which is defined for the purpose of this study as playing games) and gambling for money. Based on that, the average number of days using the internet and the prevalence of using the internet at least four times for each of these activities in the last 7 days (also referred to as regular use) was calculated. Gambling for money was

**Table 2.** Sampling characteristics of ESPAD 2015

Country	Geographic coverage	Data collection mode	Sample type	Sampling unit(s)	Data weighted	Student representativeness (%) <sup>a</sup>	Class participation rate (%) <sup>b</sup>	Students' presence rate (%) <sup>c</sup>	Mean age <sup>d</sup>	<i>n</i>
<b>Albania</b>	National	Pen and paper	Stratified random	School/class	No	95	100	94	15.9	2 553
<b>Austria</b>	National	Web survey	Proportionate random	School/class	Yes	90	17 <sup>e</sup>	90	15.9	3 684
<b>Belgium<sup>f</sup></b>	Flanders <sup>g</sup>	Pen and paper <sup>h</sup>	Stratified random	School/class	Yes	94	56 <sup>i</sup>	94	15.8	1 771
<b>Bulgaria</b>	National	Pen and paper	Simple random	Class	No	99	98	84	16.0	2 922
<b>Croatia</b>	National	Pen and paper	Stratified simple random	School/class	No	94	98	89	15.7	2 558
<b>Cyprus</b>	National <sup>j</sup>	Pen and paper	Stratified random	Class	No	>90	85	n.a.	15.8	2 098
<b>Czech Republic</b>	National	Pen and paper	Stratified random	School/class	Yes	>95	96 <sup>i</sup>	83	16.0	2 738
<b>Denmark</b>	National	Pen and paper	Stratified simple random	School/class	No	78 <sup>k</sup>	26 <sup>i</sup>	88	15.8	1 670
<b>Estonia</b>	National	Pen and paper	Stratified random	School/class	No	97 <sup>l</sup>	90	83	15.7	2 452
<b>Faroese</b>	National	Pen and paper	Total	No sample	No	88	100	92	15.7	511
<b>Finland</b>	National <sup>m</sup>	Pen and paper	Stratified random	School/class	No	93	85	89	15.8	4 049
<b>FYR Macedonia<sup>w</sup></b>	National	Pen and paper	Systematic random	Class	No	92 <sup>q</sup>	98	88	15.8	2 428
<b>France</b>	National <sup>n</sup>	Pen and paper	Stratified random	School/class	Yes	94	93	87	15.9	2 714
<b>Georgia<sup>o</sup></b>	National	Pen and paper	Proportionate simple random	School/class	No	73	98	86	16.4	1 966
<b>Greece</b>	National	Pen and paper	Stratified random	Class	Yes	91	95	92	15.8	3 202
<b>Hungary</b>	National	Pen and paper	Stratified random	Class	Yes	97	93	85	15.7	2 735
<b>Iceland</b>	National	Pen and paper	Total	No sample	No	96	79	86	15.8	2 663
<b>Ireland</b>	National	Pen and paper	Stratified systematic random	School/class	No	98	18 <sup>e</sup>	86	15.9	1 470
<b>Italy</b>	National	Pen and paper	Stratified proportionate random	Class	No	99	85	88	15.7	4 059
<b>Latvia</b>	National	Web survey	Stratified random cluster sampling	Class	Yes	95 <sup>p</sup>	42	85	15.9	1 119
<b>Liechtenstein</b>	National	Web survey	Total	No sample	No	~99	100	93	15.7	316
<b>Lithuania</b>	National	Pen and paper	Stratified random	School/class	No	85	99	88	15.7	2 573
<b>Malta</b>	National	Pen and paper	Total	No sample	No	93	98	83	15.7	3 326
<b>Moldova</b>	National <sup>r</sup>	Pen and paper	Simple random	Class	No	90	100	87	15.9	2 586
<b>Monaco</b>	National	Pen and paper	Total	No sample	No	~99	100	91	15.8	397

Country	Geographic coverage	Data collection mode	Sample type	Sampling unit(s)	Data weighted	Student representativeness (%) <sup>a</sup>	Class participation rate (%) <sup>b</sup>	Students' presence rate (%) <sup>c</sup>	Mean age <sup>d</sup>	<i>n</i>
Montenegro	National	Pen and paper	Proportionate simple random	Student	No	94	100	87	15.9	3 844
Netherlands <sup>o</sup>	National	Web survey	Stratified simple random	School/class	Yes	94	43 <sup>i</sup>	90	15.9	1 684
Norway	National	Pen and paper	Stratified random	School/class	Yes	98 <sup>s</sup>	53	93	15.8	2 584
Poland	National	Pen and paper	Stratified random	School/class	Yes	95	94	83	16.0	11 822
Portugal	National <sup>t</sup>	Pen and paper	Stratified systematic random	Class	No	86 <sup>q</sup>	96	93	15.9	3 456
Romania	National	Pen and paper	Systematic random	School/class	No	91 <sup>s</sup>	100	84	15.9	3 500
Slovakia	National	Pen and paper	Stratified proportional random	School/class	No	98	100	89	15.8	2 208
Slovenia	National	Pen and paper	Stratified random	Class	No	94	99	88	15.8	3 484
Sweden	National	Pen and paper	Simple random	School/class	No	95	83	86	15.7	2 551
Ukraine	National <sup>u</sup>	Pen and paper	Stratified systematic random	School/class	Yes	92	98	80	16.0	2 350
<b>AVERAGE or SUM</b>						<b>93</b>	<b>87<sup>v</sup></b>	<b>88</b>	<b>15.8</b>	<b>96 043</b>

<sup>a</sup> Proportion of ESPAD target students covered by the sampling frame.

<sup>b</sup> Proportion of selected classes participating in the survey.

<sup>c</sup> Proportion of students of participating classes answering the questionnaire.

<sup>d</sup> Based on the data collection period.

<sup>e</sup> Estimated from the maximum number of classes that could participate.

<sup>f</sup> Data collected in previous autumn instead of spring.

<sup>g</sup> Geographic population coverage 61 %: only Flanders and Dutch-speaking schools in the Brussels Capital region are covered by the sampling frame.

<sup>h</sup> A few classes in the ESPAD sample answered the online version.

<sup>i</sup> School participation rate (class participant rate unknown).

<sup>j</sup> Geographic population coverage approx. 80 %: only government-controlled areas are covered by the sampling frame.

<sup>k</sup> Boarding schools not included.

<sup>l</sup> Vocational schools not included (less than 2 % of students born in 1999).

<sup>m</sup> Geographic population coverage 99 %: the Åland Islands are not covered by the sampling frame.

<sup>n</sup> Geographic population coverage 96.5 %: DOM-TOM territories (overseas departments and territories such as French Guiana, Réunion and those in the Caribbean) are not covered by the sampling frame.

<sup>o</sup> Data collected in autumn instead of spring.

<sup>p</sup> Vocational schools not included (1.7 % of students born in 1999).

<sup>q</sup> Private schools not included.

<sup>r</sup> Geographic population coverage 85 %: the Transnistria region is not covered by the sampling frame.

<sup>s</sup> Estimations by principal investigator.

<sup>t</sup> Geographic population coverage 95 %: the islands of the Azores and Madeira are not covered by the sampling frame.

<sup>u</sup> Geographic population coverage 95 %: AR Crimea is not covered by the sampling frame.

<sup>v</sup> Only countries with class participation rates excluding Belgium (Flanders), the Czech Republic, Denmark and the Netherlands.

<sup>w</sup> Official name former Yugoslav Republic of Macedonia.

further assessed by asking students about the frequency of particular gambling activities in the last 12 months (playing slot machines, cards or dice, lotteries or betting on sports or animals). The response categories were 'not gambled', 'monthly or less', '2-4 times a month', '2-3 times a week', '4-5 times a week' and '6 or more times a week'. Prevalence rates were calculated for last-12-month (at least once) and frequent (2-4 times a month or more) gambling.

## Data processing and data quality

Data were centrally cleaned in two steps. First, all cases with missing information on gender were excluded from the database. The other major reason for exclusion was poor data quality. All cases with responses to less than half of the core items were discarded, as were all cases where the respondent appeared to have followed patterns involving repetitive marking of extreme values. Across all ESPAD countries, an average of 1.8 % (0.0-7.6 %) of cases were excluded because of poor data quality or missing information on gender.

Second, logical substitution of missing values was performed in a rather conservative way. In cases where students had indicated that they had never used a specific substance and subsequently did not respond to further questions about such use, any missing values were substituted with no use for that particular substance. However, no substitutions were made if any contradictory indications of use were at hand. For the seven substance use variables where substitutions were performed, the average reduction of the non-response rate was rather small, ranging from 0.1 % to 0.5 %. The single highest country-specific reduction was found in Norway, where the non-response rate for lifetime inhalant use was reduced by 2.7 percentage points. Norway, the former Yugoslav Republic of Macedonia and Latvia were the countries where the logical substitution of missing values had the biggest impact. However, the reductions in non-responses had only minor effects on the final prevalence estimates.

A few countries experienced modest methodological problems but, with the exception of Latvia, not of such a magnitude as to seriously threaten the comparability of the results. Compared to the ESPAD average, higher rates of inconsistencies indicate a somewhat lower data quality in Albania, Bulgaria and Cyprus. Low school/class participation rates in Austria (17 %), Denmark (26 %), Ireland (18 %), Latvia (42 %) and the Netherlands (43 %) resulted in turn in relatively small net sample sizes. In Austria (4.2 %), Cyprus (3.8 %), Latvia (7.6 %) and Norway (4.2 %), a relatively high proportion of cases had to be discarded in the central data-cleaning process. Due to sampling of only one school grade or not including boarding schools, the coverage of the target

student population in Denmark (78 %), the former Yugoslav Republic of Macedonia (79 %) and Georgia (73 %) was below average. Finally, a relatively high proportion of parents refused permission for their child to participate in the survey in Portugal and Romania (6.9 % each).

Due to the uncertainty of data-collection procedures, Latvia is excluded from the standard reporting and the calculation of the ESPAD average. In all tables, Latvia is reported separately to illustrate difficulties in comparability. More details on the ESPAD methodology are available online (<http://www.espad.org>).

## Analysis

Prevalence estimates and means were calculated for each participating country, taking weights into account where necessary. In all tables, totals and gender-specific estimates for boys and girls are presented by country. Gender differences reported in Figures 1-9 were tested using either simple linear regression for quasi-continuous frequency measures or logistic regression for prevalence, with gender as predictor. Conditional probabilities expressing the use of one substance given the use of another substance were calculated for cigarettes, alcohol, cannabis, ecstasy, amphetamine, methamphetamine, cocaine, crack, LSD or other hallucinogens, heroin, GHB, inhalants, NPS, tranquillisers or sedatives, painkillers and anabolic steroids. The ESPAD average is based on 35 countries assigning equal weight to each country. Latvia was excluded from the calculation of the ESPAD average due to validity concerns. All percentages in the report were calculated on the basis of valid responses and are shown for totals, boys and girls. With the exception of frequency of alcohol use (Figures 2a, 2b), alcohol intake (Figures 3a, 3b), preference of alcoholic beverages (Figures 4a, 4b) and frequency of cannabis use (Figures 7a, 7b), where the estimates are based on consumers of a particular substance, all estimates are based on the total sample and represent population estimates.

## Trend analyses

For temporal trends, country estimates were averaged across 25 countries with full coverage and valid estimates on at least four (including 2015) out of six time points. The countries included are Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, the Faroes, Finland, France, Greece, Hungary, Iceland, Ireland, Italy, Lithuania, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Sweden and Ukraine. The average across the 25 country means was calculated using a weight of 1, and data for each survey year were summed and divided by the number of countries with valid data for that particular year.

Data across all six time points were complete in 20 countries with data on five countries missing in 1995 (Bulgaria, France, Greece, the Netherlands and Romania), and data on one country missing in 1999 (the Netherlands; data collected but not considered comparable) and 2007 (Denmark; data collected but not considered comparable). Trends across the 25 countries are shown for a number of selected indicators by gender. Country-specific trends are shown for all countries with at least two valid data points over the period 1995-2015. Country-specific prevalence estimates before the 2007 ESPAD survey are only available on aggregate level, preventing statistical testing of temporal changes. Instead, a standardised procedure is used where a difference of less than  $\pm 3$  percentage points is not considered as 'real difference'. Trends are illustrated graphically, with decreases of 3 or more percentage points between successive surveys indicated in green, increases of 3 or more percentage points in red and unchanged situations in yellow (less than  $\pm 3$  percentage points).

## Comparability of variables

After the 2003 survey, a working group was set up to improve and revise some of the questions that had caused problems in the previous surveys. Modified questions were tested on differences in outcome using a split-half design in eight countries. In general, most of the revised questions were found to be comparable with the earlier versions (Hibell and Bjarnason, 2008).

## Availability of substances

In the surveys until 2003, perceived availability of substances was asked in one single question. Since 2007, the questionnaire has contained separate questions for each substance. A questionnaire test in eight countries showed some differences between the two versions.

## Alcohol use

In the surveys until 2003, the question on heavy episodic drinking read 'How many times (if any) have you had five or more drinks in a row? A "drink" is a glass of wine (approximately 15 centilitres), a bottle or can of beer (approximately 50 centilitres), a shot glass of spirits (approximately 5 centilitres) or a mixed drink.' Cider or alcopops were not included. Since 2007, the definition has read: 'How many times (if any) have you had five or more drinks on one occasion? A "drink" is a glass/bottle/can of beer (approximately 50 centilitres), a glass/bottle/can of cider (approximately 50 centilitres), two glasses/bottles of alcopops (approximately 50 centilitres),

a glass of wine (approximately 15 centilitres), a glass of spirits (approximately 5 centilitres) or a mixed drink.' The questionnaire test revealed no significant differences between the two versions.

## Illicit drugs other than cannabis

The questionnaire collects data on the use of illicit drugs other than cannabis, including amphetamine, cocaine, crack, ecstasy, LSD or other hallucinogens, heroin, GHB (since 2007) and methamphetamine (since 2015). In 2015, crack was not included in Denmark, Estonia, Finland and Sweden.

## Inhalant use

In the earlier rounds of the survey, the question on inhalant use read 'Did you try inhalants (glue, etc.) to get high?'. In 2007, the question was rephrased to refer to 'the use of inhalants to get high'. The questionnaire test found no significant differences between the old and new versions. Since 2011, countries have been instructed to add nationally relevant examples in the questionnaire.

## Reporting

Based on the 2015 ESPAD data, selected substance use indicators are presented comprising students' perceptions of the availability of cigarettes, alcohol and illicit drugs, early onset of substance use and prevalence estimates of substance use. Whenever available, corresponding figures of the two non-ESPAD countries, Spain and the United States, are also presented in tables and maps. The Spanish data relate to students born in 1997 who took part in a broader national survey carried out in 2013. The US data relate to students in grade 10, of whom just over half were born in 1999. The two samples differ from the ESPAD sample also with respect to age. The mean ages of the ESPAD, the Spanish and the US samples are 15.8, 15.6 and 16.2 years, respectively. Due to differences in the sampling protocol and consequently in sample composition, comparisons should be made with caution.

In addition, patterns of current drug use among users of the specific substance are presented for cigarettes (prevalence for daily smoking), alcohol use (mean number of occasions in the last 30 days, beverage preference and volume on the last drinking occasion), heavy episodic drinking (consumption of five or more drinks on at least one occasion in the last 30 days), cannabis use (prevalence in the last 30 days and mean number of occasions of cannabis use in the last 12 months), inhalant use (prevalence in the last 30 days) and NPS use (prevalence in the last 12 months). The results

are presented in maps and bar charts. Gender differences are also graphically shown by country, including tests for significance (Figures 1-9). In the maps, Belgium (Flanders), Cyprus and Moldova are presented with a lined pattern, as the Belgian data are representative only for Flanders, the Cypriot data are representative only for the government-controlled part of Cyprus and in Moldova the Transnistria region was not included.

In the section on 'Trends 1995-2015' (pages 70-81), temporal trends between 1995 and 2015 are presented for the average across 25 country means (pages 70-75) and for all ESPAD countries separately (pages 76-81).

#### **Changes in reporting**

The results of the 2015 ESPAD survey are presented in both a print and an online report. The present print report contains selected key results rather than the full range of results and tables. The online report, including all tables in the usual ESPAD format, is available at <http://www.espad.org>. All tables can be downloaded in Excel format and used for further analysis.

# The situation in 2015



# The situation in 2015

This chapter presents selected indicators of the drug situation in the 35 ESPAD countries in 2015. Each result section will start with a box containing a summary of the main results with an ESPAD average estimate and the country range: minimum (min.) and maximum (max.) for each selected measure.

## Availability of substances

ESPAD average Perceived availability of substances (%) <sup>a</sup>			
	Average	Min.	Max.
Cigarettes	61	22	80
Alcohol	78	52	96
Cannabis	30	5	50
Ecstasy	12	2	24
Amphetamine	9	2	23
Methamphetamine	7	1	17
Cocaine	11	2	19
Crack	8	1	14

<sup>a</sup> Percentage of students rating a substance as either 'fairly easy' or 'very easy' to obtain.

## Cigarettes

Over 60 % of the students in the participating countries replied that they would find it fairly or very easy (hereafter referred to as easy) to get hold of cigarettes if they wanted to (Table 3a). Students in the Czech Republic were most likely to find it easy (80 %). In Austria, Liechtenstein and Denmark, the perceived availability was also comparatively high, with 79 %, 77 % and 76 % of the students, respectively, reporting access to be easy. Particularly low figures of perceived availability were found in Moldova (22 %) and figures of less than 40 % were observed in three other countries in the eastern part of Europe: the former Yugoslav Republic of Macedonia (38 %), Romania (37 %) and Ukraine (39 %). Gender differences were negligible at the aggregate level (62 % for boys versus 60 % for girls). Where differences were observed, figures were generally higher for boys than girls. In Albania, Belgium (Flanders), Finland and Moldova, differences between the genders reached 10 percentage points or more. In 10 countries, figures of availability were higher for girls than boys, with rates for girls 6 percentage points higher in Bulgaria.

## Alcohol

Alcoholic beverages were perceived to be easily available in most countries and gender differences were rather uncommon (Table 3a). More than three in four students (78 %) stated that they would find it easy to acquire alcoholic beverages if they wanted to. In the Czech Republic, Denmark and Greece, more than 90 % of the students reported easy access. The lowest proportions were found in Moldova (52 %), the former Yugoslav Republic of Macedonia (53 %) and Romania (60 %). In most countries, perceptions of availability among boys and girls were rather similar. Notable gender differences could be found in Liechtenstein, Moldova and Romania (9-10 percentage points), with rates among boys being higher than among girls, and in the Faroes and Sweden, with a higher rate among girls than boys (5 percentage points).

## Illicit drugs

About three in ten students (30 %) rated cannabis to be easily obtainable (Table 3a). In the Czech Republic (50 %), more students than in any other ESPAD country perceived cannabis to be easily available. High proportions were also found in Slovenia (45 %) as well as in Liechtenstein and Bulgaria (44 % each). The countries with the lowest perceived availability of cannabis were Moldova (5 %) and Ukraine (11 %). Boys were more likely than girls to consider cannabis to be easily available (ESPAD average: 32 % versus 29 %). This was the case in most countries, with differences between the genders of up to 15 percentage points. Countries in which more girls than boys (5 percentage points or more) reported easy availability of cannabis were Bulgaria (47 % versus 40 %) and Slovakia (46 % versus 41 %).

Perceived availability of other illicit drugs was relatively low (Table 3a, 3b): ecstasy (12 %), cocaine (11 %), amphetamine (9 %), methamphetamine (7 %) and crack (8 %). In Bulgaria (e.g. amphetamine 23 %, methamphetamine 17 %), illicit drugs were overall perceived as more easily available than elsewhere in Europe. In addition, 10 % or more of the students in Croatia, the Netherlands, Norway and Poland thought that any of the listed illicit drugs were easily available. Perceived availability of ecstasy was highest in Bulgaria, the Czech Republic and Ireland (over 20 %), and perceived availability of cocaine was highest in Bulgaria, Ireland, Liechtenstein and Poland (17-19 %). The countries with the lowest perceptions of availability on nearly all illicit drugs were the Faroes, Finland, Georgia, Moldova and Ukraine. Countries with noticeable gender differences for all illicit drugs were Liechtenstein and the Netherlands (higher rates for boys than girls), Bulgaria and Slovakia (higher rates for girls than boys).



**Table 3a.** Perceived availability of substances: prevalence of students responding substance 'fairly easy' or 'very easy' to obtain (percentage)

Country	Cigarettes	Alcohol	Cannabis	Ecstasy	Cigarettes		Alcohol		Cannabis		Ecstasy	
					Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Albania	51	71	22	14	56	46	72	69	28	16	14	14
Austria	79	89	39	12	80	79	88	90	40	37	12	12
Belgium (Flanders)	61	81	36	13	66	56	81	80	41	32	13	12
Bulgaria	68	88	44	21	65	71	87	90	40	47	18	25
Croatia	72	87	42	17	73	72	86	87	41	42	15	20
Cyprus	56	88	21	10	58	54	88	88	24	18	11	8
Czech Republic	80	92	50	24	79	81	91	93	48	51	23	24
Denmark	76	96	40	14	79	73	96	95	44	37	15	13
Estonia	58	73	34	11	60	56	71	75	34	33	10	13
Faroes	64	76	15	5	64	65	73	78	15	15	4	7
Finland	65	71	15	5	71	61	72	71	17	14	6	5
FYR of Macedonia <sup>a</sup>	38	53	14	7	39	36	56	50	17	10	9	6
France	59	76	41	10	62	56	78	75	43	38	10	9
Georgia	60	81	21	9	61	59	81	81	23	18	11	8
Greece	65	91	23	8	64	66	90	91	25	20	9	6
Hungary	68	84	25	13	68	67	85	83	25	26	11	14
Iceland	44	61	27	11	44	44	60	62	29	26	11	11
Ireland	62	77	43	22	65	58	75	79	47	39	26	19
Italy	63	81	37	8	62	65	81	81	41	34	9	8
Liechtenstein	77	88	44	13	81	74	93	84	52	38	18	9
Lithuania	64	70	25	9	65	63	69	72	26	24	7	10
Malta	56	85	26	13	54	57	83	87	26	26	12	15
Moldova	22	52	5	2	28	15	56	47	6	4	2	2
Monaco	58	75	34	6	56	60	74	75	36	31	6	7
Montenegro	63	72	27	18	64	61	75	69	30	23	19	17
Netherlands	61	78	42	18	64	59	78	77	50	34	21	15
Norway	64	74	30	10	66	63	72	76	33	27	11	10
Poland	73	82	39	16	73	73	81	83	41	38	16	16
Portugal	60	79	31	10	60	60	78	81	32	31	10	9
Romania	37	60	14	6	38	36	65	55	15	13	5	7
Slovakia	70	88	43	15	70	70	86	90	41	46	12	18
Slovenia	66	85	45	17	66	66	84	86	47	44	16	18
Sweden	74	77	28	13	72	75	75	80	27	29	13	13
Ukraine	39	66	11	3	42	37	65	68	13	8	3	3
<b>AVERAGE</b>	<b>61</b>	<b>78</b>	<b>30</b>	<b>12</b>	<b>62</b>	<b>60</b>	<b>78</b>	<b>78</b>	<b>32</b>	<b>29</b>	<b>12</b>	<b>12</b>
Latvia	60	70	24	9	62	58	68	72	24	23	7	11
Spain	78	92	45	10	75	81	91	92	47	43	12	9
United States	67	75	66	19	65	68	73	77	65	66	19	19

<sup>a</sup> Official name former Yugoslav Republic of Macedonia.

**Table 3b.** Perceived availability of substances: prevalence of students responding substance 'fairly easy' or 'very easy' to obtain (percentage)

Country	Amphet-amine	Meth-amphet-amine	Cocaine	Crack	Amphetamine		Metham-phetamine		Cocaine		Crack	
					Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Albania	6	6	11	6	6	6	6	6	13	9	7	4
Austria	13	7	13	9	13	14	6	7	12	13	9	8
Belgium (Flanders)	10	5	14	8	10	10	5	5	13	15	8	7
Bulgaria	23	17	19	13	19	28	14	20	16	23	11	16
Croatia	16	11	14	12	16	17	10	12	12	17	11	13
Cyprus	7	6	11	8	8	6	7	6	12	10	8	7
Czech Republic	7	12	11	8	7	8	12	13	10	12	9	8
Denmark	12	8	16	9	14	10	9	7	18	15	10	7
Estonia	9	.	10	.	8	10	.	.	6	13	.	.
Faroese	2	2	5	4	1	4	1	3	3	7	4	4
Finland	3	3	4	.	4	3	3	2	4	4	.	.
FYR Macedonia <sup>a</sup>	5	5	6	4	6	5	6	3	6	6	5	3
France	10	6	13	10	10	10	6	6	13	13	10	11
Georgia	6	5	3	3	7	4	7	3	4	3	3	2
Greece	5	4	8	5	6	4	5	4	9	8	6	4
Hungary	12	10	12	7	11	13	10	11	11	13	8	7
Iceland	12	7	9	6	12	12	7	7	9	10	6	7
Ireland	14	8	19	14	15	14	9	6	19	19	13	15
Italy	8	6	11	8	8	8	7	5	12	11	8	7
Liechtenstein	15	7	17	8	21	11	11	4	21	13	11	5
Lithuania	6	5	9	5	5	6	5	5	8	10	5	5
Malta	9	5	15	10	8	10	5	5	12	18	8	11
Moldova	2	1	2	1	2	2	2	1	2	1	1	1
Monaco	7	4	9	6	7	8	4	5	9	10	7	5
Montenegro	13	10	12	8	14	12	11	8	13	11	10	7
Netherlands	14	10	14	11	17	12	12	8	17	11	14	9
Norway	11	.	11	11	11	10	.	.	11	11	11	10
Poland	17	13	17	11	16	18	12	14	16	19	11	11
Portugal	7	6	11	6	8	7	6	5	11	12	7	5
Romania	4	4	7	4	4	5	4	4	6	8	4	4
Slovakia	8	11	12	8	7	9	9	13	9	16	7	9
Slovenia	8	8	16	12	8	8	8	9	14	19	11	12
Sweden	9	8	13	10	9	10	8	8	11	15	9	11
Ukraine	3	3	2	2	4	3	4	2	2	2	3	1
<b>AVERAGE</b>	<b>9</b>	<b>7</b>	<b>11</b>	<b>8</b>	<b>9</b>	<b>9</b>	<b>7</b>	<b>7</b>	<b>11</b>	<b>12</b>	<b>8</b>	<b>7</b>
Latvia	7	6	9	.	6	8	5	7	7	10	.	.
Spain	11	16	15	15	13	10	19	14	16	14	16	14
United States	27	.	16	14	26	28	.	.	15	17	13	16

<sup>a</sup> Official name former Yugoslav Republic of Macedonia.

## Early onset of substance use

ESPAD average Early onset of substance use (%) <sup>a</sup>			
	Average	Min.	Max.
Cigarettes	23	9	46
Daily smoking	4	1	8
Alcohol	47	14	72
Intoxication	8	2	22
Cannabis	3	1	8
Ecstasy	1	0	2
Amphetamine/methamphetamine	1	0	3
Cocaine/crack	1	0	2

<sup>a</sup> Percentage of students using a substance at the age of 13 or younger.

### Cigarettes

More than one in five ESPAD students (23 %) had smoked cigarettes at the age of 13 or younger (Table 4a). The proportions vary considerably across countries, from 46 % in Estonia and 45 % in Lithuania to 9-13 % in the former Yugoslav Republic of Macedonia, Iceland, Malta and Norway. Both on average and in most individual countries, more boys than girls have smoked cigarettes at the age of 13 or younger. The largest difference between boys and girls was found in Moldova (33 % versus 8 %). The highest rates among boys (50-51 %) were found in Estonia and Lithuania. The Czech Republic and the three Baltic countries of Estonia, Latvia and Lithuania had the highest rates among girls (40-41 %).

The ESPAD average for students who began smoking cigarettes on a daily basis at the age of 13 or younger is 4 %. The rates were highest in Estonia and Slovakia (8 %) and lowest in Norway (1 %). Due to the small proportion of students reporting onset of daily smoking at an early age, gender differences were generally less than 3 percentage points (ESPAD average: boys 5 %, girls 3 %), even though in the majority of countries more boys than girls reported early onset of daily smoking. The countries with the highest

prevalence estimates for boys were Estonia, Lithuania and Slovakia (9 %). Among girls, Bulgaria and Estonia (7 %) were the countries with the highest rates.

### Alcohol

Nearly half of the students (47 %) reported alcohol use at the age of 13 or younger (Table 4a). The highest proportions of students reporting alcohol use at an early age were found in Georgia (72 %), the Czech Republic (68 %) and Cyprus (66 %). The countries with the lowest rates were Iceland (14 %) and Norway (19 %). Boys were more likely than girls to have used alcohol at the age of 13 or younger, with the highest gender difference found in Albania (61 % for boys versus 37 % for girls) and Montenegro (58 % versus 36 %).

One in twelve students experienced intoxication at the age of 13 or younger. The proportion of students reporting intoxication at an early age varied across countries: Georgia (22 %) and Estonia (15 %) were at the high end and Iceland (2 %) and Belgium (Flanders) (3 %) were at the low end of the scale. Higher rates were more likely to be found in the eastern part of Europe. In general, more boys than girls reported intoxication at an early age (ESPAD average: 9 % versus 6 %, respectively).

### Illicit drugs

On average, 3 % of the students reported that they had first used cannabis at the age of 13 or younger (Table 4b). The highest proportions were found in Monaco (8 %), France and Liechtenstein (6 % each). Rates of early onset of amphetamine/methamphetamine use were lower (ESPAD average: 1 %), with the highest proportions in Bulgaria (3 %) and Cyprus (2 %). Boys were more likely than girls to have used cannabis or amphetamine/methamphetamine at the age of 13 or younger. Similar results were found for early onset of ecstasy and cocaine/crack use.

**Table 4a.** Early onset of substance use: prevalence of students experiencing substance use (cigarettes, daily smoking, alcohol, intoxication) at the age of 13 or younger (percentage)

Country	Cigarettes	Daily smoking	Alcohol	Intoxication	Cigarettes		Daily smoking		Alcohol		Intoxication	
					Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Albania	23	2	48	7	31	16	3	1	61	37	11	3
Austria	24	3	36	6	26	22	3	3	37	34	8	5
Belgium (Flanders)	14	3	32	3	16	12	3	2	35	29	4	2
Bulgaria	25	7	65	13	24	26	7	7	69	61	17	9
Croatia	32	5	64	11	35	29	7	4	70	59	14	7
Cyprus	17	4	66	8	22	11	6	3	73	60	12	5
Czech Republic	43	6	68	10	45	40	7	6	72	65	11	9
Denmark	14	2	50	7	16	13	2	2	55	45	7	6
Estonia	46	8	58	15	51	41	9	7	59	56	17	14
Faroese	21	2	31	5	27	15	2	2	36	26	7	3
Finland	27	6	33	8	32	23	8	4	37	28	9	8
FYR Macedonia <sup>a</sup>	12	3	32	5	17	7	4	2	41	23	9	2
France	27	5	57	4	30	24	5	5	60	53	5	3
Georgia	21	4	72	22	28	13	6	2	78	65	29	13
Greece	14	2	62	5	18	11	2	1	70	54	7	3
Hungary	28	5	63	10	32	25	6	5	69	58	12	8
Iceland	9	2	14	2	11	7	2	2	16	12	2	2
Ireland	16	3	27	7	19	13	4	2	31	23	8	6
Italy	21	4	45	4	23	20	4	3	51	38	6	2
Liechtenstein	23	5	35	8	22	24	4	5	34	36	9	8
Lithuania	45	7	52	9	50	40	9	5	53	51	11	6
Malta	13	3	54	8	11	14	3	4	54	53	8	8
Moldova	21	2	56	7	33	8	3	1	62	48	10	3
Monaco	31	6	61	7	33	28	6	6	65	56	9	6
Montenegro	17	3	47	6	19	14	4	2	58	36	10	2
Netherlands	16	3	26	4	19	14	4	3	28	24	4	4
Norway	13	1	19	4	15	11	1	1	21	16	4	3
Poland	28	4	41	6	32	24	5	4	45	38	8	5
Portugal	24	5	41	5	25	23	4	5	43	39	6	5
Romania	23	5	51	8	27	19	7	4	59	44	13	4
Slovakia	36	8	63	14	41	30	9	6	66	60	14	13
Slovenia	21	2	59	7	21	20	2	2	64	54	9	5
Sweden	16	3	26	6	16	16	2	3	29	23	6	6
Ukraine	31	5	53	6	37	25	8	2	54	53	8	5
<b>AVERAGE</b>	<b>23</b>	<b>4</b>	<b>47</b>	<b>8</b>	<b>27</b>	<b>20</b>	<b>5</b>	<b>3</b>	<b>52</b>	<b>43</b>	<b>9</b>	<b>6</b>
Latvia	47	10	63	15	54	41	11	8	65	61	16	13
Spain	14	3	.	.	14	14	3	3	.	.	.	.
United States	12	2	23	9	.	.	.	.	.	.	.	.

<sup>a</sup> Official name former Yugoslav Republic of Macedonia.

**Table 4b.** Early onset of substance use: prevalence of students experiencing substance use (cannabis, ecstasy, amphetamine/methamphetamine, cocaine/crack) at the age of 13 or younger (percentage)

Country	Cannabis	Ecstasy	Amphetamine/methamphetamine	Cocaine/crack	Cannabis		Ecstasy		Amphetamine/methamphetamine		Cocaine/crack	
					Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Albania	3	1	1	1	5	0	1	1	2	1	1	1
Austria	2	0	0	0	2	2	0	0	0	0	0	0
Belgium (Flanders)	2	0	0	0	3	1	0	0	0	0	0	0
Bulgaria	5	2	3	2	6	4	2	1	3	2	3	1
Croatia	3	1	1	1	4	2	1	0	1	0	1	0
Cyprus	2	2	2	2	3	1	3	0	3	1	3	0
Czech Republic	5	0	0	0	5	5	0	0	0	0	1	0
Denmark	2	0	0	0	3	1	1	0	0	0	1	0
Estonia	4	0	0	0	5	3	1	0	0	0	0	0
Faroes	2	0	0	0	1	3	0	0	0	0	0	0
Finland	1	0	0	0	1	1	0	0	0	0	0	0
FYR Macedonia <sup>b</sup>	1	0	1	0	2	1	1	0	1	0	1	0
France	6	1	1	1	8	5	1	1	1	0	1	1
Georgia	2	1	0	1	4	1	1	0	1	0	1	0
Greece	1	1	0	1	2	1	1	0	1	0	1	0
Hungary	2	1	1	0	2	1	1	1	1	1	0	1
Iceland	2	0	1	1	3	2	1	0	1	1	1	0
Ireland	5	1	1	1	6	3	2	0	1	0	1	0
Italy	4	1	1	1	6	3	1	0	1	0	1	0
Liechtenstein	6	0	0	0	6	6	1	0	1	0	1	0
Lithuania	2	1	1	1	3	2	1	0	1	0	1	0
Malta	3	1	0	0	3	2	1	0	0	0	0	0
Moldova	1	0	0	0	1	1	0	0	1	0	0	0
Monaco	8	1	1	1	10	7	1	0	1	1	1	1
Montenegro	2	1	1	1	3	1	2	0	2	0	2	0
Netherlands	5	1	1	1	6	3	1	1	1	0	0	1
Norway	1	0	0	0	2	0	0	0	0	0	0	0
Poland	5	1	1	1	6	3	1	1	2	1	1	1
Portugal	3	0	0	.	4	2	0	0	0	0	.	.
Romania	1	1	1	1	2	1	1	0	1	0	1	0
Slovakia	5	0	1	0	6	5	0	0	1	0	0	0
Slovenia	4	0	0	0	4	3	0	0	1	0	1	0
Sweden	1	0	1	0	2	1	1	0	1	0	1	0
Ukraine	1	0	0	0	2	0	1	0	1	0	1	0
<b>AVERAGE</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>
Latvia	4	1	1	2	5	2	2	1	2	0	2	1
Spain	4	0	0	0	5	3	0	0	0	0	1	0
United States <sup>a</sup>	13	1	3	1	.	.	.	.	.	.	.	.

<sup>a</sup> Used by end of 8th grade, approximate age is 13 (amphetamines only, cocaine only, tranquillisers only).<sup>b</sup> Official name former Yugoslav Republic of Macedonia.

## Cigarette use

ESPAD average Cigarette use (%) <sup>a</sup>			
	Average	Min.	Max.
Lifetime	46	16	66
Last 30 days	21	6	37

<sup>a</sup> Percentage of students reporting use of cigarettes.

## Lifetime

Lifetime prevalence rates of cigarette smoking range between 16 % and 66 % (Table 5). In 15 of the 35 ESPAD countries, more than half of the students had tried smoking at least once. The highest prevalence rates were found in the Czech Republic (66 %), followed by Lithuania (65 %), Croatia and Slovakia (62 % each). The lowest rates were found in Iceland (16 %), Norway (28 %) and Malta (29 %). These rates were well below the average of 46 % for all

**Table 5.** Cigarette use: prevalence of lifetime and 30-day use (percentage)

Country	Lifetime	30-day	Lifetime		30-day	
			Boys	Girls	Boys	Girls
Albania	37	11	49	27	18	5
Austria	53	28	54	53	27	28
Belgium (Flanders)	31	15	33	29	16	14
Bulgaria	55	33	51	60	30	37
Croatia	62	33	61	63	32	34
Cyprus	35	18	40	31	22	13
Czech Republic	66	30	65	67	27	32
Denmark	39	19	37	41	17	21
Estonia	60	21	62	57	22	21
Faroese	49	19	50	49	17	20
Finland	47	22	50	44	22	21
FYR Macedonia <sup>a</sup>	38	24	44	33	27	21
France	55	26	54	56	24	28
Georgia	43	18	54	30	26	9
Greece	39	19	41	37	21	17
Hungary	55	29	55	55	28	30
Iceland	16	6	16	16	5	7
Ireland	32	13	33	32	13	13
Italy	58	37	55	60	35	40
Liechtenstein	57	29	56	58	27	31
Lithuania	65	24	69	60	27	22
Malta	29	15	25	33	12	18
Moldova	33	9	50	15	16	3
Monaco	56	26	51	61	20	33
Montenegro	34	15	37	31	18	12
Netherlands	39	21	38	39	20	21
Norway	28	10	29	26	10	10
Poland	55	25	56	54	24	25
Portugal	37	19	37	37	18	21
Romania	52	30	53	51	31	30
Slovakia	62	31	62	61	29	34
Slovenia	47	22	44	50	19	25
Sweden	33	13	33	34	11	14
Ukraine	51	18	59	44	23	13
<b>AVERAGE</b>	<b>46</b>	<b>21</b>	<b>47</b>	<b>44</b>	<b>22</b>	<b>21</b>
Latvia	66	24	70	61	24	25
Spain	37	22	35	39	20	23
United States	20	6	20	19	6	6

<sup>a</sup> Official name former Yugoslav Republic of Macedonia.

ESPAD countries. The average prevalence of cigarette smoking was about the same among boys (47 %) and girls (44 %). Across countries, boys were generally more likely than girls to have tried cigarettes. Countries with the largest gender differences were Moldova (50 % for boys versus 15 % for girls), Georgia (54 % versus 30 %) and Albania (49 % versus 27 %). The largest gender differences where girls reported higher rates were found in Monaco (61 % for girls versus 51 % for boys), Bulgaria (60 % versus 51 %) and Malta (33 % versus 25 %).

### Last 30 days

On average, 21 % of the students in the ESPAD countries had used cigarettes during the last 30 days. The highest rates were found in Italy (37 %), Bulgaria and Croatia (33 % each). Countries which reported last-30-day prevalence of 10 % or lower include Iceland (6 %), Moldova (9 %) and Norway (10 %). Countries with high smoking rates for boys were Italy, Romania and Croatia (31-35 %), and countries with high smoking rates for girls were Italy, Bulgaria, Slovakia and Croatia (34-40 %). The average ESPAD rates for boys and girls were about the same, and the gender rates were also close in most countries. In four countries, there are noticeable gender differences, with higher rates among boys than among girls: Georgia (26 % versus 9 %), Moldova (16 % versus 3 %), Albania (18 % versus 5 %) and Ukraine (23 % versus 13 %). In Monaco, rates were higher among girls than boys (33 % versus 20 %) as well as in Slovenia (25 % versus 19 %) and Malta (18 % versus 12 %).

### Alcohol use

	ESPAD average Alcohol use (%) <sup>a</sup>		
	Average	Min.	Max.
Lifetime	80	35	96
Last 30 days	48	9	73
Intoxication <sup>b</sup>	13	3	32

<sup>a</sup> Percentage of students reporting use of alcohol.

<sup>b</sup> Percentage of students having been intoxicated at least once in the last 30 days.

### Lifetime

In all ESPAD countries except Iceland (35 %), over half of the students have drunk alcohol at least once during their

lifetime (Table 6). The ESPAD average was 80 % (range: 35-96 %). The highest rates of lifetime alcohol prevalence (93 % or more) were found in the Czech Republic, Greece and Hungary. In addition to Iceland, countries with relatively low rates (60 % or less) were Albania, the former Yugoslav Republic of Macedonia and Norway. Large differences between boys and girls were observed in Albania (71 % versus 51 %), the former Yugoslav Republic of Macedonia (64 % versus 51 %) and Montenegro (83 % versus 72 %). A higher proportion for girls than boys was found in Belgium (Flanders) (83 % versus 77 %).

### Last 30 days

Overall, 48 % of the students in the ESPAD countries had consumed alcohol during the 30 days prior to the survey. In Austria, Cyprus, the Czech Republic, Denmark and Greece, two thirds (66 %) or more had done so. A particularly low prevalence rate was reported from Iceland (9 %). All of the Nordic countries except Denmark reported relatively low rates (below 40 %). This was also the case for Albania, Estonia, the Faroes, the former Yugoslav Republic of Macedonia, Ireland, Lithuania and Ukraine. On average, more boys than girls have drunk alcohol during the 30 days prior to the survey. Countries with particularly large gender differences in this direction (18-20 percentage points) were Albania, Georgia, Montenegro and Romania. In four countries, more girls than boys (5 percentage points and more) reported alcohol use during the last 30 days (Sweden, the Faroes, Monaco and Norway).

### Intoxication

An average of 13 % of students reported having been intoxicated during the last 30 days. Denmark had the highest prevalence at almost one third of the students (32 %). Countries with levels of 10 % or less were Albania, Estonia, the Faroes, the former Yugoslav Republic of Macedonia, Georgia, Greece, Iceland, Moldova, Montenegro, Norway, Portugal, Sweden and Ukraine. On average, slightly more boys (13 %) than girls (12 %) reported that they had been intoxicated during the 30 days prior to the survey, with the highest differences in Cyprus (19 % for boys and 10 % for girls), Romania (16 % versus 7 %) and Montenegro (12 % versus 4 %). In the Faroes and Malta, noticeably more girls than boys reported intoxication.

**Table 6.** Alcohol use: prevalence of lifetime use, 30-day use and intoxication (percentage)

Country	Lifetime use	30-day use	Intoxication last 30 days	Lifetime use		30-day use		Intoxication	
				Boys	Girls	Boys	Girls	Boys	Girls
Albania	60	32	7	71	51	42	23	10	4
Austria	88	68	21	86	90	67	69	22	19
Belgium (Flanders)	80	56	12	77	83	55	58	11	12
Bulgaria	86	59	17	88	85	60	57	20	14
Croatia	92	55	16	94	91	60	49	17	14
Cyprus	88	68	14	90	87	72	63	19	10
Czech Republic	96	68	15	95	97	70	67	18	12
Denmark	92	73	32	93	92	74	73	31	32
Estonia	86	38	8	87	86	36	39	8	7
Faroese	81	38	10	84	78	35	41	7	13
Finland	74	32	13	75	72	32	32	13	13
FYR Macedonia <sup>a</sup>	57	38	8	64	51	45	32	10	6
France	84	53	13	85	83	56	51	14	12
Georgia	85	43	10	86	83	53	33	13	7
Greece	94	66	10	95	93	68	65	11	9
Hungary	93	55	20	94	92	59	52	21	19
Iceland	35	9	3	36	33	9	10	3	3
Ireland	74	35	13	72	75	34	36	14	13
Italy	84	57	13	85	84	60	53	14	13
Liechtenstein	89	59	17	93	86	60	59	19	16
Lithuania	87	34	11	85	89	32	36	10	11
Malta	86	54	14	84	88	52	56	12	17
Moldova	82	56	8	86	78	62	50	11	5
Monaco	89	54	17	88	90	52	57	15	18
Montenegro	78	40	8	83	72	50	31	12	4
Netherlands	73	49	14	73	73	50	49	13	16
Norway	57	22	8	56	58	20	25	8	9
Poland	83	47	11	84	83	49	46	12	11
Portugal	71	42	9	73	70	43	41	9	9
Romania	78	47	12	84	72	56	38	16	7
Slovakia	91	49	13	90	91	48	51	12	13
Slovenia	89	52	14	90	88	55	50	14	14
Sweden	65	26	9	64	66	22	29	7	11
Ukraine	84	39	9	82	86	38	40	9	8
<b>AVERAGE</b>	<b>80</b>	<b>48</b>	<b>13</b>	<b>81</b>	<b>79</b>	<b>49</b>	<b>46</b>	<b>13</b>	<b>12</b>
Latvia	89	44	12	88	90	42	45	14	11
Spain	78	65	21	76	80	63	68	20	21
United States	47	22	10	44	50	21	22	10	10

<sup>a</sup> Official name former Yugoslav Republic of Macedonia.



## Illicit drug use

ESPAD average Lifetime use of illicit drugs (%) <sup>a</sup>			
	Average	Min.	Max.
Any illicit drug	18	6	37
Cannabis	16	4	37
Ecstasy	2	0	5
Amphetamine	2	0	6
Methamphetamine	1	0	5
Cocaine	2	0	5
Crack	1	0	3
LSD or other hallucinogens	2	0	5
Heroin	1	0	3
GHB	1	0	3

<sup>a</sup> Percentage of students reporting use of illicit drugs.

## Any drug use

Lifetime use of illicit drugs varied considerably across the ESPAD countries (Table 7a). In the Czech Republic, 37 % of the students reported having used any illicit drug at least once, which was more than twice the ESPAD average of 18 %. Students in Bulgaria, France, Liechtenstein and Monaco also exhibit high levels of drug use experience (30-32 %). Particularly low levels (10 % or less) of illicit drug use were noted in Albania, Cyprus, the Faroes, Finland, the former Yugoslav Republic of Macedonia, Iceland, Moldova, Montenegro, Norway, Sweden and Ukraine. On average, 21 % of boys and 15 % of girls have tried illicit drugs at least once during their lifetime. In most ESPAD countries, prevalence rates were higher among boys than among girls. Noticeable gender differences were found in Georgia (24 % for boys and 6 % for girls), Liechtenstein (40 % versus 23 %) and Albania (18 % versus 4 %).

## Cannabis use

The most prevalent illicit drug in all ESPAD countries is cannabis. On average, 16 % of the students have used cannabis at least once in their lifetime (Table 7a). The country with the highest prevalence of cannabis use was the Czech Republic (37 %). High prevalence rates (30 % or more) were also reported in France, Liechtenstein and Monaco. The lowest levels of cannabis use (4-7 %) were reported in Albania, Cyprus, the Faroes, the former Yugoslav Republic of Macedonia, Iceland, Moldova, Norway and Sweden. On average, boys reported cannabis use to a larger extent than girls (19 % versus 14 %). This was the case in nearly all countries except the Czech Republic, the Faroes, Hungary, Iceland, Malta, Slovenia and Sweden, where rates were about the same for boys and girls. The largest gender differences (10 percentage points or more, higher rates among boys) were found in Albania, Georgia and Liechtenstein.

## Other illicit drug use

Besides cannabis, some students have also used other illicit substances. In some cases, they have done so without any experience of cannabis at all. Among the most frequently tried illicit drugs are ecstasy, amphetamine, cocaine and LSD or other hallucinogens (Tables 7a, 7b). In the case of illicit drugs other than cannabis, on average, 1-2 % of the ESPAD students reported having used them at least once. Lifetime prevalence rates for methamphetamine, crack, heroin and GHB were lower than those for the other illicit drugs (1 % on average). At the country level, higher rates (5 % or more) were found in Bulgaria (ecstasy, amphetamine, methamphetamine, cocaine) and Poland (LSD or other hallucinogens). The most marked gender differences are seen in Georgia (ecstasy: 7 % for boys and 1 % for girls) and Albania (cocaine: 6 % versus 1 %).

**Table 7a.** Illicit drug use: lifetime prevalence of the use of any drug, cannabis, ecstasy, amphetamine and methamphetamine (percentage)

Country	Any drug	Cannabis	Ecstasy	Amphetamine	Methamphetamine	Any drug		Cannabis		Ecstasy		Amphetamine		Methamphetamine	
						Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Albania	10	7	3	2	2	18	4	13	2	4	1	2	1	2	1
Austria	21	20	2	3	1	23	19	22	18	2	2	3	3	1	1
Belgium (Flanders)	18	17	3	2	1	21	15	21	14	3	3	2	3	1	1
Bulgaria	30	27	5	6	5	32	27	29	25	6	4	7	6	6	4
Croatia	22	21	2	3	1	25	20	24	19	2	2	3	2	2	1
Cyprus	10	7	3	3	2	14	7	10	5	4	1	4	1	3	1
Czech Republic	37	37	3	1	1	36	38	36	38	3	2	1	1	1	2
Denmark	13	12	1	1	0	16	10	15	10	1	0	1	0	1	0
Estonia	26	25	3	2	.	30	22	30	21	3	2	2	2	.	.
Faroese	6	6	0	0	0	6	6	6	6	0	1	0	0	0	1
Finland	9	8	1	1	0	10	8	10	7	1	1	1	1	1	0
FYR Macedonia <sup>a</sup>	7	5	2	1	1	10	4	8	3	3	2	2	1	2	0
France	32	31	2	2	2	35	30	34	29	2	2	2	3	1	2
Georgia	15	11	4	2	1	24	6	19	3	7	1	3	1	2	0
Greece	11	9	1	2	1	15	6	12	6	2	0	2	1	1	1
Hungary	14	13	2	3	2	15	13	14	12	2	2	3	3	2	2
Iceland	8	7	2	2	1	8	8	7	8	2	2	2	2	1	1
Ireland	20	19	4	3	2	23	16	22	15	5	2	3	2	2	1
Italy	28	27	3	2	2	33	24	31	23	3	2	3	1	3	1
Liechtenstein	31	30	2	2	0	40	23	40	22	2	1	1	2	1	0
Lithuania	19	18	2	1	1	21	16	20	15	2	1	1	1	1	1
Malta	14	13	2	2	1	14	14	13	12	2	2	2	2	1	1
Moldova	6	4	1	1	0	9	3	7	2	2	1	1	0	1	0
Monaco	31	31	2	2	2	34	29	34	29	2	2	2	2	2	2
Montenegro	10	8	3	3	2	14	6	11	5	4	3	4	2	3	1
Netherlands	23	22	3	2	1	25	21	25	20	4	2	3	2	1	0
Norway	7	7	1	1	.	10	4	9	4	1	1	1	0	.	.
Poland	25	24	3	4	3	29	21	28	20	4	3	5	4	3	3
Portugal	16	15	2	1	1	17	15	17	14	2	2	1	1	1	1
Romania	11	8	2	1	1	14	8	10	6	2	2	2	1	1	1
Slovakia	28	26	3	1	2	29	27	28	25	3	4	1	1	2	1
Slovenia	26	25	2	1	2	27	25	26	24	2	2	1	1	2	2
Sweden	8	7	1	1	.	8	7	7	6	1	1	1	1	.	.
Ukraine	10	9	1	1	1	14	7	13	6	2	1	2	1	1	0
<b>AVERAGE</b>	<b>18</b>	<b>16</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>21</b>	<b>15</b>	<b>19</b>	<b>14</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>1</b>
Latvia	19	17	3	3	2	23	15	21	12	3	2	2	4	3	2
Spain	28	27	1	1	1	30	27	28	25	1	1	2	1	1	0
United States	35	31	4	10	1	35	35	32	30	4	3	9	11	1	2

<sup>a</sup> Official name former Yugoslav Republic of Macedonia.

**Table 7b.** Illicit drug use: lifetime prevalence of the use of cocaine, crack, LSD or other hallucinogens, heroin and GHB (percentage)

Country	Cocaine	Crack	LSD/other hallucinogens	Heroin	GHB	Cocaine		Crack		LSD/other Hallucinogens		Heroin		GHB	
						Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Albania	3	2	2	2	1	6	1	3	1	3	1	2	1	2	1
Austria	2	1	2	1	1	2	2	1	1	2	2	0	1	1	1
Belgium (Flanders)	3	1	2	1	1	2	3	1	1	2	1	1	0	0	1
Bulgaria	5	3	4	3	3	6	3	5	2	6	3	5	2	4	1
Croatia	2	1	2	1	1	2	2	2	1	3	2	1	1	1	0
Cyprus	3	2	3	3	2	5	2	4	1	5	2	4	1	4	1
Czech Republic	1	1	4	1	0	2	1	1	1	4	4	1	0	0	0
Denmark	2	.	1	1	0	3	1	.	.	2	1	1	0	1	0
Estonia	1	.	3	1	1	1	2	.	.	3	3	1	1	1	1
Faroes	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0
Finland	1	.	1	1	0	1	1	.	.	1	1	1	1	1	0
FYR Macedonia <sup>a</sup>	1	1	1	1	1	2	0	1	0	1	0	1	0	1	0
France	4	3	2	2	1	4	4	3	3	2	2	2	2	1	1
Georgia	2	1	2	2	1	2	1	2	0	4	1	3	1	1	0
Greece	1	1	2	1	0	2	0	1	1	3	1	1	0	1	0
Hungary	2	1	2	1	1	3	2	1	1	3	2	1	1	1	2
Iceland	2	1	1	1	0	2	2	1	1	1	2	1	1	0	0
Ireland	3	2	3	1	1	4	2	3	1	3	2	2	0	1	0
Italy	3	3	3	2	1	5	2	4	2	4	2	3	1	2	1
Liechtenstein	2	1	2	0	1	2	2	1	0	2	2	0	1	1	1
Lithuania	2	1	2	1	1	2	2	1	1	2	2	2	1	1	0
Malta	3	1	1	1	0	2	3	1	1	1	1	1	1	0	0
Moldova	1	0	1	0	1	1	0	1	0	1	0	1	0	1	0
Monaco	3	2	1	2	1	2	3	2	2	2	0	2	2	1	1
Montenegro	3	2	3	2	2	5	2	3	1	4	1	3	1	3	1
Netherlands	2	1	2	1	1	2	1	1	1	2	1	1	1	1	1
Norway	1	1	1	0	0	1	0	1	0	1	1	0	0	0	0
Poland	4	2	5	2	2	4	3	2	2	5	5	3	2	2	1
Portugal	2	1	1	1	1	2	2	1	1	2	1	1	1	1	0
Romania	3	1	2	2	1	3	3	2	1	3	1	2	1	1	1
Slovakia	2	1	3	1	2	1	2	1	1	3	3	1	2	2	1
Slovenia	2	1	1	1	0	2	3	1	1	1	2	1	1	0	0
Sweden	2	.	1	1	0	2	2	.	.	2	1	1	1	0	0
Ukraine	1	1	1	1	0	1	1	1	1	1	1	1	0	1	0
<b>AVERAGE</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
Latvia	2	2	4	2	1	3	2	4	1	3	4	3	1	1	1
Spain	2	3	2	1	1	2	2	3	2	2	1	1	0	1	1
United States	3	1	5	1	.	3	2	1	1	5	4	1	1	.	.

<sup>a</sup> Official name former Yugoslav Republic of Macedonia.

## Inhalant use

ESPAD average Lifetime use of inhalants (%) <sup>a</sup>			
	Average	Min.	Max.
Inhalants	7	1	25

<sup>a</sup> Percentage of students reporting use of inhalants.

The ESPAD average for lifetime inhalant use was 7 %, with large differences between countries (Table 8). The country with the highest proportion of students who have tried inhalants was Croatia (25 %), followed by Slovenia (14 %). The lowest rates (1-2 %) were found in the Faroes, the former Yugoslav Republic of Macedonia and Moldova. The average prevalence of lifetime inhalant use among ESPAD students was the same for boys and girls. Similar rates for both genders were found in most countries. A noticeable gender difference in the rate of inhalant use was reported in Croatia (19 % for boys versus 32 % for girls).

**Table 8.** Inhalants and new psychoactive substances (NPS): prevalence of lifetime use (percentage)

Country	Inhalants	NPS	Inhalants		NPS	
			Boys	Girls	Boys	Girls
Albania	4	4	6	2	6	2
Austria	10	3	10	9	4	3
Belgium (Flanders)	3	1	3	3	1	0
Bulgaria	3	8	4	2	10	7
Croatia	25	7	19	32	7	7
Cyprus	8	4	9	7	6	2
Czech Republic	6	7	5	6	6	7
Denmark	4	1	4	3	2	1
Estonia	13	10	11	14	10	9
Faroes	2	3	3	2	3	4
Finland	8	1	7	8	2	1
FYR Macedonia <sup>a</sup>	2	4	3	1	5	3
France	6	4	5	7	5	4
Georgia	12	7	10	14	10	3
Greece	13	3	13	13	4	2
Hungary	7	4	6	7	3	4
Iceland	3	3	2	4	2	3
Ireland	11	7	11	10	8	5
Italy	3	6	4	3	6	5
Liechtenstein	8	4	11	6	6	3
Lithuania	8	5	9	7	6	5
Malta	8	4	7	9	4	4
Moldova	1	2	2	1	3	1
Monaco	8	4	7	9	4	5
Montenegro	7	3	8	6	4	2
Netherlands	5	2	6	4	3	2
Norway	5	1	5	5	2	1
Poland	11	10	11	11	10	9
Portugal	4	1	5	4	1	1
Romania	4	5	3	4	6	5
Slovakia	8	4	8	8	4	4
Slovenia	14	3	14	14	3	3
Sweden	7	4	7	7	3	4
Ukraine	5	4	4	5	5	4
<b>AVERAGE</b>	<b>7</b>	<b>4</b>	<b>7</b>	<b>7</b>	<b>5</b>	<b>4</b>
Latvia	18	7	14	22	8	5
Spain	1	4	1	1	5	3
United States	7	.	7	8	.	.

<sup>a</sup> Official name former Yugoslav Republic of Macedonia.

## New psychoactive substance use

ESPAD average Lifetime use of NPS (%) <sup>a</sup>			
	Average	Min.	Max.
NPS	4	1	10

<sup>a</sup> Percentage of students reporting use of NPS.

The ESPAD average of lifetime experience with NPS was 4 % (Table 8), with the highest rates in Estonia and Poland (10 % each), and the lowest in Belgium (Flanders), Denmark, Finland, Norway and Portugal, with rates of 1 %. The average prevalence of lifetime use was 5 % among boys and 4 % among girls. Gender differences within ESPAD countries are generally small, with the exception of Georgia, where 10 % of boys and 3 % of girls reported NPS use, Albania and Cyprus (both 6 % versus 2 %).

## Pharmaceutical use

ESPAD average Lifetime use of pharmaceuticals (%) <sup>a</sup>			
	Average	Min.	Max.
Tranquillisers or sedatives without prescription	6	1	17
Painkillers to get high	4	1	12
Anabolic steroids	1	0	4

<sup>a</sup> Percentage of students reporting use of pharmaceuticals.

## Tranquillisers or sedatives

Use of tranquillisers or sedatives without prescription was most prevalent in Poland (17 %) and the Czech Republic (16 %) (Table 9). The lowest levels of non-prescription use of tranquillisers or sedatives (1-2 %) were reported by students from Denmark, the Faroes, Moldova, Romania and Ukraine. On average, slightly more girls than boys reported use of tranquillisers or sedatives without prescription (8 % versus 5 %). In Belgium (Flanders), the Czech Republic, Estonia, France, the former Yugoslav Republic of Macedonia, Hungary, Lithuania, the Netherlands, Poland, Portugal and Slovakia, more girls than boys have used non-prescription tranquillisers or sedatives (difference: 5 percentage points or more).

## Painkillers

On average, use of painkillers to get high was reported by 4 % of the students. The countries with the highest prevalence rates are Romania (12 %) and Croatia (10 %). Like tranquillisers, slightly more girls (4 %) than boys (3 %) reported the use of painkillers. Larger gender differences (5 percentage points or more) were found in Belgium (Flanders), Croatia, Hungary, Poland and Romania.

## Anabolic steroids

Few students in the ESPAD countries reported experience with anabolic steroids (ESPAD average: 1 %). The highest proportions were found in Bulgaria (4 %), Cyprus, the Czech Republic and Poland (3 % each). Noticeable gender differences are seen in Bulgaria (7 % for boys and 2 % for girls) and Cyprus (5 % versus 1 %).

**Table 9.** Pharmaceuticals: lifetime prevalence of the use of painkillers to get high, tranquillisers or sedatives without prescription and anabolic steroids (percentage)

Country	Painkillers	Tranquillisers/ sedatives	Anabolic steroids	Painkillers		Tranquillisers/ sedatives		Anabolic steroids	
				Boys	Girls	Boys	Girls	Boys	Girls
Albania	4	8	1	3	4	7	8	2	1
Austria	2	4	1	2	3	3	5	1	0
Belgium (Flanders)	7	6	0	3	10	4	9	0	0
Bulgaria	4	4	4	5	3	4	3	7	2
Croatia	10	4	2	7	14	3	5	3	1
Cyprus	3	5	3	5	1	5	4	5	1
Czech Republic	.. <sup>a</sup>	16	3	.. <sup>a</sup>	.. <sup>a</sup>	11	20	4	3
Denmark	1	2	0	1	2	2	3	0	0
Estonia	2	9	1	1	2	6	12	2	1
Faroes	1	2	0	0	2	1	3	0	0
Finland	5	6	0	2	7	4	8	1	0
FYR Macedonia <sup>c</sup>	4	11	1	4	5	9	13	1	0
France	4	10	1	3	6	8	12	1	0
Georgia	2	11	1	3	1	10	13	1	0
Greece	2	4	2	2	2	4	4	2	1
Hungary	6	7	1	3	8	5	9	1	0
Iceland	3	5	1	2	3	5	6	1	1
Ireland	5	3	2	4	5	3	3	3	1
Italy	2	5	2	2	1	5	6	3	1
Liechtenstein	3	3	1	1	4	6	1	1	1
Lithuania	2	9	1	1	2	5	12	2	0
Malta	3	3	1	2	4	2	4	1	1
Moldova	2	1	1	2	2	1	1	1	0
Monaco	4	10	1	2	5	8	12	2	1
Montenegro	5	10	2	4	5	8	13	3	1
Netherlands	1	8	1	1	2	5	11	1	1
Norway	3	6	0	2	4	5	7	1	0
Poland	7	17	3	4	10	11	23	3	2
Portugal	1	5	0	1	2	2	8	1	0
Romania	12	2	1	9	15	1	3	2	0
Slovakia	.	7	2	.	.	4	9	3	1
Slovenia	2	3	0	1	3	2	4	1	0
Sweden	3	7	1	2	4	5	9	1	0
Ukraine	1	2	1	1	1	2	2	1	0
<b>AVERAGE</b>	<b>4</b>	<b>6</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>8</b>	<b>2</b>	<b>1</b>
Latvia	2	5	1	2	3	4	6	2	1
Spain	.	8	1	.	.	6	9	1	0
United States	.	6 <sup>a</sup>	1	.	.	4 <sup>b</sup>	7 <sup>b</sup>	2	1

<sup>a</sup> Did not specify 'in order to get high'.<sup>b</sup> Data for tranquillisers only.<sup>c</sup> Official name former Yugoslav Republic of Macedonia.

**Table 10.** Prevalence of lifetime use of substance B conditional on the lifetime use of substance A (percentage) and number of users of substance A (n)

Substance A	n	Lifetime prevalence	Substance B															
			Cigarettes	Alcohol	Cannabis	Ecstasy	Amphetamine	Methamphetamine	Cocaine	Crack	LSD/other hallucinogens	Heroin	GHB	Inhalants	NPS	Tranquillisers/sedatives	Painkillers	Anabolic steroids
Cigarette	39 914	46	.	93	32	4	4	2	4	2	4	2	2	12	8	10	6	2
Alcohol	69 189	79	54	.	19	3	2	2	3	1	2	1	1	9	5	7	4	1
Cannabis	13 988	16	91	96	.	11	9	7	11	6	11	6	4	18	20	16	10	5
Ecstasy	2 013	2	84	92	77	.	47	36	46	29	44	29	25	38	40	40	33	22
Amphetamine	1 693	2	86	92	77	56	.	45	51	33	46	33	28	44	42	46	39	27
Methamphetamine	1 162	1	85	92	79	62	66	.	60	47	55	44	36	50	46	49	46	35
Cocaine	1 959	2	85	91	79	48	44	36	.	34	43	37	26	44	39	39	35	24
Crack	1 074	1	83	89	79	55	52	51	62	.	51	47	38	55	43	45	45	36
LSD/other hallucinogens	1 843	2	87	93	80	48	42	34	45	30	.	36	30	44	44	48	41	30
Heroin	1 068	1	81	87	75	55	52	48	68	47	62	.	49	55	47	56	53	47
GHB	788	1	80	87	73	63	60	53	63	52	71	66	.	57	48	58	61	60
Inhalants	6 507	7	71	93	38	12	11	9	13	9	13	9	7	.	15	23	18	8
NPS	3 723	4	83	92	74	22	19	14	20	13	22	14	10	26	.	25	20	11
Tranquillisers/sedatives	5 605	6	70	90	39	14	14	10	13	9	16	11	8	27	17	.	25	10
Painkillers	3 024	4	75	91	47	22	22	18	23	16	25	19	16	39	25	46	.	17
Anabolic steroids	1 094	1	77	90	60	41	41	37	44	35	50	46	43	48	36	49	48	.

## Conditional probabilities of substance use

Among students who have used cigarettes at least once, 93 % have also used alcohol, 32 % cannabis, 12 % inhalants, 10 % tranquillisers or sedatives and 8 % NPS Table 10.

Almost every student (87 % or more) that has used a licit or illicit substance also reported having used alcohol, but not every student who has tried alcohol has also tried another substance. Among students that have used alcohol, 54 % have also used cigarettes, 19 % cannabis, 9 % inhalants, 7 % tranquillisers or sedatives and 5 % or less NPS or other illicit drugs.

Of the students that have used cannabis, 91 % have also used cigarettes and 96 % alcohol, inhalants (18 %), NPS (20 %) or tranquillisers or sedatives (16 %). Approximately one in ten or fewer of these students (4-11 %) reported having used each of the other illicit substances included in the questionnaire in addition to cannabis. Among users of ecstasy, amphetamine, methamphetamine, cocaine,

crack, LSD or other hallucinogens, heroin or GHB, 80 % or more have also used cigarettes and 73 % or more have tried cannabis. With respect to users of one of the drugs other than cannabis, the lowest probability of using one of the other drugs was 25 % of ecstasy users who said they had also used GHB. The highest probability was seen with respect to LSD use by students who had used GHB (71 %).

Finally, among the students that have used substances from the two groups, inhalants and tranquillisers or sedatives, about a quarter have used substances from both of the groups. Among the users of both groups of substances, 70 % stated they have also used cigarettes. Of the students that have used painkillers for getting high, almost half reported the use of tranquillisers or sedatives (46 %). Among students reporting use of NPS, a quarter have also used inhalants (26 %) or tranquillisers or sedatives (25 %) and 74 % have used cannabis. Use of illicit substances among the small group of students that have used anabolic steroids ranged from 35 % (crack) to 60 % (cannabis).

## Patterns of current use

### Daily cigarette use

Overall, 12 % of the students smoked every day in the last 30 days (Figure 1a). Daily smoking at levels of approximately twice the ESPAD average were found in Bulgaria, Croatia, Italy, Liechtenstein and Romania.

Considerably lower-than-average rates were observed in Albania, Iceland, Moldova and Norway (5 % or less). Significant differences in daily smoking between boys and girls (Figure 1b) were found in Albania, Cyprus, Finland, the former Yugoslav Republic of Macedonia, Georgia, Greece, Ireland, Lithuania, Moldova, Montenegro and Ukraine (higher rates for boys) and Bulgaria, Monaco and Sweden (higher rates for girls).

**Figure 1a.** Daily cigarette use: prevalence in the last 30 days (percentage)

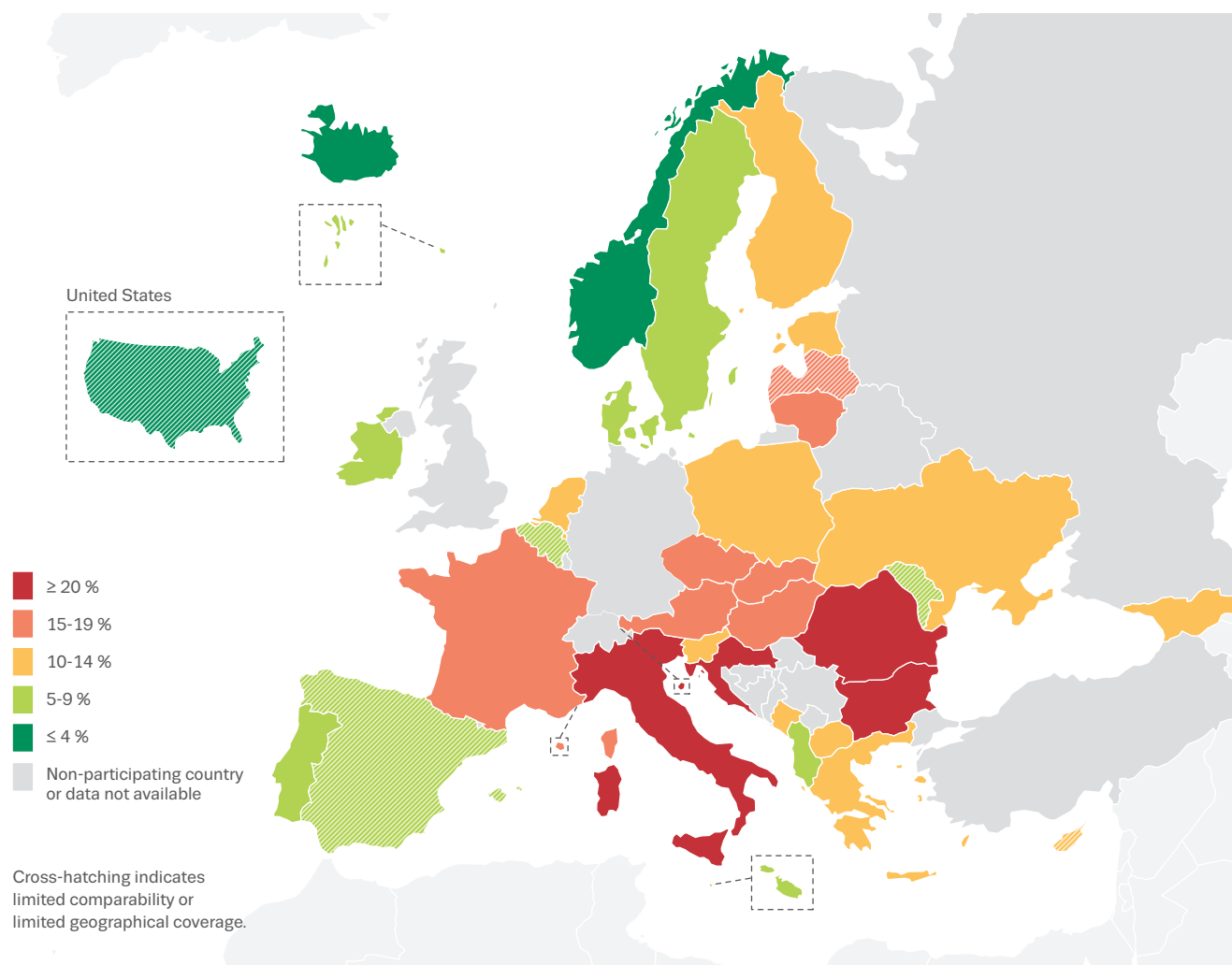
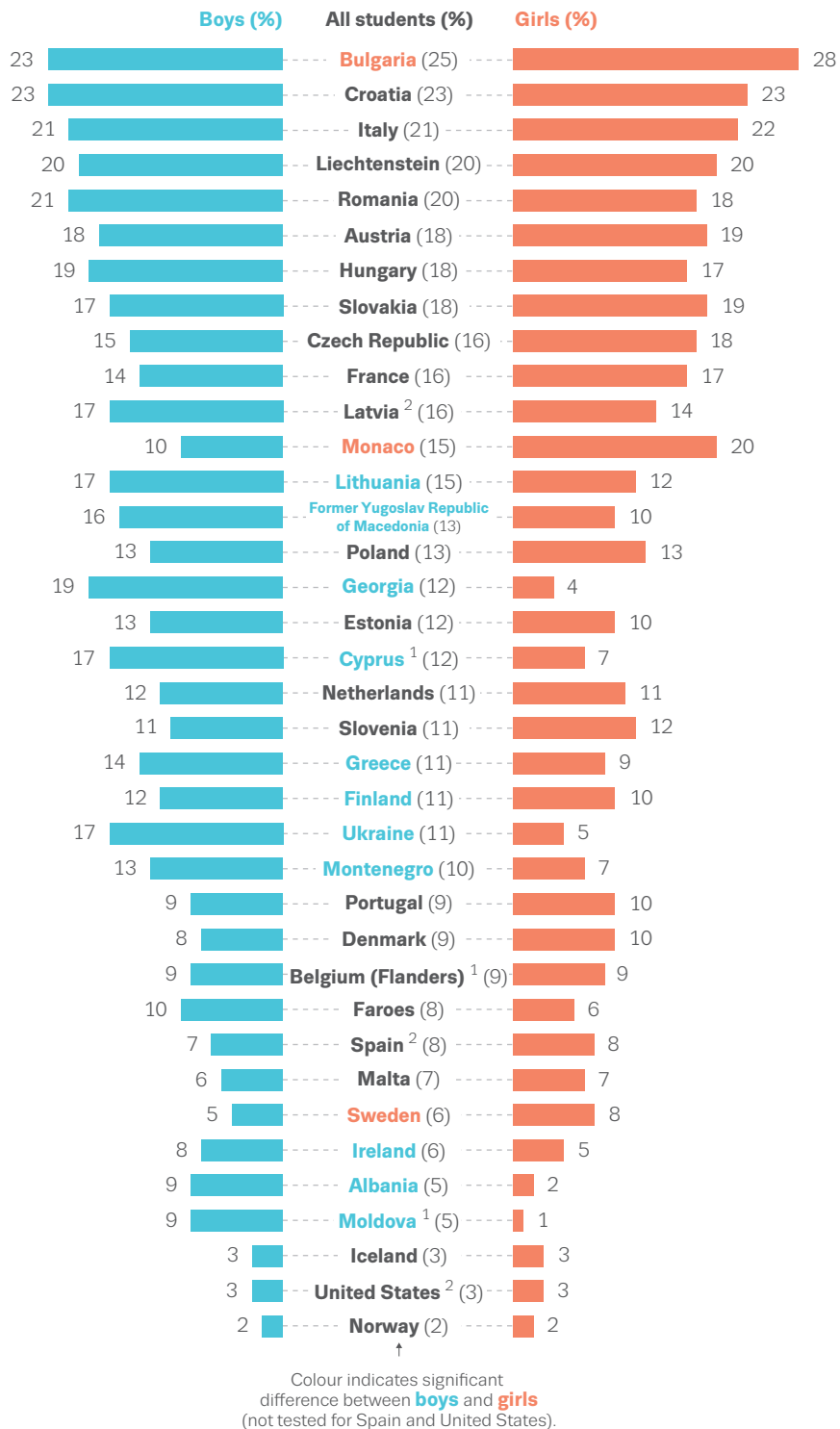




Figure 1b. Daily cigarette use: prevalence in the last 30 days by gender (percentage)



<sup>1</sup> Belgium (Flanders), Cyprus and Moldova: limited geographical coverage.

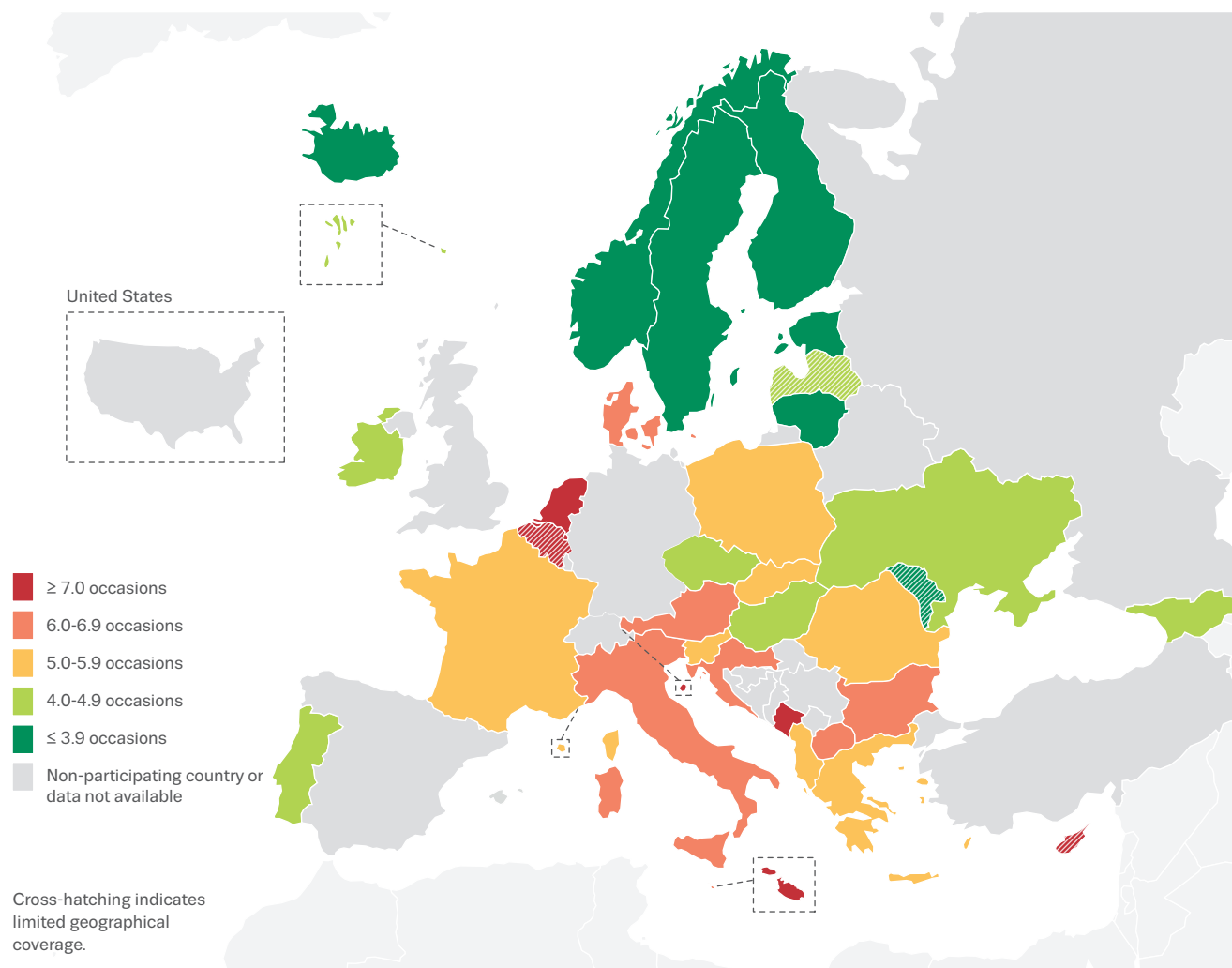
<sup>2</sup> Latvia, Spain and United States: limited comparability.

### Frequency of alcohol use in the last 30 days

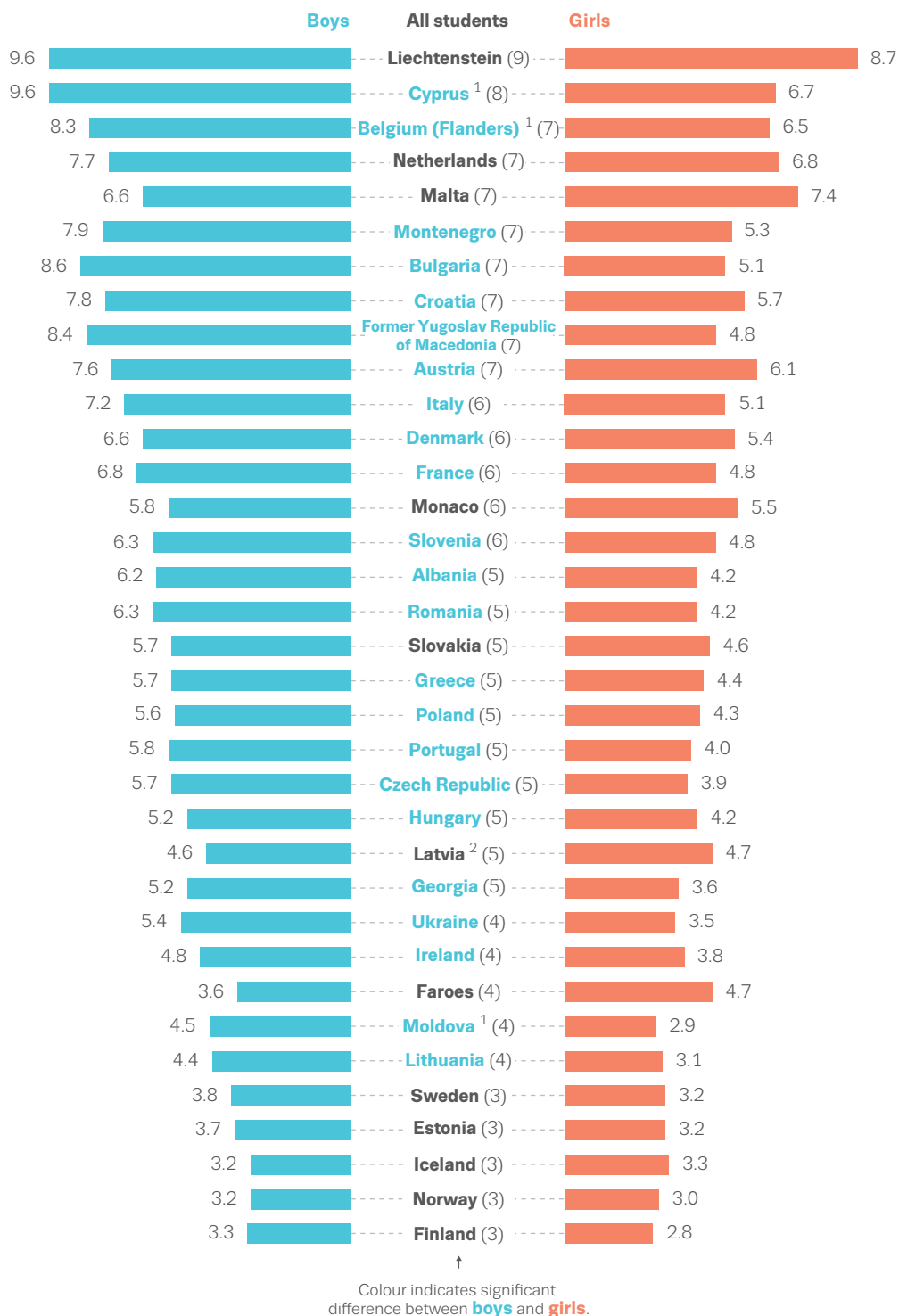
Among all students who had used alcohol, the frequency of drinking alcohol was 5.4 occasions on average in the last 30 days (Figure 2a). Students from Cyprus and Liechtenstein consumed alcohol on 8.2 and 9.1 occasions, respectively, and students from Estonia, Finland, Iceland, Lithuania, Moldova, Norway and Sweden drank alcohol on fewer than

four occasions on average. In most countries, boys who drank did so more frequently than girls did, with differences of more than three occasions in the last 30 days in Bulgaria and the former Yugoslav Republic of Macedonia. Only in the Faroes did girls drink alcohol more frequently than boys did, with a difference of over one occasion in the last 30 days. In most countries, the difference between boys and girls in the number of drinking occasions was significant (Figure 2b).

**Figure 2a.** Frequency of alcohol intake in the last 30 days (mean number of occasions among users)



**Figure 2b.** Frequency of alcohol intake in the last 30 days by gender (mean number of occasions among users)



<sup>1</sup> Belgium (Flanders), Cyprus and Moldova: limited geographical coverage.

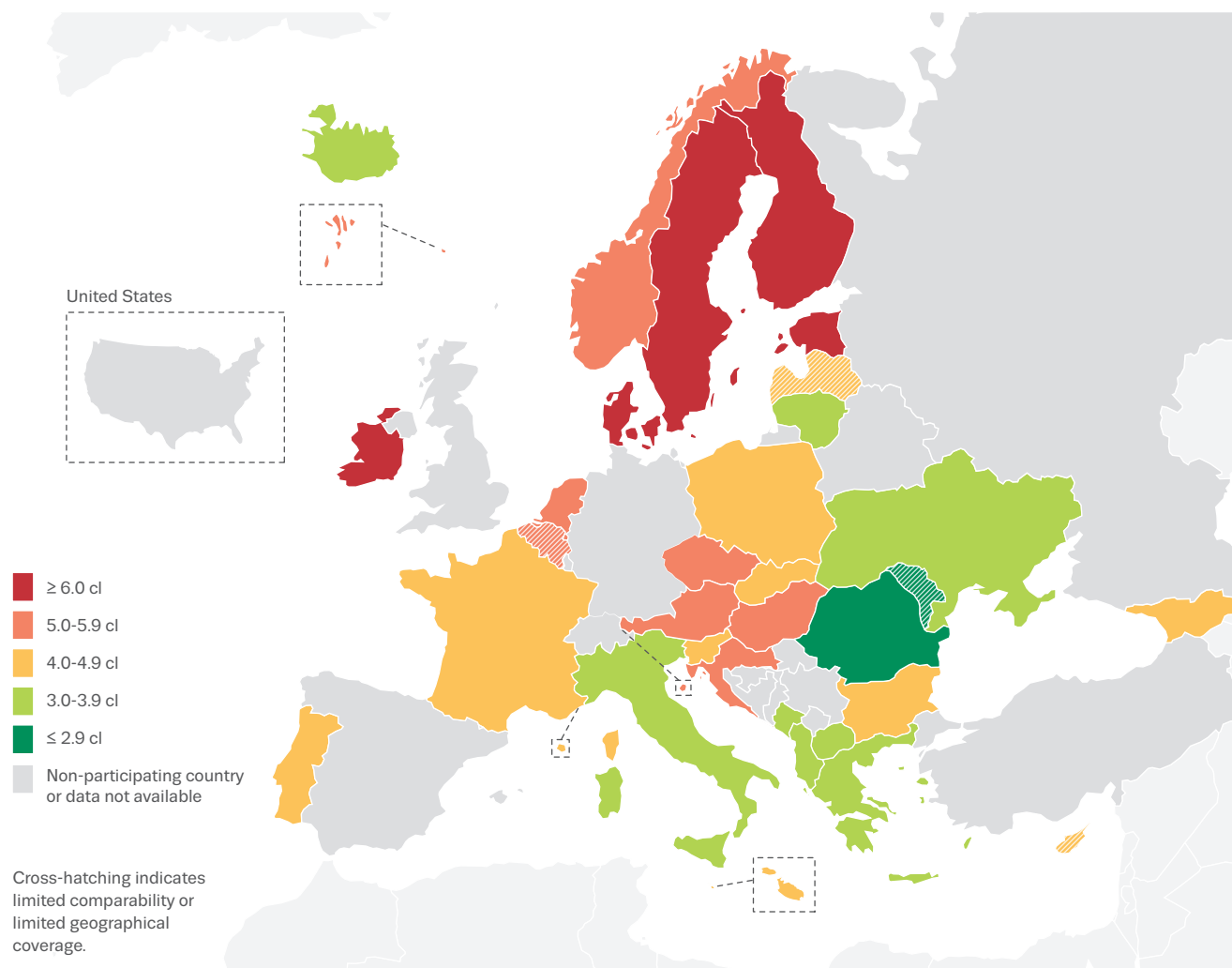
<sup>2</sup> Latvia: limited comparability

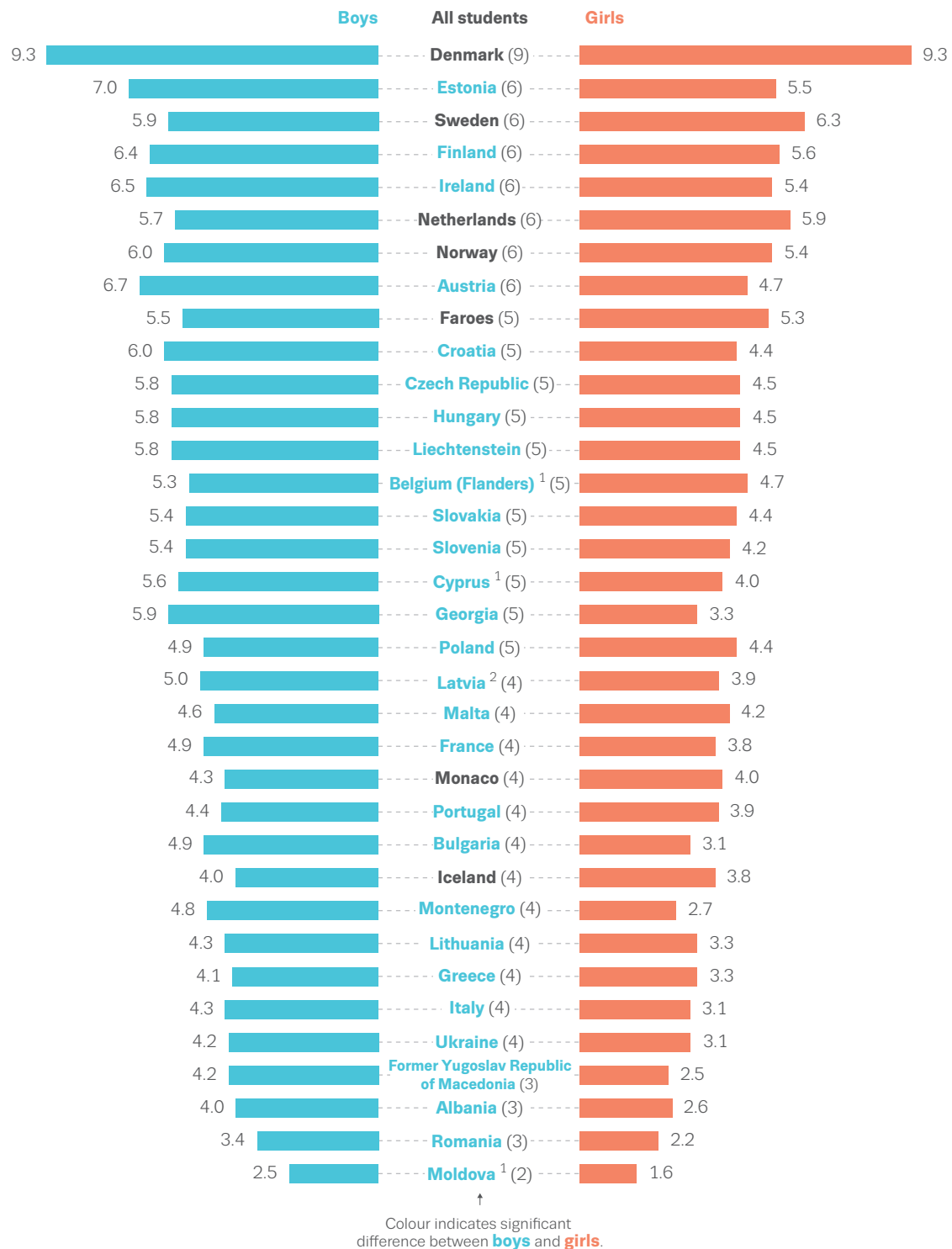
### Alcohol intake on the last drinking occasion

The amount of alcohol consumed was calculated as the average volume of ethanol (in centilitres) consumed on the last drinking day. The students drank an average of 4.7 centilitres of alcohol on the last drinking day (Figure 3a). The amount of alcohol consumed was highest in Denmark (9.3 centilitres), Estonia (6.2 centilitres), Sweden

(6.1 centilitres), Finland and Ireland (each 6.0 centilitres), and lowest in Moldova (2.1 centilitres) and Romania (2.8 centilitres). Boys reported consuming higher volumes than girls, with significant differences in most countries (Figure 3b). On average, the difference between boys and girls in the amount of alcohol consumed was 1.0 centilitres, with the highest differences in Georgia (2.6 centilitres), Montenegro (2.1 centilitres) and Austria (2.0 centilitres).

**Figure 3a.** Average alcohol intake on the last drinking day in centilitres of ethanol among users



**Figure 3b.** Average alcohol intake on the last drinking day in centilitres of ethanol among users by gender

<sup>1</sup> Belgium (Flanders), Cyprus and Moldova: limited geographical coverage.

<sup>2</sup> Latvia: limited comparability.

### Preferences of alcoholic beverages on the last drinking day

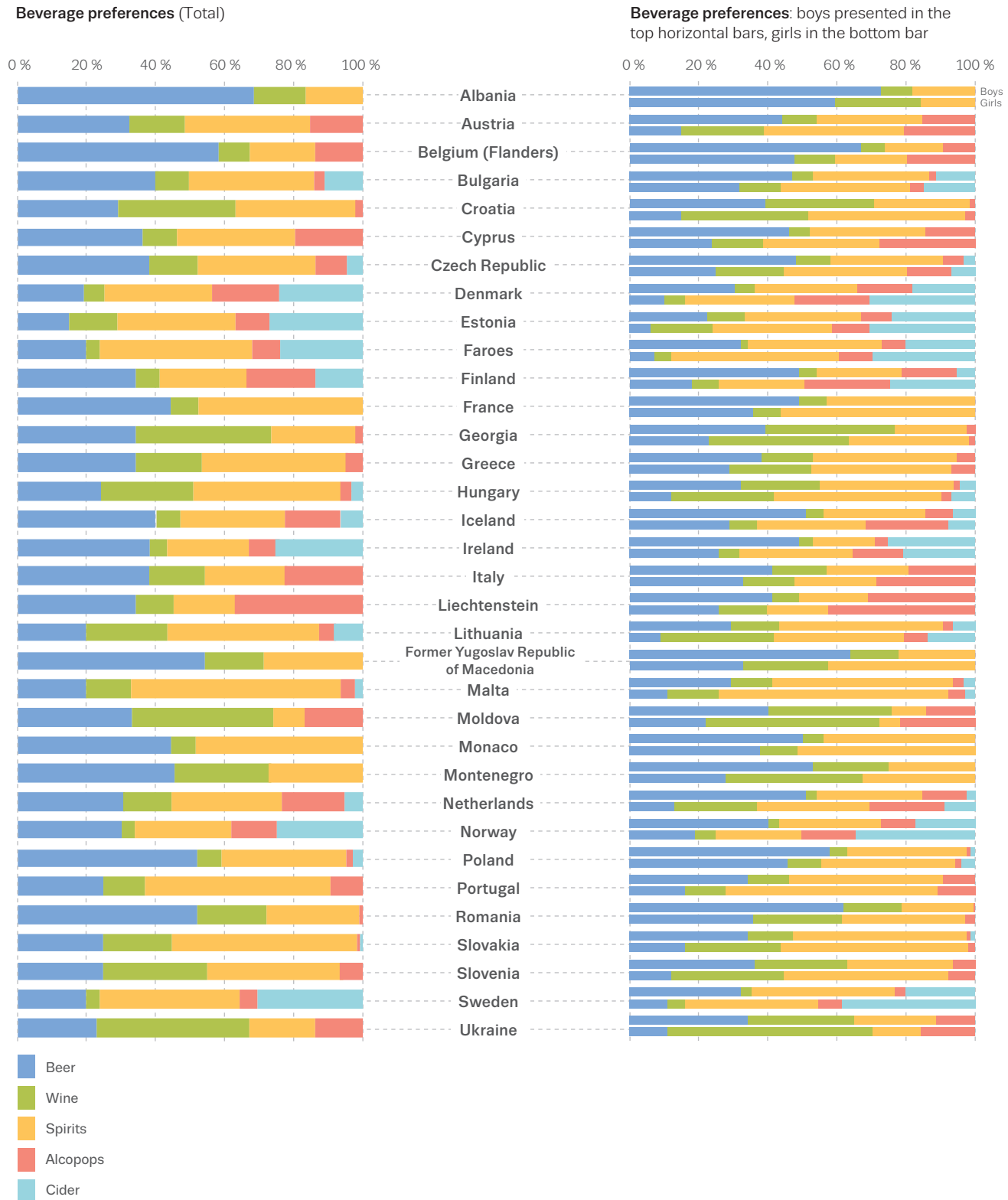
The relative contribution of each beverage (in centilitres of ethanol) to the total amount of alcohol consumed is taken as an indicator of preference in alcoholic beverages. On average, beer (35 %) and spirits (34 %) were the preferred alcoholic beverages (Figure 4a). In Albania (68 %), Belgium (Flanders) (58 %), the former Yugoslav Republic of Macedonia (54 %), Romania (52 %) and Poland (52 %), more than every second student who had drunk alcohol preferred beer, and in Malta (60 %), Portugal (53 %), Slovakia (53 %), France (48 %) and Monaco (48 %), every second student preferred spirits. Wine was preferred over beer and spirits in Ukraine (44 %), Moldova (41 %) and Georgia (39 %), and alcopops were the alcoholic drink of preference in Liechtenstein (36 %). In Denmark, Estonia, Faroes, Ireland, Norway and Sweden, cider accounted for at least one quarter of the total amount of alcohol consumed. In these countries,

cider was the second most preferred alcoholic beverage after beer or spirits.

Differences in beverage preferences were found between boys and girls (Figure 4b). In more than half of the countries, boys preferred beer (overall average: 43 %) over other alcoholic beverages. In Estonia, the Faroes, Greece, Hungary, Lithuania, Malta, Portugal, Slovakia and Sweden, boys preferred spirits over beer. A generally lower preference for cider and wine was found among boys than among girls in more than half of the countries. Among girls, in Sweden, Estonia, Denmark and the Faroes, cider was the second choice after spirits, and in Norway cider was the most preferred alcoholic beverage (33 %). In Georgia, Moldova, Montenegro and Ukraine, girls preferred wine over spirits. The preference for alcopops was generally higher among girls than among boys (11 % versus 7 %), with a share of 24 % or more in Cyprus, Finland, Iceland and Italy among girls, and in Liechtenstein among both genders.

**Figure 4a.** Preferences of alcoholic beverages on the last drinking day; proportion of alcohol volume in centilitres of ethanol for each beverage on total consumption

**Figure 4b.** Preferences of alcoholic beverages on the last drinking day by gender; proportion of alcohol volume in centilitres of ethanol for each beverage on total consumption

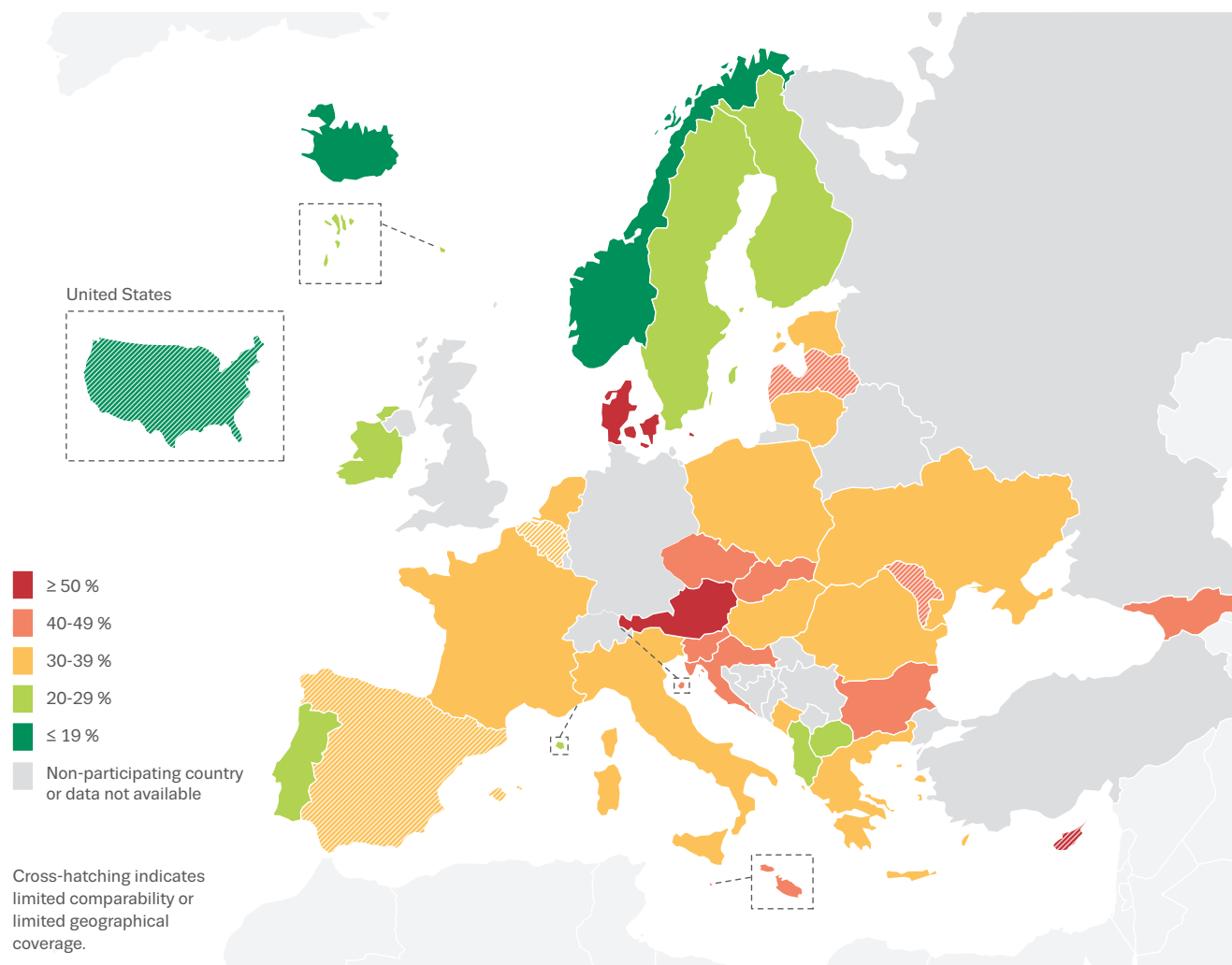


### Heavy episodic drinking in the last 30 days

Every third student (35 %) reported heavy episodic drinking during the last 30 days (Figure 5a). This drinking pattern was found more often in Austria, Cyprus and Denmark, with about every second student reporting heavy episodic drinking. The lowest figures were found in Norway (19 %) and Iceland (8 %). The difference between boys and girls

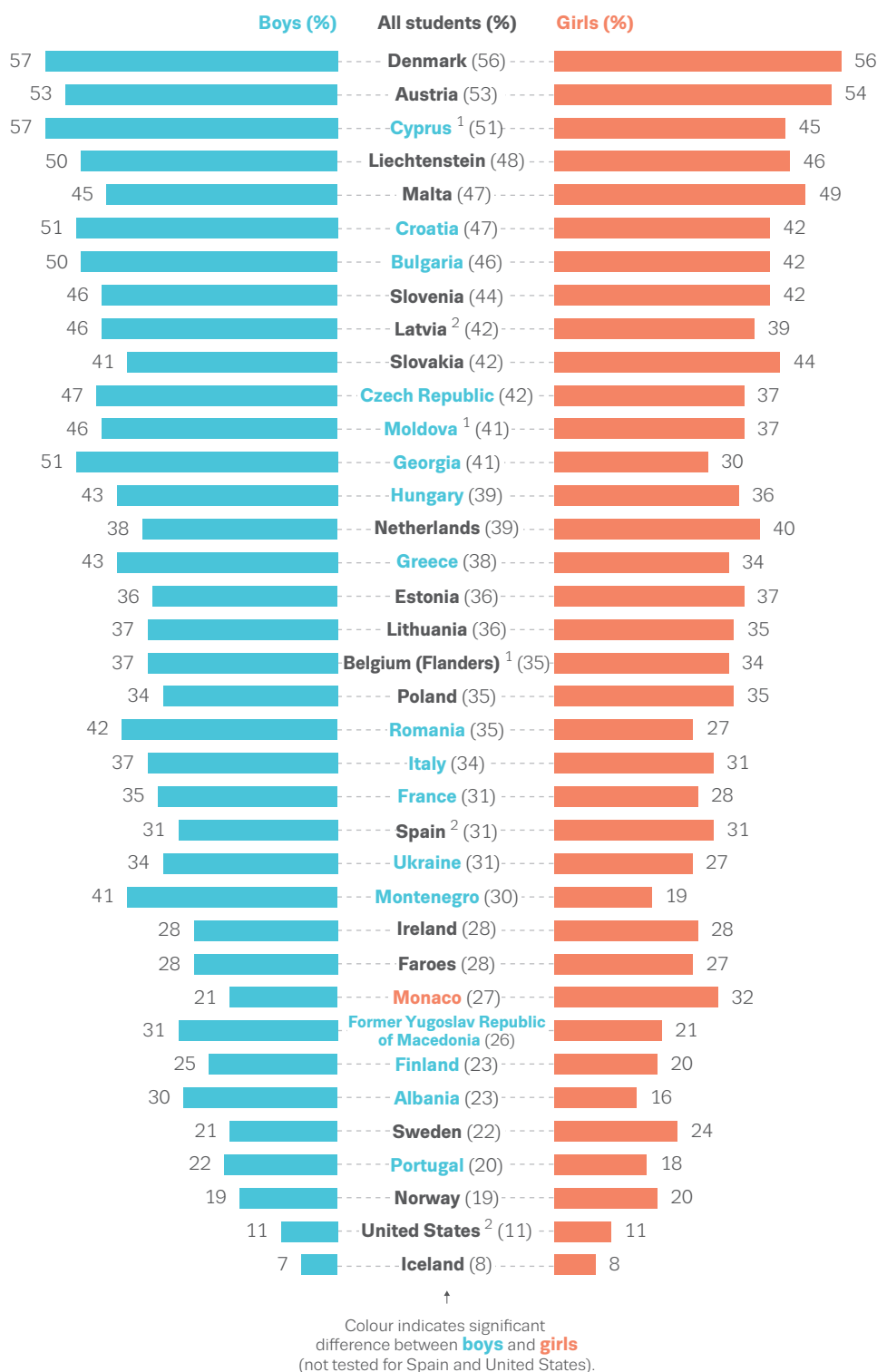
was about 5 percentage points on average, with generally higher figures for boys (Figure 5b). Significant gender differences were found in half of the countries, with the largest differences in Montenegro (22 percentage points), Georgia (21), Romania (15) and Albania (14). However, in Monaco, significantly more girls than boys reported heavy episodic drinking at least once in the last 30 days (32 % for girls versus 21 % for boys).

**Figure 5a.** Prevalence of five or more drinks at least once in the last 30 days; one drink contains approximately 2 centilitres of ethanol (percentage)





**Figure 5b.** Prevalence of five or more drinks at least once in the last 30 days by gender; one drink contains approximately 2 centilitres of ethanol (percentage)



<sup>1</sup> Belgium (Flanders), Cyprus and Moldova: limited geographical coverage.

<sup>2</sup> Latvia, Spain and United States: limited comparability.

### Current cannabis use

Overall, 7 % of the students had used cannabis in the last 30 days (Figure 6a). About twice as many students had used cannabis at least once in the last month in France (17 %), Italy (15 %) and the Czech Republic (13 %), compared with their

counterparts in other ESPAD countries. More boys than girls reported cannabis use in the last 30 days (8 % versus 5 %). In half of the countries, gender differences were statistically significant (Figure 6b), with the largest differences found in Albania, Belgium (Flanders), Bulgaria, Georgia, Ireland, Italy, Liechtenstein and the Netherlands (5-8 percentage points).

**Figure 6a.** Prevalence of cannabis use in the last 30 days (percentage)

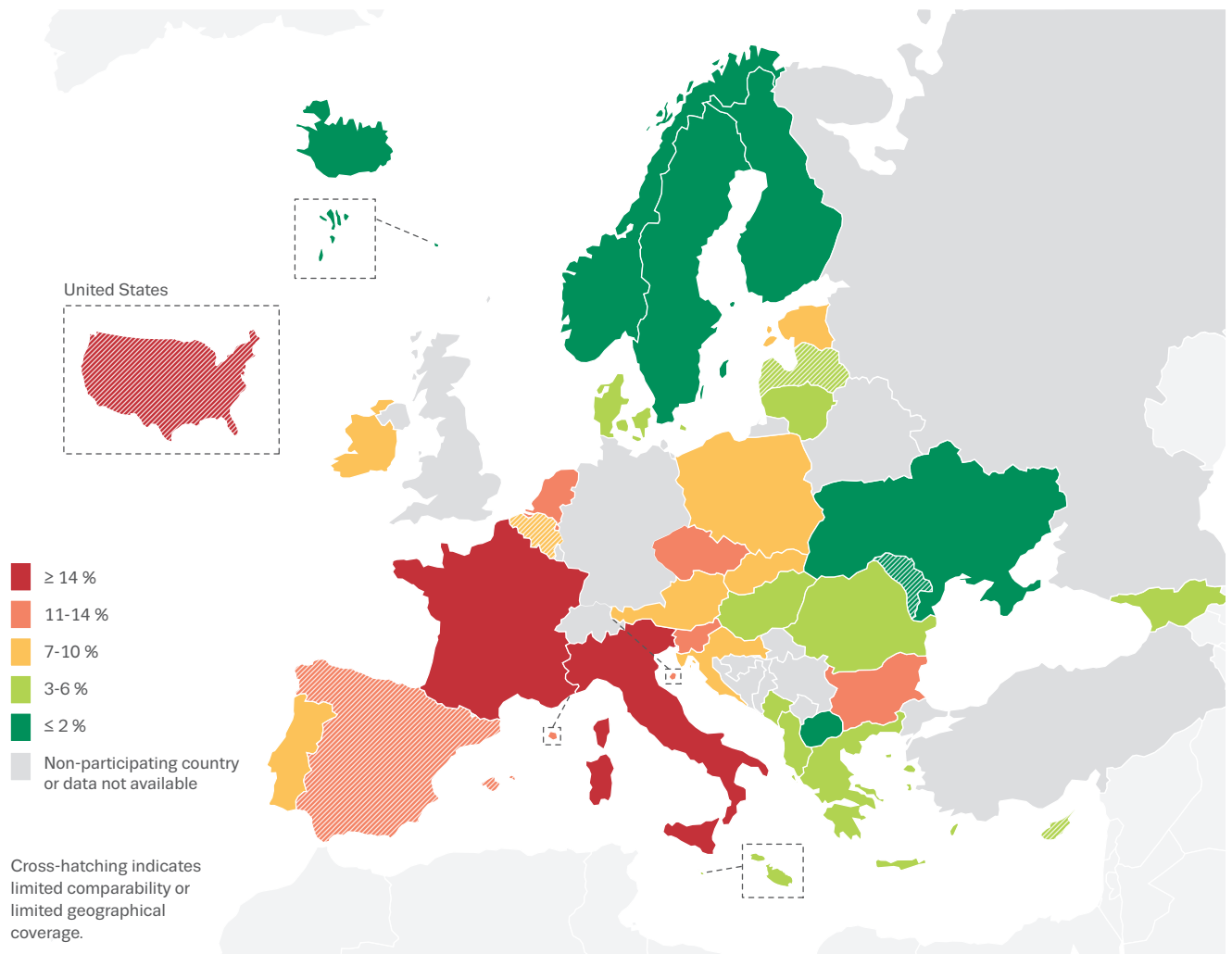
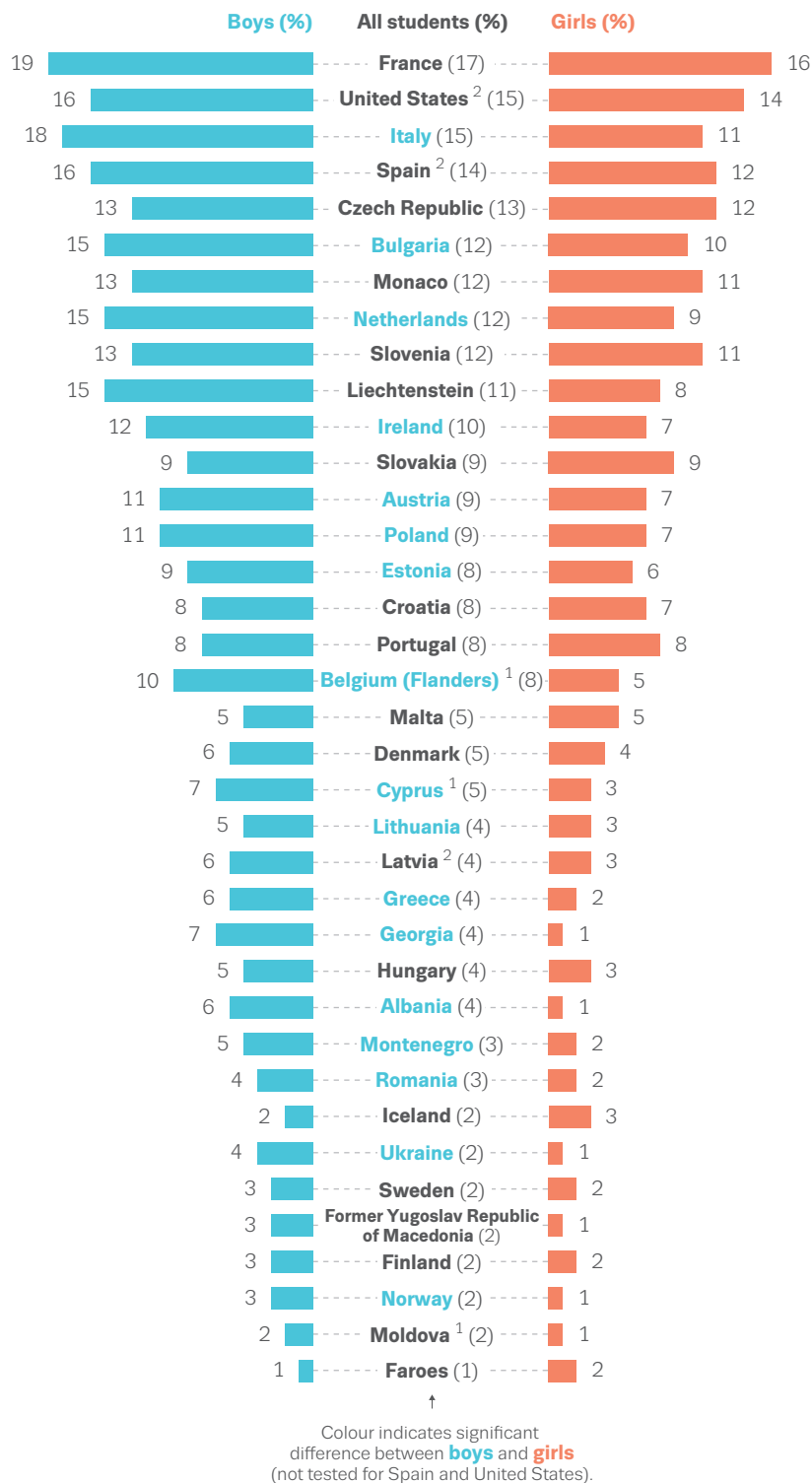


Figure 6b. Prevalence of cannabis use in the last 30 days by gender (percentage)



<sup>1</sup> Belgium (Flanders), Cyprus and Moldova: limited geographical coverage.

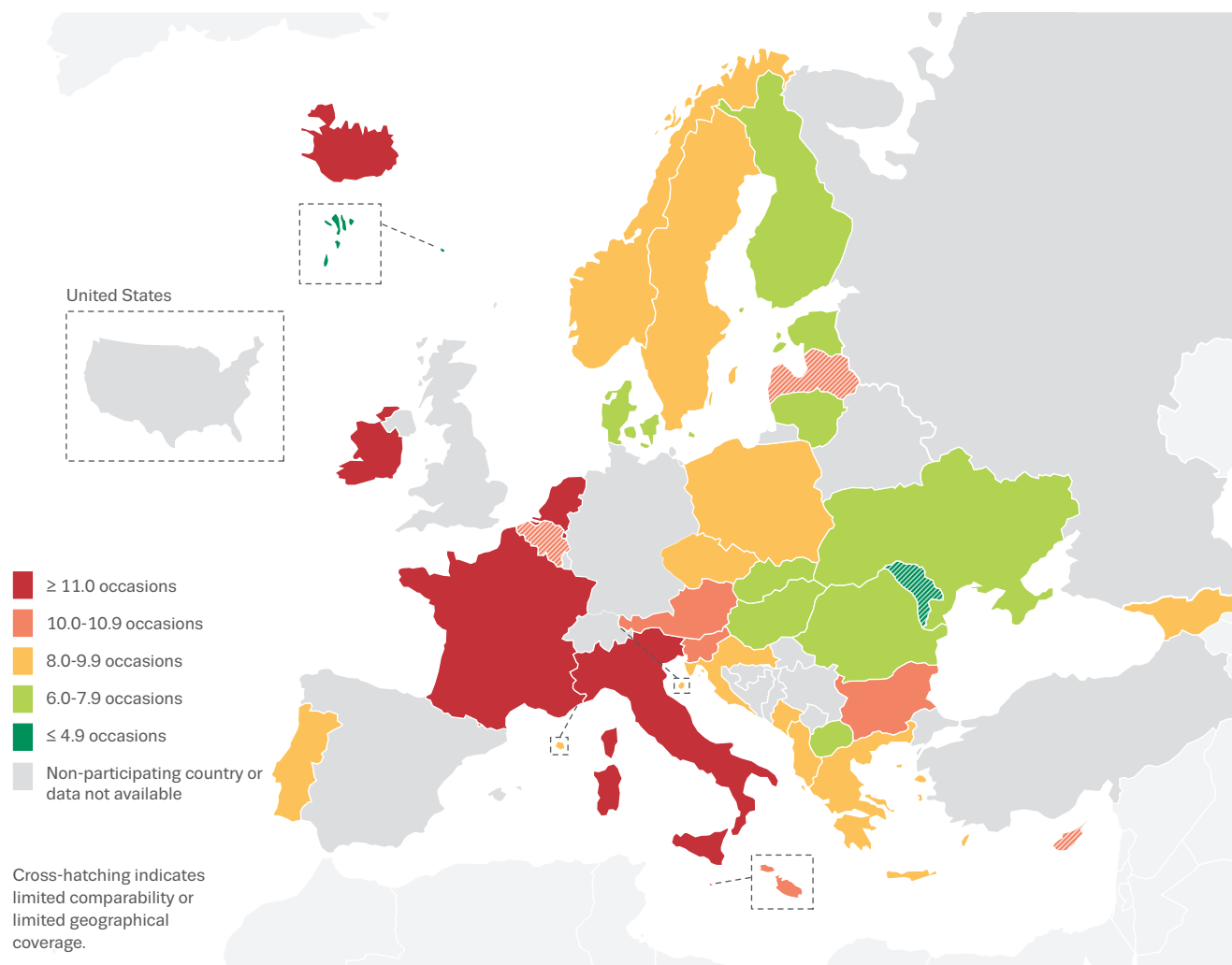
<sup>2</sup> Latvia, Spain and United States: limited comparability.

### Frequency of cannabis use in the last 12 months

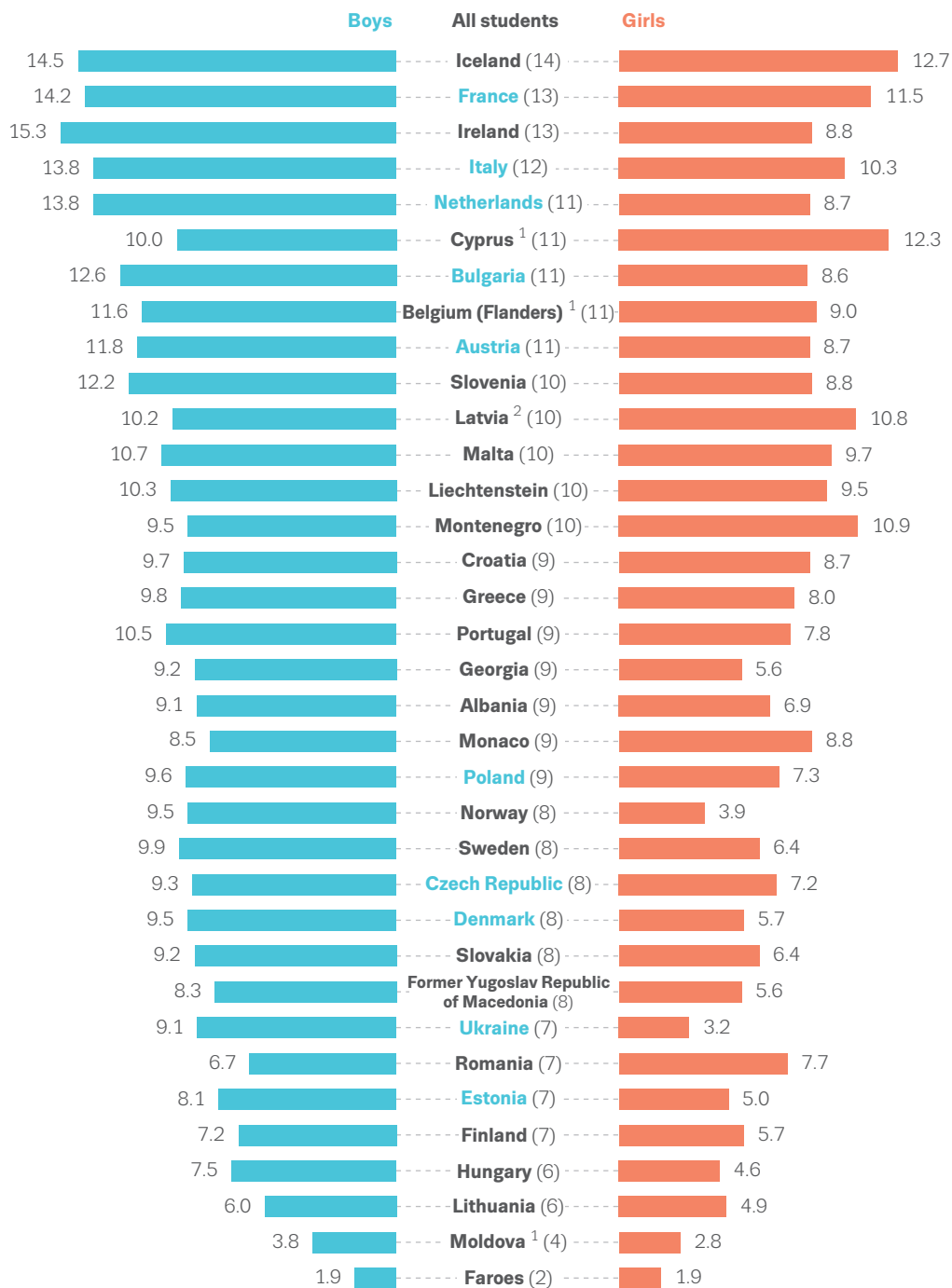
Among all students who had used cannabis, on average, the drug was used on 8.9 occasions in the last 12 months (Figure 7a). In France, Iceland, Ireland, Italy and the Netherlands, cannabis was used once a month on average (11.5 or more times). The lowest frequencies of cannabis use were found in the Faroes and Moldova (3.6 or fewer).

Overall, boys reported a higher frequency of cannabis use than girls (Figure 7b), with significant gender differences in Austria, Bulgaria, the Czech Republic, Denmark, Estonia, France, Italy, the Netherlands, Poland and Ukraine. In Cyprus, Latvia, Monaco, Montenegro and Romania, cannabis was used more frequently by girls than boys, even though these differences were not statistically significant.

**Figure 7a.** Frequency of cannabis use in the last 12 months (mean number of occasions among users)



**Figure 7b.** Frequency of cannabis use in the last 12 months by gender (mean number of occasions among users)



↑  
Colour indicates significant difference between boys and girls.

<sup>1</sup> Belgium (Flanders), Cyprus and Moldova: limited geographical coverage.

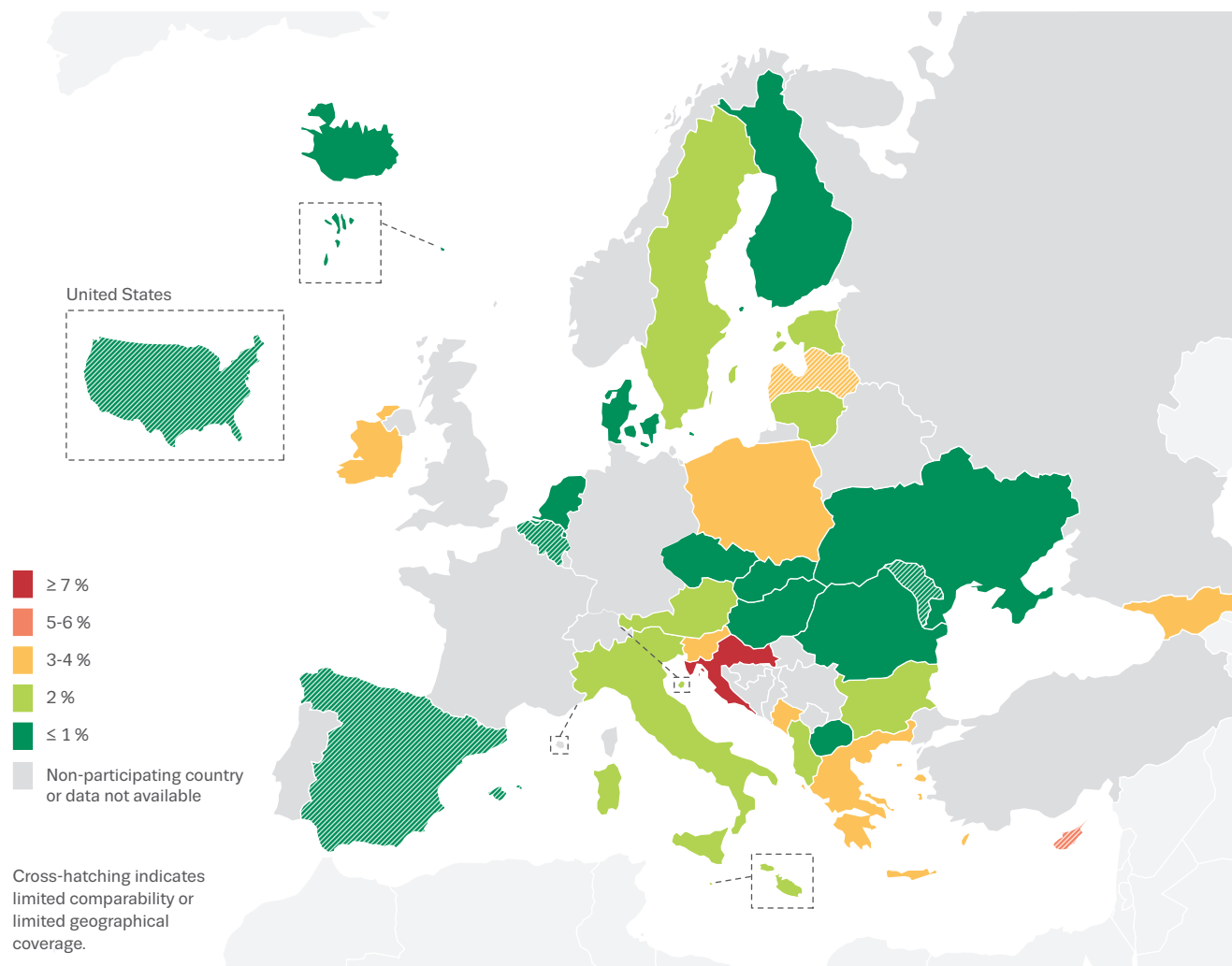
<sup>2</sup> Latvia: limited comparability.

### Current inhalant use

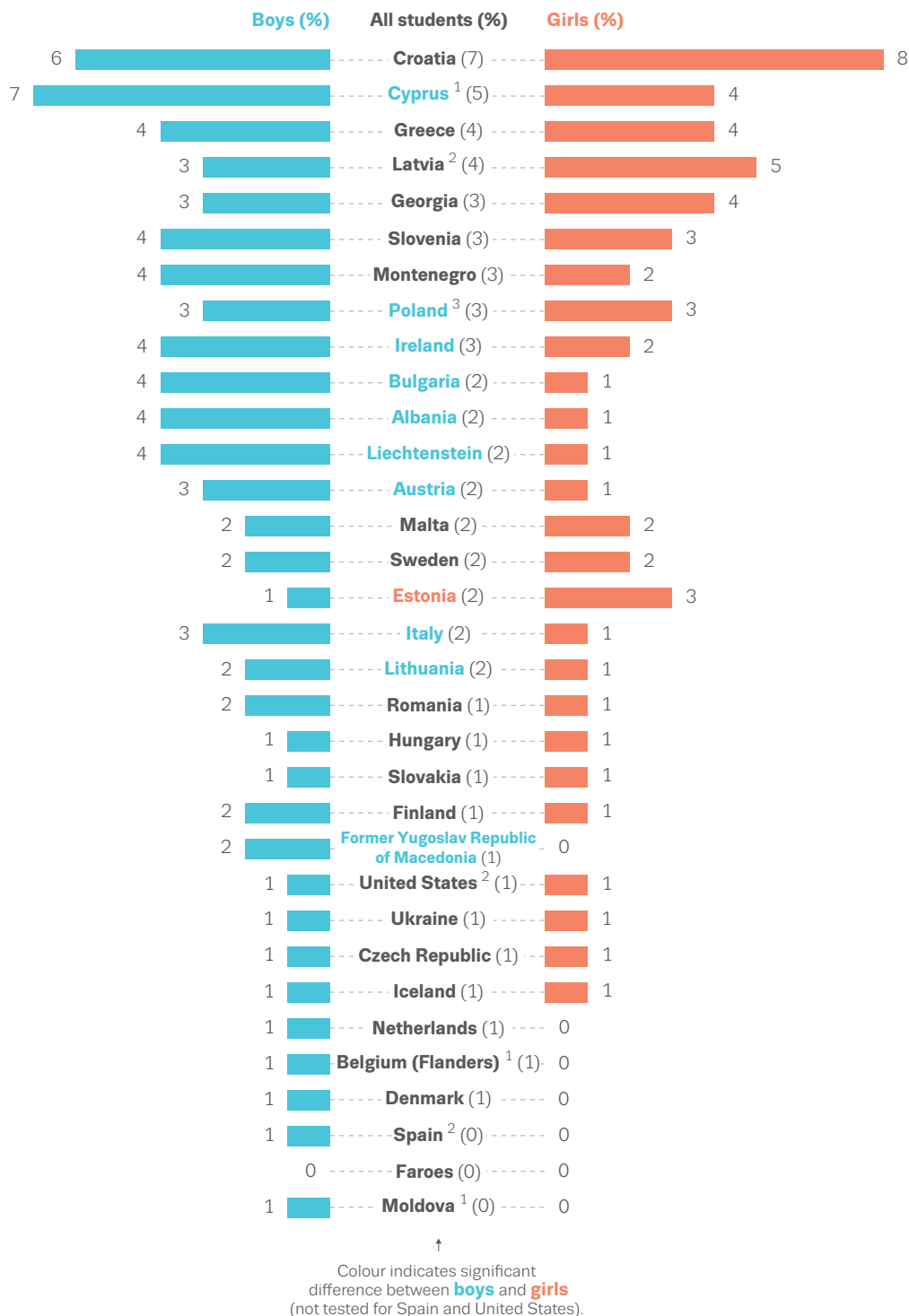
Use of inhalants in the last 30 days was relatively rare. On average, 2 % of the students reported use of inhalants to get high in the last 30 days (Figure 8a). The highest prevalence rates were found in Croatia (7 %) and Cyprus (5 %). Girls

reported inhalant use more frequently than boys in Estonia, Croatia and Latvia, whereas in Albania, Austria, Bulgaria, Cyprus, the former Yugoslav Republic of Macedonia, Ireland, Italy, Liechtenstein and Lithuania, inhalant use was more frequently reported among boys. Gender differences were generally small (Figure 8b).

**Figure 8a.** Prevalence of inhalant use in the last 30 days (percentage)



**Figure 8b.** Prevalence of inhalant use in the last 30 days by gender (percentage)



<sup>1</sup> Belgium (Flanders), Cyprus and Moldova: limited geographical coverage.

<sup>2</sup> Latvia, Spain and United States: limited comparability.

<sup>3</sup> Significance tested using logistic regression on non-rounded figures for boys (3.3) and girls (2.7)

### New psychoactive substance use

Overall, an average of 3 % of the students had used NPS at least once in the last 12 months, with the highest prevalence figures in Bulgaria, Croatia, Estonia, Ireland, Italy and Poland (5-8 %), and the lowest in Belgium (Flanders), Denmark, the Faroes, Finland, the former Yugoslav Republic of Macedonia,

Moldova, the Netherlands, Norway and Portugal, with 1 % each (Figure 9a). Generally, differences in NPS use between boys and girls were small. However, significantly more boys than girls reported the use of NPS in Albania, Cyprus, Georgia, Greece, Moldova, Montenegro, the Netherlands, and significantly more girls than boys in the Czech Republic and Iceland (Figure 9b).

**Figure 9a.** Prevalence of new psychoactive substance use in the last 12 months (percentage)

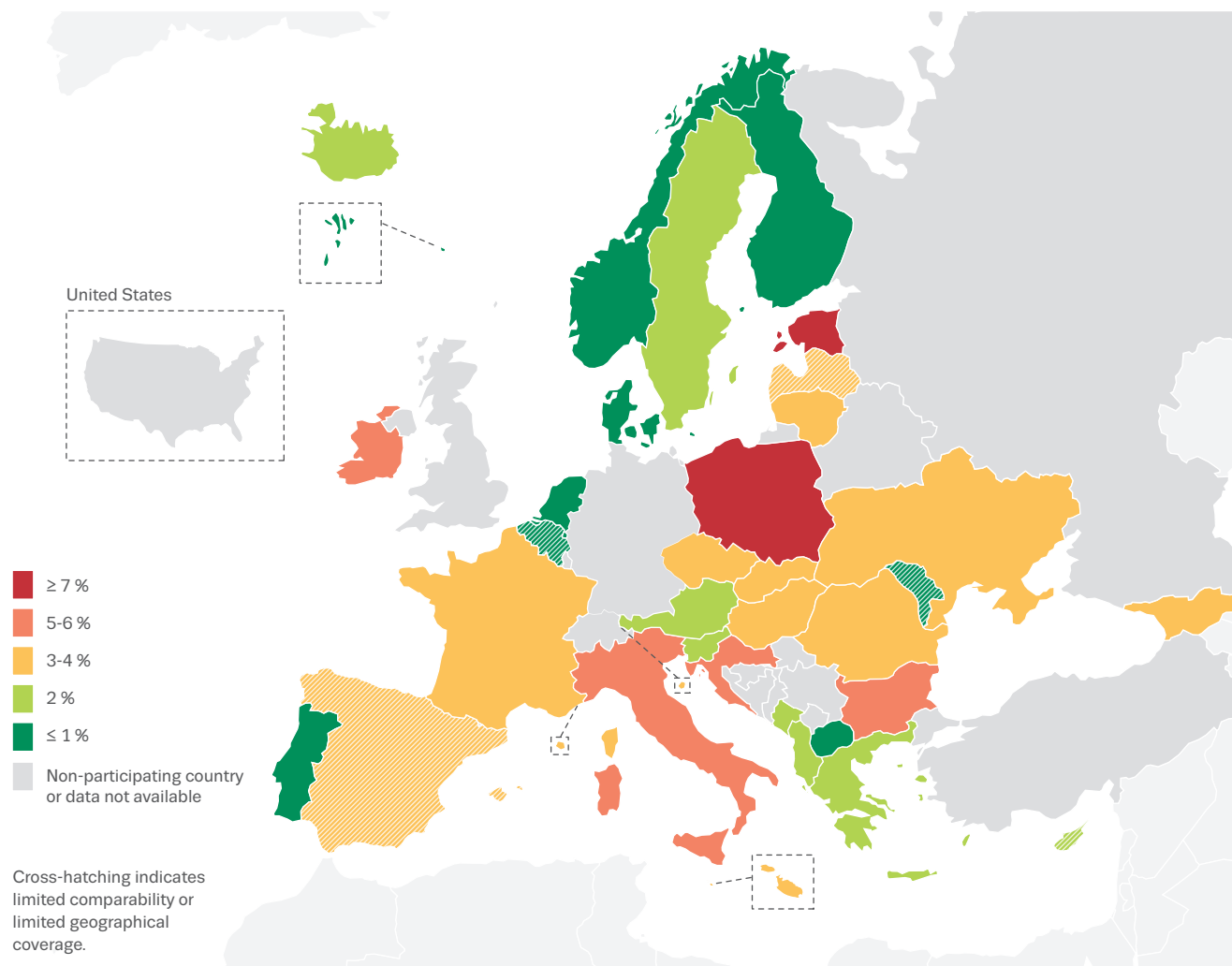
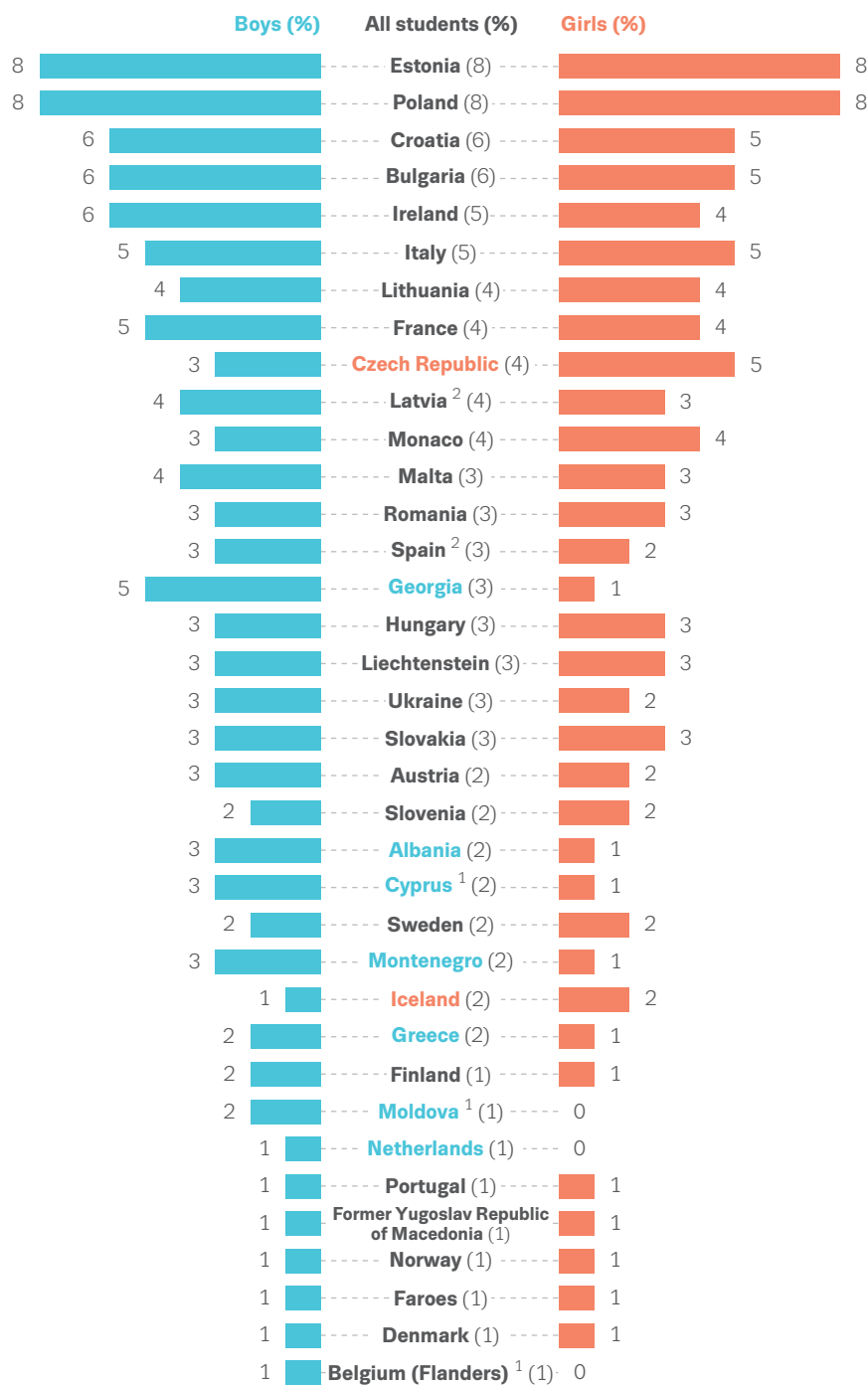




Figure 9b. Prevalence of new psychoactive substance use in the last 12 months by gender (percentage)



↑  
Colour indicates significant difference between boys and girls (not tested for Spain).

<sup>1</sup> Belgium (Flanders), Cyprus and Moldova: limited geographical coverage.

<sup>2</sup> Latvia and Spain: limited comparability.

## Internet use, gaming, gambling

ESPAD average Internet use, gaming and gambling (mean, %)			
	Average	Min.	Max.
Days online (mean) <sup>a</sup>	5.8	3.8	6.8
Internet activities (%) <sup>b</sup>			
Social media	78	58	94
Information seeking/surfing	43	26	63
Streaming/downloading	48	28	80
Gaming	23	13	45
Money gambling	3	1	8
Buying/selling	9	3	19
Gambling (%) <sup>c</sup>			
At least once	14	5	30
Frequently <sup>d</sup>	7	3	16

<sup>a</sup> Number of days spent on the internet in the last 7 days.

<sup>b</sup> Percentage of students spending 4 or more days on the internet in the last 7 days.

<sup>c</sup> Percentage of students involved in gambling with money in the last 12 months.

<sup>d</sup> Percentage of students reporting gambling with money 2-4 times a month or more often.

### Internet use

On average, the students reported use of the internet on 5.8 days within the last 7 days prior to the survey (Table 11a). The frequency of use was lower in Albania, Bulgaria, the former Yugoslav Republic of Macedonia, Georgia, Montenegro, Romania and Ukraine (3.8-5.1 days). Students in Denmark (6.8 days), Iceland (6.7 days), Finland, the Netherlands, Sweden (6.6 days each) and Estonia (6.5 days) were online every day of the week. No gender differences were observed.

### Internet activities

Overall, 78 % of the students had used the internet for social media activities regularly, i.e. on 4 or more days during the last 7 days (Tables 11a, 11b). Using social media was the predominant internet activity, and was reported by between 58 % (Albania) and 94 % (Finland) of the students. There were gender differences in the use of social media, with higher figures overall for girls than boys. In two thirds of the ESPAD countries, rates among girls were 10 or more percentage points higher than among boys. Exceptions were Albania (63 % for boys versus 54 % for girls) and Monaco (87 % versus 80 %), where more boys than girls reported social media use.

Slightly less than half of the students were regularly (at least four times for each of these activities in the last 7 days) using the internet for information seeking/surfing (43 % on average) or streaming/downloading (48 %). The highest figures for information seeking/surfing were found in Monaco (63 %), Finland (61 %) and Denmark (58 %), and for streaming/downloading in Norway (80 %), Finland (74 %) and Cyprus (67 %). Lower rates (30 % or less) of information seeking/surfing were reported in Montenegro and Portugal, and for streaming/downloading in the Czech Republic. With few exceptions, in nearly all countries, more girls than boys used the internet for information seeking/surfing or streaming/downloading. Nearly every 10th student (9 %) regularly used the internet for buying/selling, ranging from 3 % in Iceland and Liechtenstein to 19 % in Hungary and the Netherlands. On average, 11 % of the boys and 8 % of the girls reported these activities.

### Online gaming and gambling

More than one in five students (23 %) used the internet for online gaming regularly (at least four times in the last 7 days) (Table 11b). Nearly half of the students from Denmark played regularly online (45 %). Regular online gaming was not so common in Georgia (13 %), the former Yugoslav Republic of Macedonia and Moldova (16 % each). Online gaming was much more common among boys (39 %) than girls (7 %). Among boys, the highest figures for the regular playing of online games were found in Denmark (64 %), Sweden (58 %), Estonia (55 %), Norway (52 %) and Finland (51 %), and the lowest in Georgia and Monaco (23 % each). The countries with the highest proportion of girls reporting regularly playing games online were Denmark (28 %) and Monaco (18 %).

Online money gambling was the least common of the internet activities (ESPAD average: 3 %), with the highest figures in Bulgaria (8 %), Albania, Cyprus and the former Yugoslav Republic of Macedonia (7 % each). Like online gaming, online gambling for money is predominantly done by boys (6 % compared with 1 % of girls). The highest rates of boys reporting online gambling for money were found in Albania, Bulgaria, Croatia, Cyprus and the former Yugoslav Republic of Macedonia (11-13 %).

**Table 11a.** Average number of days on the internet (mean number of days) and prevalence of internet activities on 4 or more days in the last 7 days (percentage)

Country	Days online	Social media	Information seeking, surfing	Streaming/downloading music, films, etc.	Days online		Social media		Information seeking, surfing		Streaming/downloading music, films, etc.	
					Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Albania	4.1	58	38	46	4.4	3.8	63	54	32	43	46	46
Austria	6.1	85	42	39	6.1	6.1	80	91	37	47	42	36
Belgium (Flanders)	.	.	.	.	.	.	.	.	.	.	.	.
Bulgaria	5.1	75	49	48	4.9	5.2	70	81	43	54	48	48
Croatia	5.8	83	46	38	5.7	6.0	77	89	43	49	41	33
Cyprus	6.2	77	36	67	5.9	6.4	66	86	34	39	59	75
Czech Republic	6.2	83	42	28	6.1	6.3	77	88	42	42	29	27
Denmark	6.8	85	58	50	6.8	6.9	81	89	53	62	53	48
Estonia	6.5	85	53	42	6.5	6.5	80	90	48	58	42	43
Faroes	6.1	89	31	32	6.3	6.0	85	94	32	31	31	33
Finland	6.6	94	61	74	6.5	6.7	92	96	58	64	69	79
FYR Macedonia <sup>a</sup>	4.0	66	40	38	4.1	3.9	65	68	39	41	40	36
France	6.2	79	40	35	6.2	6.3	74	85	40	39	36	34
Georgia	3.8	64	36	48	3.9	3.7	60	67	31	42	47	49
Greece	5.8	79	33	64	5.6	5.9	74	83	32	35	60	68
Hungary	6.1	80	35	43	6.1	6.2	74	87	33	37	41	45
Iceland	6.7	83	45	62	6.7	6.6	77	88	45	45	60	65
Ireland	6.3	82	37	43	6.3	6.4	76	88	34	41	41	45
Italy	5.7	80	44	40	5.6	5.9	74	88	41	47	36	44
Liechtenstein	6.4	89	40	38	6.3	6.5	85	93	41	40	39	37
Lithuania	5.7	71	38	52	5.6	5.8	60	82	34	42	49	56
Malta	6.1	85	36	48	5.9	6.3	79	90	34	39	43	53
Moldova	5.5	63	47	57	5.3	5.7	56	69	38	57	55	60
Monaco	6.5	84	63	37	6.4	6.6	87	80	61	65	36	39
Montenegro	4.9	65	30	35	4.8	4.9	59	72	25	35	32	39
Netherlands	6.6	92	34	65	6.5	6.7	87	96	30	38	62	68
Norway	5.9	88	56	80	5.8	6.0	84	94	54	58	75	86
Poland	5.9	78	54	58	5.8	6.0	73	82	52	56	57	58
Portugal	5.9	74	26	43	5.8	5.9	68	80	25	27	45	41
Romania	4.4	67	33	33	4.2	4.6	60	74	27	39	32	34
Slovakia	6.0	65	36	43	6.0	6.0	59	71	36	36	39	46
Slovenia	6.3	78	41	63	6.1	6.4	69	86	37	44	57	68
Sweden	6.6	85	53	36	6.5	6.7	79	91	48	59	36	36
Ukraine	4.9	75	50	45	4.7	5.1	68	82	44	55	41	48
<b>AVERAGE</b>	<b>5.8</b>	<b>78</b>	<b>43</b>	<b>48</b>	<b>5.7</b>	<b>5.9</b>	<b>73</b>	<b>83</b>	<b>39</b>	<b>46</b>	<b>46</b>	<b>49</b>
Latvia	5.3	78	50	66	5.3	5.4	5	2	2	1	2	3
Spain	5.9	.	.	.	5.8	6.0	.	.	.	.	.	.
United States	.	.	.	.	.	.	.	.	.	.	.	.

<sup>a</sup> Official name former Yugoslav Republic of Macedonia.

**Table 11b.** Prevalence of internet activities on 4 or more days in the last 7 days by gender (percentage)

Country	Gaming	Money gambling	Buying/selling	Gaming		Money gambling		Buying/selling	
				Boys	Girls	Boys	Girls	Boys	Girls
Albania	19	7	10	28	11	11	3	13	8
Austria	21	1	7	37	5	2	0	8	5
Belgium (Flanders)	.	.	.	.	.	.	.	.	.
Bulgaria	25	8	16	41	10	13	4	18	14
Croatia	23	6	9	39	6	11	2	11	6
Cyprus	25	7	13	42	9	12	3	16	10
Czech Republic	26	3	11	44	7	4	1	11	10
Denmark	45	5	8	64	28	9	1	8	8
Estonia	31	3	4	55	6	6	1	6	3
Faroese	26	1	6	50	3	2	0	4	8
Finland	27	2	5	51	5	3	0	7	3
FYR Macedonia <sup>a</sup>	16	7	14	26	6	11	3	17	10
France	23	1	6	41	6	1	0	7	6
Georgia	13	6	10	23	2	10	1	13	6
Greece	18	3	5	33	3	5	1	6	4
Hungary	21	3	19	35	8	5	1	22	15
Iceland	22	1	3	41	4	2	0	3	3
Ireland	18	3	10	32	3	5	0	12	8
Italy	22	3	9	33	10	5	1	11	8
Liechtenstein	20	1	3	41	2	1	0	6	1
Lithuania	30	5	11	46	13	9	1	13	9
Malta	24	1	13	41	8	2	0	12	13
Moldova	16	2	12	28	4	3	1	17	6
Monaco	20	2	8	23	18	3	2	10	7
Montenegro	18	5	9	31	6	8	2	11	7
Netherlands	27	4	19	48	6	7	2	22	16
Norway	30	2	14	52	5	4	1	16	12
Poland	22	3	10	39	6	5	1	11	8
Portugal	20	2	5	39	5	5	0	8	3
Romania	21	4	9	36	7	6	2	12	6
Slovakia	20	4	11	31	9	5	2	12	10
Slovenia	18	3	9	33	4	5	1	10	7
Sweden	32	5	10	58	7	7	2	13	7
Ukraine	17	2	6	30	5	3	1	7	4
<b>AVERAGE</b>	<b>23</b>	<b>3</b>	<b>9</b>	<b>39</b>	<b>7</b>	<b>6</b>	<b>1</b>	<b>11</b>	<b>8</b>
Latvia	27	8	13	2	0	2	1	7	7
Spain	.	.	.	.	.	.	.	.	.
United States	.	.	.	.	.	.	.	.	.

<sup>a</sup> Official name former Yugoslav Republic of Macedonia.

## Gambling

On average, 14 % of the students reported gambling for money at least once and 7 % had gambled frequently (2-4 times a month or more often; Table 12) in the last 12 months. The highest rates of gambling in the past year (30 %) and frequent gambling (16 %) were found in Greece. About one in five students in Cyprus, Finland, Montenegro and Slovenia reported gambling in the past 12 months, and, in addition to Greece, more than every 10th student in Finland and Ireland gambled frequently. In all countries, considerably more boys

than girls had gambled in the previous year (23 % versus 5 % on average) or gambled frequently (12 % versus 2 %). About one third or more of the boys in Croatia, Cyprus, Finland, Greece, Montenegro and Slovenia reported gambling with money in the last 12 months. At least 20 % of the boys reported having gambled frequently in Cyprus, Greece, Montenegro and Slovenia. In Greece, 12 % of the girls reported gambling experience in the previous 12 months and 3 % gambled frequently. Comparably high proportions for girls were also found in Slovenia (11 % gambling experience, 4 % frequent gambling).

**Table 12.** Gambling for money: prevalence in the last 12 months (percentage)

Country	At least once	Frequently	At least once		Frequently	
			Boys	Girls	Boys	Girls
Albania	8	3	15	2	10	1
Austria	7	4	11	2	5	0
Belgium (Flanders)	.	.	.	.	.	.
Bulgaria	18	7	30	7	19	3
Croatia	19	8	33	4	20	2
Cyprus	23	9	39	8	26	3
Czech Republic	9	5	15	3	7	1
Denmark	16	8	29	4	16	0
Estonia	12	6	20	4	10	2
Faroes	11	7	20	2	8	0
Finland	20	13	34	7	14	1
FYR Macedonia <sup>a</sup>	14	6	23	5	14	2
France	17	9	27	8	15	2
Georgia	14	4	24	3	17	2
Greece	30	16	49	12	27	3
Hungary	16	6	26	6	17	3
Iceland	7	4	12	2	4	1
Ireland	16	11	26	6	9	1
Italy	15	6	24	5	15	2
Liechtenstein	9	4	17	2	9	1
Lithuania	12	6	20	3	11	1
Malta	7	4	12	3	5	1
Moldova	5	3	9	2	4	1
Monaco	14	7	23	6	12	2
Montenegro	23	8	38	8	26	3
Netherlands	14	9	23	5	9	1
Norway	7	4	11	3	6	1
Poland	10	5	17	4	9	3
Portugal	8	4	14	4	8	1
Romania	13	6	22	5	12	2
Slovakia	14	7	24	5	12	2
Slovenia	21	9	32	11	20	4
Sweden	13	5	22	5	14	2
Ukraine	7	4	12	3	6	1
<b>AVERAGE</b>	<b>14</b>	<b>7</b>	<b>23</b>	<b>5</b>	<b>12</b>	<b>2</b>
Latvia	16	8	23	9	12	4
Spain	16	6	29	9	14	2
United States	.	.	.	.	.	.

<sup>a</sup> Official name former Yugoslav Republic of Macedonia.



# Trends 1995-2015



# Trends 1995-2015

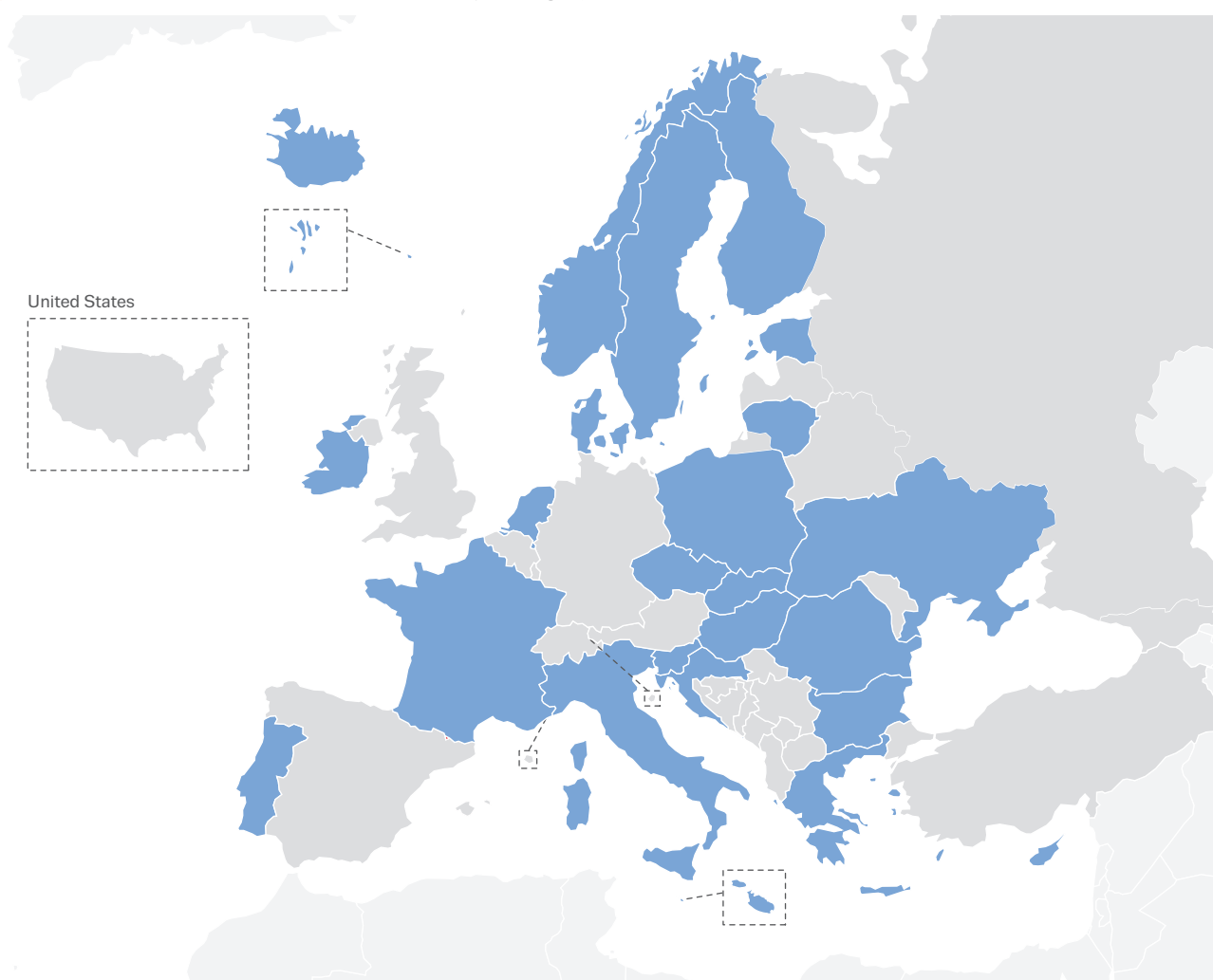
This chapter presents changes in substance use for selected indicators from 1995 to 2015. The indicators covered include students' perceptions of substance use availability, early onset of substance use, substance use experience and patterns of substance use. Sample sizes and class participation rates for all countries are shown in Table 13.

the Faroes, Finland, France, Greece, Hungary, Iceland, Ireland, Italy, Lithuania, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Sweden and Ukraine (Figure 10). Trends for 15 key variables are shown in Table 14 and trends by gender are graphically depicted in Figures 11-25.

## Trends across 25 countries

In this section, overall trends measured across country-specific means of 25 countries are reported between 1995 and 2015. The 25 countries included are Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia,

**Figure 10.** Countries included in the 25-country average (marked in blue)





**Table 13.** Overview of ESPAD surveys conducted between 1995 and 2015 by country: sample size and participation rate

Country	1995		1999		2003		2007		2011		2015	
	<i>n</i>	% <sup>a</sup>	<i>n</i>	% <sup>a</sup>	<i>n</i>	% <sup>a</sup>	<i>n</i>	% <sup>a</sup>	<i>n</i>	%	<i>n</i> <sup>a</sup>	% <sup>a</sup>
Albania	.	.	.	.	.	.	.	.	3 189	100	2 553	100
Austria	.	.	.	.	2 402	73	2 571	63	.	.	3 684	17 <sup>b</sup>
Belgium (Flanders)	.	.	.	.	2 320 <sup>c</sup>	88	1 889 <sup>d</sup>	54 <sup>e</sup>	1 798 <sup>f</sup>	58 <sup>e</sup>	1 771 <sup>f</sup>	56 <sup>e</sup>
Bosnia and Herzegovina (FBiH)	.	.	.	.	.	.	2 973 <sup>g</sup>	100	3 813 <sup>d</sup>	99	.	.
Bosnia and Herzegovina (RS)	.	.	.	.	.	.	2 609 <sup>g</sup>	97	3 132	98	.	.
Bulgaria	.	.	5 391	100	2 740	100	2 353	100	2 217	100	2 922	98
Croatia	2 815	100	3 602	100	2 884	99	3 008	99	3 002	90	2 558	98
Cyprus	632	100	2 095	100	2 152	98 <sup>e</sup>	6 340	100	4 243	76	2 098	85
Czech Republic	2 962	100	3 579	99	3 195	100	3 901	100	3 913	98	2 738	96 <sup>e</sup>
Denmark	2 439	78	1 790	56	2 978	65	877	46	2 181	42 <sup>e</sup>	1 670	26 <sup>e</sup>
Estonia	3 118	94	3 254	89	2 463	80	2 372	90	2 460	95	2 452	90
Faroese	543	100	463	100	640	97	552	100	557	100	511	100
Finland	2 300	100	3 286	99 <sup>e</sup>	3 543	97	4 988	99	3 744	81	4 049	85
FYR Macedonia <sup>k</sup>	.	.	5 199	100	.	.	2 452 <sup>g</sup>	97	.	.	2 428	98
France	.	.	2 284	97	2 199	86	2 916	98	2 572	95	2 714	93
Germany <sup>h</sup>	.	.	.	.	5 110	91	5 011	90	2 796	40	.	.
Greece	.	.	2 259	94	1 906	97	3 060	88	5 908	87	3 202	95
Greenland	.	.	421	76 <sup>e</sup>	555	n.a.	.	.	.	.	.	.
Hungary	2 571	99	6 421	92	2 677	98	2 817	94	3 063	85	2 735	93
Iceland	3 814	90	3 524	99 <sup>e</sup>	3 348	98	3 510	97	3 333	95	2 663	79
Ireland	1 849	81	2 277	100	2 407	91	2 221	76	2 207	72	1 470	18 <sup>b</sup>
Isle of Man	.	.	.	.	721	100 <sup>e</sup>	740	100	.	<sup>i</sup>	.	.
Italy	1 555	99	4 106	100	4 871	97	9 981	99	4 837	88	4 059	85
Latvia	2 179	49	2 284	90	2 841	97	2 275	93	2 622	95	1 119	42
Liechtenstein	.	.	.	.	.	.	.	.	366	100	316	100
Lithuania	3 196	100	5 039	100	5 036	100	2 411	99	2 476	99	2 573	99
Malta	2 832	100	4 321	100	3 500	99	3 668	99	3 377	100	3 326	98
Moldova	.	.	.	.	.	.	3 176 <sup>g</sup>	99	2 162	100	2 586	100
Monaco	.	.	.	.	.	.	393	100	401	100	397	100
Montenegro	.	.	.	.	.	.	5 823 <sup>g</sup>	100	3 387	100	3 844	100
Netherlands	.	.	2 615	n.a.	2 095	97	2 091	98	2 044 <sup>d</sup>	50 <sup>e</sup>	1 684 <sup>d</sup>	43 <sup>e</sup>
Norway	3 910	90	3 918	86	3 833	77	3 482	58 <sup>e</sup>	2 938	28	2 584	53
Poland	8 940	96	3 330	n.a.	5 964	98	2 120	93	5 933	94	11 822	94
Portugal	2 033	100	3 609	100	2 946	98	3 141	95	1 965	90	3 456	96
Romania	.	.	2 393	94	4 371	100	2 289	98	2 770	100	3 500	100
Russia (Moscow)	.	.	2 937	95	1 925	92	3 939 <sup>j</sup>	96 <sup>e</sup>	1 757	77	.	.
Serbia	.	.	.	.	.	.	6 156 <sup>g</sup>	94 <sup>e</sup>	6 084	97	.	.
Slovakia	2 376	99	2 442	100	2 276	98	2 468	100	2 009	100	2 208	100
Slovenia	3 306	100	3 184	100	2 785	100	3 085	100	3 186	100	3 484	99
Sweden	3 472	94	3 445	89	3 232	87	3 179	87	2 569	80	2 551	83
Switzerland	.	.	.	.	2 613	86	2 499	88	.	.	.	.
Ukraine	7 193	99	2 994	97 <sup>e</sup>	4 173	98	2 447	98	2 210	99	2 350	98
United Kingdom	7 722	46 <sup>e</sup>	2 641	74 <sup>e</sup>	2 068	55 <sup>e</sup>	2 179	40	1 712	5	.	.

<sup>a</sup> Class participation rate: proportion of selected classes participating in the survey.

<sup>b</sup> Estimated from the maximum number of classes that could participate.

<sup>c</sup> Flanders and Wallonia.

<sup>d</sup> Data collected in autumn.

<sup>e</sup> School participation rate (class participation rates not available).

<sup>f</sup> Data collected in previous autumn.

<sup>g</sup> Data collected in spring 2008.

<sup>h</sup> Five federal states: Bavaria, Berlin, Brandenburg, Mecklenburg-Western Pomerania and Thuringia.

<sup>i</sup> Data collected but not delivered.

<sup>j</sup> Russia.

<sup>k</sup> Official name former Yugoslav Republic of Macedonia.

Red typeface: countries included in the 25-country average.

n.a. = not available.

**Table 14.** ESPAD average for selected indicators based on 25 countries: 1995-2015

Measure	1995	1999	2003	2007	2011	2015
Perceived availability of cannabis	22	30	33	33	32	32
Early onset of daily cigarette use <sup>a</sup>	10	9	10	7	7	4
Early onset of daily cannabis use <sup>a</sup>	2	2	3	3	3	3
Lifetime use of cigarettes	67	68	66	59	56	47
Current cigarette use <sup>b</sup>	32	36	33	29	29	22
Daily cigarette use <sup>b</sup>	20	24	23	18	18	13
Lifetime alcohol use	89	90	90	88	86	81
Current alcohol use <sup>b</sup>	56	61	63	60	58	47
Heavy episodic drinking <sup>c</sup>	36	39	40	42	41	35
Lifetime illicit drug use	11	17	20	18	19	18
Lifetime cannabis use	11	16	19	17	18	17
Lifetime use of illicit drugs other than cannabis	3	6	5	7	6	5
Current cannabis use <sup>b</sup>	4	6	8	7	7	7
Lifetime inhalant use	8	9	9	9	9	8
Lifetime use of tranquillisers or sedatives without a doctor's prescription	8	7	7	7	7	6

<sup>a</sup> At age 13 or younger.

<sup>b</sup> Last 30 days.

<sup>c</sup> More than five drinks on one occasion at least once in the last 30 days.

## Availability of cannabis

The average proportion of students who answered that they would find it easy (combined positive responses on 'very easy' and 'fairly easy') to obtain cannabis, if they wanted to, increased from 1995 to 2003 in both genders and levelled off thereafter (Figure 11). Rates among boys are slightly higher than among girls. Overall, the perceived availability of cannabis among boys increased from 23 % to 33 % and among girls from 21 % to 30 %.

## Early onset of substance use

### Daily smoking

On average, between 1995 and 2003 rates of early onset of daily smoking (that is, at the age of 13 or younger) were rather stable at about 10 %, but rates dropped thereafter to 4 % in 2015, indicating a strong decrease in early onset daily smoking over the last 10 years (Table 14). Gender-specific trends are almost parallel, with slightly lower rates in girls than boys (1-2 percentage points difference in recent surveys; Figure 12).

## Cannabis use

Rates of cannabis use at the age of 13 years or younger increased slightly until 2003 among girls and until 2007 among boys and stabilised thereafter (Figure 13). Trends by gender are almost parallel, with girls' rates being slightly lower than boys' rates.

## Cigarette use

On average, lifetime prevalence rates of smoking showed a stable trend between 1995 and 2003 and decreased thereafter (Table 14). Rates of lifetime smoking among boys and girls follow this general trend. However, the gender gap in lifetime smoking rates, still visible in 1995, closed in 2015 (Figure 14). Similar trends can be observed for current smoking and daily smoking (Table 14). Rates of current (last-30-day) use decreased by 10 percentage points between 1995 and 2015 (Table 14; Figure 15); reductions in daily use amounted to 7 percentage points (Figure 16).

## Alcohol use

The prevalence of lifetime as well as current (last-30-day) use of alcohol decreased between 2003 and 2015 (Table 14; Figures 17 and 18). No gender differences in trends can be observed, with the exception of constantly higher rates among boys.

The prevalence of heavy episodic drinking, although showing the same level in 2015 as 20 years before, peaked in the middle of the 2000s and has decreased since then. However, as shown in Figure 19, rates of heavy episodic drinking generally increased among girls, resulting in a narrowing of the gender differences over time.

### Illicit drug use

Generally, between 1995 and 2003, an increase can be seen in the prevalence of illicit drug use, most of which occurred between the first two surveys. Since then, the prevalence has remained largely unchanged. Trends in illicit drug use experience among boys and girls follow the general trend, with girls' rates being about 6 percentage points lower than boys' rates (Figure 20). Trends for lifetime cannabis use are similar to the trends for any illicit drug use, with rates being only slightly lower (Table 14 and Figure 21). Prevalence rates of lifetime cannabis use as well as current (last-30-day) use for both genders peaked in 2003 and stabilised thereafter (Figures 21 and 22).

Lifetime use of illicit drugs other than cannabis rose to a peak in 2007 (Table 14; Figure 23). Since 2007, the

rates appear to have slightly decreased. This trend is also seen for boys and girls, with a consistent gender gap of 1-2 percentage points.

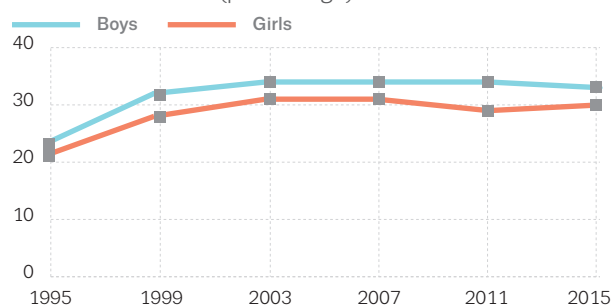
### Inhalant use

The use of other psychoactive substances such as inhalants shows generally stable lifetime prevalence rates over the observed period. The gender-specific curves reveal a narrowing and, by the end, closure of the gender gap, with rates among boys slightly decreasing but rather unchanged rates among girls (Figure 24).

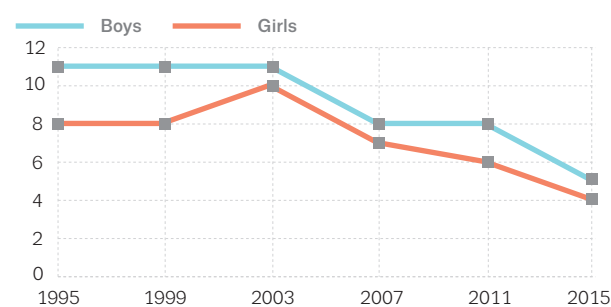
### Pharmaceutical use

The lifetime prevalence rates for the use of tranquillisers or sedatives without a doctor's prescription show a slightly downward trend, with similar trends for boys and girls. Tranquillisers or sedatives are the only psychoactive substances that were taken more frequently by girls than boys (Figure 25).

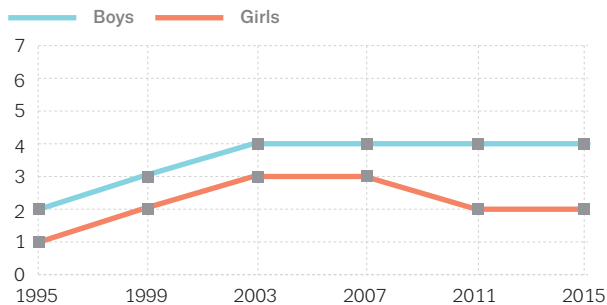
**Figure 11.** Perceived availability of cannabis by gender; students responding cannabis 'fairly easy' or 'very easy' to obtain: 25-country trend 1995-2015 (percentage)



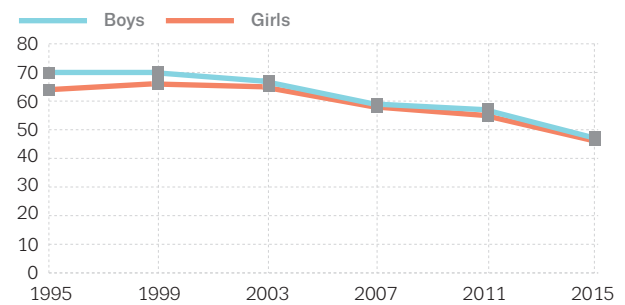
**Figure 12.** Daily cigarette use at the age of 13 or younger by gender: 25-country trend 1995-2015 (percentage)



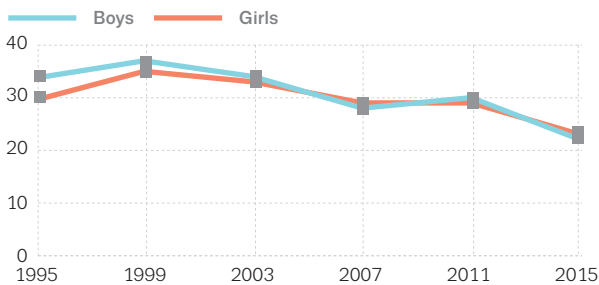
**Figure 13.** Cannabis use at the age of 13 or younger by gender: 25-country trend 1995-2015 (percentage)



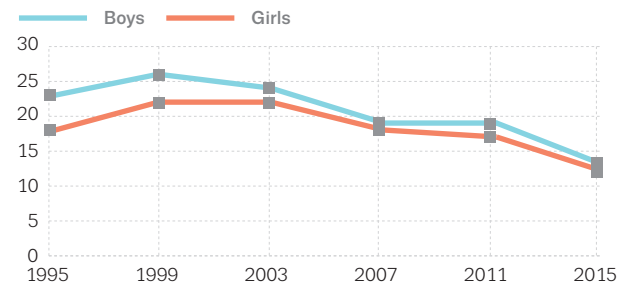
**Figure 14.** Lifetime use of cigarettes by gender: 25-country trend 1995-2015 (percentage)



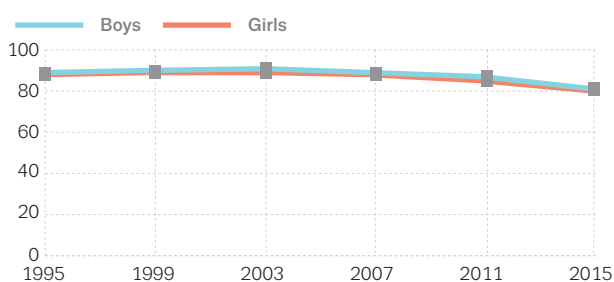
**Figure 15.** Cigarette use in the last 30 days by gender: 25-country trend 1995-2015 (percentage)



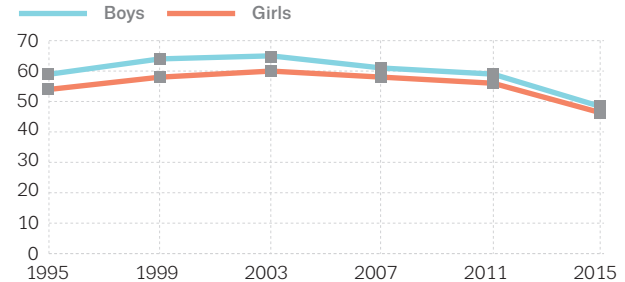
**Figure 16.** Daily cigarette use by gender: 25-country trend 1995-2015 (percentage)



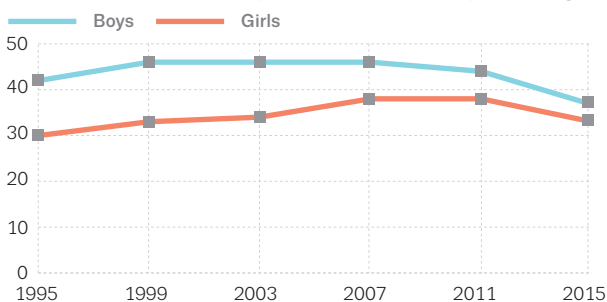
**Figure 17.** Lifetime alcohol use by gender: 25-country trend 1995-2015 (percentage)



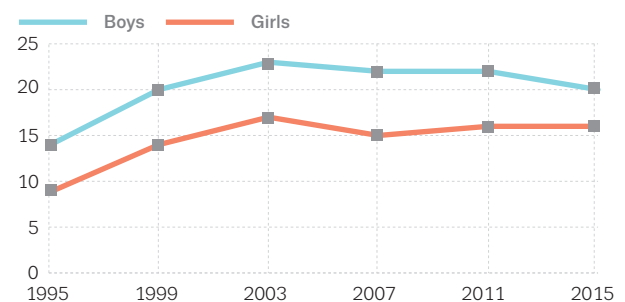
**Figure 18.** Alcohol use in the last 30 days by gender: 25-country trend 1995-2015 (percentage)



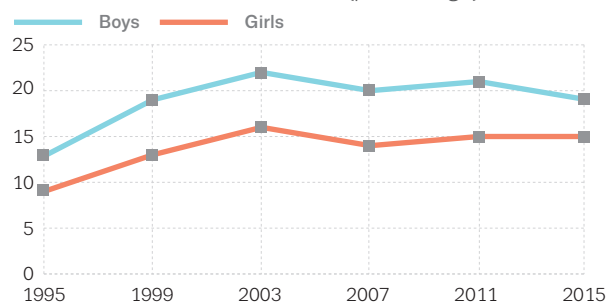
**Figure 19.** Heavy episodic drinking (five or more drinks on one occasion) during the last 30 days by gender: 25-country trend 1995-2015 (percentage)



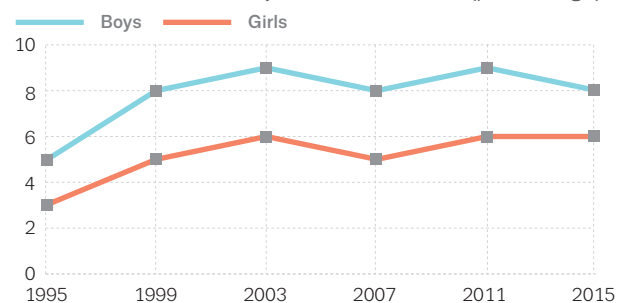
**Figure 20.** Lifetime use of illicit drugs by gender: 25-country trend 1995-2015 (percentage)



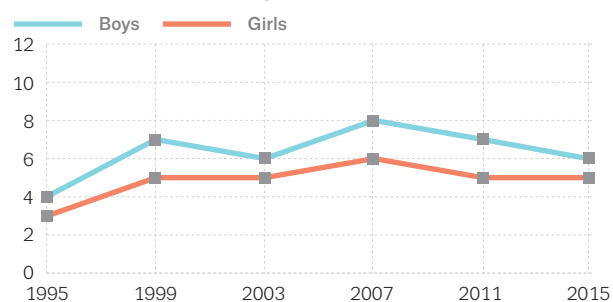
**Figure 21.** Lifetime use of cannabis by gender: 25-country trend 1995-2015 (percentage)



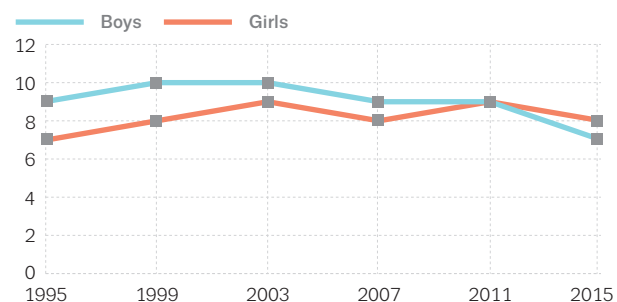
**Figure 22.** Cannabis use in the last 30 days by gender: 25-country trend 1995-2015 (percentage)



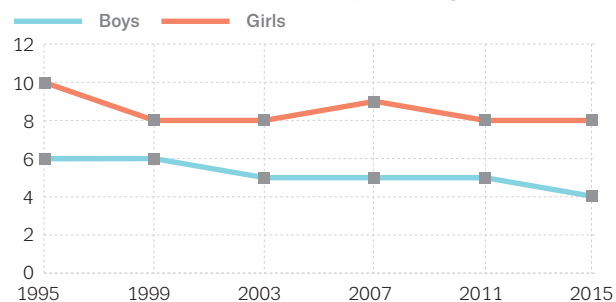
**Figure 23.** Lifetime use of illicit drugs other than cannabis by gender: 25-country trend 1995-2015 (percentage)



**Figure 24.** Lifetime use of inhalants by gender: 25-country trend 1995-2015 (percentage)



**Figure 25.** Lifetime use of tranquillisers or sedatives without a doctor's prescription by gender: 25-country trend 1995-2015 (percentage)



## Country-specific trends

Individual country trends for five key variables of lifetime use of substances between 1995 and 2015 are shown in Figures 26-30. Trends are illustrated graphically, with decreases of 3 or more percentage points between successive surveys indicated in green, increases of 3 or more percentage points in red, and unchanged situations in yellow (less than  $\pm 3$  percentage points). Temporal changes in countries with only two data points should be interpreted with caution.

### Cigarette use

Between 1995 and 2015, the lifetime prevalence of cigarette use decreased in all countries except Lithuania, where there was no change. In the Czech Republic, Estonia, Hungary, Portugal, Slovakia, Slovenia and Ukraine, this decrease followed an initial increase until 2003. In Austria, Belgium (Flanders), Denmark, the Faroes, Finland, Iceland, Ireland, Norway, Portugal, Slovenia and Sweden, the reduction in prevalence between 2003 and 2015 amounts to 20 percentage points or more (Figure 26). Only three countries do not follow the overall trend, but show stable prevalence rates over the last three surveys (Montenegro, Poland and Romania).

### Alcohol use

The prevalence of lifetime alcohol use showed reductions between 1995 and 2015 in most countries. In Finland, Iceland, Ireland, Norway and Sweden, substantial reductions of about 15 percentage points or more can be observed (Figure 27). Lifetime prevalence remained rather unchanged in Bulgaria, Cyprus, the Czech Republic, the Faroes, Hungary and Slovenia. The only country where alcohol use increased was Croatia, with prevalence rising by 10 percentage points.

## Cannabis use

In most of the participating countries, the prevalence of lifetime cannabis use increased between 1995 and 2003/2007. Decreases in prevalence since then can be seen in the Czech Republic, Denmark, Finland, France, Iceland, Ireland, Slovenia and Ukraine. In contrast, increases in this period occurred in Bulgaria, Cyprus, Greece, Lithuania, Malta, Poland and Romania. Generally lower rates of lifetime cannabis use in 2015 compared to 1995 can be observed in Denmark, the Faroes, Ireland and Ukraine (Figure 28).

### Inhalant use

The lifetime prevalence of inhalant use was quite stable in more than one third of the countries. A pronounced peak can be observed in 2011 for Croatia, Estonia, Latvia, Monaco and Slovenia, although rates have since returned to approximately the level observed in 2007 in most countries. Decreases since 2011 were observed in Belgium (Flanders), Croatia, the Faroes, France, Hungary, Malta, Monaco, Romania, Slovenia and Sweden (Figure 29).

### Pharmaceutical use

The prevalence of lifetime use of tranquillisers or sedatives without a doctor's prescription was generally quite stable. Between 2011 and 2015, decreasing rates were found in Cyprus, Greece, Iceland, Italy, Lithuania and Monaco. In contrast, the Czech Republic, Montenegro and Slovakia showed an increase in lifetime use of tranquillisers and sedatives in the same time period (Figure 30).

Figure 26. Lifetime use of cigarettes by country: 1995-2015 (percentage)

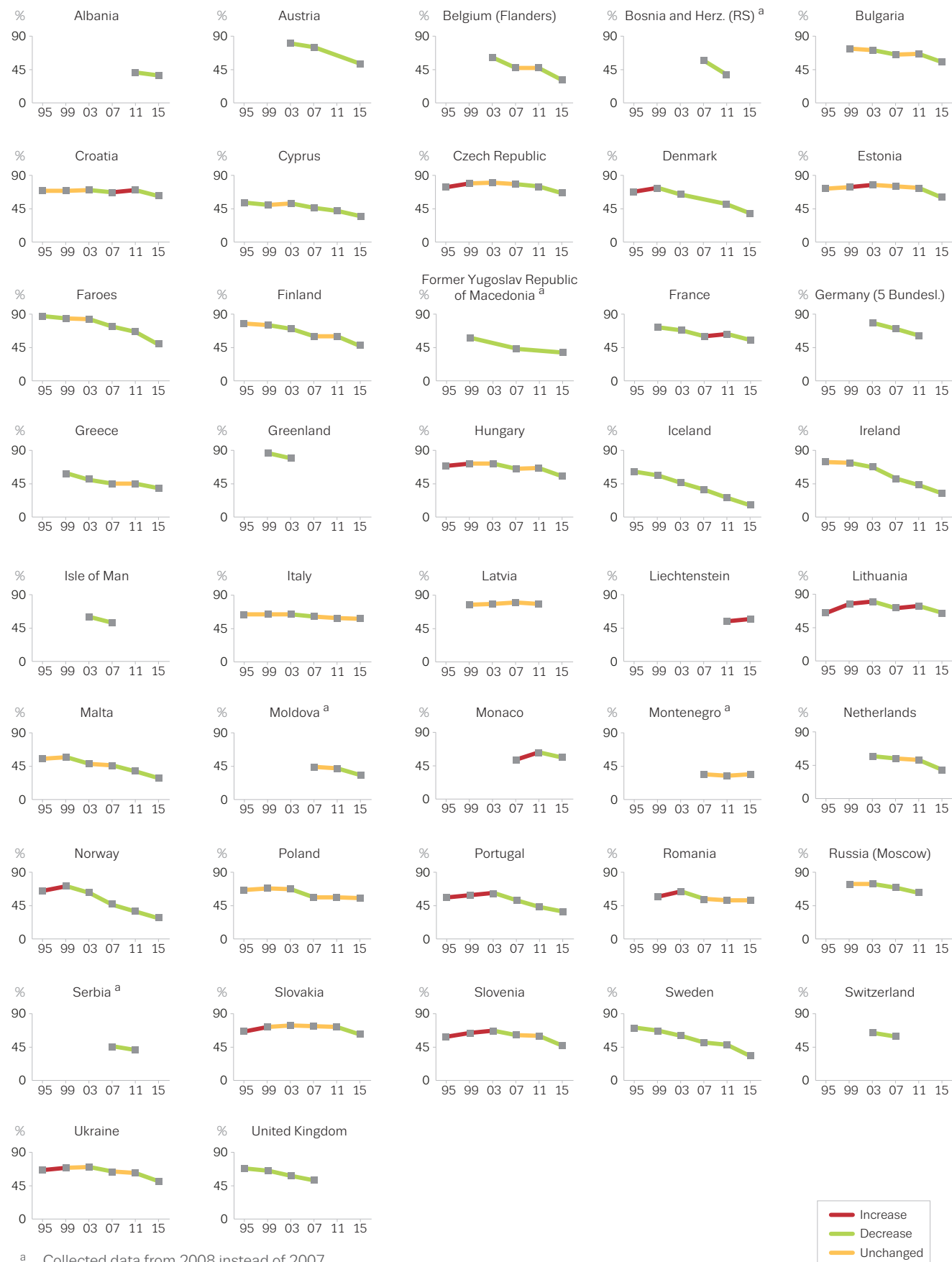


Figure 27. Lifetime alcohol use of alcohol by country: 1995-2015 (percentage)

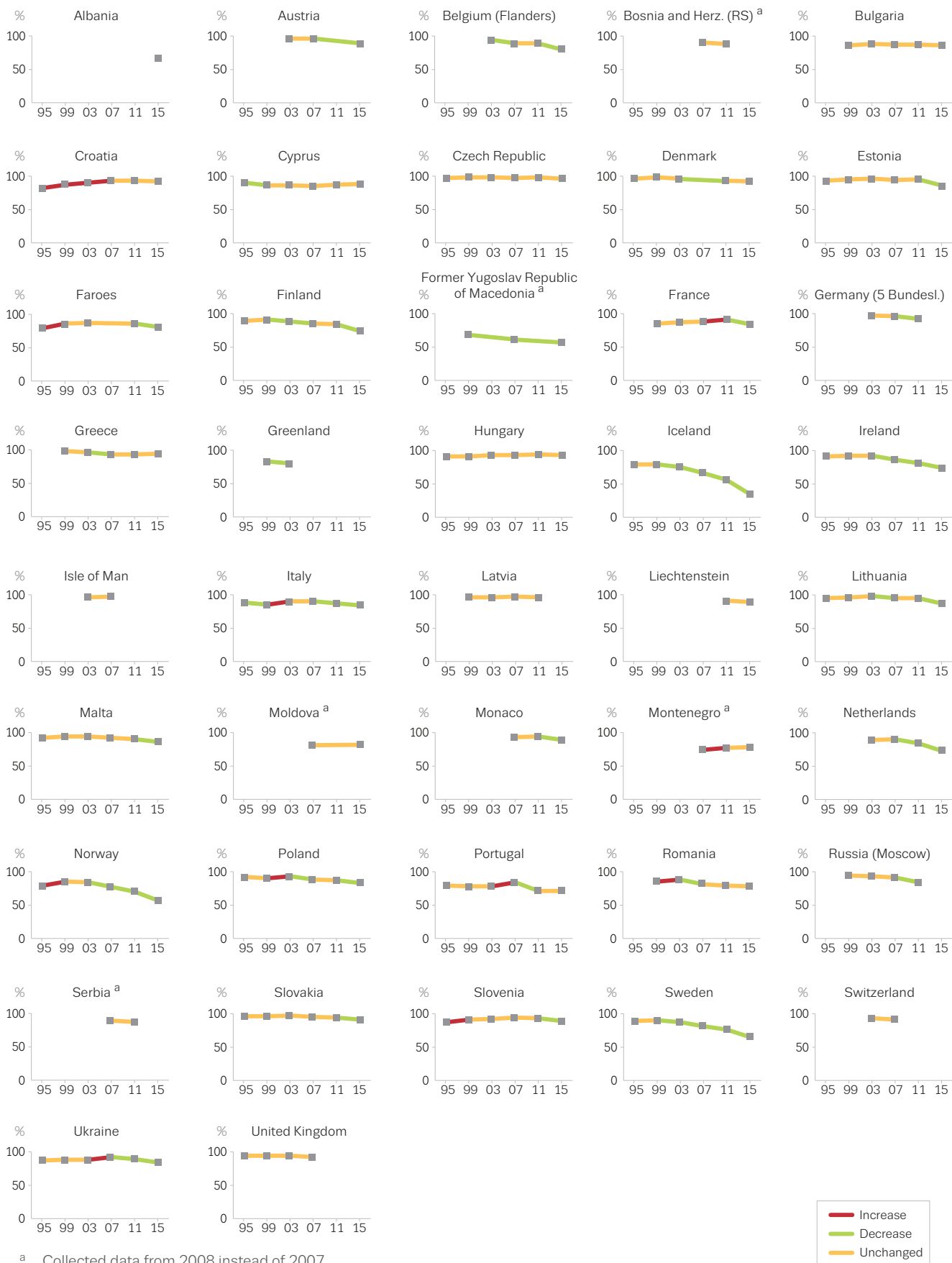




Figure 28. Lifetime use of cannabis by country: 1995-2015 (percentage)

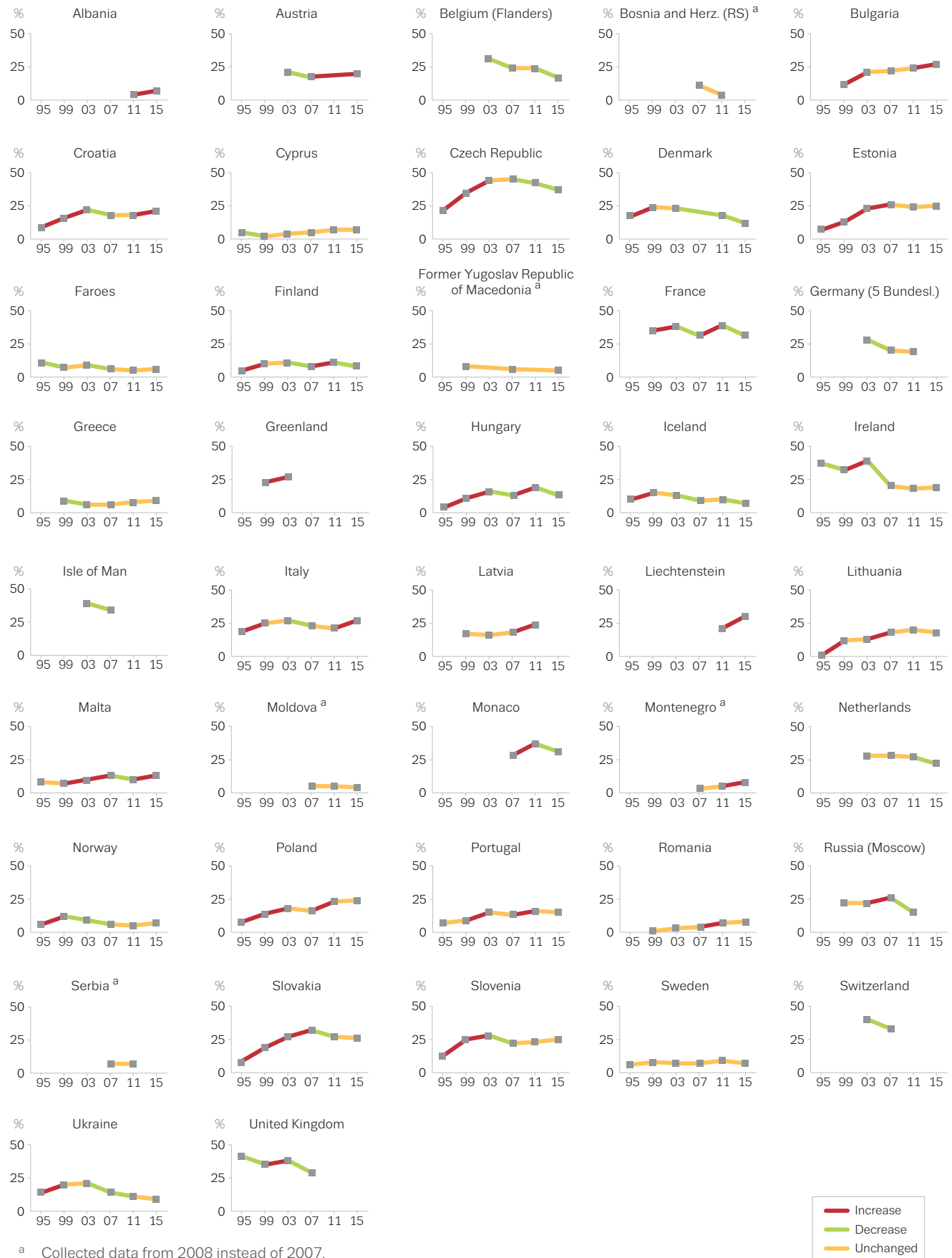


Figure 29. Lifetime use of inhalants by country: 1995-2015 (percentage)

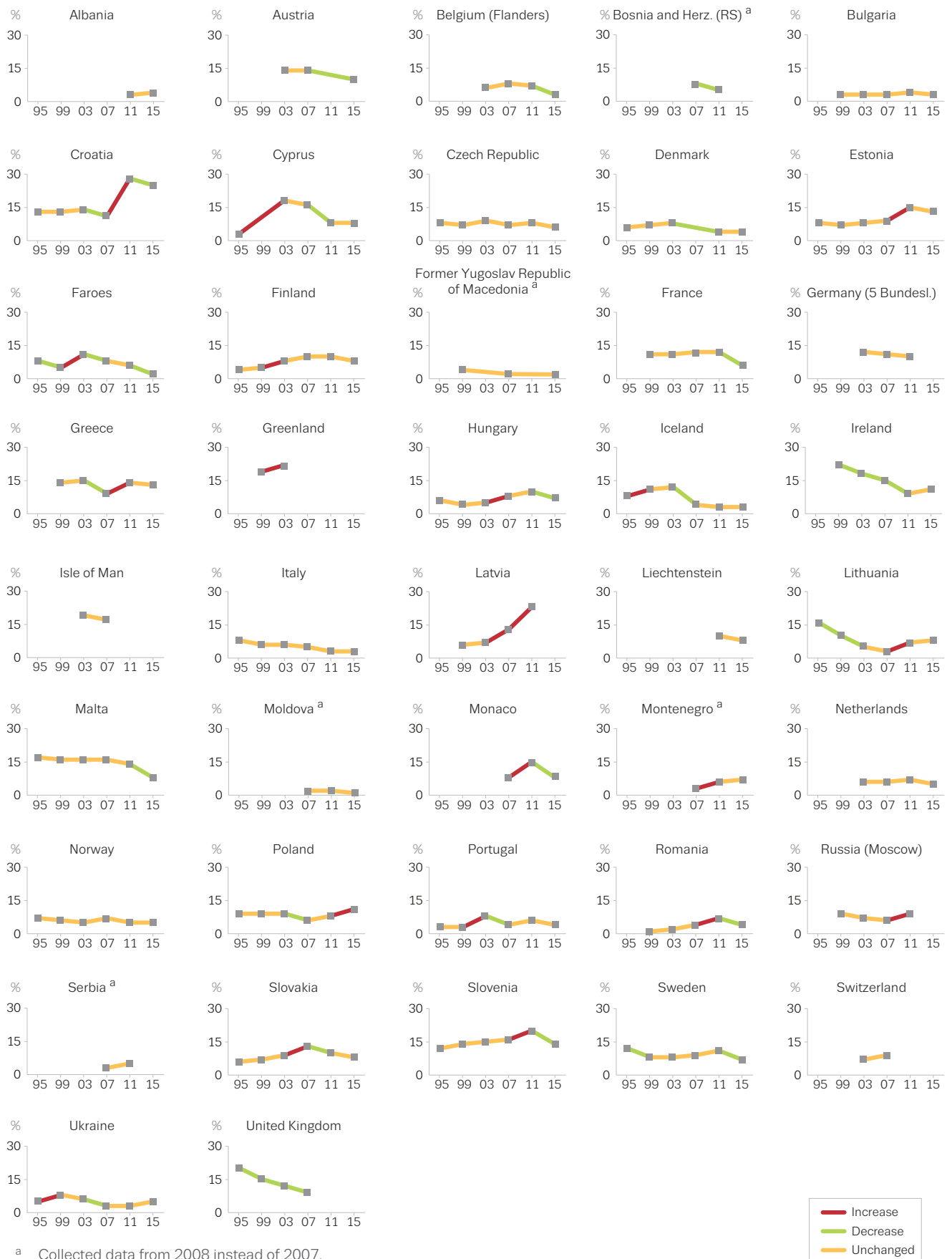
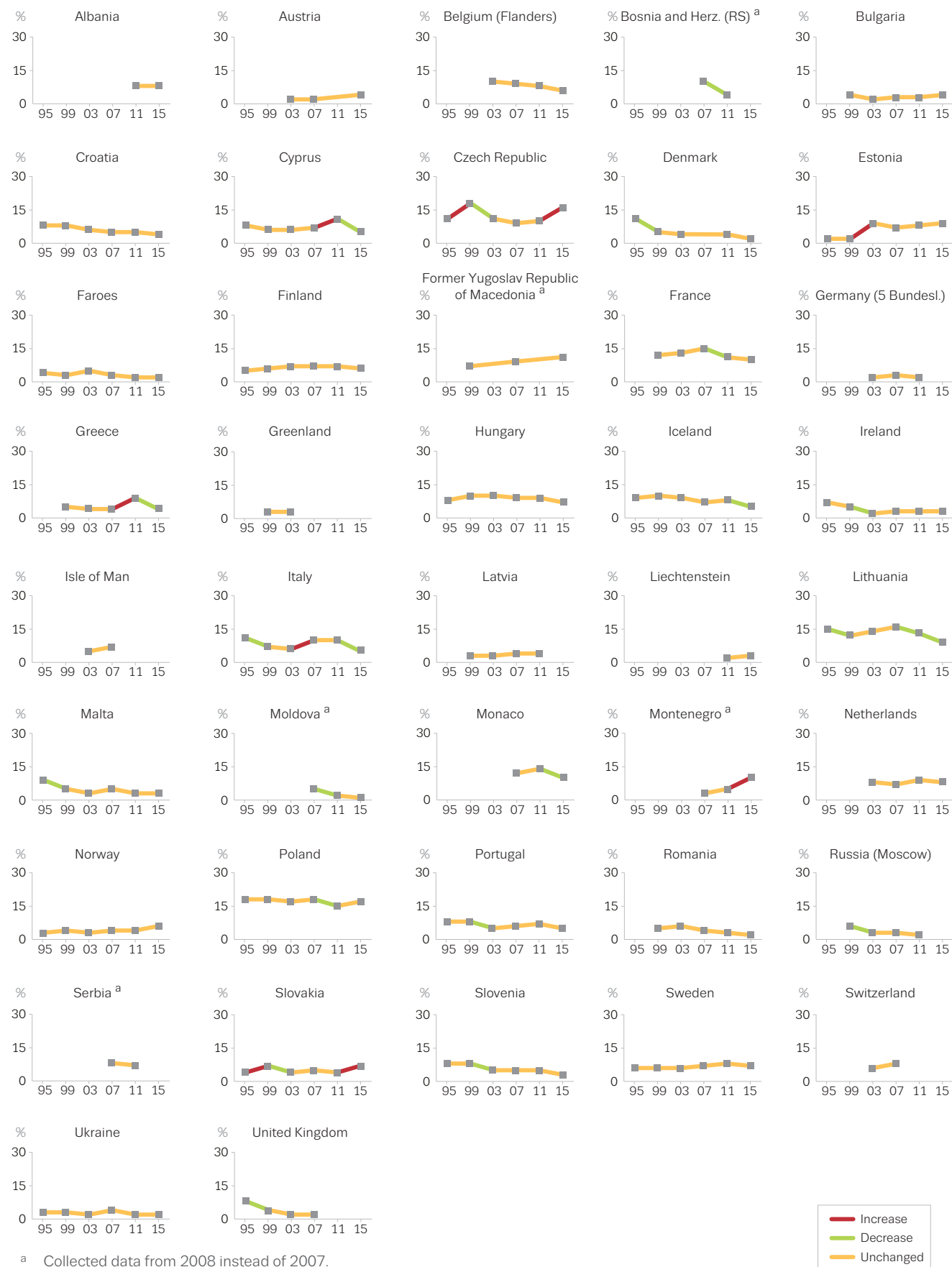


Figure 30. Lifetime use of tranquilisers or sedatives without a doctor's prescription by country: 1995-2015 (percentage)





# Discussion and conclusion



# Discussion and conclusion

According to the 'Global burden of disease, injuries and risk factors study' 2013 (Forouzanfar et al., 2015), tobacco and alcohol use are among the leading risk factors worldwide for premature death and morbidity, expressed in terms of disability-adjusted life years (DALYs). In Europe, of the 78 risk factors investigated, tobacco ranks second and alcohol fifth in terms of DALYs. Although not being a major risk factor, illicit drug use also contributes significantly (rank 22) to the global burden of years of life lost and years lived with disability. Substance-related harms to the users and to others and public health and safety concerns are the main reasons for the worldwide monitoring of such behaviours. Due to age restrictions on access to tobacco and alcohol, as well as the drug control measures covering illicit psychoactive substances, in most countries there is a particular emphasis on monitoring consumption among youths and adolescents. For instance, surveys on substance use among adolescents have a long tradition in Sweden (Swedish school surveys on substance use), England ('Smoking, drinking and drug use among young people in England'), Germany ('Drug affinity study') and the United States ('Monitoring the future' study) and were implemented as early as 1970. With the initiation of the European School Survey Project on Alcohol and Other Drugs (ESPAD) in 1995, Europe created an instrument that enables comparisons between participating countries, due to a common methodology. After six waves of data collection over the past 20 years and the expansion of the European Union to now include 28 countries, the ESPAD survey also allows the analysis of temporal trends in over 40 countries, including 24 Member States of the European Union.

In the last few years, evidence has accumulated that behaviours such as internet use, gaming and gambling have the same potential to become addictive as psychoactive substances. However, while gambling has been included in the revised DSM-5 chapter 'Substance-related and addictive disorders', there is still no consensus for classifying excessive internet use and gaming as addictive behaviours (Regier et al., 2013). Independently of how these behaviours are treated by the international classification systems, extensive internet use, gaming or gambling in adolescents has long raised public concerns. This led the ESPAD researchers to extend the scope of the survey. In addition, new psychoactive substances, which are a public health and safety problem and have been monitored since the late 2000s, received special attention in the 2015 survey.

## Cigarette use

In general, the results on cigarette smoking among European students can be interpreted as showing positive developments. Today, the majority of adolescents have never smoked (54 %) and less than one quarter (21 %) of the sample can be considered current smokers. With regard to national patterns, Italy stands out with the highest prevalence of current smoking (37 %), followed by Bulgaria and Croatia (both 33 %), whereas Iceland has by far the lowest rate (6 %), with Moldova (9 %) and Norway (10 %) ranking next lowest. Due to the relatively high addictive potential of nicotine, a particularly problematic pattern of use is early onset of smoking (Nutt et al., 2010). International studies suggest that the risk for dependence is higher when adolescents start smoking at an earlier age (Breslau and Peterson, 1996; Everett et al., 1999). Therefore, it is important to note that the proportion of adolescents who have started daily smoking at a very early age (before age 13) has largely decreased over the last 20 years. Most ESPAD countries follow this general pattern, with only a few exceptions showing stable rates of early onset of daily smoking over time (Cyprus, France, Italy and Romania).

Looking at the overall ESPAD trends for cigarette smoking, gender differences seem to narrow over time. In 1995, boys showed higher rates than girls with regard to all indicators. In 2015, these differences no longer existed or had become smaller. However, gender convergence is more marked in terms of prevalence of use, whereas problematic patterns of use (daily smoking, early onset) are still more prevalent among boys.

The trend data indicate an overall decrease in lifetime, last-30-day and daily cigarette use. Although the 'Health behaviour in school-aged children' (HBSC) study has a shorter observation time (2002-2010), trends on weekly tobacco use support the ESPAD results (Hublet et al., 2015). Tobacco use decreased in all observed European countries between 2002 and 2010, and this trend may be considered to be at least partially driven by policy measures that have been implemented in the majority of European countries in the context of the Framework Convention of Tobacco Control (FCTC) over the past two decades (Shibuya et al., 2003). The most important preventive guiding principles are information on the health hazards of tobacco and comprehensive multisectoral measures including price and tax measures, protection from exposure to environmental tobacco smoke, packaging and labelling, restriction of tobacco advertising, promotion and sponsorship, the implementation of cessation measures and limiting the access of underage persons to tobacco products. Increases in tobacco prices, which have

made tobacco products less accessible to adolescents, are very likely to have played an important role (Agrawal et al., 2012). Although smoke-free legislation, as a measure to protect the population from exposure to second-hand smoke, does not target smoking behaviour per se, there is evidence that smoke-free legislation reduces tobacco use (Müller et al., 2010). In the global context, the total tax burden on cigarettes is highest in the European region, nevertheless, in most European countries other important measures, such as plain packaging and full restrictions on tobacco advertising, are still pending (World Health Organisation, 2012).

## Alcohol use

Alcohol use among adolescents in Europe is still rather high. On average, four in five students reported lifetime alcohol experience and every second student reported alcohol use in the last 30 days. Nevertheless, countries vary to a large extent in the prevalence of lifetime and current use. The Nordic countries Finland, Iceland, Norway and Sweden are traditionally among the countries with the lowest rates of current alcohol use. However, low rates can also be found in Albania, the Faroes, the former Yugoslav Republic of Macedonia, Ireland and Ukraine and in the Baltic states Estonia and Lithuania. In countries with low consumption rates, the prevalence of heavy episodic drinking is also generally low. Conversely, high alcohol use prevalence generally coincides with high rates of heavy episodic drinking. Among the countries with the highest rates are Austria, Bulgaria, Croatia, Denmark, Hungary, Liechtenstein and Monaco.

Beverage preference is rather differently spread across the ESPAD countries. Countries where beer accounts for more than 50 % of total alcohol consumption are Albania, Belgium (Flanders), the former Yugoslav Republic of Macedonia, Poland and Romania. In Croatia, Georgia, Moldova, Slovenia and Ukraine, wine accounts for at least 30 % of all alcohol consumed. In approximately every second ESPAD country, spirits make up the largest share of total ethanol consumption. In a small number of countries, other beverages such as alcopops or cider account for more than 20 % of total alcohol consumption. In Cyprus, Finland, Italy and Liechtenstein, alcopops account for one fifth or more, and in Denmark, Estonia, the Faroes, Ireland, Norway and Sweden, the share of cider is 20 % or more.

Evidence for the existence of associations between beverage preferences, drinking patterns, alcohol-related consequences and the use of other substances is scarce. In a study among Swiss young men, beer preference was associated with risky drinking patterns and illicit drug use (Dey et al., 2014), and a study on youths in the United States revealed that a preference for hard liquor and beer was associated with

riskier patterns of drinking and other health-risk behaviours (Siegel et al., 2011). However, it is difficult to draw firm conclusions from the limited evidence available. Improved surveillance of alcoholic beverage preference, particularly with regard to spirits, may help to elucidate the factors related to youth drinking and the negative consequences associated with beverage types.

Despite the still high rates of alcohol use and, in particular, of heavy use, temporal trends over the past two decades indicate a positive development, with an overall decrease in lifetime and 30-day use between 1995 and 2015 from 89 % to 81 % and from 56 % to 47 %, respectively. Interestingly, both lifetime and 30-day prevalence have decreased markedly from a peak reached in 2003. Unfortunately, changes in heavy episodic drinking have been less pronounced and only observed among boys (42 % to 37 %), with overall rates declining by one percentage point (36 % to 35 %) over the past 20 years. The reported decline in weekly alcohol use among 15-year-olds in the HBSC study between 2002 and 2010 supports the present findings (de Looze et al., 2015). Although changes in alcohol use prevalence varied in magnitude, there are only a few countries with stable or increasing lifetime prevalence (Croatia, Cyprus, the Czech Republic, the Faroes, Hungary and Slovenia).

Factors that may have played some part in the general decrease observed in alcohol consumption include changes in norms on drinking and intoxication, competing responsibilities and attractions that demand or favour sobriety, structural changes, external influences and the range of societal or cultural responses to alcohol problems (Room et al., 2009). Others have argued that the observed change in adolescent drinking behaviour was due to changes in adult prevalence, shifts in teen culture or parental control (Ryan et al., 2010; Simons-Morton et al., 2009; van der Vorst et al., 2006). More recently, based on age, period and cohort analyses, results clearly indicate that younger cohorts reported abstinence more frequently and drank less than older cohorts (Härkönen and Mäkelä, 2011; Kraus et al., 2015; Meng et al., 2014; Pabst et al., 2010). In all western European countries, policies are in place to limit underage access to alcohol (Brand et al., 2007). In addition, stricter prevention policies are emerging in many countries (Anderson and Baumberg, 2006; Anderson et al., 2012). Some countries in the east of Europe deviate from the generally observed decline in adolescent alcohol use. These exceptions have been explained by rapid increases in wealth since 1990 and opportunities for adolescents to acquire and consume goods, including alcohol, that were previously unavailable or difficult to obtain (Zaborskis et al., 2006).

Our findings on trends in alcohol use suggest a closure of the gender gap in heavy alcohol use among adolescents in Europe and support earlier findings (Kuntsche et al., 2011; Simons-

Morton et al., 2009). The gender convergence, however, is more visible for heavy episodic drinking than for more regular drinking behaviours, such as monthly alcohol use.

## Illicit drug use

### Cannabis use

Cannabis is by far the most commonly used illicit drug used in developed countries, with use more recently spreading to low- and middle-income countries (Hall and Degenhardt, 2007; United Nations Office on Drugs and Crime, 2014). The average lifetime prevalence of cannabis use among adolescents in ESPAD countries (16 %) was considerably lower than that recorded in comparable school surveys in the United States (31 %) or Spain (27 %). Nevertheless, rates of use varied substantially between ESPAD countries. Lifetime experience of cannabis in the Czech Republic (37 %) even exceeded the level observed in the United States. At the low-prevalence end, rates of under 10 % could be found in five of the Nordic countries (the Faroes, Finland, Iceland, Norway and Sweden), in several Balkan states (including Albania, the former Yugoslav Republic of Macedonia, Moldova, Montenegro and Romania) and in Cyprus and Greece.

The reasons for the large differences in cannabis use between European countries are unclear. The frequently found strong relationship between cannabis availability and use has often been interpreted as evidence for the preventive effect of restrictive drug policies (Gervilla et al., 2011; Gillespie et al., 2009; Höfler et al., 1999; von Sydow et al., 2002). Moreover, a study among adolescents in 32 European countries, investigating the effects of perceptions about cannabis on the use of the drug, identified strong and persistent individual-level effects for perceived availability, perceived harm and the number of cannabis-using friends. The effects on cannabis use prevalence and frequency were more pronounced than country-level effects such as cannabis price and last-12-month cannabis use prevalence in the adult population (Piontek et al., 2013). It has generally been assumed that drug availability is inversely related to the level of drug law enforcement and the severity of the legal sanctions. However, when comparing changes in cannabis policy with subsequent changes in prevalence, only in a few countries did the prevalence of use follow the expected pattern of change, i.e. a decrease in prevalence following an increase in sanctions and vice versa (European Monitoring Centre for Drugs and Drug Addiction, 2011). In a recent paper on cannabis policy prepared within the 'Addiction and lifestyles in contemporary Europe reframing addictions project' (Alice Rap), the authors argued that the prohibition approach has largely failed and, drawing on global and European experience in regulating tobacco and alcohol, they called for legal regulatory cannabis policies

that protect public health, wealth and well-being (Alice Rap, 2014). The high prevalence of perceived cannabis availability and cannabis use among adolescents in many European countries seems to support their view.

Trends in cannabis use indicate an increase in both lifetime and current use between 1995 and 2015, from 11 % to 17 % and from 4 % to 7 %, respectively. However, prevalence peaked in 2003 and decreased slightly thereafter. The observed decrease in cannabis prevalence after 2003 is supported by the results of the HBSC study. Temporal trends in last-12-month cannabis use among 15-year-olds in Europe between 2002 and 2010 showed, with the exception of eastern Europe, a general decrease in all regions (Hublet et al., 2015). However, the pattern of change in ESPAD countries since 2003 is not uniform. In contrast to the general trend, lifetime cannabis use increased in Bulgaria, Cyprus, Greece, Lithuania, Malta, Poland and Romania. Thus, when discussing the reasons for the change in cannabis use, factors other than legal regulations may play a significant role. For instance, in addition to drug control measures, other factors such as norms of use, competing responsibilities and attractions that demand or favour drug use abstinence, as well as societal or cultural responses to drug problems, may impact on consumption, in an upward or downward direction. It has been argued that the increasing trend in cannabis use, particularly evident in eastern European countries, may be explained by factors related to post-communist transition (Hublet et al., 2015). Firstly, the relative isolation of the former Soviet Union countries led to a delay in the development of cannabis-distribution networks, with the subsequent growth igniting an upward trend; secondly, social and economic changes, along with increases in wealth and leisure opportunities, have driven substance use; and thirdly, because public health authorities and decision-makers were not prepared for the growth in illicit drug use, countermeasures were slow to be implemented (Elekes and Kovacs, 2002).

### New psychoactive substances

New psychoactive substances (NPS) are narcotic or psychotropic drugs that are not controlled by the United Nations drug conventions, but may pose a public health threat comparable to that caused by substances listed in these conventions. On average, 4 % of the students surveyed have tried NPS — substances that imitate the effects of illicit drugs — and 3 % have used them in the past 12 months. On average, these substances seem to be more commonly used than amphetamine, ecstasy, cocaine or LSD, all of which have lower lifetime prevalence rates. Several countries could be identified that showed above-average last-12-month use of NPS. Students in Estonia and Poland (both 8 %) were most likely to have experiences with NPS, followed by Bulgaria and Croatia (6 %) and Ireland and Italy



(5 %). Rather low lifetime rates of NPS use were reported in Belgium (Flanders), Denmark, the Faroes, Finland, the former Yugoslav Republic of Macedonia, Moldova, the Netherlands, Norway and Portugal (1 %).

The 2015 ESPAD study is one of the first international epidemiological studies to assess NPS use. On an international scale, there is not much information available against which to compare the results. As an exception, the Flash Eurobarometer, a comprehensive EU-wide survey among young people aged 15 to 24 years, reported an overall lifetime prevalence of 8 % (European Commission, 2016). The regional patterns in the Eurobarometer study were slightly different to those observed in the present study, with France, Ireland, Slovenia and Spain being the top four countries regarding the prevalence of use. Differences in NPS prevalence rates between ESPAD and the Flash Eurobarometer, although the same definition was used, may be due to differences in the sampling frame (schools versus general population) and age (15-16 years versus 15-24 years). NPS comprise a variety of substances ranging from synthetic cannabinoids simulating the effects on the brain of THC (the principal psychoactive substance in cannabis) to synthetic cathinones that mimic the effects of amphetamine, methamphetamine or ecstasy (Hohmann et al., 2014). These substances are variously marketed as 'research chemicals', 'plant food', 'bath salts' or other misleading product names, with false content descriptions, in efforts to avoid control measures. Identification of the substance in question is very difficult, for the consumer, law enforcement and, critically in the event of poisoning, medical staff.

In a recent document on the outcome of the UN General Assembly Special Session on Drugs (2016), NPS are mentioned in 10 paragraphs and dominate the section on emerging and persistent challenges and threats ([https://www.incb.org/documents/News/A\\_S-30\\_L.1.pdf](https://www.incb.org/documents/News/A_S-30_L.1.pdf)). The UN promotes data collection and early warning systems (EWS) and prioritises the review of the most prevalent, persistent and harmful NPS. To this end, an international action group on NPS has been established, consisting of UN member states and international organisations, to coordinate and drive the international response to NPS. At European level, the EMCDDA is responsible for a well-established EWS. The European EWS on NPS is a multidisciplinary network of 30 national early warning mechanisms that collect, appraise and rapidly disseminate information on new drugs and products ([http://www.emcdda.europa.eu/attachements.cfm/att\\_157279\\_EN\\_EWS%20profiles.pdf](http://www.emcdda.europa.eu/attachements.cfm/att_157279_EN_EWS%20profiles.pdf)). The challenge associated with NPS is demonstrated by the increasing number, type and availability of new substances. Within the European EWS, almost 100 new substances were reported for the first time in 2015. Overall, the total number of new substances monitored by the EWS since its inception amounts to over 560.

## Internet use, gaming and gambling

### Internet use

With widespread access to the internet, online communication has become an integral part of life, especially for adolescents (Inchley et al., 2016; Valkenburg and Peter, 2011). Not only has interacting with peers expanded to the virtual world, but also the internet plays an important role in learning and entertainment. Therefore, questions on the amount and purpose of use were included in the current ESPAD questionnaire.

In 2015, students were using the internet on an average of 5.8 days per week. Fewer online days per week were reported in Albania, Bulgaria, the former Yugoslav Republic of Macedonia, Georgia, Italy, Lithuania, Moldova, Montenegro, Romania and Ukraine, mostly countries in the east of Europe. Differences between countries in time spent online may not necessarily reflect cultural differences but may be due to differences in access to the internet and devices with internet capability, for example smartphones or personal computers, although a wide coverage of internet access in most countries in Europe can be assumed. Comparable data on internet use based on representative studies, even if recently published, may not reflect current behaviour in internet use (Boniel-Nissim et al., 2015; Inchley et al., 2016). This may be because, in the last 5 or 6 years, devices with internet capability have become increasingly affordable for young people, and being on the internet every day or every hour is much more common. Official data can be found at internet service providers, television stations, polling institutes or public agencies, but the figures differ greatly and it is difficult to make between-country comparisons. For instance, data in the United Kingdom suggest that more than four in five adults used the internet anywhere on any device (Office of Communication, 2015), and in Germany 14- to 29-year-olds were using the internet for 187 minutes per day in 2015 (Engel and Breunig, 2015).

Apart from information on how often and for how much time adolescents are using the internet, their online activities are of particular interest. The ESPAD questionnaire focused on six general activities: using social media, information seeking/surfing, streaming/downloading, online gaming, online money gambling and buying/selling. The results suggest that the internet plays an important role for adolescents: in 2015, using the internet for social media, for example to have daily social media contact with friends, was the most common online activity; 78 % of the students stated that they have used social media on 4 or more days in the last 7 days. Students reported that using online communication made it easier to talk to friends of both sexes, making the internet a powerful tool for helping adolescents to connect. Overall, girls used social media more

often than boys did. A gender difference in social media use was also found in the HBSC study, with 35 % of the girls and 32 % of the boys reporting daily social media contact with friends (Boniel-Nissim et al., 2015). In a longitudinal survey in the United Kingdom focusing on adolescents and adults (16 years and older), nearly three quarters of internet users had a social media profile in 2014, compared with 22 % in 2007. Furthermore, 81 % reported using social media at least once a day, which equals an increase of 51 percentage points compared to 2007. As expected, 16- to 24-year-olds reported higher levels of social media use compared with older users (Office of Communication, 2015). This is also in line with recent results from Germany: 58 % of the 14- to 29-year-olds used the internet every day for social media, with an average of 139 minutes (Engel and Breunig, 2015).

The next most common internet activities were streaming/downloading and information seeking/surfing, with 48 % and 43 % of the students, respectively, reporting these internet activities on 4 or more days in the last 7 days. These activities reflect the use of the internet as a tool, for example to listen to music or to watch a video, but young people spend only some of their internet time on these activities. For instance, among 14- to 29-year olds in Germany, only 48 minutes from an estimated total online time of 187 minutes per day was spent on these activities (Engel and Breunig, 2015). However, it can be assumed that this time will expand in the next few years, especially for streaming and downloading. Recent figures indicate that over a quarter of internet users watch TV or films online at least once a week, compared to one in ten in 2007. At the same time, watching video clips online has doubled among the internet users during this time, from 21 % to 39 %. YouTube, launched in 2005, is now cited by one third of internet users as an important source for information (Office of Communication, 2015). This trend may continue, with new online services like film or music streaming services becoming more and more available in the coming years.

Research has raised concern that internet use and online communication contributes to loneliness and isolation (Hampton et al., 2011). Other studies, however, stress the importance of the internet as a powerful tool for helping people to connect (Boniel-Nissim et al., 2015; Kuntsche et al., 2009; Valkenburg and Peter, 2011).

### Online gaming and gambling

Over the last 10 years, mainly driven by the increasing popularity of smartphones and tablets, gaming has become more popular and increasingly mobile. Since 2005, gaming, both online and mobile, has doubled in terms of weekly use (Office of Communication, 2015). According to the present study more than one in five students (23 %) regularly (at

least four times in the last 7 days) used the internet for online gaming. Online gaming was more prevalent among boys (39 %) than among girls (7 %). Countries varied substantially in online gaming and gambling activities. While nearly half of the students from Denmark played regularly online (45 %), gaming was not so common in Georgia (13 %), the former Yugoslav Republic of Macedonia and Moldova (16 % each).

Online money gambling was the least common of the internet activities (ESPAD average: 3 %). Like online gaming, online gambling for money was predominantly reported by boys (6 %) rather than girls (1 %). The highest participation rates in online money gambling were found in Bulgaria (8 %), Albania, Cyprus and the former Yugoslav Republic of Macedonia (7 % each).

Data from the United Kingdom indicate an increase in the prevalence of gaming on any device between 2007 and 2014 from 31 % to 44 % (Office of Communication, 2015). The most active gamers were young people aged 16-24 years. Research on factors associated with gaming indicates that early onset, opposite-sex friends and minimal parental mediation increase the risk for gaming. A high level of game playing was related to bullying in boys and lower life satisfaction in girls (Brooks et al., 2016).

### Gambling

Although generally prohibited by law, youth gambling has become a popular form of recreation. In the 2015 ESPAD study, 14 % of the students reported gambling for money at least once in the last 12 months and 7 % gambled frequently (2-4 times a month or more often). In all countries, considerably more boys than girls had gambling experience or gambled frequently.

With prevalence rates of problematic gambling between 2 % and 13 % worldwide (Volberg et al., 2010), adolescent gambling has become a major public health concern (Ariyabuddhiphongs, 2013; Blinn-Pike et al., 2010). Gambling involvement in youth may lead to adverse consequences such as strained relationships, delinquency and criminal behaviour (Derevensky et al., 2004), depressive symptoms (Bonnaire et al., 2009), comorbid mental disorders (Lorains et al., 2011), low self-esteem (Bergh and Kühnhorn, 1994), impaired relations with family and friends (Dickson-Swift et al., 2005), greater risk for suicide ideation and attempts and poor general health (Potenza, 2008).

Gambling, as a social activity and its social context, is still not very well studied. Research suggests that parents' levels of schooling, family structure and family socio-demographic characteristics are not related to adolescent gambling behaviours or problem gambling (Langhinrichsen-Rohling

et al., 2004; Vitaro et al., 1998). Similar to findings on substance abuse, family structural characteristics seem to be less influential in the development of problem gambling than family relational characteristics (Velleman et al., 2005). In a recent study on the role of family and socioeconomic indicators of welfare state in the development of problem gambling in adolescent students, those receiving more parental caring and monitoring had a lower risk for involvement in problem gambling (Molinaro et al., 2014). Moreover, family support and parental supervision were identified as preventive factors (Hardoon et al., 2004; Magoon and Ingersoll, 2006). Supportive families seem to offer social resources that adolescents can turn to when getting into trouble, and good family relations imply that parents are aware of how and with whom their children spend their free time. Contrary to this, high levels of disciplinary parental ruling were related to higher levels of adolescent problem gambling (Molinaro et al., 2014).

Country variation in rates of adolescent problem gambling has been found to be related to country-level characteristics. Higher health expenditure was associated with lower levels of gambling problems, while country-specific family spending had no effect (Molinaro et al., 2014).

## Limitations

Although the ESPAD survey is based on a common methodology, some limitations that may possibly weaken the validity of the estimates need to be discussed. (1) In Belgium (Flanders), data were collected half a year earlier than in the majority of countries (in autumn of the previous year), and in Georgia and the Netherlands, half a year later (in the autumn of the same year). In the former case, students were on average half a year younger, while in the latter case they were on average half a year older. With the exception of Georgia, the target population was, however, redefined to give an average age in line with the other participating countries that collected data in spring. With students being on average 16.4 years compared to the ESPAD average of 15.8 years, rates of substance use may be slightly overestimated in Georgia due to students having had more time to experience or continue substance use. (2) The school/class participation rates in Austria (17 %), Ireland (18 %) and Denmark (26 %) were exceptionally low compared with the ESPAD average of 87 %. In addition, school/class participation rates were also slightly below 50 % in Latvia and the Netherlands. Low participation rates, however, may not necessarily lead to biased estimates, unless the behaviour in question is rather unequally distributed across schools and classes. A recent simulation study from Germany found that school non-participation in surveys assessing substance use among students is not as worrisome as expected (Thrul et al., 2016). Systematic exclusion of schools, based on the

size of the city, school or class, on school environment or on schools' substance use policies, resulted in significant but rather small changes in prevalence estimates. (3) In some countries, sampling was only possible in particular regions of the country. In Belgium, only schools from Flanders (representing approximately 60 % of the population) participated in the survey; in Cyprus, data collection was restricted to government-controlled areas, representing approximately 80 % of the population; and in Moldova, the sample represents approximately 85 % of the Moldovan population, with the Transnistria region not included. In these cases, estimates only represent the population of the region where the survey took place. (4) In the 2015 ESPAD survey, four countries (Austria, Latvia, Liechtenstein and the Netherlands) conducted data collection online, deviating from the usual paper-and-pencil mode of administration. While experience suggests a number of advantages of online data collection, such as interactivity, minimising mistakes of data entry and saving time and costs, the comparability of results from online and paper-and-pencil questionnaires is of concern. Research on differences when comparing online and paper-and-pencil responses on substance use behaviour suggests only small mode effects (Brener et al., 2004; Eaton et al., 2010; Lygidakis et al., 2010; Raghupathy and Hahn-Smith, 2013; Wyrick and Bond, 2011). This is corroborated by a methodological study carried out in Latvia (Trapencieris, 2013). A sample of nearly 2 800 students aged 14-16 years in grades 8-10 was randomly selected to answer the ESPAD questionnaire, either in the schools' computer lab or via the traditional paper-and-pencil mode. In only three of thirty-two variables measuring substance use were prevalence statistically significant differences found. Although in the majority of studies small mode differences were reported, the differences in most studies indicate higher rates of substance use and other sensitive behaviours if paper-and-pencil questionnaires were used. Thus, comparisons between studies using online and paper-and-pencil questionnaires should be interpreted with caution.

## Conclusion

Overall, a general decreasing trend can be observed in cigarette use and alcohol use among adolescents. However, despite rather strict regulations on tobacco in most countries and on alcohol in some countries, adolescents still report relatively easy access to tobacco and alcohol. Moreover, trends over the past two decades indicate a closing of the gender gap in the use of tobacco and alcohol. The data suggest that cannabis remains an 'established' drug. Although prevalence peaked in 2003 and decreased slightly thereafter, the prevalence rates in lifetime and current cannabis use are higher in 2015 than in 1995. In many countries, prevalence rates for NPS suggest that these substances are more attractive than the 'old drugs'

amphetamine, ecstasy, cocaine or LSD. Availability of NPS and adolescents' use of these substances need to be closely monitored.

With the popularity of smartphones and tablets, internet use has become more popular and increasingly mobile. The students were using the internet quite regularly and most commonly reported using it for social media, for instance to stay in contact with friends. Since the internet has become an integral part of life and is used on a daily basis, the development of patterns of addictive use among children and adolescents needs to be closely monitored and investigated in further studies. Associated with the increased internet use, online gaming has also become more popular, especially among boys. Moreover, youth gambling has become a popular form of recreation. Measures to prevent adolescents from developing problems associated with gambling, such as debts, psychological deficits and social disadvantages, are of high priority.

Substance or internet use should not always be considered individually: there seems to be a high association between

the use of different drugs, including alcohol and tobacco, and risky behaviours such as gambling. These associations have frequently been discussed in the light of the gateway theory, assuming that progression from one drug to another increases with the frequency of use of the former drug (Kandel et al., 1992). Others have suggested a connection between different types of problem behaviour and that certain risk-imbued behaviour patterns are caused by identical underlying common factors (Jessor and Jessor, 1977; Morral et al., 2002).

It seems necessary to make particular efforts to prevent early substance use and gambling as well as excessive use of the internet and gaming in childhood and adolescence. As a basis for decisions or approaches to achieve this goal, ESPAD provides data on such behaviours over a period of up to 20 years. In the following years, ESPAD will not only monitor substance use behaviour but will also assess future developments in internet use as well as online gaming and gambling, and strive to increase its contribution to the protection of children and adolescents from the negative consequences of substance use and addictive behaviours.

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A Coordination Committee, consisting of Ludwig Kraus (Germany), Håkan Leifman (Sweden) and Julian Vicente (EMCDDA), coordinated the project in the transition period from 2015 to 2016. A Steering Committee, appointed by the

ESPAD researchers at project meetings, worked together with the Coordination Committee. All important decisions relating to the planning of ESPAD meetings and the 2015 study have been taken jointly with the Steering Committee. Together with the three members of the Coordination Committee, the Steering Committee consists of Sharon Arpa (Malta), Sabrina Molinaro (Italy), Karin Monshouwer (the Netherlands) and Marcis Trapencieris (Latvia).

The Swedish Council for Information on Alcohol and Other Drugs (CAN) was responsible for collecting country reports and datasets and for constructing the 2015 international database. CAN also produced result tables and texts for the full online version of the *ESPAD Report 2015*. The persons at CAN involved are Anna Englund, Ulf Guttormsson, Håkan Leifman, Jonas Raninen (statistical tests) and Johan Svensson.

Ludwig Kraus, Nicki-Nils Seitz and Daniela Piontek from the IFT Institut für Therapieforschung drafted the print version of the report, with financial support from the Swedish government.

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Each country was represented in the project by a principal investigator or an ESPAD contact person, who is a contributing author of this report (see title page). In addition, a number of other persons have carried out important work in the context of the 2015 ESPAD study. The main persons from the national research teams in the 35 countries participating in the 2015 data collection are listed on the following pages, followed by a list of important funding agencies and supportive organisations.

## Collaborating persons

Below are listed, for each of the 35 countries participating in the 2015 data collection, the most important persons involved, beginning with the principal investigator (PI).

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### Austria

Julian Strizek (PI); Alfred Uhl; Andrea Kadlik

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### Bulgaria

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### Estonia

Sigrid Vorobjov (PI).

### Faroes

Pál Weihe (PI); Ólavur Jøkladal

### Finland

Kirsimarja Raitasalo (PI); Petri Huhtanen

### Former Yugoslav Republic of Macedonia

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### France

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### Georgia

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### Iceland

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### Ireland

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### Liechtenstein

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### Lithuania

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**Slovenia**

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**Sweden**

Håkan Leifman (PI); Anna Englund; Isabella Gripe; Ulf Guttormsson; Siri Thor

**Ukraine**

Olga Balakireva (PI); Tatyana Bondar; Dmitro Dmitruk; Lidia Romanovska; Iuliia Pryimak

## Funding agencies and supportive organisations

Below are listed, for each of the 35 countries participating in the 2015 data collection, the most important organisations and funding agencies involved.

**Albania**

Institute of Public Health; Ministry of Health; Ministry of Education and Sport

**Austria**

Bundesministerium für Gesundheit (BMG); Bundesministerium für Bildung und Frauen (BMBWF)

**Belgium (Flanders)**

Department of Clinical and Lifespan Psychology (KLEP — VUB); Ministry of Welfare, Public Health and Family of the Government of Flanders; Research Council of the Free University of Brussels

**Bulgaria**

National Centre for Public Health and Analyses (NCPHA); National Centre for Drug Addictions (NCDA); Ministry of Education and Science (MoES)

**Croatia**

Croatian Institute of Public Health (CIPH); Ministry of Health; Ministry of Science, Education and Sports

**Cyprus**

Kentheia; Ministry of Education and Culture; CMCDAA; Cyprus Anti-drugs Council

**Czech Republic**

Czech National Monitoring Centre for Drugs and Addiction; National Institute of Mental Health; Office of the Government of the Czech Republic

**Denmark**

Department of Public Health, Aarhus University; Danish Health Authority

**Estonia**

National Institute for Health Development

**Faroese**

Ministry of Education, Research and Culture; Faroese Board of Public Health

**Finland**

National Institute for Health and Welfare (THL)

**Former Yugoslav Republic of Macedonia**

National Institute of Public Health and Centres for Public Health in Skopje; Tetovo; Kumanovo; Stip; Veles; Prilep; Bitola; Ohrid; Strumica and Kocani; Kontakt non-governmental organisation; Ministry of Health; Ministry of Education and Science

**France**

French Monitoring Centre on Drugs and Drug Addictions (OFDT); Ministry of Education; Ministry of Agriculture; French National Institute of Health and Medical Research (Inserm)

**Georgia**

National Centre for Disease Control and Public Health (NCDC); Ministry of Education and Science; European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), EMCDDA-ENP technical co-operation project (ENPI/2013/325-486) funding

**Greece**

Greek Organisation Against Drugs (OKANA); OKANA/local authority drug prevention centres; Ministry of Education

**Hungary**

OTKA K111740 (Hungarian Scientific Research Fund); Emberi Erőforrások Minisztériuma (Ministry of Human Resources); Corvinus University of Budapest, Institute of Sociology and Social Policy; ECHO Survey Sociological Research Institute

**Iceland**

Icelandic Directorate of Health; University of Akureyri

**Ireland**

Department of Health; TobaccoFree Research Institute Ireland; Focas Research Institute; DIT Dublin; Seefin DM; Kerry

**Italy**

National Research Council (CNR), Unit of Epidemiology and Health Service Research of the Institute of Clinical Physiology

**Latvia**

Centre for Disease Prevention and Control

**Liechtenstein**

School Board

**Lithuania**

Lithuanian Ministry of Education and Science; Qualifications and Vocational Education and Training Development Centre; Klaipėda University

### Malta

Agenzija Sedqa (National Agency against Drug and Alcohol Abuse and Compulsive Gambling), Foundation for Social Welfare Services; Directorate for Educational Services (DES). Student Services Department, Education Psycho-Social Services; Anti-Substance Abuse Service within the Education Psycho-Social Services; Directorate for Education, Secretariat for Catholic Education, Archdioceses of Malta; ISA-Independent Schools Association and the participating independent schools

### Moldova

Ministry of Education of Republic of Moldova; European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), EMCDDA-ENP technical cooperation project (ENPI/2013/325-486) funding

### Monaco

French Monitoring Centre on Drugs and Drug Addiction (OFDT); Monaco Statistics (Monegasque Institute of Statistics and Economic Studies — IMSEE); Department of Education, Youth and Sport of Monaco (DENJS)

### Montenegro

Institute of Public Health of Montenegro; Ministry of Education of Montenegro; Ministry of Health of Montenegro

### Netherlands

Dutch Ministry of Health, Welfare and Sport; Regional Health Services; Trimbos-instituut

### Norway

Norwegian Institute for Alcohol and Drug Research (SIRUS)

### Poland

National Bureau for Drug Prevention (KBPN); State Agency for the Prevention of Alcohol-Related Problems (PARPA); Institute of Psychiatry and Neurology (IPiN)

### Portugal

General-Directorate for Intervention on Addictive Behaviours and Dependencies (SICAD), Ministry of Health; Direção-Geral de Estatísticas da Educação e Ciência and Direção-Geral da Educação, Ministry of Education

### Romania

National Anti-drug Agency; Ministry of National Education and Scientific Research; National School of Public Health, Management and Professional Development

### Slovakia

Research Institute for Child Psychology and Pathopsychology; St. Elizabeth University of Health and Social Sciences; Public Health Authority of the Slovak Republic; Slovak Centre of Scientific and Technical Information; National Monitoring Centre for Drugs

### Slovenia

University Medical Centre Ljubljana; Clinical Institute of Occupational, Traffic and Sports Medicine; Ministry of Education, Science and Sport

### Sweden

Swedish Ministry of Health and Social Affairs; Swedish Council for Information on Alcohol and Other Drugs (CAN)

### Ukraine

Ukrainian Institute for Social Research after Olexander Yaremenko (UISR); Institute for Economics and Forecasting National Academy of Science of Ukraine (IEP NASU); Social Monitoring Centre (SMC); Ministry of Education and Science of Ukraine; European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), EMCDDA-ENP technical cooperation project (ENPI/2013/325-486) funding; United Nations Children's Fund (Unicef) in Ukraine



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## About this report

This report presents the results from the sixth wave of data collection, conducted in 35 countries during the spring and autumn of 2015. It gives a comprehensive picture of the present situation among European young people as regards the use of tobacco, alcohol, cannabis and other substances, as well as an overview of trends in 1995-2015.

## About the EMCDDA

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) is the central source and confirmed authority on drug-related issues in Europe. For over 20 years, it has been collecting, analysing and disseminating scientifically sound information on drugs and drug addiction and their consequences, providing its audiences with an evidence-based picture of the drug phenomenon at the European level.

The EMCDDA's publications are a prime source of information for a wide range of audiences, including: policymakers and their advisors; professionals and researchers working in the drugs field; and, more broadly, the media and general public. Based in Lisbon, the EMCDDA is one of the decentralised agencies of the European Union.

## About ESPAD

The European School Survey Project on Alcohol and Other Drugs (ESPAD) is a collaborative effort of independent research teams in more than 40 European countries, making it the largest cross-national research project on adolescent substance use in the world.

ESPAD was founded in 1993, on the initiative of the Swedish Council for Information on Alcohol and Other Drugs (CAN) and with the support of the Pompidou Group at the Council of Europe. In later years, ESPAD has also established increasingly close cooperation with the EMCDDA, and at present the agency plays an important role in the coordination of the ESPAD project.

Most of the European continent is now covered by ESPAD, meaning that it provides a reliable overview of trends in substance use among 15- to 16-year-old European students. Data are collected every 4 years.

