World Health Organization

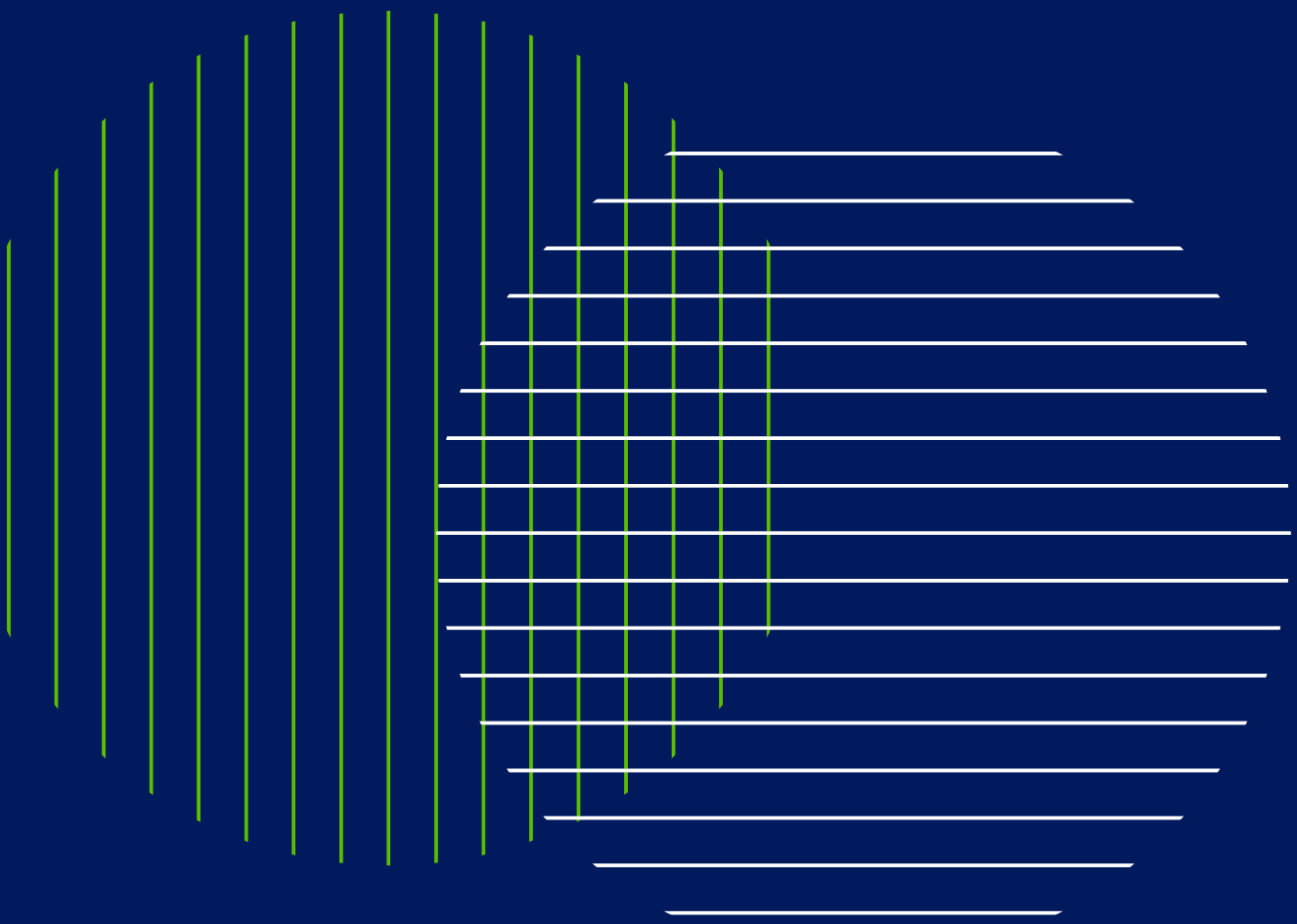
European Region

hbsc HEALTH BEHAVIOUR IN SCHOOL-AGED CHILDREN

A focus on adolescent substance use in Europe, central Asia and Canada

Health Behaviour in School-aged Children international report from the 2021/2022 survey

Volume 3



Lorena Charrier, Saskia van Dorsselaer, Natale Canale, Tibor Baska, Biljana Kilibarda, Rosanna Irene Comoretto, Tommaso Galeotti, Judith Brown and Alessio Vieno

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Abstract
The Health Behaviour in School-aged Children (HBSC) study is a large school-based survey carried out every four years in collaboration with the WHO Regional Office for Europe. HBSC data are used at national/regional and international levels to gain new insights into adolescent health and well-being, understand the social determinants of health and inform policy and practice to improve young people's lives. The 2021/2022 HBSC survey data are accompanied by a series of volumes that summarize the key findings around specific health topics. This report, Volume 3 in the series, focuses on adolescent substance use, using the unique HBSC evidence on adolescents aged 11, 13 and 15 years across 44 countries and regions in Europe, central Asia and Canada. It describes the status of adolescent substance use (cigarette smoking, electronic cigarette use, alcohol consumption, drunkenness and cannabis use), the role of gender, age and social inequality, and how adolescent substance use has changed over time. Findings from the 2021/2022 HBSC survey provide an important evidence benchmark for current research, intervention and policy-planning.

Keywords
HEALTH BEHAVIOR
HEALTH STATUS DISPARITIES
SOCIOECONOMIC FACTORS
GENDER EQUITY
ADOLESCENT HEALTH
CHILD HEALTH
SUBSTANCE-RELATED DISORDERS

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Foreword

Young people around the world face many challenges. Research shows that acceleration of climate change, migration, and economic and political instability – to name just three factors – are having profound effects on their health and well-being. The coronavirus disease 2019 (COVID-19) pandemic and, more specifically, the mitigation measures put in place by countries and regions around the world to stop the spread of the virus, changed the way children and young people live their lives. And now, for the first time in decades, war is being waged in Europe.

Colossal global events like these inevitably have huge effects on young people. But it is the narratives of young people's everyday lives – their relationships with family, friends and teachers, self-image, levels of physical activity, what they eat and drink and their experiences at school, for instance – that determine to a large extent their overall sense of mental and physical health and well-being.

It is vital that we understand the impacts of all these issues on young people and identify what countries and regions can do to further promote adolescent health and positive health behaviours.

In this regard, we are so fortunate in the WHO European Region to have the Health Behaviour in School-aged Children (HBSC) study. HBSC is a school-based survey carried out every four years in collaboration with the WHO Regional Office for Europe. It tracks, monitors and reports on self-reported health behaviours, health outcomes and social environments of boys and girls aged 11, 13 and 15 years. The most recent survey (2021/2022) was conducted across 44 countries and regions of Europe, central Asia and Canada, and included an optional set of questions that measures the perceived impacts of the COVID-19 pandemic.

This report, Volume 3 in the series, presents findings from the HBSC survey on adolescent substance use, focusing on cigarette smoking and use of electronic cigarettes, alcohol and cannabis. Substance use remains a crucial public health problem among adolescents. It is a vital area for young people's health, well-being and life prospects. Research shows that young people are very sensitive to substances such as nicotine because their brains are still developing, making it easier for them to get hooked. The consequences are costly for them and society, and can lead to physical and mental illness, educational underachievement and diminished life chances in adulthood.

While recognizing that adolescent substance use varies widely among countries and regions, the report confirms how it increases sharply through adolescence and shows evidence of gender convergence for almost all substances. From the age of 13, girls are now using substances to similar or even higher levels than boys. Cannabis is the only substance for which both lifetime and current use is consistently higher in boys. The report's findings highlight the need for countries and regions to strengthen evidence-based universal and targeted initiatives aimed at prevention and supporting young people who already are using substances, with greater efforts made to reduce the attractiveness of substance use to young people.

I congratulate and thank those responsible for the HBSC/WHO Regional Office for Europe collaborative study for once again providing timely, reliable and clear evidence that countries and regions can use as a springboard to step-up existing initiatives and develop new policies to counter the ongoing challenges young people face.

Hans Henri P. Kluge
WHO Regional Director for Europe

Preface

The Health Behaviour in School-aged Children (HBSC) study provides unique insights into the health and well-being of adolescents across Europe, central Asia and Canada. In this, the study's 40th anniversary year, we are delighted to be launching the findings from the 11th consecutive international survey in a series of topic-based volumes.

Over the past four decades, the study has grown to include over 50 countries and regions. The scope of the study has broadened over this time to encompass emergent priorities for adolescent health, while also seeking to maintain the ability to monitor longer-term trends that provide invaluable insights into how the lives of adolescents have changed over recent decades. The 2021/2022 survey included a wide range of measures of adolescent health and health behaviours and the social context in which they grow up, including family and peer relationships, school experience and online communication. As the first HBSC survey since the coronavirus disease 2019 (COVID-19) pandemic, measures were included to understand the ongoing impact of the pandemic on adolescent health. A special focus was placed on mental health, with new measures of mental well-being, loneliness and self-efficacy.

For the first time, the HBSC international report is also presented online through a new data browser that allows users to view the data through a series of interactive charts and figures. The release of the new data is accompanied by a series of volumes that summarize the key findings around specific health topics. This report, Volume 3 in the series, focuses on adolescent substance use. It shows that substance use increases sharply during the early adolescent years. While substance use remains generally higher among boys than girls at age 11, there is emerging evidence of increasing gender convergence from age 13 onwards, with girls now reporting similar or higher levels of cigarette smoking and alcohol use than boys in many countries and regions. Of particular concern is evidence that alcohol use may be increasing again among girls in some countries and regions and the high rates of electronic cigarette use, which requires urgent policy action.

HBSC involves a wide network of researchers from all participating countries and regions. The data collection in each country or region is funded at national/regional level. We are grateful for the financial support and guidance offered by government ministries, research foundations and other funding bodies for the 2021/2022 survey round. We would also like to thank our valued partners, particularly the WHO Regional Office for Europe, for their continuing support, the young people who took part in the survey and shared their experiences with us, including those who provided the quotations that feature throughout the report, schools and education authorities for making the survey possible, and all members of the national HBSC teams involved in the research.

High-quality, internationally comparable data continue to be essential to support international policy development and monitor progress towards global targets such as the United Nations Sustainable Development Goals. At national/regional level, HBSC data provide key scientific evidence to underpin health improvement initiatives and can be used to track progress on health priorities. With its long-term trends, the HBSC study enables us to monitor the impact of wider societal change and individual lifestyles on health outcomes for the adolescent age group. Importantly, it lets us hear from young people themselves about the issues that matter to them and the factors that affect their health and well-being. While there are many challenges to address, the data also highlight the importance of providing caring and supportive environments in which adolescents can thrive.

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Key findings and implications

Key findings

- Adolescents' current use of all substances (except cannabis, questions on which were presented only to 15-year-olds) increased sharply with age in almost all countries and regions.
- Substance use was generally higher in boys than girls at age 11, while the gender gap tended to narrow or disappear from age 13.
- A quarter of 15-year-olds had smoked in their lifetime, and 15% had smoked at least once in the past 30 days.
- More than 30% of 15-year-olds had used electronic cigarettes (e-cigarettes) during their lifetime and 20% had used them in the past 30 days.
- Lifetime alcohol use was reported by 57% of 15-year-olds and past-30-day use by just under 40%, with higher prevalence in girls.
- One in five 15-year-olds had been drunk at least twice in their lifetime, with no significant gender differences in most countries and regions.
- The prevalence of both lifetime and current cannabis use was higher among boys than girls at age 15 (13% versus 11% for lifetime use and 8% versus 5% for current use).
- Between 2018 and 2022, there was an overall increase in current alcohol use and drunkenness among older girls. In contrast, a decrease in alcohol use was observed among 15-year-old boys.
- A decrease in current smoking since 2018 was also observed among 15-year-old boys.
- Socioeconomic differences in substance use varied by substance type. Cigarette smoking showed higher prevalence among adolescents from low-affluence families, while e-cigarette use, alcohol consumption and drunkenness were more prevalent among high-affluence adolescents.
- Data from the 2022 survey confirm wide variability in substance use among countries and regions.

Implications

- Substance use remains a crucial public health problem among adolescents, especially in light of the steady or once again growing trend seen in many countries and regions.
- Data from recent literature suggest that the coronavirus disease 2019 (COVID-19) pandemic may have had an impact on adolescent substance use. In this perspective, the results of the Health Behaviour in School-aged Children (HBSC) 2021/2022 survey provide an important benchmark for interventions and policy-planning.
- All interventions should be evidence-based in line with international standards, tailored, gender-sensitive, developmentally appropriate and ethical.
- Comprehensive actions are required at multiple levels, including families, communities, youth centres and hospitals, alongside strong referral pathways that provide the necessary services for young people.
- The gender convergence registered in many countries and regions from the age of 13, with higher prevalence among females even for substances traditionally consumed more by males (such as alcohol), suggests the need for the adoption of interventions that take this phenomenon into account.
- Greater efforts to reduce the attractiveness of substance use among adolescents are needed, and ongoing monitoring of adolescent behaviour in relation to substance use can help countries and regions assess the effectiveness of their interventions.
- Attention should be given to banning or strongly regulating new products like e-cigarettes, as they are marketed predominantly to young people. E-cigarettes are highly addictive and efforts should be made to decrease their availability to young people by banning advertisements, promotions and flavours and regulating other elements and components that increase toxicity, attractiveness and addictiveness of e-cigarettes for young people.

Introduction

Substance use among adolescents remains a crucial public health issue, as it is associated with negative health, behavioural, economic and social outcomes in the short, medium and long terms. These include psychological and physical health consequences, unhealthy dieting patterns, poorer academic outcomes, violence and injury, accidents, and negative influences on cognitive, emotional and social development *(1–6).* Adolescent substance use is also often associated with other risk behaviours, such as unprotected sex *(7).* Studies confirm the co-occurrence of multiple health risk behaviours and the idea that they tend to cluster *(8–10).*

Despite declines in the use of substances (such as alcohol consumption and cigarette smoking) in recent years *(11–15)*, some data suggest that the coronavirus disease 2019 (COVID-19) pandemic may have caused a new increase in use *(16–18).* Use of electronic cigarettes (e-cigarettes) (commonly called vapes) has increased globally, a trend that is notably prominent among adolescents *(19)*, in no small part due to their exposure to online environments that promote e-cigarettes through targeted advertising *(20,21)*. The rising prevalence of these products poses a significant public health concern due to the potential health risks they carry, particularly for young people.

Although boys have consistently reported higher levels of substance use than girls in the past, data from the most recent surveys on adolescent risk behaviours suggest gender convergence in many countries and regions and for almost all substances, similar to what has happened with cigarette smoking over the past two decades *(22).*

This report examines substance use measures from the 2021/2022 Health Behaviour in School-aged Children (HBSC) survey, focusing on cigarette smoking, e-cigarette use, alcohol consumption and drunkenness, and cannabis use (only measured among 15-year-olds). The measures capture lifetime use and current use (use within the last 30 days). Special attention is paid to changes in gender differences over time, to better target policies and interventions to support young people in preventing and quitting substance use. Table 1 and the Annex detail the substance use measures included in the report.

I think the biggest health concern facing young people today is vapes. I think that they should either make vapes less accessible, take the nice flavours out of them, or ban them. (Girl, Ireland)

Table 1. Substance use measures included in the report

Measures	Items
Cigarette smoking:[a] lifetime and current	Young people were asked on how many days they had smoked cigarettes in their lifetime/in the last 30 days. Response options were never, 1–2 days, 3–5 days, 6–9 days, 10–19 days, 20–29 days and 30 days (or more). Findings presented here show the proportions reporting lifetime use (1–2 days or more in lifetime) and current use (1–2 days or more in the last 30 days).
E-cigarette use:[b] lifetime and current	Young people were asked on how many days they had used e-cigarettes [national street names added] in their lifetime/in the last 30 days. So-called heat, not burn, products were excluded. Response options were never, 1–2 days, 3–5 days, 6–9 days, 10–19 days, 20–29 days and 30 days (or more). Findings presented here show the proportions reporting lifetime use (1–2 days or more in lifetime) and current use (1–2 days or more in the last 30 days).
Alcohol use:[a] lifetime and current	Young people were asked on how many days they had drunk alcohol in their lifetime/in the last 30 days. Response options were never, 1–2 days, 3–5 days, 6–9 days, 10–19 days, 20–29 days and 30 days (or more). Findings presented here show the proportions reporting lifetime use (1–2 days or more in lifetime) and current use (1–2 days or more in the last 30 days).
Drunkenness:[a] two times or more in lifetime and once or more during the last 30 days	Young people were asked if they had ever had so much alcohol that they were really drunk in their lifetime/in the last 30 days. Response options were no never, yes once, yes 2–3 times, yes 4–10 times and yes more than 10 times. Findings presented here show the proportions reporting drunkenness two or more times in their lifetime and once or more in the last 30 days.
Cannabis use:[ac] lifetime and current	Young people were asked on how many days they had taken cannabis [national street names used] in their lifetime/in the last 30 days. Response options were never, 1–2 days, 3–5 days, 6–9 days, 10–19 days, 20–29 days and 30 days (or more). Findings presented here show the proportions reporting lifetime use (1–2 days or more in lifetime) and current use (1–2 days or more in the last 30 days).

[a] Trend data available for this indicator. [b] Indicator first included in the 2021/2022 HBSC survey. [c] Asked only of 15-year-olds.

Insights into adolescent substance use

Cigarette smoking

Overall, 13% of boys and girls reported having smoked cigarettes in their lifetime, and 8% in the last 30 days. Prevalence of both lifetime and past-30-day use increased significantly with age for boys and girls in all countries and regions except Armenia and Tajikistan.

Among 11-year-olds, 5% of boys and 3% of girls reported lifetime smoking, ranging from fewer than 1% of girls in Ireland to 18% of boys in Bulgaria. Among 13-year-olds, 10% of boys and 11% of girls reported they had ever smoked cigarettes, with the lowest prevalence being among girls in Tajikistan (1%) and the highest among boys in Lithuania (24%). A quarter of 15-year-olds had ever smoked (24% of boys and 26% of girls), with the highest prevalence among girls in Denmark (Greenland) (64%) and the lowest (fewer than 1%) among girls in Tajikistan.

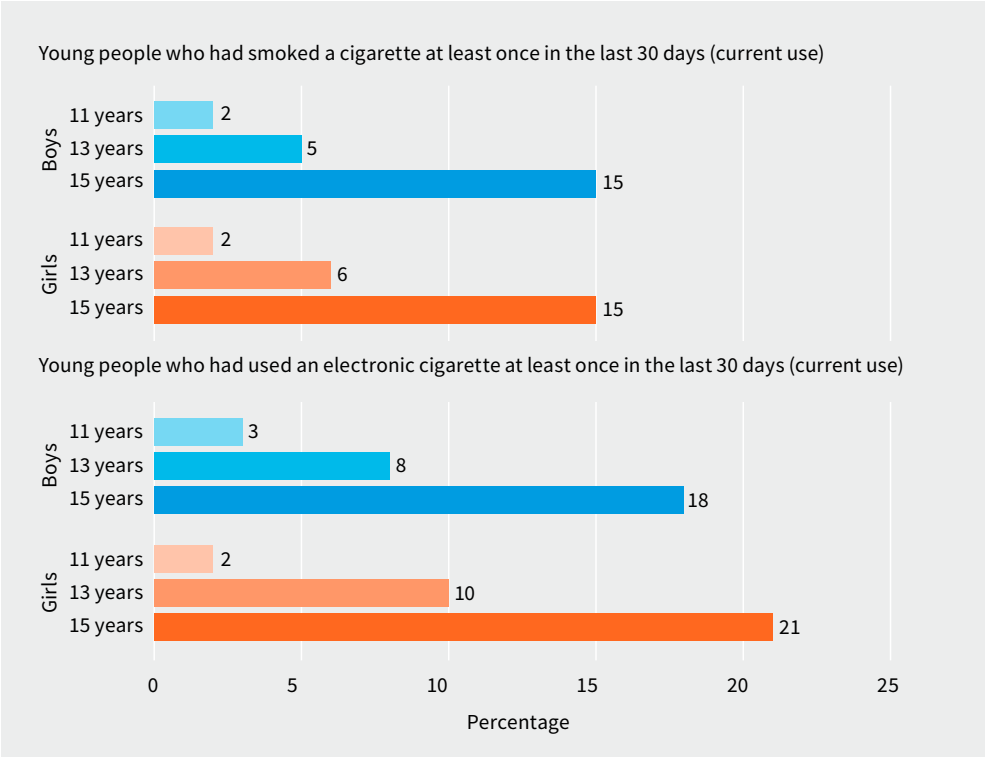
Fig. 1 shows the prevalence of current smoking by age and gender. Overall, 2% of 11-year-olds had smoked cigarettes in the past 30 days, with the highest prevalence observed in Bulgaria (13% of boys and 11% of girls) and the lowest rates (fewer than 1%) in 23 countries and regions. About 5% of 13-year-olds reported current smoking, ranging from fewer than 1% of girls in Iceland, Kyrgyzstan and Tajikistan to 17% of girls in Denmark (Greenland) and boys in Bulgaria. Fifteen per cent of boys and girls were current smokers at age 15, with prevalence ranging from under 1% among girls in Armenia to 52% of girls in Denmark (Greenland).

No significant difference in current smoking between boys and girls was found in most countries and regions. In the youngest age group, however, prevalence generally was higher among boys than girls (with the exceptions of Denmark (Greenland) and Lithuania), while among 15-year-olds, girls in seven countries and regions were more likely than boys to be current smokers. Gender differences also changed with age for lifetime cigarette smoking. At age 11, boys reported higher prevalence of lifetime use in 17 countries and regions, but the reverse was seen at age 15, with girls reporting higher prevalence in 10.

Between 2018 and 2022, there was evidence of declines in lifetime cigarette smoking, particularly among 13-year-old boys and 15-year-old boys and girls. There was also a small but significant decrease in current smoking among 15-year-old boys. Some country-/region-level differences nevertheless were seen: in North Macedonia and the Republic of Moldova, for example, current smoking increased in both genders and among all age groups (with the exception of 15-year-old boys), while in Iceland it decreased in boys of all ages and among 15-year-old girls.

Most countries and regions showed no significant differences in lifetime and current smoking according to socioeconomic status, as measured by the Family Affluence Scale. Where differences were significant, the gap mainly was due to higher prevalence among those from less affluent families.

Fig. 1. Age- and gender-related patterns in current cigarette and e-cigarette use (HBSC average)(%)



Note: for cigarette use, no data were received from Norway (11-year-olds). For e-cigarette use, no data were received from Denmark (Greenland), North Macedonia, Republic of Moldova (11- and 13-year-olds) and Norway (11-year-olds).

E-cigarette use

More than one in six adolescents (18%) reported having used an e-cigarette at least once in their life, and 10% had done so in the last 30 days.

As with cigarette smoking, e-cigarette use increased significantly with age in both boys and girls, and in almost all countries and regions. Among boys, lifetime e-cigarette use increased from 6% among 11-year-olds to 16% and 31% among 13- and 15-year-olds respectively. A similar pattern was observed among girls (4%, 16% and 33% among 11-, 13- and 15-year-olds respectively). Highest lifetime use was observed in Lithuania, with a prevalence of almost 60% in both genders at age 15.

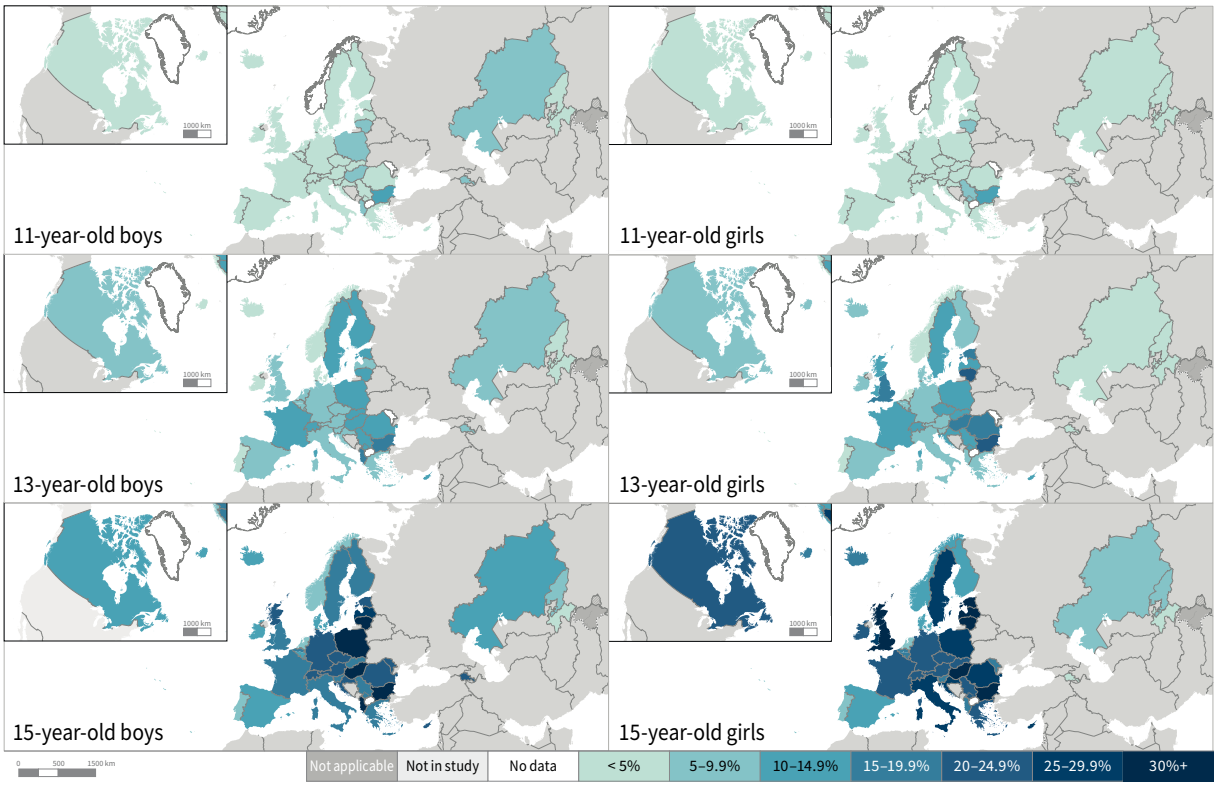
The prevalence of current e-cigarette use also increased significantly with age for boys, from 3% among 11-year-olds, to 8% in 13-year-olds, to 18% at 15 years. A similar increase was observed among girls: from 2% for 11-year-olds, to 10% for 13-year-olds, to more than double that (21%) for 15-year-olds (Fig. 1 and 2). Among 15-year-olds, the prevalence of current use varied substantially across countries and regions, from 2% among boys and under 1% among girls in Tajikistan, to 34% and 36% respectively among boys and girls in Lithuania (Fig. 2).

The gender difference in both lifetime and past-30-day e-cigarette use was significant in almost all countries and regions, with Albania, Armenia and United Kingdom (Wales) showing it in all age groups. The highest gender difference among 15-year-olds for both lifetime (36% boys, 6% girls) and past-30-day (23% boys, fewer than 1% of girls) use was found in Armenia. Current e-cigarette use among 11-year-olds was higher in boys than girls in all 15 countries and regions that showed a significant gender gap. In contrast, the gender gap among 15-year-olds was statistically significant in 19 countries and regions, with prevalence being higher among girls in 14 of them.

A significantly higher prevalence of current users was found among both boys and girls from high-affluence families in 10 countries and regions, while the reverse situation was seen for both genders in Canada, Cyprus and Ireland. In 19 other countries and regions, differences by family affluence were found only in either boys or girls – only for boys in 12 of the 19, with higher prevalence among more affluent families in eight, and only for girls in seven, with higher prevalence among more affluent families in three.

The HBSC 2021/2022 study was the first survey round to investigate e-cigarette use across all countries and regions, so comparisons with previous waves cannot be made.

Fig. 2. E-cigarette use in last 30 days by country/region, age and gender



Note: no data were received from Denmark (Greenland), North Macedonia, Republic of Moldova (11- and 13-year-olds) and Norway (11-year-olds).

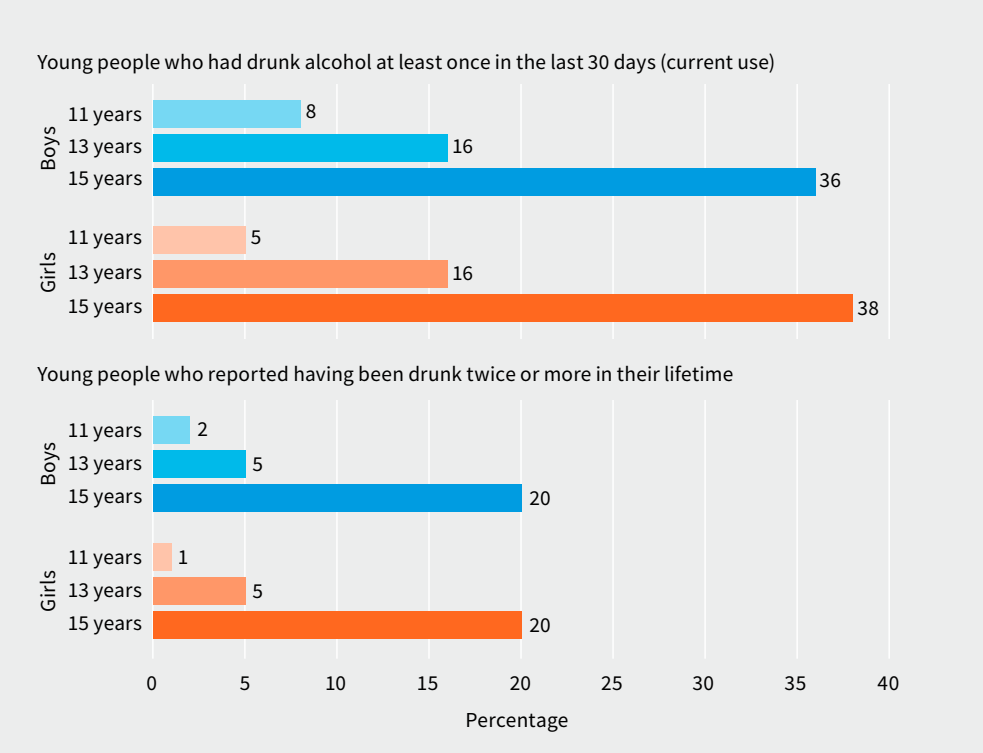
Alcohol use

Overall, 35% of adolescents reported drinking alcohol in their lifetime, and 20% in the last 30 days. Lifetime and current alcohol use increased with age for both girls and boys (except in Tajikistan).

Among 11-year-olds, 18% of boys and 13% of girls reported drinking alcohol in their lifetime. Prevalence was 33% for 13-year-olds and 57% for 15-year-olds (56% for boys and 59% for girls). As was the case for other substances, lifetime alcohol use varied greatly across countries and regions. Tajikistan showed the lowest prevalence in all age groups for both boys (1%) and girls (under 1%), while United Kingdom (England) reported the highest prevalence for 11-year-olds (35% for boys and 34% for girls) and 13-year-olds (50% boys and 57% girls). The highest prevalence for 15-year-olds (83% for boys and 84% for girls) was observed in Denmark.

Among 11-year-olds, 8% of boys and 5% of girls reported consuming alcohol at least once in the past 30 days. Prevalence increased with age to 16% of boys and 16% of girls at age 13 and 36% of boys and 38% of girls at 15 (Fig. 3). Current alcohol use also varied widely across countries and regions. At age 11, prevalence ranged from fewer than 1% of girls in Ireland and Tajikistan to 20% of boys in Bulgaria and the Republic of Moldova. At age 13, it ranged from under 1% of boys and girls in Tajikistan to 32% of boys in Bulgaria and girls in United Kingdom (England). The highest prevalence among 15-year-olds was observed in Denmark (68% for boys and 69% for girls) and the lowest in Tajikistan (under 1% for both boys and girls).

Fig. 3. Age- and gender-related patterns in current alcohol consumption and lifetime drunkenness (HBSC average)(%)



Note: no data on current alcohol use were received from Norway (11-year-olds). No data on lifetime drunkeness were received from Denmark (Greenland), Finland (11-year-olds), Norway (11-year-olds), and Serbia and Tajikistan (11- and 13-year-olds).

Eleven-year-old boys were more likely than girls to report drinking alcohol in their lifetime in 26 countries and regions and 13-year-old boys in seven, but at age 15 the reverse was found, with girls more likely to report drinking alcohol in 13 countries and regions and boys in only three. Gender differences in current use also varied between ages 11 and 15. Prevalence of current alcohol use at age 11 was higher among boys than girls in half of the countries and regions. At age 13, only 10 countries and regions showed significant gender differences, and in six of these, current alcohol use was higher among girls. The opposite trend for 15-year-olds was observed in 12 of the 15 countries and regions in which there was a gender difference, with more girls using alcohol in the past 30 days.

Overall lifetime alcohol use in boys decreased between 2018 and 2022, particularly among 15-year-olds. Conversely, an increase was observed among girls (except for 15-year-olds). While the proportion of current drinkers did not change among 11- and 13-year-old boys, there was a small but significant decrease among 15-year-old boys. Current alcohol use nevertheless increased among girls in all age groups. Fig. 4 shows the trends in prevalence in current alcohol consumption between 2014 and 2022 in each participating country and region.

Socioeconomic differences were seen in both lifetime and current alcohol use. Lifetime alcohol use was more common in boys from high-affluence families in half of the countries and regions and in 18 for girls. On average, current use was higher among adolescents from high-affluence families for both boys (23% high affluence versus 17% low) and girls (22% high versus 18% low), except in Tajikistan (boys) and Slovakia (girls), where the opposite pattern was found. Differences of more than 10 percentage points in current alcohol use between high- and low-affluence families were found for both genders in Austria, Bulgaria, Germany and Netherlands (Kingdom of the), for boys only in Belgium (Flemish), Belgium (French), Finland and Poland, and for girls only in France, Italy and United Kingdom (Wales).

Drunkenness

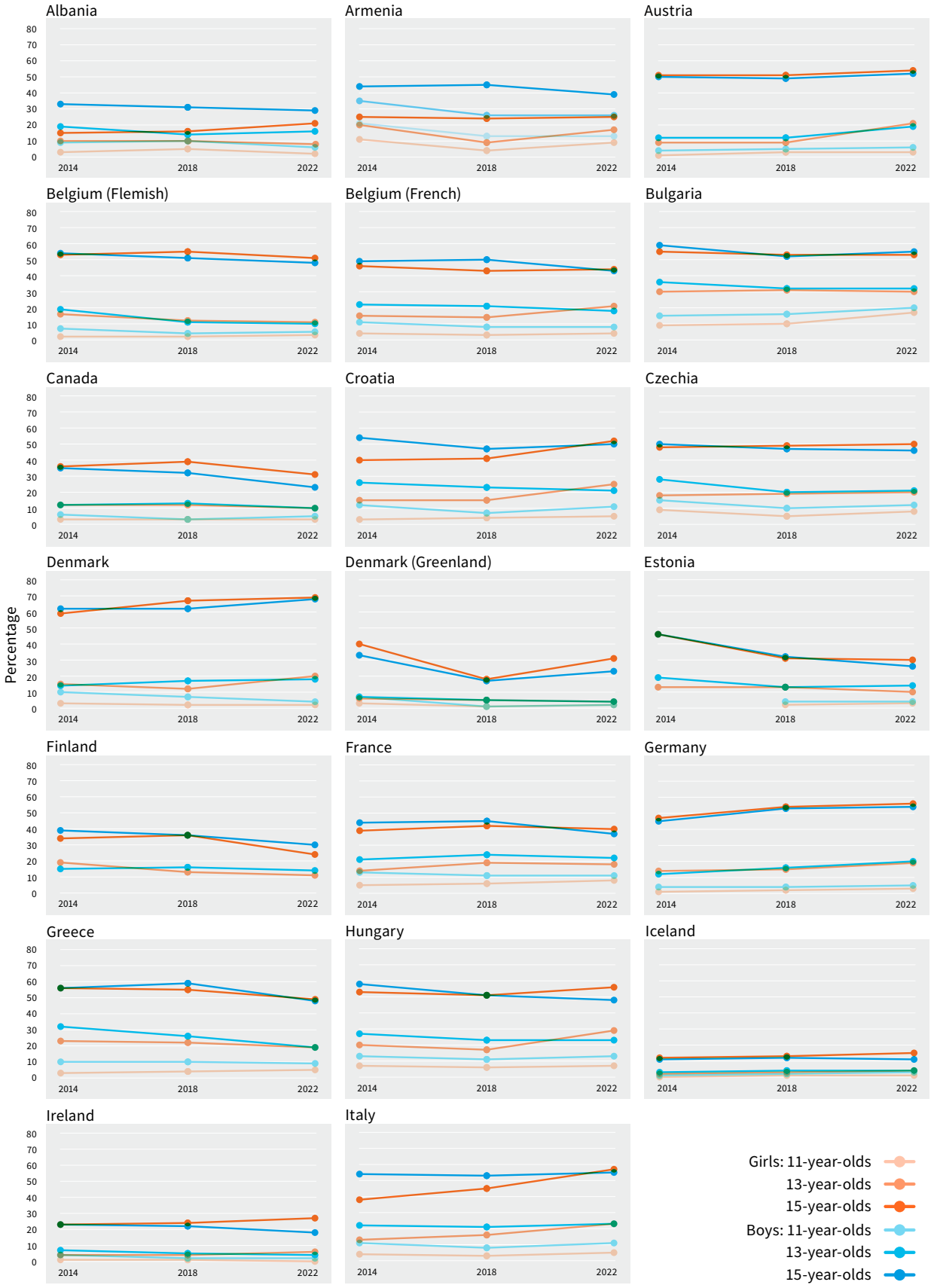
Nine per cent of adolescents reported having experienced drunkenness at least twice in their lifetime, and 7% in the last 30 days.

Drunkenness increased with age, with the biggest difference being seen between the ages of 13 and 15. At age 11, 2% of boys and 1% of girls reported having been drunk at least twice in their lifetime. This increased to 5% of 13-year-old boys and girls, and 20% of 15-year-old boys and girls (Fig. 3). Variation across countries and regions was wide, however, ranging from a lowest prevalence of 1% across all age groups to 9% at age 11, 15% at age 13 and 46% at age 15.

Fewer than 5% of 11-year-old adolescents reported drunkenness at least once in the past 30 days, but this rose at age 15 to 16% of boys and 15% of girls.

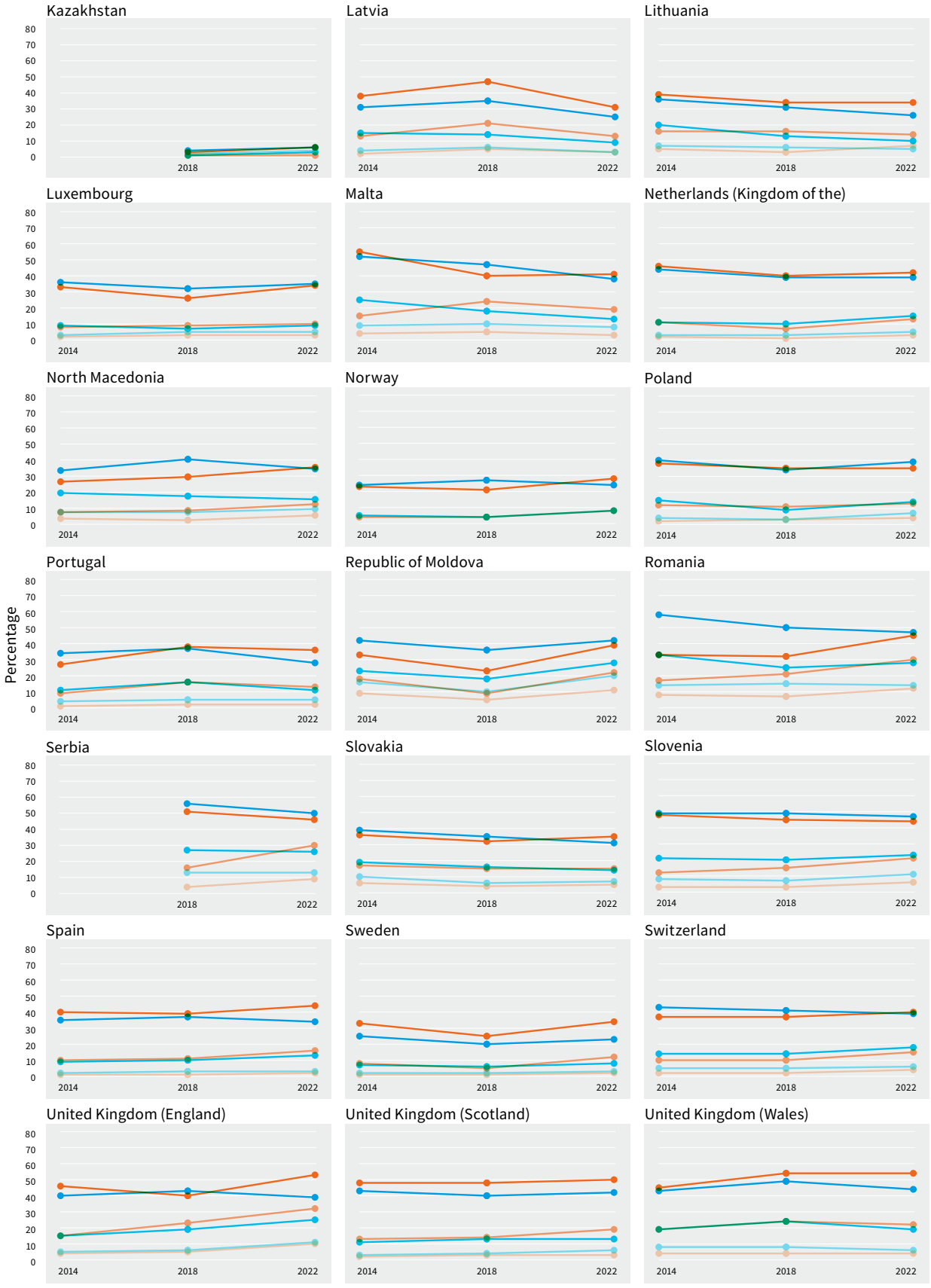
Gender differences in lifetime drunkenness between ages 11 and 15 changed. Gender differences were seen in 13 countries and regions at age 11, with boys showing higher prevalence of lifetime drunkenness than girls in all. At age 13, boys showed higher prevalence of lifetime drunkenness in only four countries and regions and girls in three.

Fig. 4. Trends in prevalence in current alcohol consumption from 2014 to 2022 by country/region, age and gender



Note: no data were received from Estonia (11-year-olds in 2014), Kazakhstan (2014), Norway (11-year-olds) and Serbia (2014). Finland (11-year-olds) not presented as data were available only for 2022.

Fig. 4 contd


Kazakhstan
Latvia
Lithuania
Luxembourg
Malta
Netherlands (Kingdom of the)
North Macedonia
Norway
Poland
Portugal
Republic of Moldova
Romania
Serbia
Slovakia
Slovenia
Spain
Sweden
Switzerland
United Kingdom (England)
United Kingdom (Scotland)
United Kingdom (Wales)
Percentage
0
10
20
30
40
50
60
70
80
2014
2018
2022

As with alcohol consumption (lifetime and current), a reversed gender pattern was seen at age 15: in six of the 11 countries and regions that showed gender differences, more girls than boys had been drunk at least twice in their lifetime.

Between 2018 and 2022, the overall prevalence of lifetime drunkenness did not change for 11- and 13-year-old boys and decreased for 15-year-old boys. In contrast, there was a significant increase among 13- and 15-year-old girls. A similar pattern was seen for drunkenness in the past 30 days among girls.

Being drunk at least twice in their lifetime was more prevalent in adolescents from high-affluence families for both boys (12% from high-affluence families versus 9% from low) and girls (10% high versus 9% low), although the differences were less pronounced than for alcohol consumption. The largest socioeconomic difference in lifetime drunkenness was seen for both genders in Belgium (French) and among boys from Austria and Bulgaria (a difference of more than 10 percentage points). The opposite pattern was seen in Canada and Cyprus, where boys from less affluent families were more likely to have been drunk at least twice in their lifetime compared to those with high affluence. Similar patterns were observed among girls in Hungary, Ireland, Lithuania and Slovakia. Drunkenness in the last 30 days was also more common in boys and girls from high-affluence families in 11 and 10 countries and regions respectively. Adolescents from low-affluence families were more likely to report drunkenness in the last 30 days in five countries and regions for boys and five for girls.

Cannabis use

More than one in 10 (12%) 15-year-olds had used cannabis in their lifetime, with a higher prevalence among boys (13%) than girls (11%).

The prevalence of cannabis use varied substantially across countries and regions. The highest lifetime prevalence for boys was seen in United Kingdom (Scotland) (23%) and Poland (22%), and for girls in Canada (25%) and Italy (22%). In contrast, Tajikistan showed the lowest prevalence for both boys and girls (under 1%).

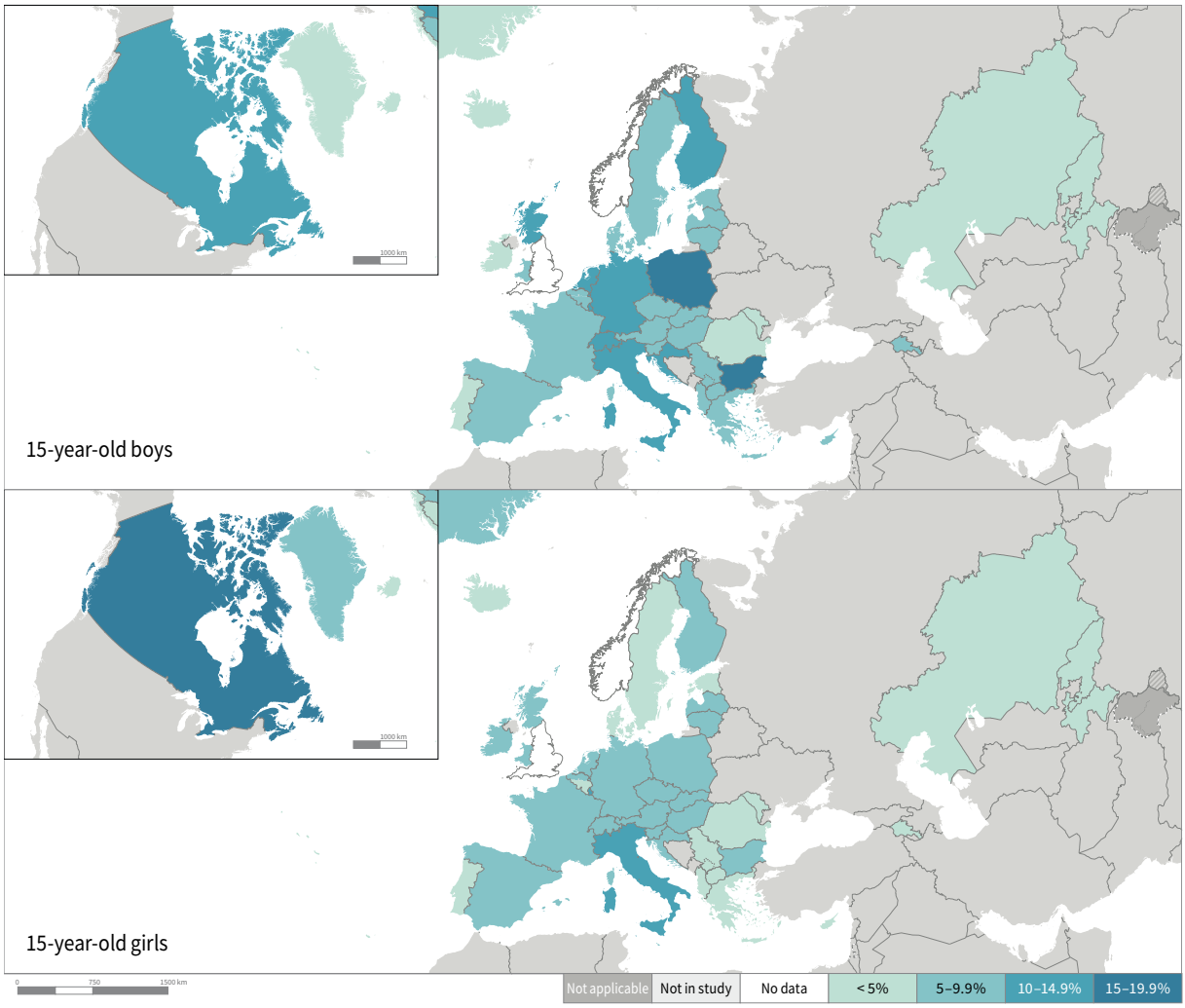
Current cannabis use was reported by 6% of 15-year-olds, with higher prevalence among boys than girls (8% and 5% respectively). Similar to lifetime consumption, current use varied widely among countries and regions (Fig. 5). The highest percentage of 15-year-olds who used cannabis in the past 30 days was found in Bulgaria for boys (19%) and in Canada for girls (15%); Kyrgyzstan and Tajikistan reported the lowest prevalence for both boys and girls (under 2%).

Gender differences in lifetime use were seen in 13 countries and regions. Prevalence was higher in boys than girls, except in United Kingdom (Wales). Gender differences were also observed in 18 countries and regions for current use, with higher prevalence among boys.

The overall prevalence of lifetime use decreased slightly between 2018 and 2022, from 14% to 12%, but current use remained stable at 7%. Lifetime cannabis use was slightly more common in adolescents from high- and low-affluence families than in those with medium affluence for both boys (15% high, 14% low and 11% medium) and girls (12% high, 11% low and 9% medium), although

this trend was not consistent across countries and regions. Among boys in Poland, Serbia and Switzerland, the highest prevalence was found in those from high-affluence families and the lowest in those with low affluence. This trend was reversed for girls in Canada and Ireland, with the highest rates being seen in low-affluence girls and the lowest among those with high affluence.

Fig. 5. Cannabis use in last 30 days by country/region, age and gender



Note: no data were received from Norway and United Kingdom (England).

> ***The greatest health concern for youth is the lack of education for awareness and help with addiction illnesses among youth. (Girl, North Macedonia)***

Cross-cutting themes

The impact of age: consumption of substances increases through adolescence

Data from the HBSC 2021/2022 survey confirm past trends, with a sharp and significant increase in substance use with age for boys and girls and in all countries and regions except Tajikistan. The increase in prevalence with age is observed for both lifetime and current substance use (Fig. 1 and 3), with the largest increase generally seen between the ages of 13 and 15.

Although the e-cigarette is a relatively new product, its use follows the age pattern of more traditional substances. Use of e-cigarettes has increased significantly in both boys and girls between the ages of 13 and 15.

The role of gender: converging trends in substance use

Substance use has traditionally been more prevalent among boys, and the HBSC 2021/2022 findings confirm a well established gender difference, with higher prevalence in boys than girls among 11-year-olds.

By the age of 13, however, gender differences diminish or even disappear in many countries and regions. Among 15-year-olds, girls often reported more frequent substance use than boys. While this pattern has been known for cigarette smoking in many countries and regions for about two decades, especially among 15-year-olds, it is a new phenomenon for behaviours related to other substances (such as alcohol consumption and drunkenness) in most countries and regions; historically, prevalence for these behaviours has been higher among boys than girls. The HBSC 2021/2022 survey highlights this gender reversal for several substances in many countries and regions, showing a significantly higher prevalence in girls from the age of 13 (Fig. 1, 3 and 4). Cannabis is the only substance for which both lifetime and current use is consistently higher in boys (Fig. 5).

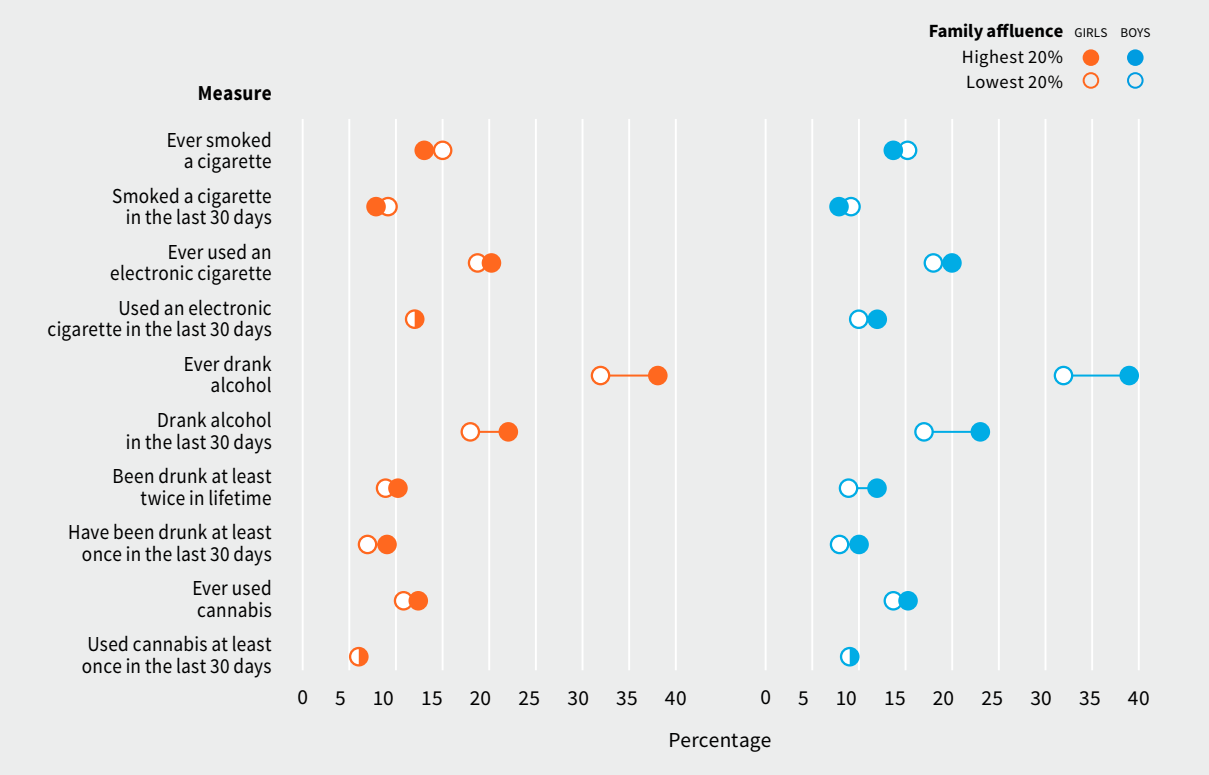
Social inequalities: associations vary by type of substance

No clear picture of substance use related to the socioeconomic status of the family emerged. Where differences among adolescents of high- and low-affluence families were found, they varied by substance type (Fig. 6).

Cigarette smoking showed a slightly higher prevalence among adolescents from less affluent families, which was found to be statistically significant for both genders in five countries (Belgium, Canada, Iceland, Luxembourg and Poland) for lifetime use and six (Canada, Denmark, Greece, Hungary, Iceland and Slovakia) for current use.

E-cigarette use (especially lifetime use in boys), alcohol consumption and drunkenness were more prevalent among adolescents from high-affluence families. Canada was the only exception in terms of lifetime e-cigarette and cannabis use, showing a significantly higher prevalence for both boys and girls from families with more disadvantaged socioeconomic status.

Fig. 6. Overall family affluence differences across substance-use indicators by gender (HBSC average)



Note: low- and high-affluence groups represent the lowest 20% and highest 20% in each country/region. No data for alcohol use were received from Norway (11-year-olds). No data were received for drunkenness from Denmark (Greenland), Finland (11-year-olds), Norway (11-year-olds), Serbia and Tajikistan (11- and 13-year-olds). No data for cigarette use were received from Norway (11-year-olds). No data for e-cigarettes were received from Denmark (Greenland), North Macedonia, Norway (11-year-olds) and Republic of Moldova (11- and 13-year-olds). No data on cannabis use were received from Norway and United Kingdom (England).

Cross-national/regional variations

Wide variability among the countries and regions involved was a common feature across all the substances.

Some countries and regions showed significantly lower substance use than most others for both genders and across all age groups, but particularly among 15-year-olds. Kazakhstan, Kyrgyzstan and Tajikistan were the only countries with a prevalence of under 10% for boys and girls for current alcohol consumption and under 5% for drunkenness in the past 30 days, with the average HBSC prevalence among 15-year-olds being around 40% and 15% respectively. Fewer than 1% of 15-year-olds in Tajikistan reported lifetime or current cannabis use, compared to the HBSC average of 7% in boys and 6% in girls (Fig. 5).

At the other end of the spectrum, the countries and regions with the highest current substance use among 15-year-olds were Denmark (Greenland) for cigarette smoking (37% in boys and 52% in girls), Lithuania for e-cigarette use (about 35% in both genders), Denmark for alcohol consumption and drunkenness in the past 30 days (about 70% and 34% respectively in both genders), and for cannabis use, Bulgaria for boys (19%) and Canada for girls (15%).

Policy implications

The findings presented in this report highlight the need to strengthen prevention initiatives. These should include universal interventions aimed at preventing substance-use initiation, targeted interventions aimed at high-risk groups in whom substance use is often concentrated, and focused interventions aimed at helping young people to cope with individual-level risk factors that can make them more vulnerable to substance-use escalation. Given the importance of the social contexts of where adolescents live and in which their lifestyles are shaped, interventions must also address wider socioenvironmental factors to limit exposure to unhealthy opportunities and promote healthier choices. All interventions should be evidence-based in line with international standards, and be tailored, gender-sensitive, developmentally appropriate and ethical.

Initiatives to prevent the use of both licit and illicit substances among adolescents are often developed in the school setting. Implementation of effective school-based policies and programmes is an important element of preventive action to provide education, health awareness, skills development, monitoring and enforcement. School-based programmes alone, however, may not be effective in reducing the adoption of substance-use behaviours. Comprehensive actions are required at multiple levels, including families, communities, youth centres and hospitals, alongside strong referral pathways that can provide the necessary services for young people, taking account of specific cultural needs, and gender, age and income disparities.

Monitoring the adoption of substance use in adolescents is crucial to maintaining and promoting health, and to preventing more serious health issues in adulthood. Ongoing and long-term surveillance will help to ensure that adolescents enjoy optimal well-being and that efforts to support this goal are having the desired effects.

Effective interventions for countries and regions to prevent and discourage the use of all substances, licit and illicit, among adolescents include:

- strengthening enforcement mechanisms for existing laws (such as minimum legal ages for purchasing alcohol or tobacco products) and effective implementation of health policies;
- implementing effective taxation policies (such as minimum pricing and increasing excise taxes and prices) that will impact the affordability of alcohol, tobacco and e-cigarette products, particularly to young people;
- enforcing a comprehensive ban on marketing, advertising, promotion and sponsorship opportunities on mainstream and social media;
- monitoring substance use among adolescents on an ongoing basis and incorporating monitoring into nationally representative surveys that ensure data are at minimum disaggregated by age and sex; and
- allocating funds for the development and implementation of comprehensive evidence-based interventions for young people within families, schools and community-based settings; these should be developed by credible organizations with no conflicts of interest or industry backing, in association with effective and accessible communication campaigns.

Despite declines in cigarette smoking in recent decades, results from the HBSC 2021/2022 survey show that prevalence among adolescents remains high. The WHO Framework Convention on Tobacco Control provides guidelines for the implementation and management of tobacco control.

The MPOWER initiative *(23)* has identified six measures to assist with country-/regional-level implementation of effective interventions to reduce the demand for tobacco:

1. Monitor tobacco use and prevention policies
2. Protect people from tobacco smoke
3. Offer help to quit tobacco use
4. Warn about the dangers of tobacco
5. Enforce bans on tobacco advertising, promotion and sponsorship
6. Raise taxes on tobacco.

Urgent action is required to tackle the growing prevalence of e-cigarette use among young people, which now exceeds cigarette smoking in many countries and regions. The increasing popularity of e-cigarettes among adolescents may threaten progress made in tobacco control in recent decades, so there is a critical need for comprehensive strategies to reduce their use and to prevent harm, particularly among young people. Actions should include incorporating e-cigarettes into smoke-free policies, preventing young people's access to e-cigarettes, implementing pricing and taxation policies, regulating marketing and advertising, and targeting educational initiatives at young people *(24).*

Alcohol is still the most commonly used substance among adolescents. Ongoing action to reduce its use is necessary, particularly among girls, in whom recent increases have been observed in several countries and regions. The availability of alcohol-free beverages has increased during the last decade, but little is known about potential pathways from alcohol-free drinks towards consumption of alcoholic drinks. This area requires further research and monitoring.

Cannabis use is also common among young people, who are particularly vulnerable to harmful effects to their ongoing neurological, mental and psychosocial development. While there is no universally safe level of cannabis use, evidence-based guidelines for lower-risk cannabis use have recently been published. Based on a review of current evidence, these suggest that the risk of adverse health outcomes can be reduced by delaying onset of cannabis use until after adolescence, avoiding the use of high-potency cannabis products and high frequency or intensive use, and refraining from using smoking as the method of consumption *(25).*

Conclusions

During the process of growing from children to adults, adolescents may make choices that could put their health and well-being at risk. Engaging in high-risk behaviours during the adolescent years can shape adult behaviour, with substance use at an early age being linked to a higher risk of addiction. Young people are very sensitive to nicotine and other drug addictions as their brains are still developing, making it easier for them to get hooked. The consequences are costly for them and society.

This report confirms the sharp increase in substance use through adolescence and a more recent gender convergence for almost all substances, with girls now often reporting similar or even higher levels of substance use than boys from age 13. Only cannabis use remains higher among boys than girls, with a few countries and regions being exceptions.

Adolescents have faced many challenges over the past four years, such as the COVID-19 pandemic. These may have had an impact on their lifestyle habits, including substance use. In this context, these findings also provide evidence to support the development of policies and programmes aimed at helping those who are most vulnerable and have been affected most strongly by the pandemic and its consequences.

I think the biggest underestimated health problem for young people right now is addiction to vapes or electric cigarettes. I think that besides banning the sale of vapes, the Government can also better educate children at an early age in schools about this type of product and its addictive potential. (Boy, Netherlands (Kingdom of the))

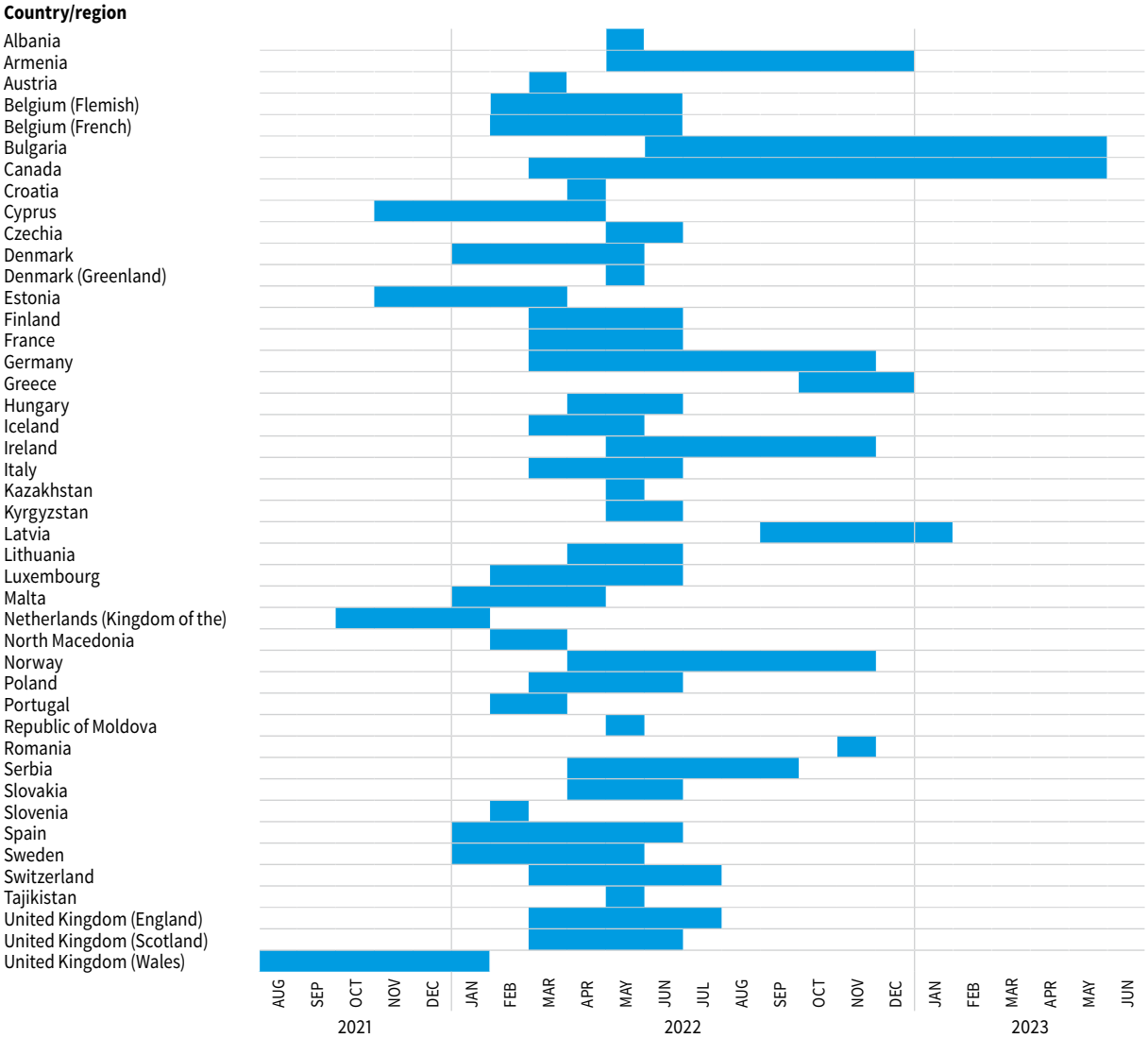
HBSC study

The HBSC study is a large school-based survey carried out every four years in collaboration with the WHO Regional Office for Europe. The study collects data on the health behaviours, health outcomes and the social environments of adolescents aged 11, 13 and 15. Since the mid-1980s, HBSC data have been used to gain new insights into young people's health and well-being, better understand the social determinants of adolescent health, and inform policy and practice to improve young people's lives.

The most recent HBSC survey (2021/2022) was conducted across 44 countries and regions in Europe, central Asia and Canada and included an optional set of questions that measured perceived impacts of the COVID-19 pandemic.

This report presents key findings on adolescent substance use, including issues related to gender, age, socioeconomic factors and changes over time. It is the third volume in a series of reports that present findings from the latest international HBSC survey and discuss what they mean for young people's health and well-being. Fig. 7 shows the dates on which the 44 countries and regions conducted the survey.

Fig. 7. Dates on which the 44 countries and regions conducted the 2021/2022 HBSC survey



Note: data from Israel were collected too late for inclusion in the report. No HBSC survey was undertaken in 2021/2022 in Azerbaijan, Georgia, Türkiye and Ukraine. HBSC membership of the Russian Federation was suspended in April 2022.

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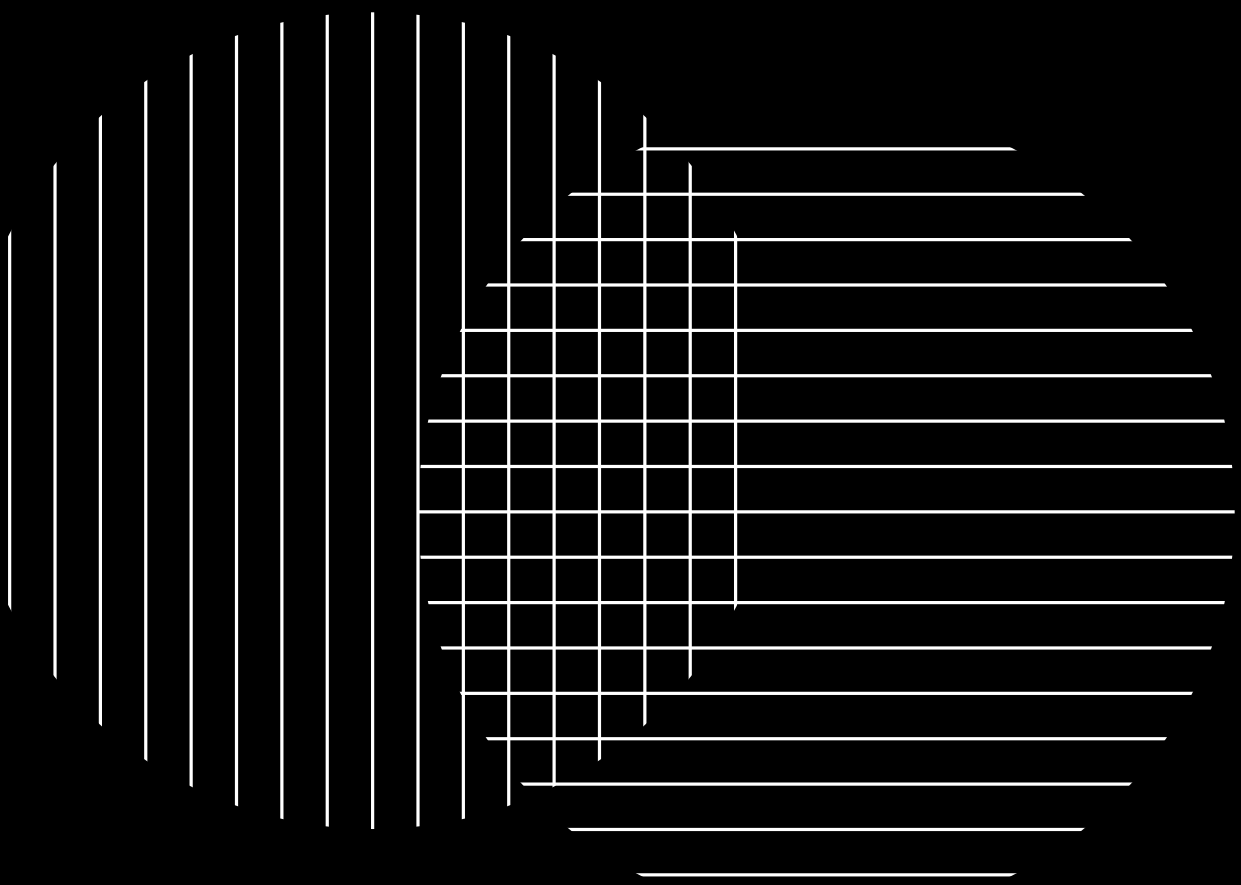
Annex



Key data

Introduction

This Annex presents the key data from the 2021/2022 Health Behaviour in School-aged Children (HBSC) study that underpin the summary of scientific findings presented in the main report – in this volume, related to adolescent substance use.

A standard methodology for the study is used in each participating country and region. This is detailed in the HBSC 2021/2022 international study protocol *(1).*

Fieldwork took place mainly between October 2021 and June 2022. An extended fieldwork period was necessary in two countries to enable them to reach the required sample size.

Further information about the HBSC study is available online *(2).* Aggregate data from the 2021/2022 survey can be accessed as charts and tables via the HBSC data browser *(3)*, alongside comparable data from the 2017/2018 and 2013/2014 surveys where available.

Data presented

Key data on adolescent substance use are presented disaggregated by country and region, age group, gender and family affluence for the 279 117 young people aged 11, 13 and 15 years from 44 countries and regions who participated in the 2021/2022 HBSC survey. Data are presented for each of the 10 indicators presented in this volume.

Data availability

Data are drawn from the mandatory component of the HBSC survey questionnaire, which was used in all countries and regions. Data for some indicators were not available from specific countries and regions; this is indicated in the footnotes to relevant charts.

Family affluence

Family affluence is a robust determinant of adolescent health, but children are not able to give the sort of information traditionally collected about job roles and salary that would give an indication of how rich or poor families may be.

HBSC uses the Family Affluence Scale (FAS) *(4–6)*, which asks young people about material assets in the household. The HBSC 2021/2022 survey used a six-item assessment of common material assets or activities, covering family vehicle ownership, house bedroom and bathroom/shower room capacity, holidaying abroad, and family computer and dishwasher ownership.

Responses are scored and summed to form an HBSC FAS summary score, which has been shown to provide a valid indicator of relative affluence *(4).* This summary score is used in the FAS charts to estimate relative socioeconomic position by comparing the individual's score for FAS with those of all other scores for the same gender and age group within their country or region. A relative affluence score *(6)* is then used to identify groups of young people in the lowest 20% (low affluence), middle 60% (medium affluence) (not shown in the charts in this Annex) and highest 20% (high affluence) in each country and region. This approach assesses relative, not absolute, health inequality.

Interpreting differences in prevalence

Each chart indicates where differences are statistically significant. Statistical analyses are included to help readers avoid overinterpretation of small differences. Statistical significance does not always indicate a difference that is considered important in terms of public health.

Prevalence in the charts is presented as a percentage, rounded to the nearest whole number. Average scores are presented to one decimal place.

Understanding the age–gender charts

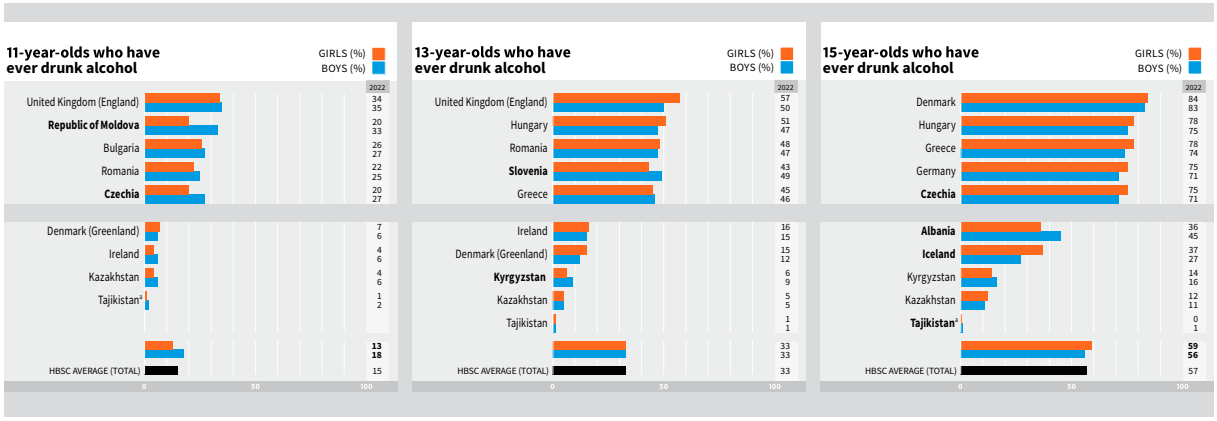
Bar charts present data for 2021/2022 for girls (orange bars) and boys (blue bars) in each age group separately for each country and region in descending order of prevalence (or average score) (for girls and boys combined). The percentage prevalence (or average score) in 2021/2022 (boys and girls separately) is also presented as a number down the right-hand edge of the charts. HBSC averages for each gender and combined are shown at the bottom of each chart.

Country/region names highlighted in bold in the age–gender charts are those in which there was a statistically significant gender difference in prevalence or average score in 2021/2022.

As an example, Fig. A1 shows that in an average HBSC country or region, 59% of 15-year-old girls and 56% of 15-year-old boys report having ever drunk alcohol. The overall HBSC average prevalence of lifetime alcohol use is significantly higher among boys than girls at age 11, although gender differences were not seen in all countries and regions. In Fig. A1, significant gender differences are observed only in Czechia and the Republic of Moldova. The average prevalence at age 13 is the same for boys and girls (33%), but girls show a higher average prevalence than boys at age 15 (59% versus 56%). Fifteen-year-old boys and girls in Denmark have the highest prevalence of lifetime alcohol use (83% and 84% respectively).

For design reasons, the measures used to elicit the data from participants are described on the second (right-hand) page of each indicator spread.

Fig. A1. Example of age–gender bar chart



Understanding the family affluence charts

Charts of prevalence by family affluence (FAS) group illustrate the relationship between family affluence and each substance use indicator. The FAS charts show the prevalence (or average score) of the indicators in the most affluent 20% of adolescents in each country or region (a solid circle) and the least affluent 20% (an open circle). The data are presented for each country and region for boys (blue circle) and girls (orange circle) separately, combined across the three age groups.

Prevalence (or average score) in the least and most affluent groups is linked by a line, the length of which indicates the difference in prevalence (or average score) between the two groups. HBSC averages for each affluence group are presented by gender at the bottom of the charts. The overall prevalence (or average score) for the indicator, combined over age groups and gender, is given as the final point at the bottom of the charts (black and white circle) and is shown as a line along the length of the charts.

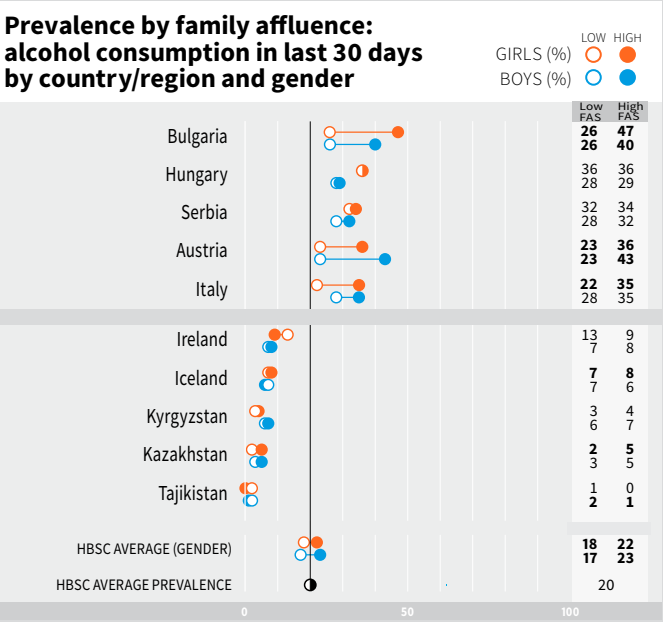
Countries and regions are ordered on the FAS charts by prevalence (or average score) averaged across genders.

Significance of differences in prevalence (or average score) by family affluence are indicated by the figures for prevalence (or average score) being bolded. Prevalence of the medium-affluence group is not presented in the charts, but the data from all three FAS groups are used when carrying out statistical analysis.

Significance is only marked where there is a linear trend in prevalence across the three groups. This may mean that some differences in prevalence that look large between the low- and high-affluence groups may not be marked as significant if, for example, the prevalence in the medium-affluence 60% is lower or higher than both presented numbers.

Fig. A2 presents an example family affluence chart. It shows that overall, high-affluence boys and girls have a higher prevalence of alcohol consumption in the last 30 days than young people from low-affluence families. In Bulgaria, for example, 47% of boys in the 20% most affluent households report alcohol consumption in the last 30 days, while only 26% of boys in the 20% least affluent households do so. Around half of the countries and regions, however, show no difference between high- and low-affluence adolescents: in Iceland and Tajikistan, for example, there is only 1% difference between high- and low-affluence adolescents.

Fig. A2. Example of family affluence chart



References[2]

1. Inchley J, Currie D, Samdal O, Jastad A, Cosma A, Nic Gabhainn S, editors. Health Behaviour in School-aged Children (HBSC) study protocol: background, methodology and mandatory items for the 2021/22 survey. Glasgow: MRC/CSO Social and Public Health Sciences Unit, University of Glasgow; 2023. (https://hbsc.org/publications/survey-protocols/).
2. Health Behaviour in School-aged Children. World Health Organization collaborative cross-national study [website]. Glasgow: University of Glasgow; 2023 (https://hbsc.org/).
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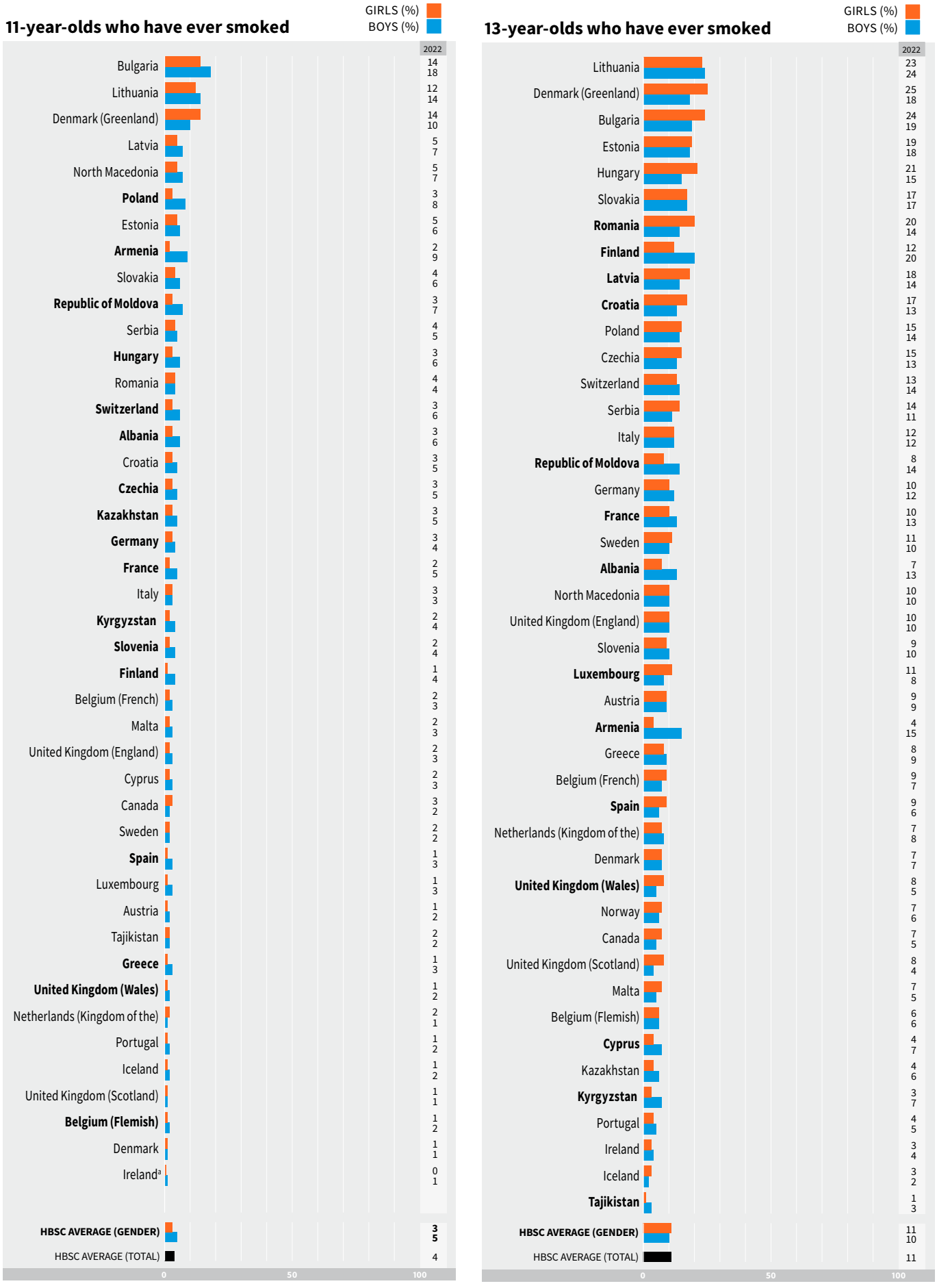
4. Currie C, Molcho M, Boyce W, Holstein B, Torsheim T, Richter M. Researching health inequalities in adolescents: the development of the Health Behaviour in School-aged Children (HBSC) Family Affluence Scale. Soc Sci Med. 2008;66(6):1429–36. doi:10.1016/j.socscimed.2007.11.024.
5. Torsheim T, Cavallo F, Levin KA, Schnohr C, Mazur J, Niclasen B, FAS Development Study Group. Psychometric validation of the revised Family Affluence Scale: a latent variable approach. Child Indic Res. 2016;9:771–84. doi:10.1007/s12187-015-9339-x.
6. Elgar FJ, Xie A, Pförtner T-K, White J, Pickett KE. Assessing the view from bottom: how to measure socioeconomic position and relative deprivation in adolescents. SAGE Research Methods Cases in Health. 2017. doi:10.4135/9781526406347.

2 All references accessed 22 January 2024.

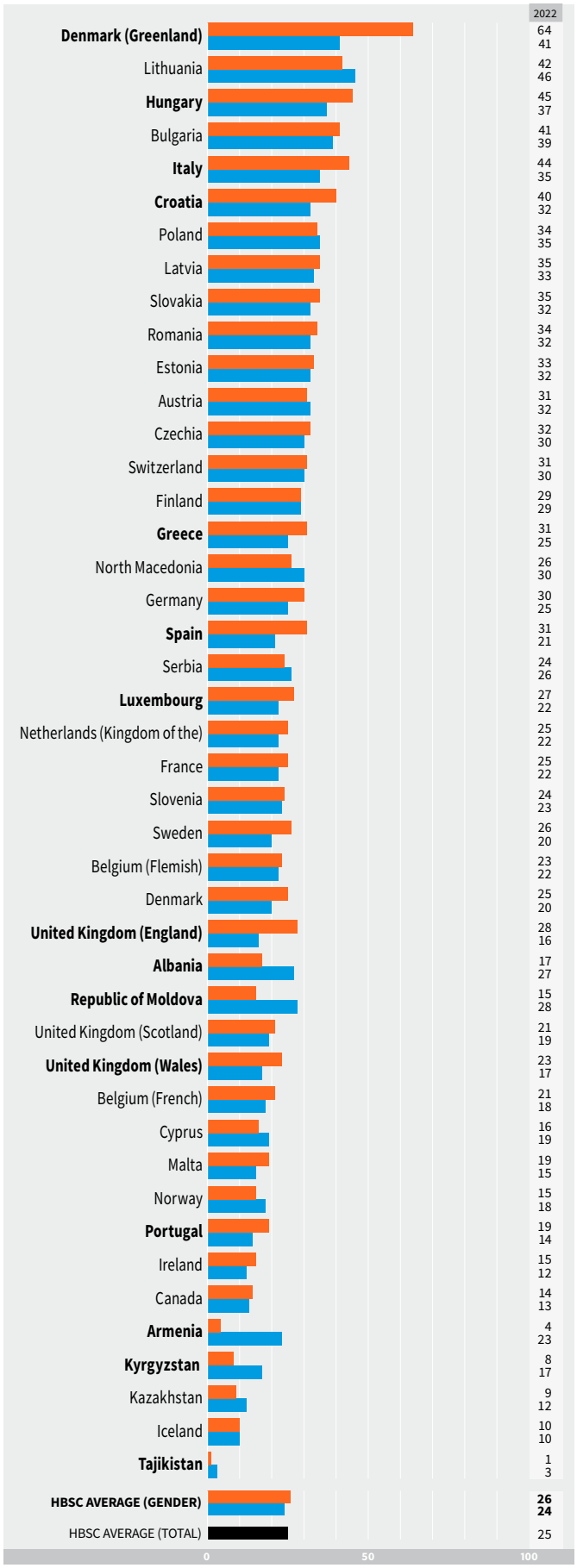
Cigarette smoking: lifetime use



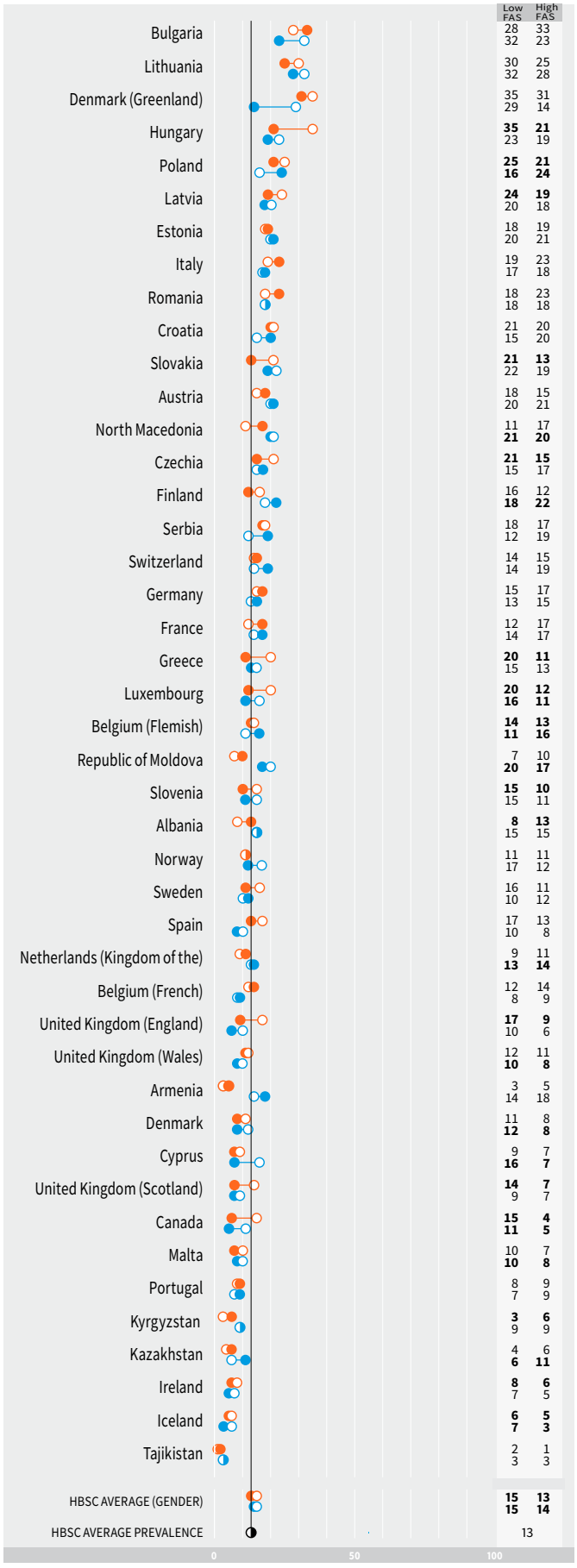
[a] 11-year-old girls: < 0.5%. *Note:* country/region name in **bold** indicates a significant gender difference (at $P < 0.05$). No data were received from Norway (11-year-olds).

MEASURE: young people were asked on how many days they had smoked cigarettes in their lifetime. Response options were never, 1–2 days, 3–5 days, 6–9 days, 10–19 days, 20–29 days and 30 days (or more). Findings presented here show the proportions who had ever smoked a cigarette.

15-year-olds who have ever smoked

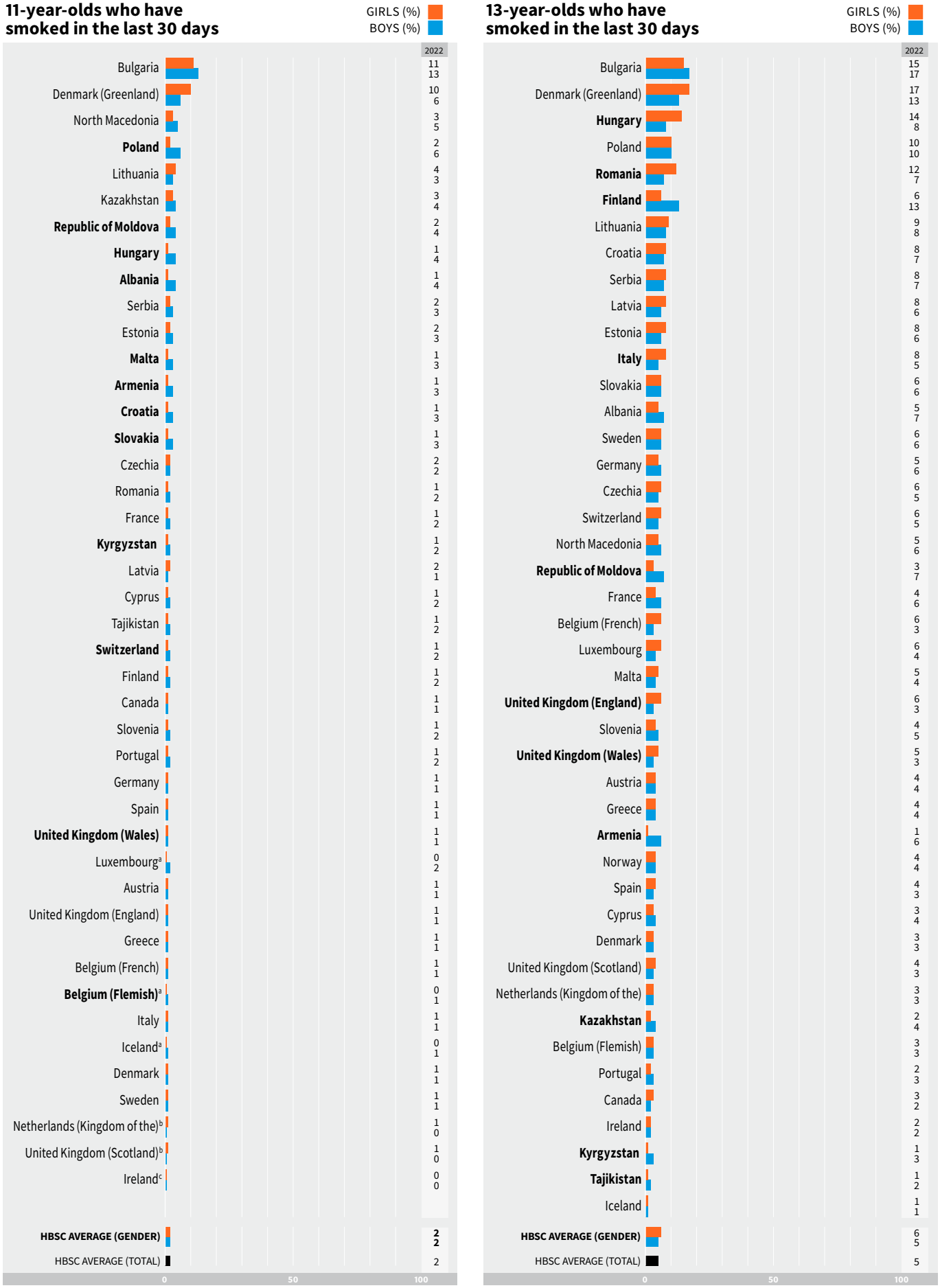


Prevalence by family affluence: lifetime cigarette smoking by country/region and gender



FAS: Family Affluence Scale. *Note*: **bold** indicates a significant difference in prevalence by family affluence group (at $P < 0.05$). Low- and high-affluence groups represent the lowest 20% and highest 20% in each country/region.

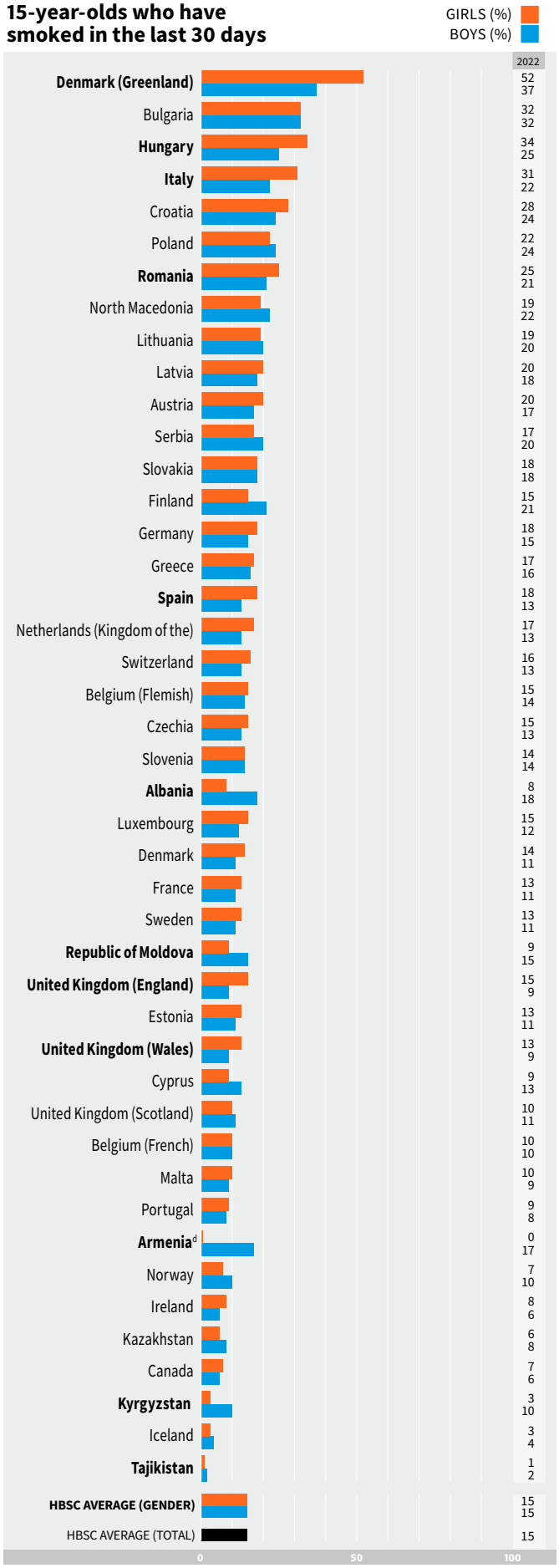
Cigarette smoking: last-30-days (current) use



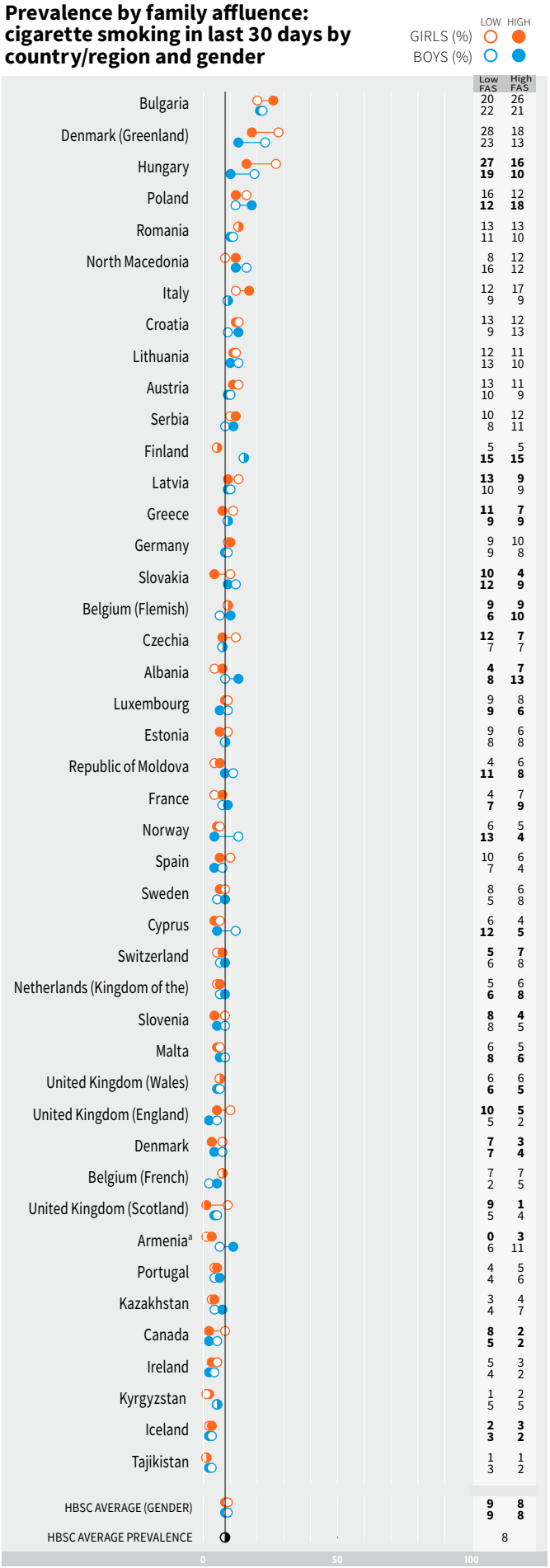
[a] 11-year-old girls: < 0.5%. [b] 11-year-old boys: < 0.5%. [c] 11-year-old boys and girls: < 0.5%. [d] 15-year-old girls: < 0.5%. *Note:* country/region name in **bold** indicates a significant gender difference (at $P < 0.05$). No data were received from Norway (11-year-olds).

MEASURE: young people were asked on how many days they had smoked cigarettes in the last 30 days. Response options were never, 1–2 days, 3–5 days, 6–9 days, 10–19 days, 20–29 days and 30 days (or more). Findings presented here show the proportions who had smoked a cigarette at least once in the last 30 days.

15-year-olds who have smoked in the last 30 days

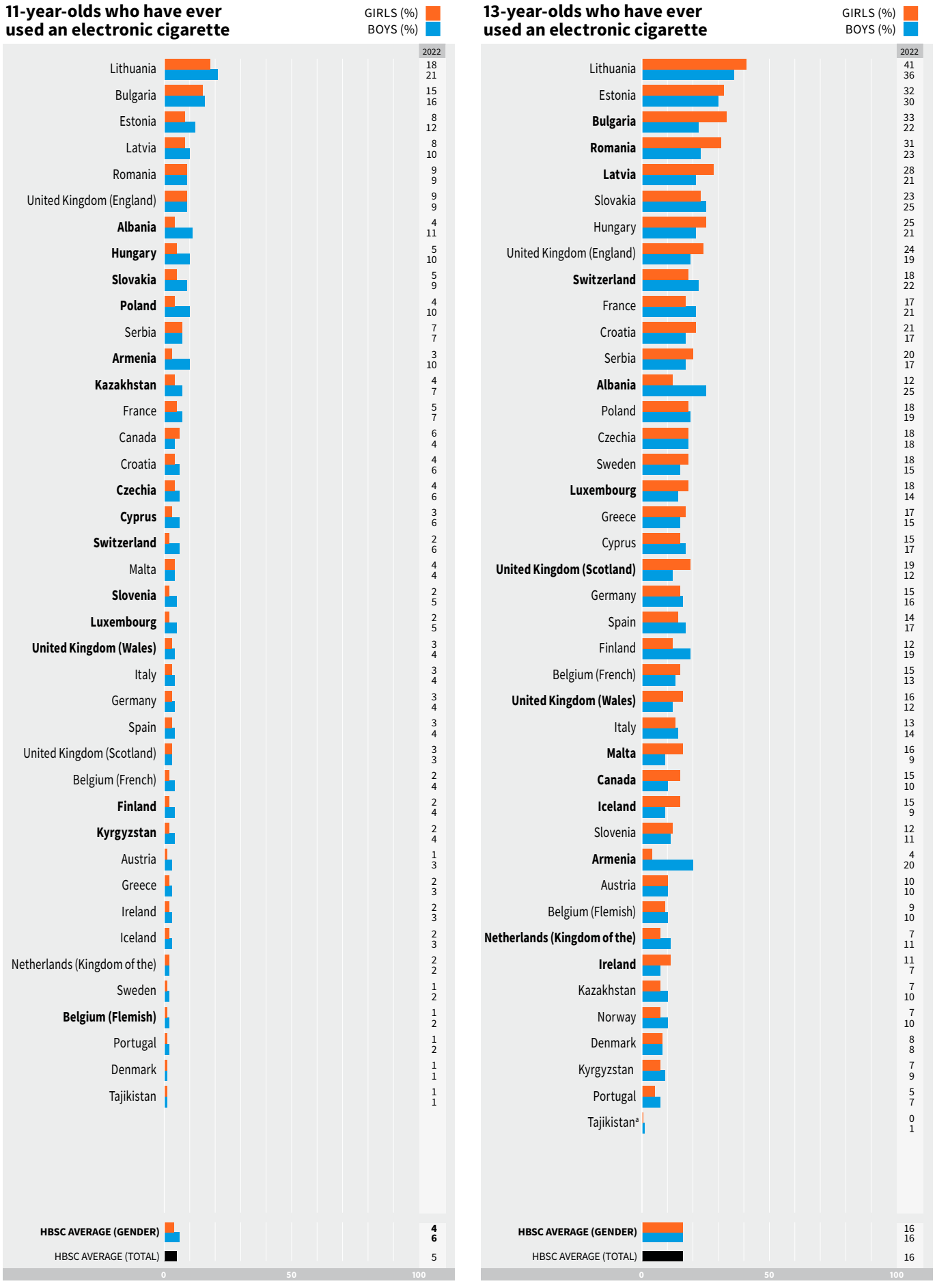


Prevalence by family affluence: cigarette smoking in last 30 days by country/region and gender



FAS: Family Affluence Scale. [a] Low-affluence girls: < 0.5%. *Note*: **bold** indicates a significant difference in prevalence by family affluence group (at $P < 0.05$). Low- and high-affluence groups represent the lowest 20% and highest 20% in each country/region.

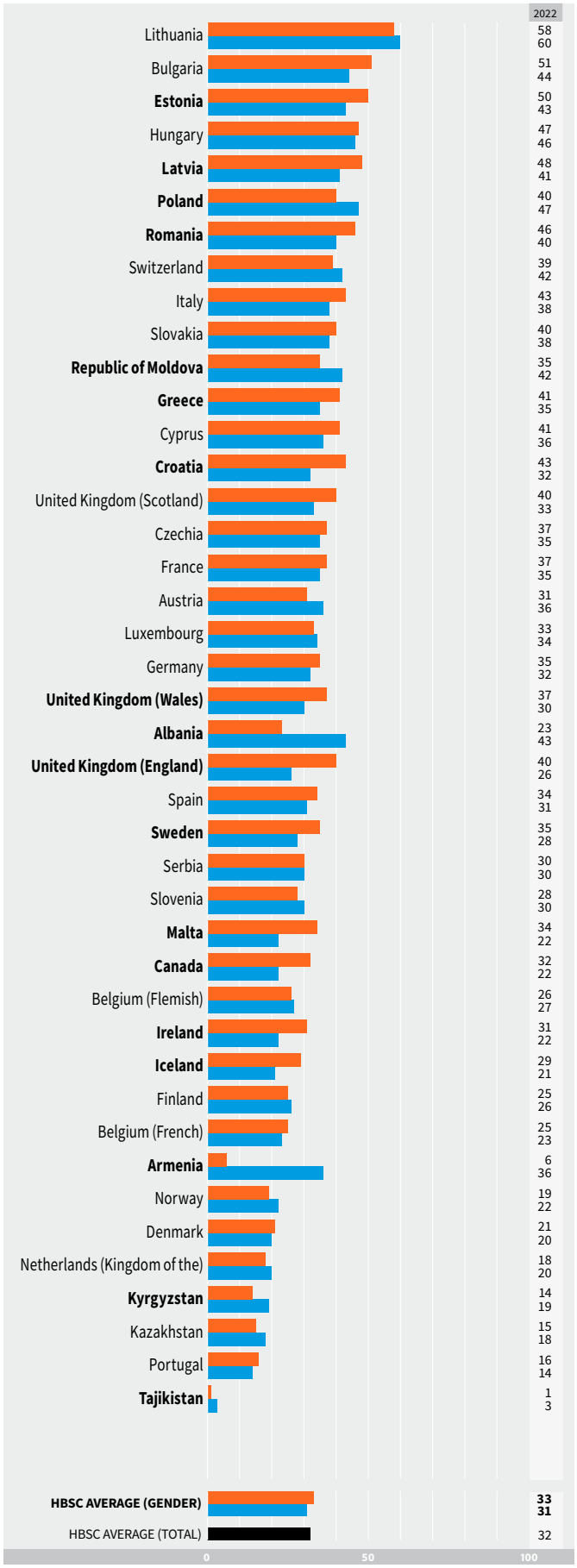
Electronic cigarette use: lifetime use



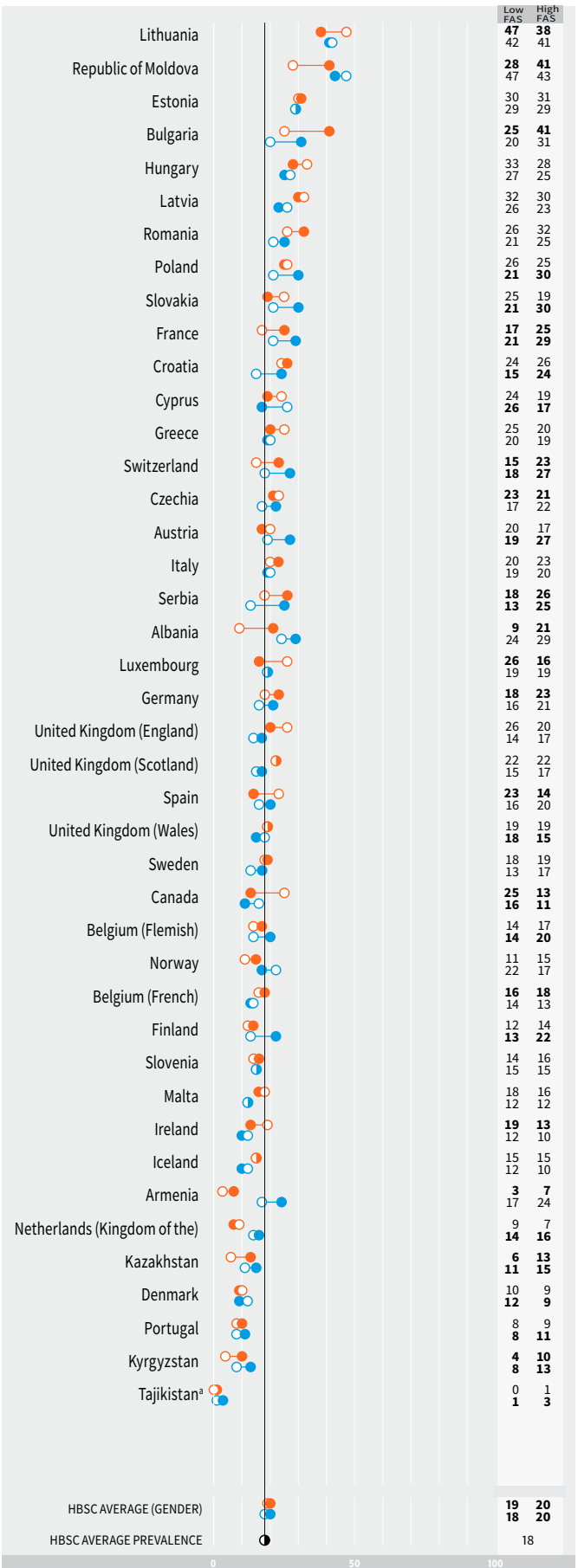
[a] 13-year-old girls: < 0.5%. *Note:* country/region name in **bold** indicates a significant gender difference (at $P < 0.05$). No data were received from Denmark (Greenland), North Macedonia, Norway (11-year olds) and the Republic of Moldova (11- and 13-year-olds).

MEASURE: young people were asked on how many days they had used electronic cigarettes in their lifetime. Response options were never, 1–2 days, 3–5 days, 6–9 days, 10–19 days, 20–29 days and 30 days (or more). Findings presented here show the proportions who had ever used an electronic cigarette.

15-year-olds who have ever used an electronic cigarette

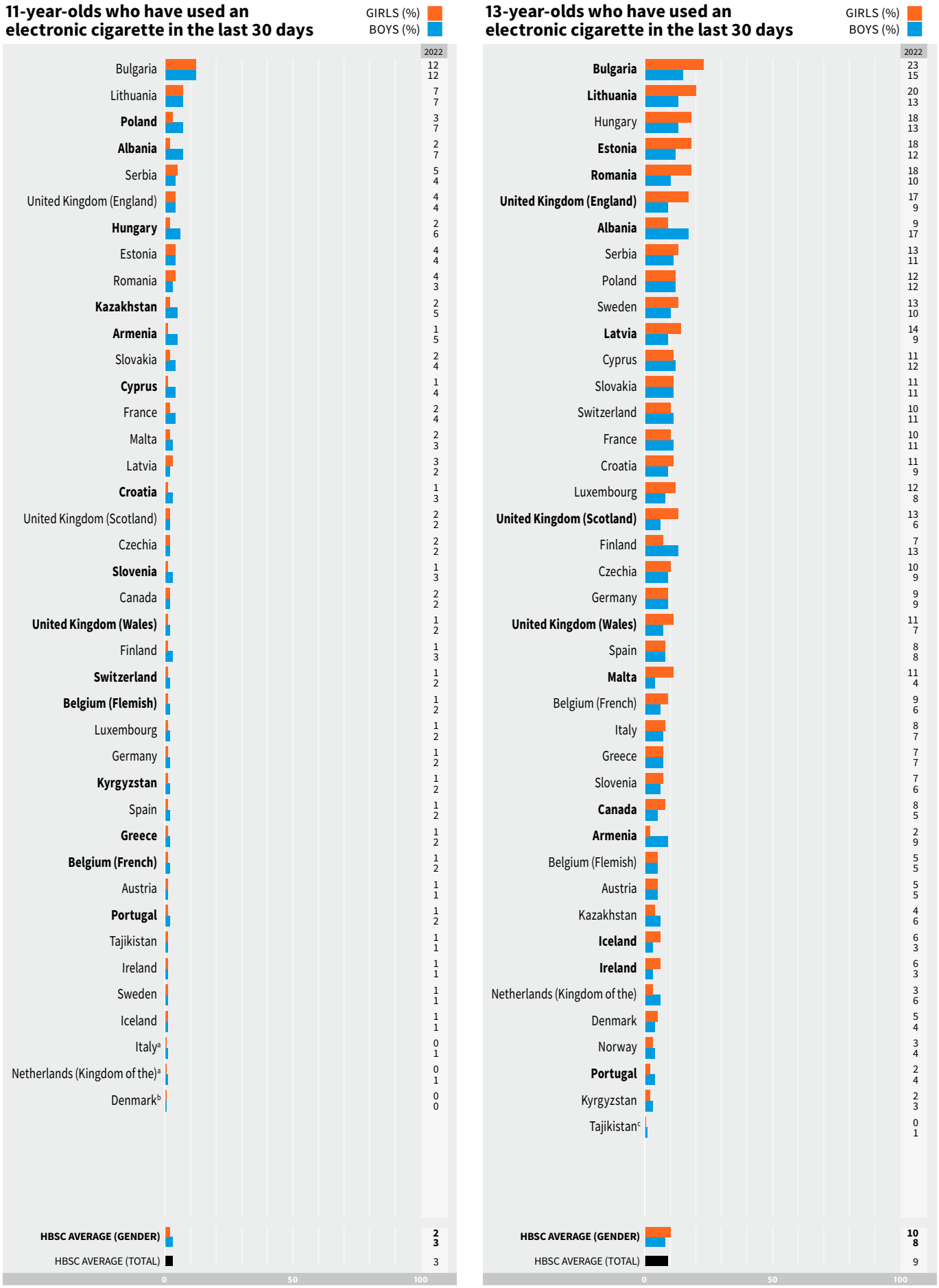


Prevalence by family affluence: lifetime electronic cigarette use by country/region and gender



FAS: Family Affluence Scale. [a] Low-affluence girls: < 0.5%. *Note*: **bold** indicates a significant difference in prevalence by family affluence group (at $P < 0.05$). Low- and high-affluence groups represent the lowest 20% and highest 20% in each country/region. No data were received from Denmark (Greenland) and North Macedonia.

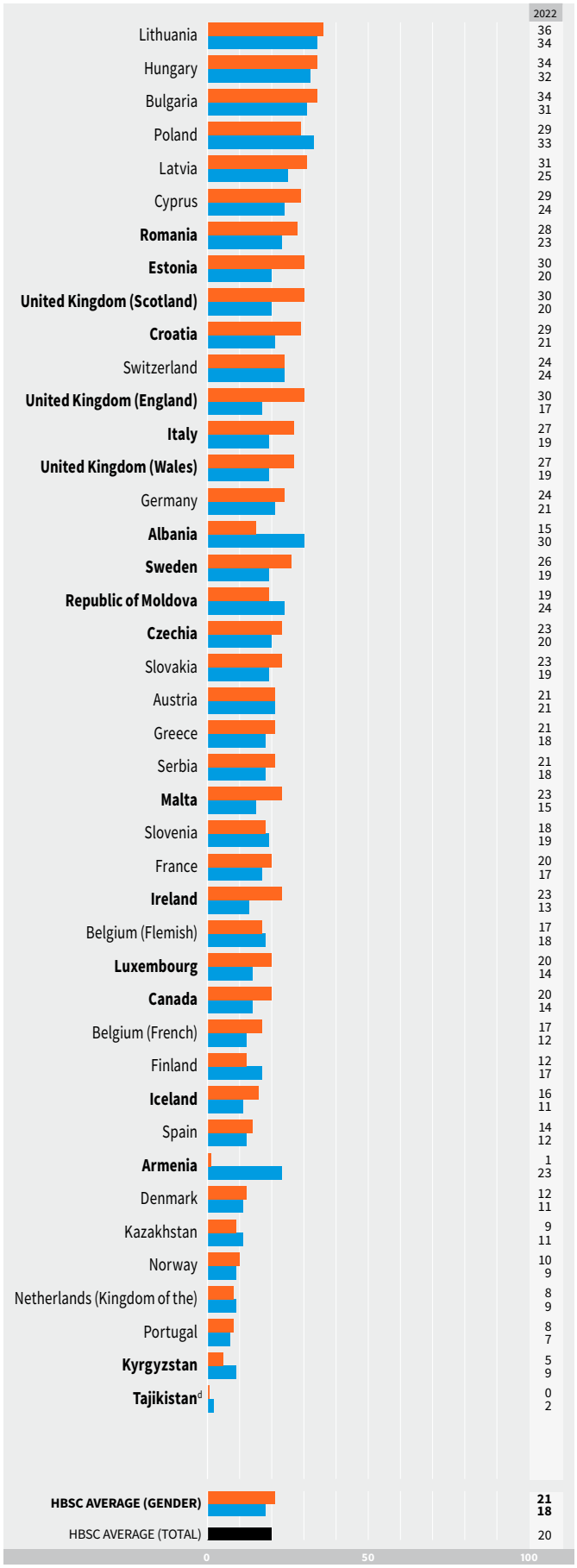
Electronic cigarette use: last 30 days (current) use



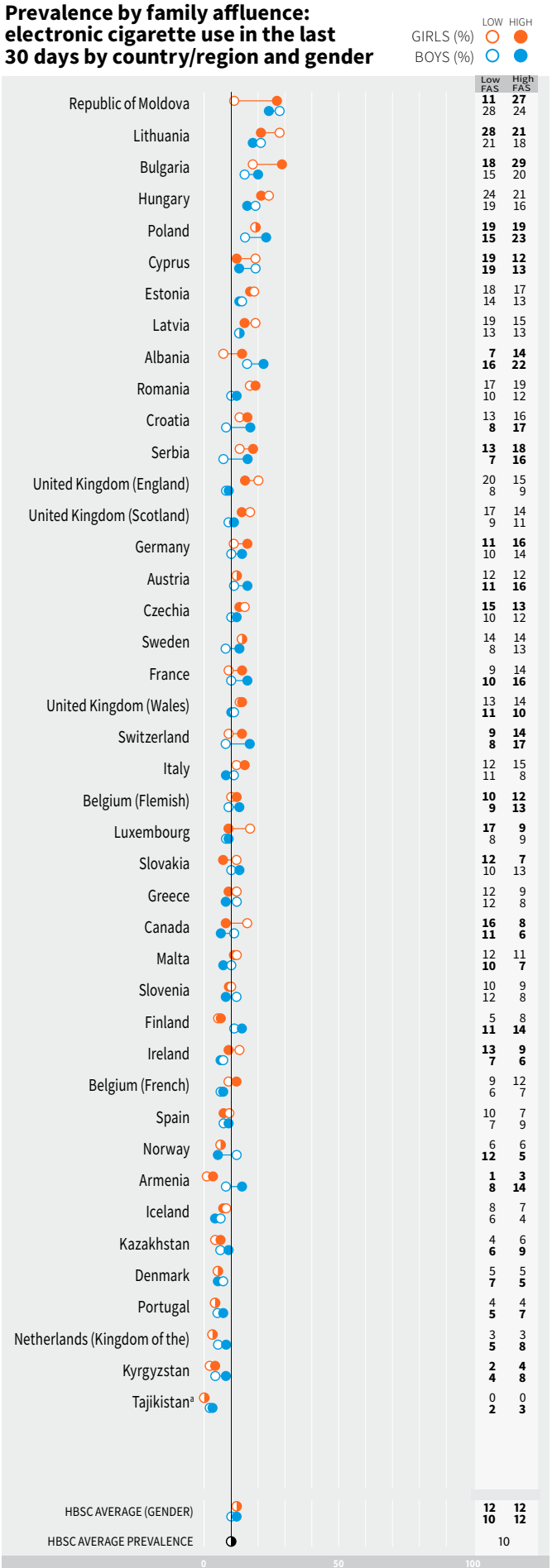
[a] 11-year-old girls: < 0.5%. [b] 11-year-old boys and girls: < 0.5%. [c] 13-year-old girls: < 0.5%. [d] 15-year-old girls: < 0.5%. *Note*: country/region name in **bold** indicates a significant gender difference (at $P < 0.05$). No data were received from Denmark (Greenland), Norway (11-year olds), North Macedonia and the Republic of Moldova (11- and 13-year-olds).

MEASURE: young people were asked on how many days they had used electronic cigarettes in the last 30 days. Response options were never, 1–2 days, 3–5 days, 6–9 days, 10–19 days, 20–29 days and 30 days (or more). Findings presented here show the proportions who had used an electronic cigarette at least once in the last 30 days.

15-year-olds who have used an electronic cigarette in the last 30 days

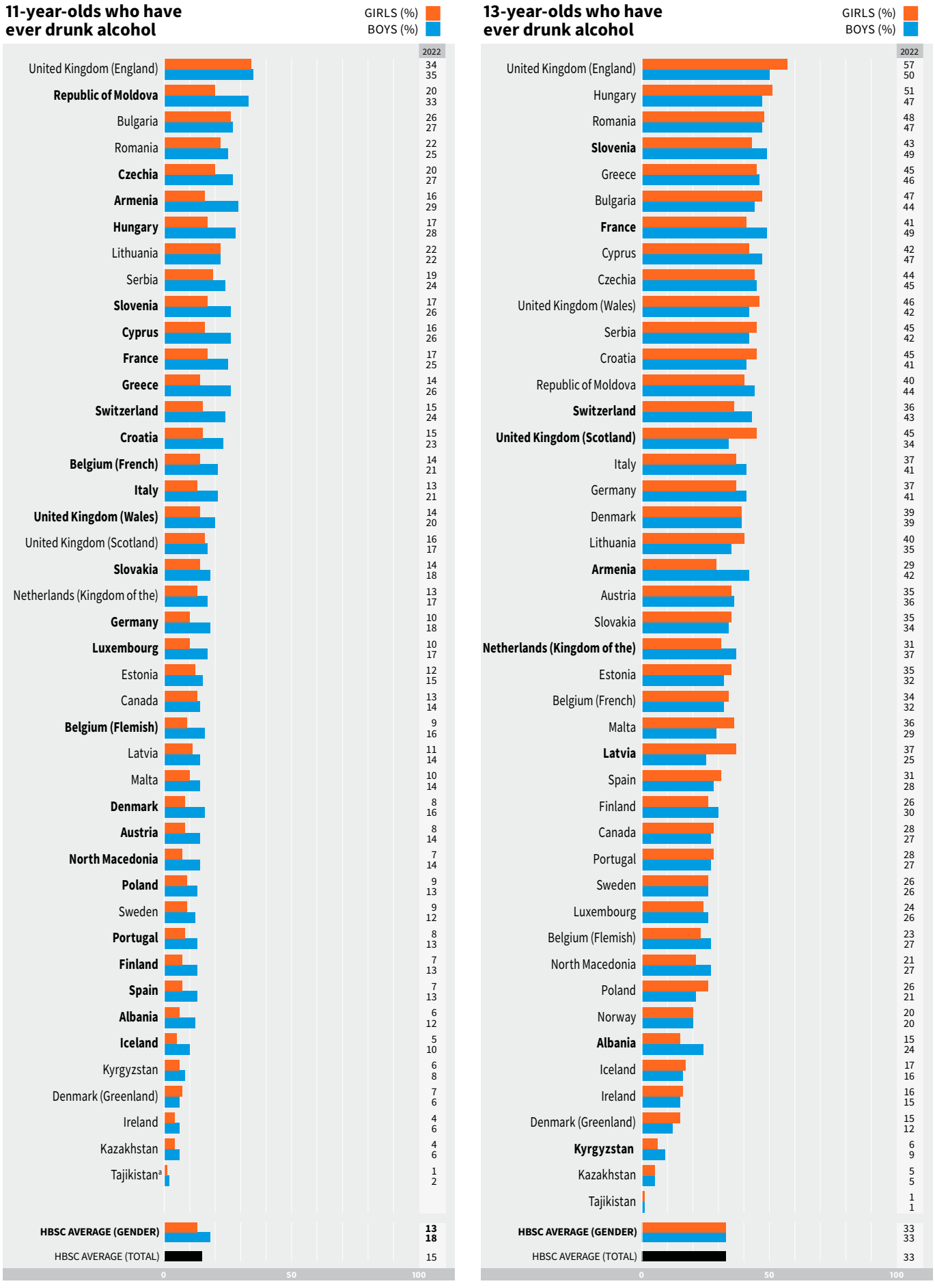


Prevalence by family affluence: electronic cigarette use in the last 30 days by country/region and gender



FAS: Family Affluence Scale. [a] Low-affluence girls: < 0.5%. *Note*: **bold** indicates a significant difference in prevalence by family affluence group (at $P < 0.05$). Low- and high-affluence groups represent the lowest 20% and highest 20% in each country/region. No data were received from Denmark (Greenland) and North Macedonia.

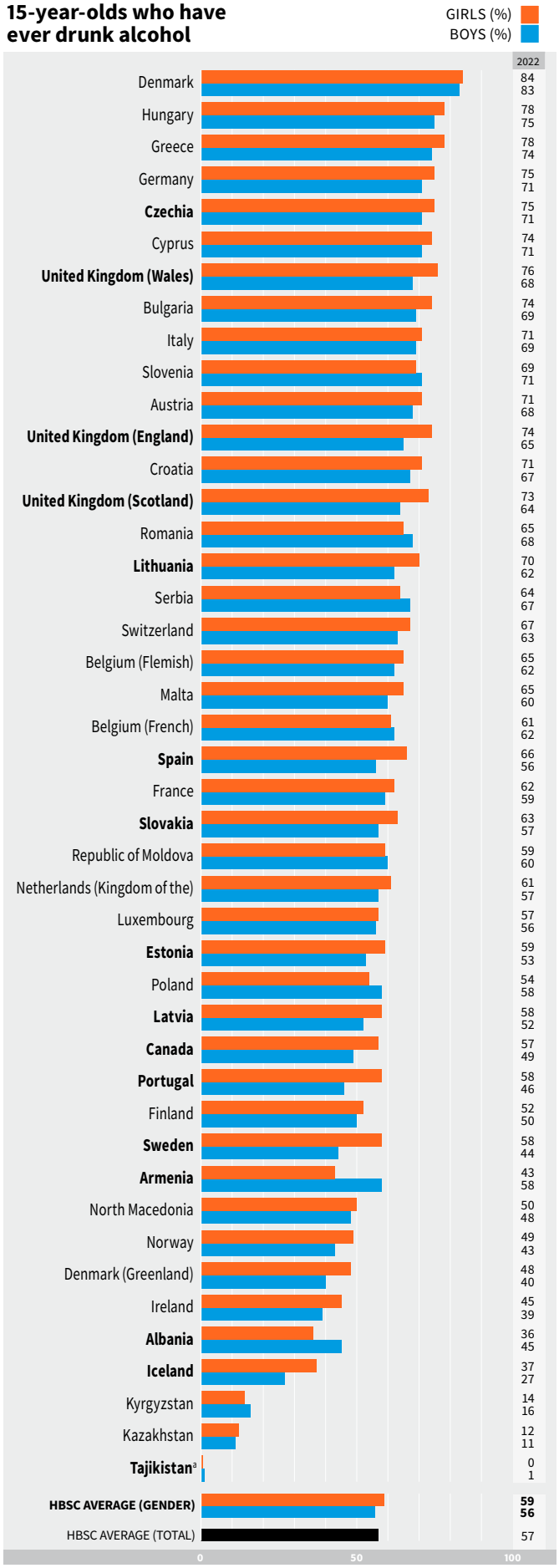
Alcohol consumption: lifetime use



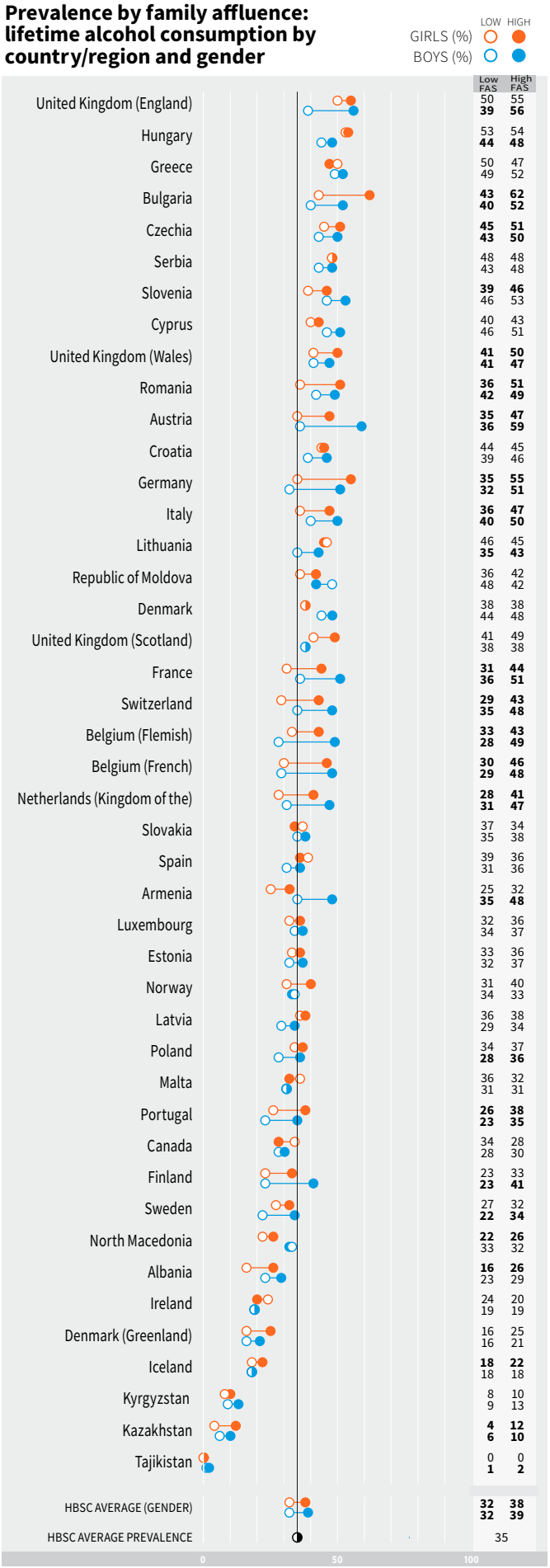
[a]Low- and high-affluence girls: < 0.5%. *Note*: country/region name in **bold** indicates a significant gender difference (at $P < 0.05$). No data were received from Norway (11-year-olds).

MEASURE: young people were asked on how many days they had drunk alcohol in their lifetime. Response options were never, 1–2 days, 3–5 days, 6–9 days, 10–19 days, 20–29 days and 30 days (or more). Findings presented here show the proportions who had ever drunk alcohol.

15-year-olds who have ever drunk alcohol

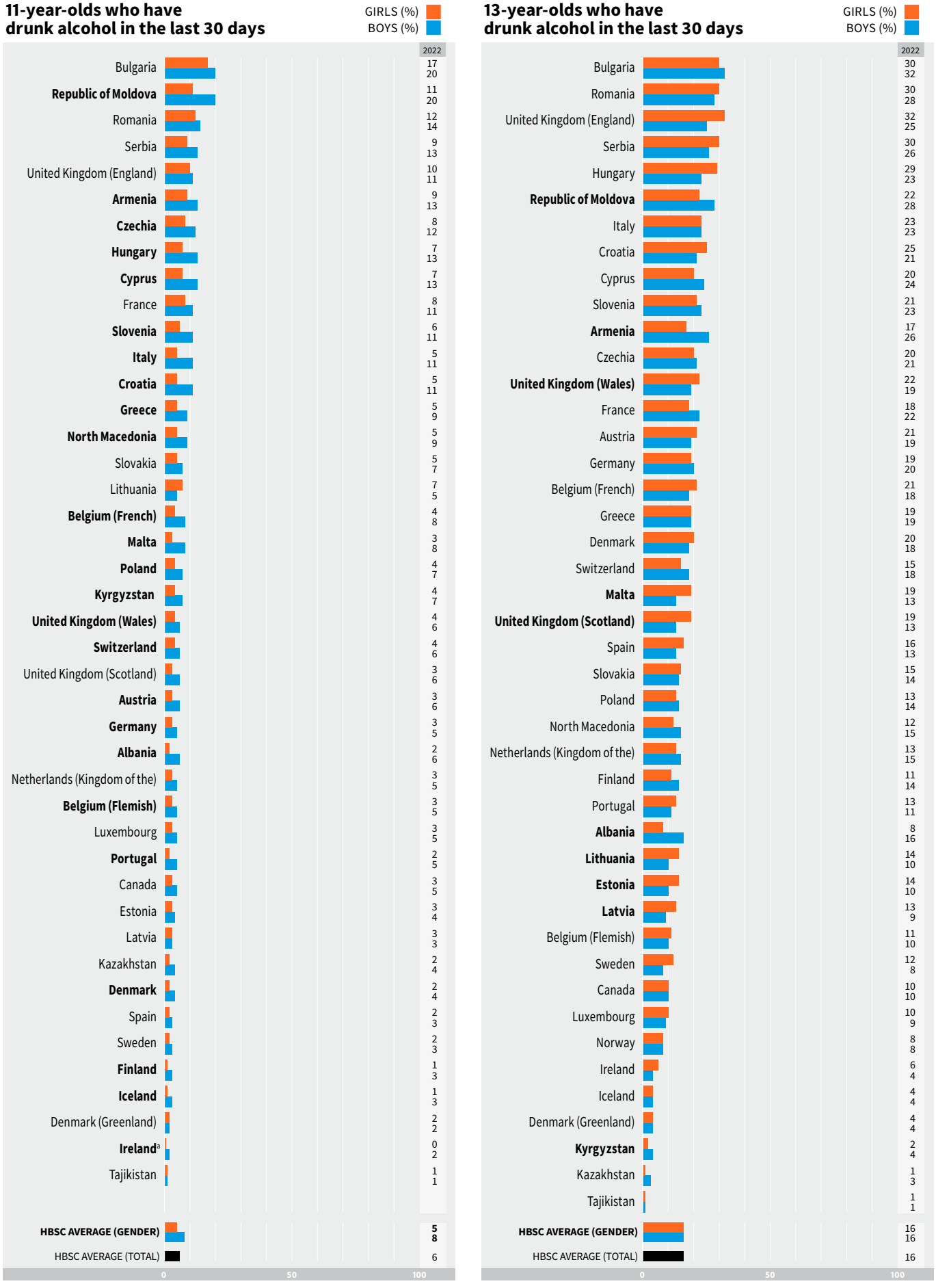


Prevalence by family affluence: lifetime alcohol consumption by country/region and gender



FAS: Family Affluence Scale. *Note*: **bold** indicates a significant difference in prevalence by family affluence group (at $P < 0.05$). Low- and high-affluence groups represent the lowest 20% and highest 20% in each country/region.

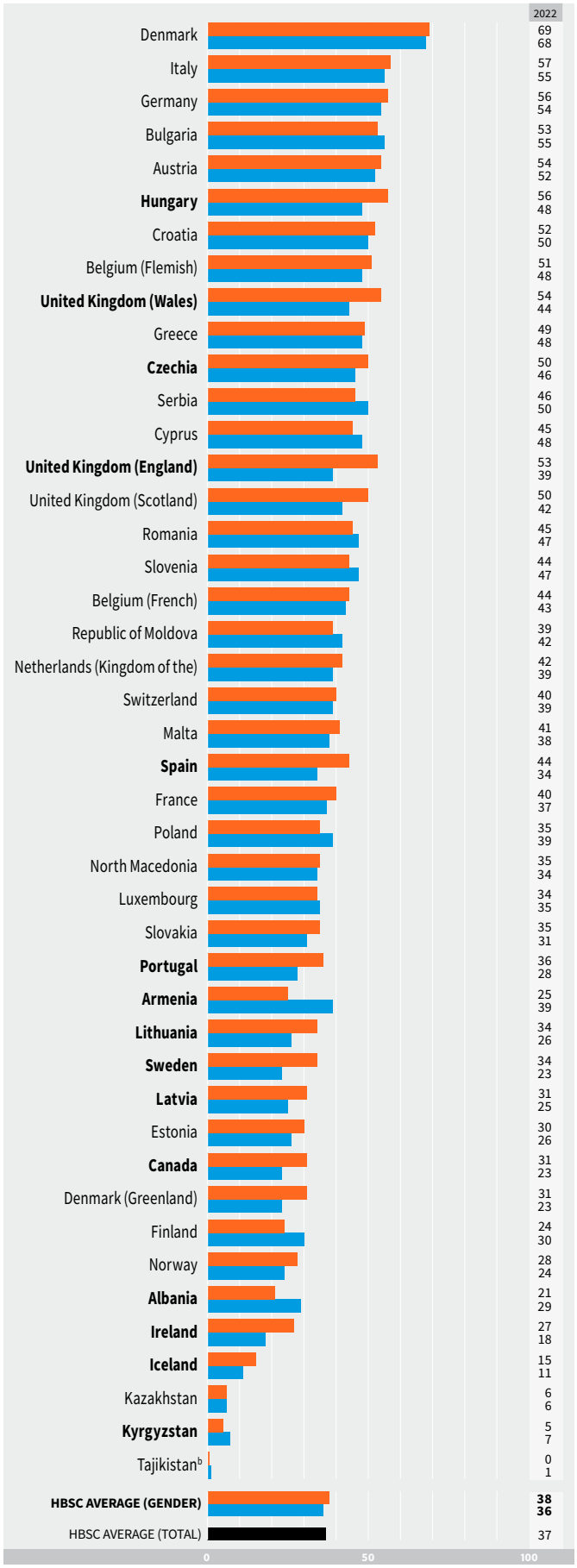
Alcohol consumption: last 30 days (current) use



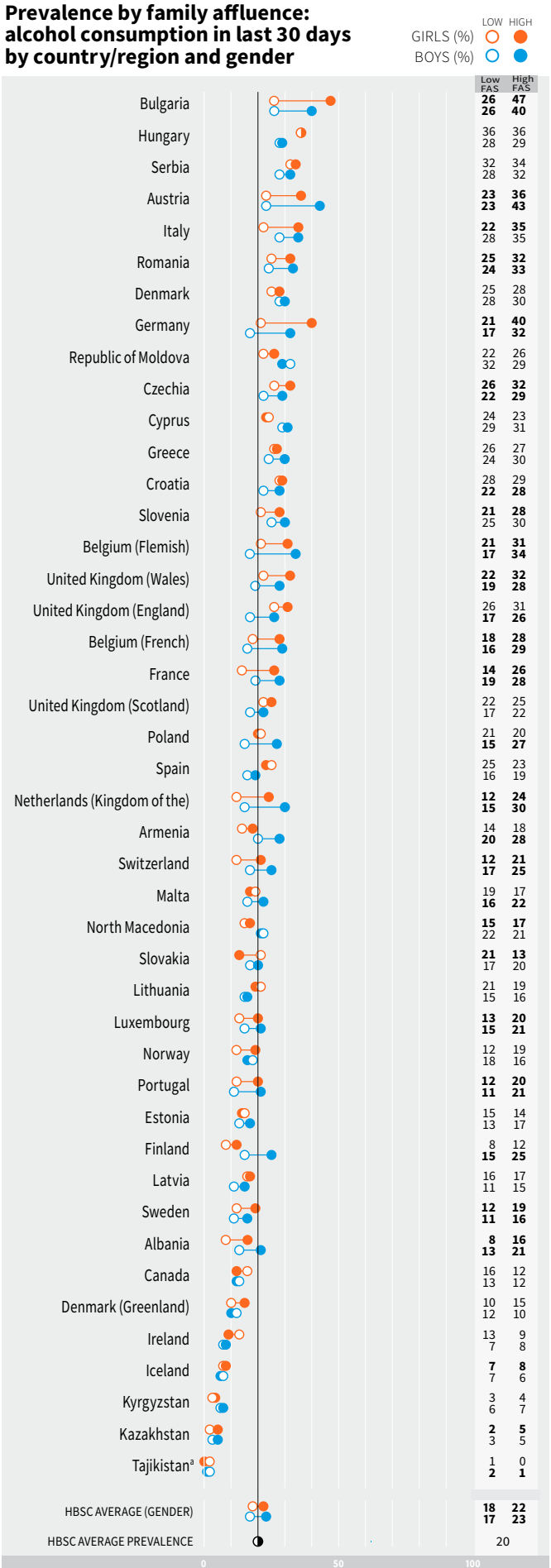
[a] 11-year-old girls: < 0.5%. [b] 15-year-old girls: < 0.5%. *Note*: country/region name in **bold** indicates a significant gender difference (at $P < 0.05$). No data were received from Norway (11-year-olds).

MEASURE: young people were asked on how many occasions they had drunk alcohol in the last 30 days. Response options were never, 1–2 days, 3–5 days, 6–9 days, 10–19 days, 20–29 days and 30 days (or more). Findings presented here show the proportions who had drunk alcohol in the last 30 days.

15-year-olds who have drunk alcohol in the last 30 days

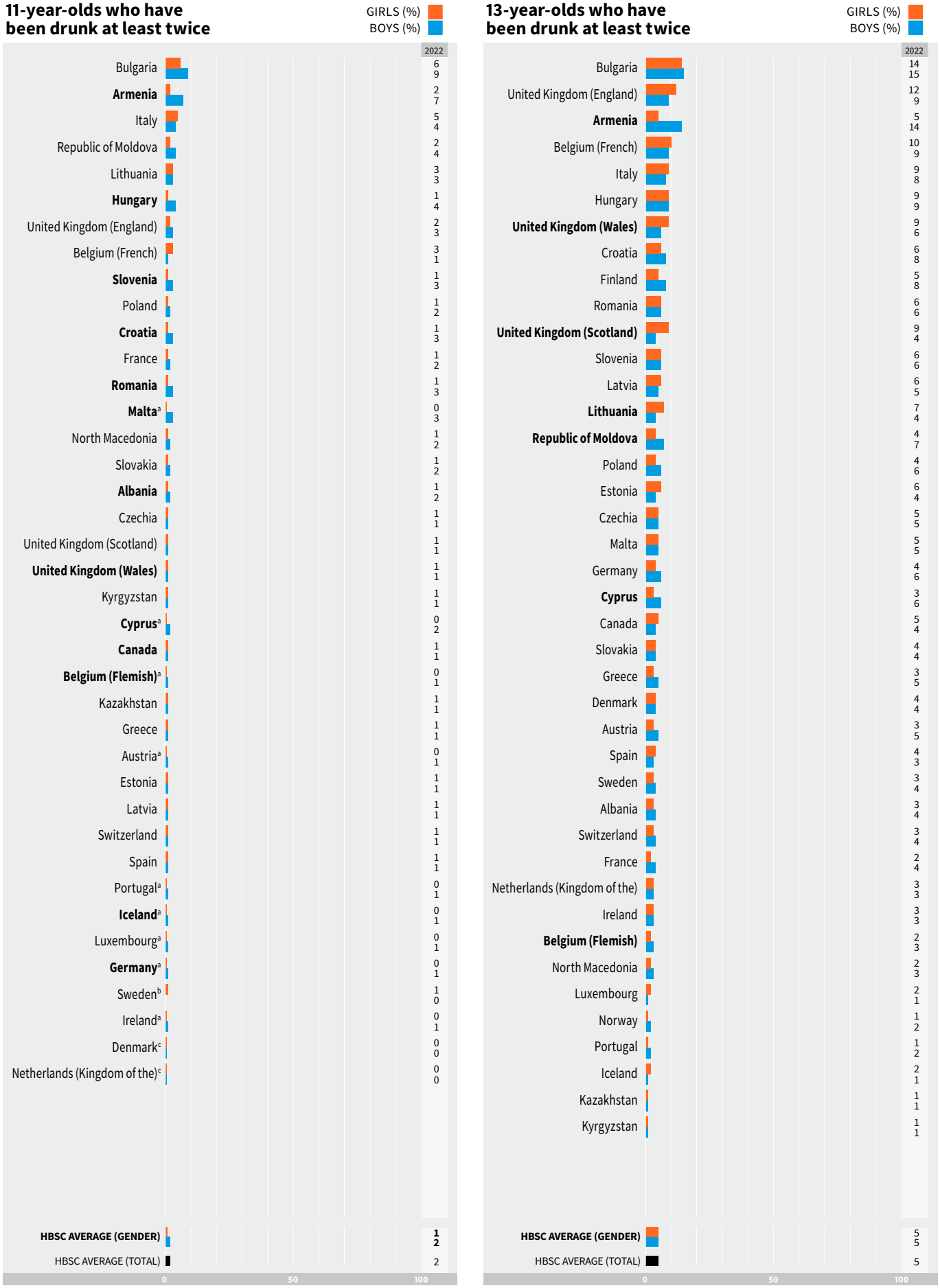


Prevalence by family affluence: alcohol consumption in last 30 days by country/region and gender



FAS: Family Affluence Scale. [a] Low- and high-affluence girls: < 0.5%. *Note*: **bold** indicates a significant difference in prevalence by family affluence group (at $P < 0.05$). Low- and high-affluence groups represent the lowest 20% and highest 20% in each country/region.

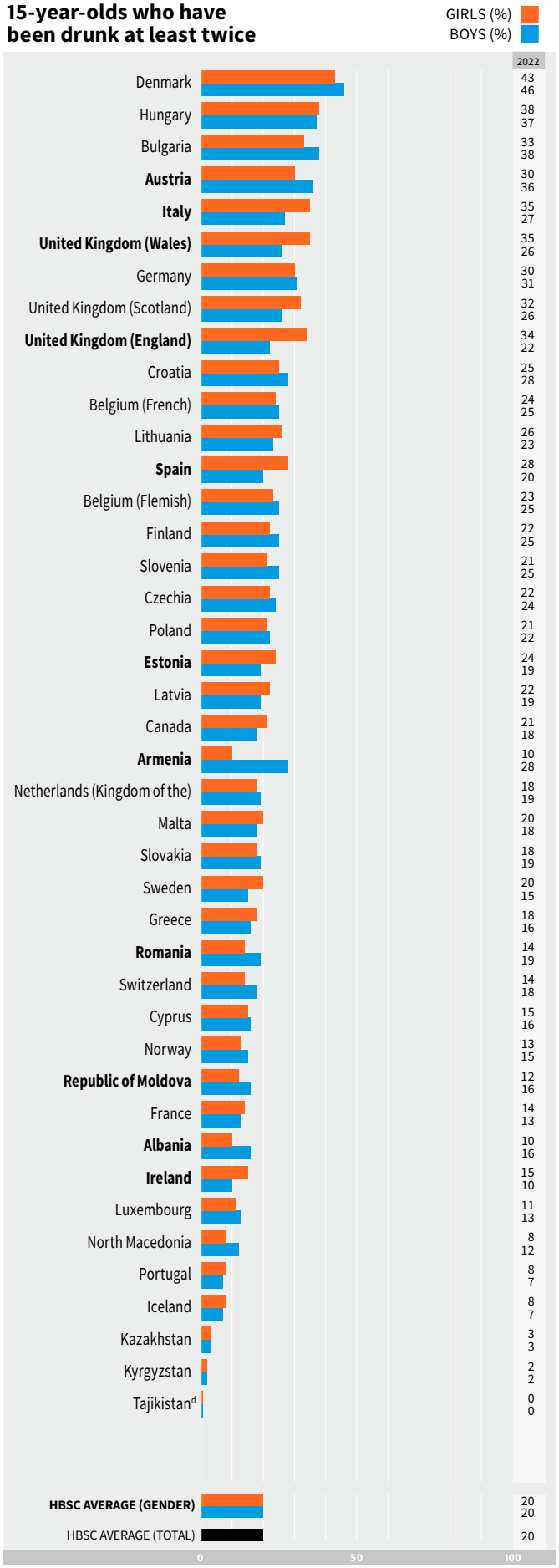
Drunkenness: at least two times in lifetime



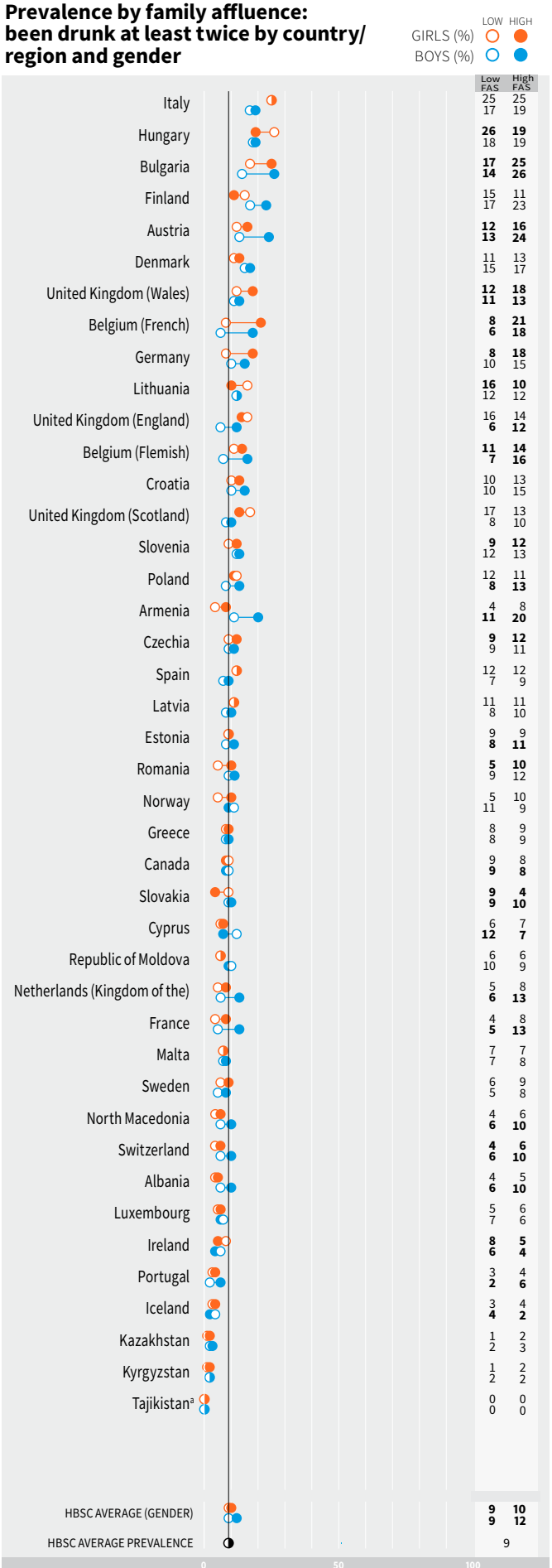
[a] 11-year-old girls: < 0.5%. [b] 11-year-old boys: < 0.5%. [c] 11-year-old boys and girls: < 0.5%. [d] 15-year-old boys and girls: < 0.5%. *Note*: country/region name in **bold** indicates a significant gender difference (at $P < 0.05$). No data were received from Denmark (Greenland) or Serbia. No data were received from Finland (11-year-olds), Norway (11-year-olds) and Tajikistan (11- and 13-year-olds).

MEASURE: young people were asked whether they had ever had so much alcohol that they were really drunk in their lifetime. Response options were no never, yes once, yes 2–3 times, yes 4–10 times and yes more than 10 times. Findings presented here show the proportions who had been drunk twice or more in their lifetime.

15-year-olds who have been drunk at least twice

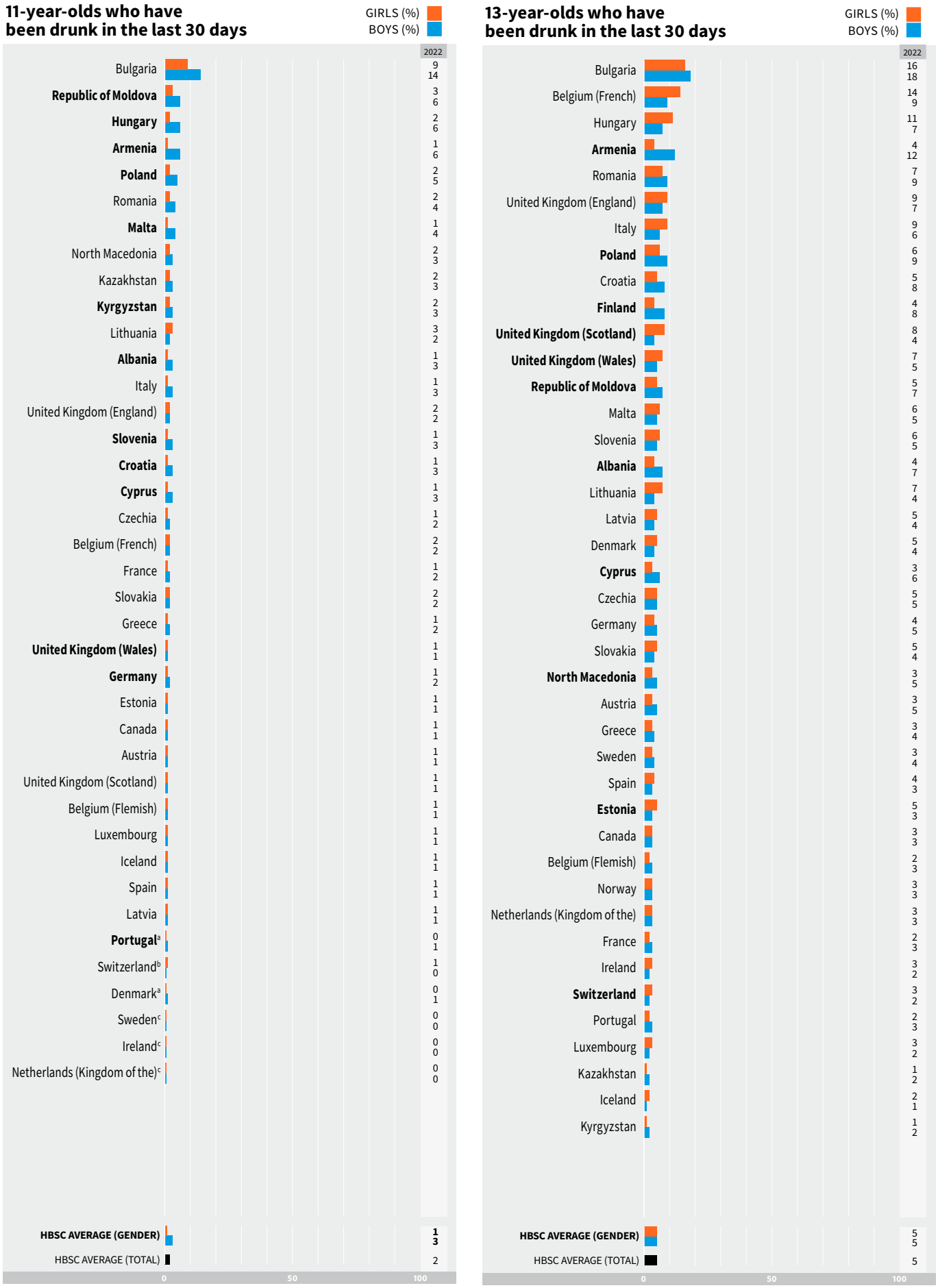


Prevalence by family affluence: been drunk at least twice by country/region and gender



FAS: Family Affluence Scale. [a] Low- and high-affluence boys and girls: < 0.5%. *Note*: **bold** indicates a significant difference in prevalence by family affluence group (at $P < 0.05$). Low- and high-affluence groups represent the lowest 20% and highest 20% in each country/region. No data were received from Denmark (Greenland) or Serbia.

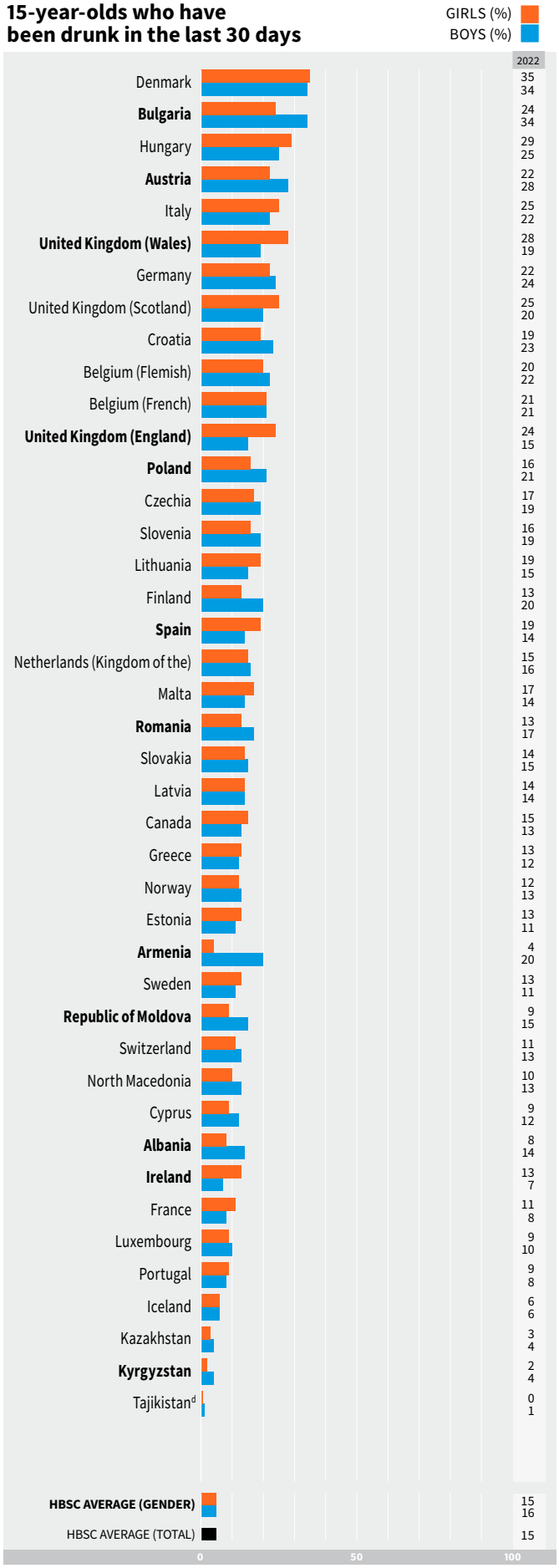
Drunkenness: last 30 days



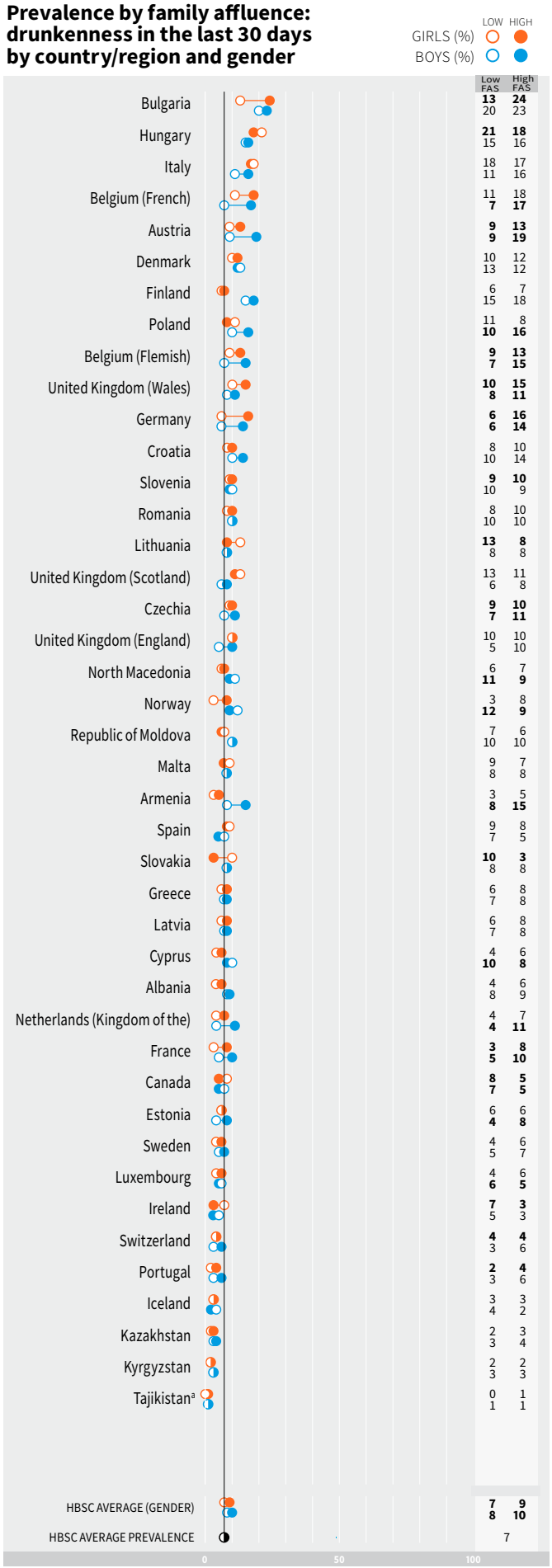
[a] 11-year-old girls: < 0.5%. [b] 11-year-old boys: < 0.5%. [c] 11-year-old boys and girls: < 0.5%. [d] 15-year-old girls: < 0.5%. *Note*: country/region name in **bold** indicates a significant gender difference (at $P < 0.05$). No data were received from Denmark (Greenland) or Serbia. No data were received from Finland (11-year-olds), Norway (11-year-olds) and Tajikistan (11- and 13-year-olds).

MEASURE: young people were asked whether they had ever had so much alcohol that they were really drunk in the last 30 days. Response options were none, once, 2–3 times, 4–10 times and more than 10 times. Findings presented here show the proportions who had been drunk on one or more occasion in the last 30 days.

15-year-olds who have been drunk in the last 30 days



Prevalence by family affluence: drunkenness in the last 30 days by country/region and gender

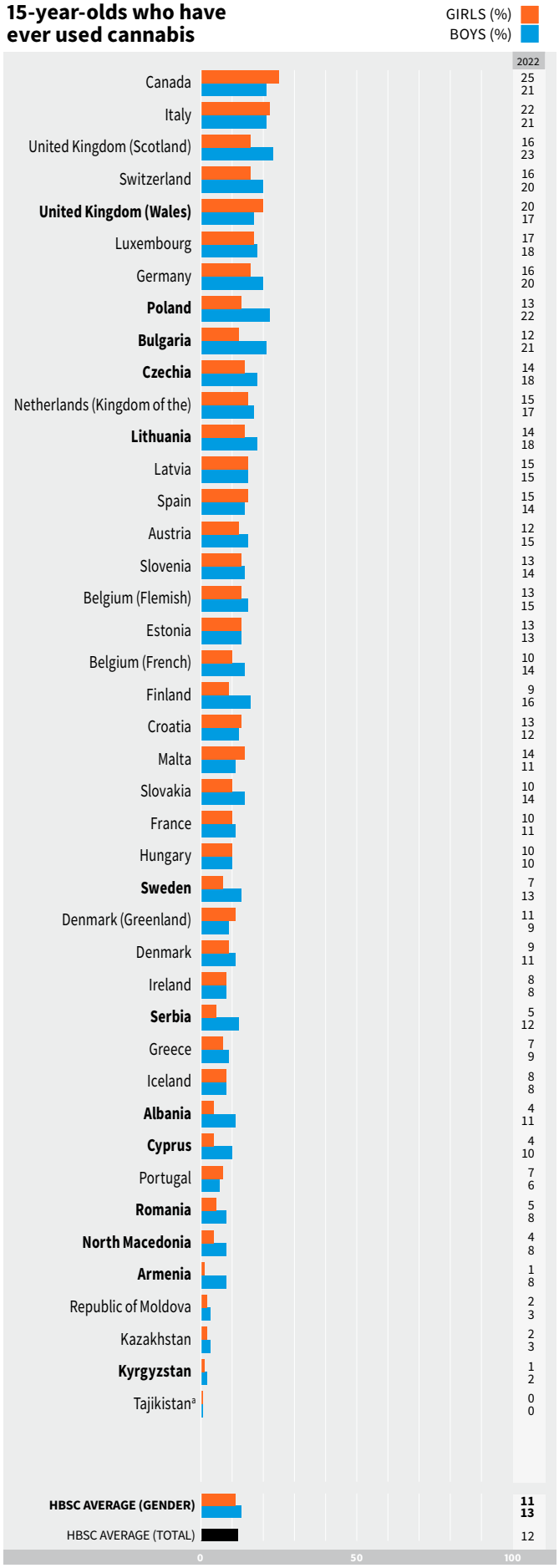


FAS: Family Affluence Scale. [a] Low-affluence girls: < 0.5%. *Note*: **bold** indicates a significant difference in prevalence by family affluence group (at $P < 0.05$). Low- and high-affluence groups represent the lowest 20% and highest 20% in each country/region. No data were received from Denmark (Greenland) or Serbia.

Cannabis use: lifetime use

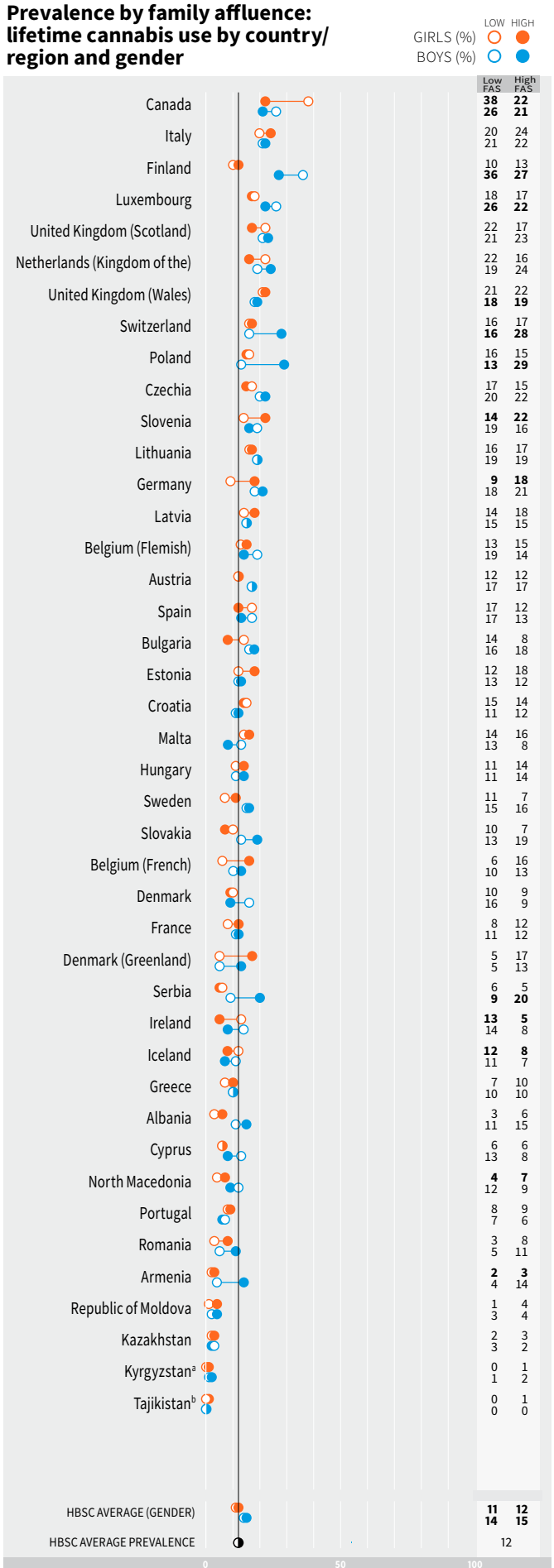
MEASURE: 15-year-olds only were asked how often they had used cannabis in their lifetime. Response options were never, 1–2 days, 3–5 days, 6–9 days, 10–19 days, 20–29 days and 30 days (or more). Findings presented here show the proportions who had used cannabis on at least one day in their lives (lifetime use).

15-year-olds who have ever used cannabis



[a]15-year-old boys and girls: < 0.5%. *Note:* country/region name in **bold** indicates a significant gender difference (at $P < 0.05$). No data were received from Norway and United Kingdom (England).

Prevalence by family affluence: lifetime cannabis use by country/region and gender

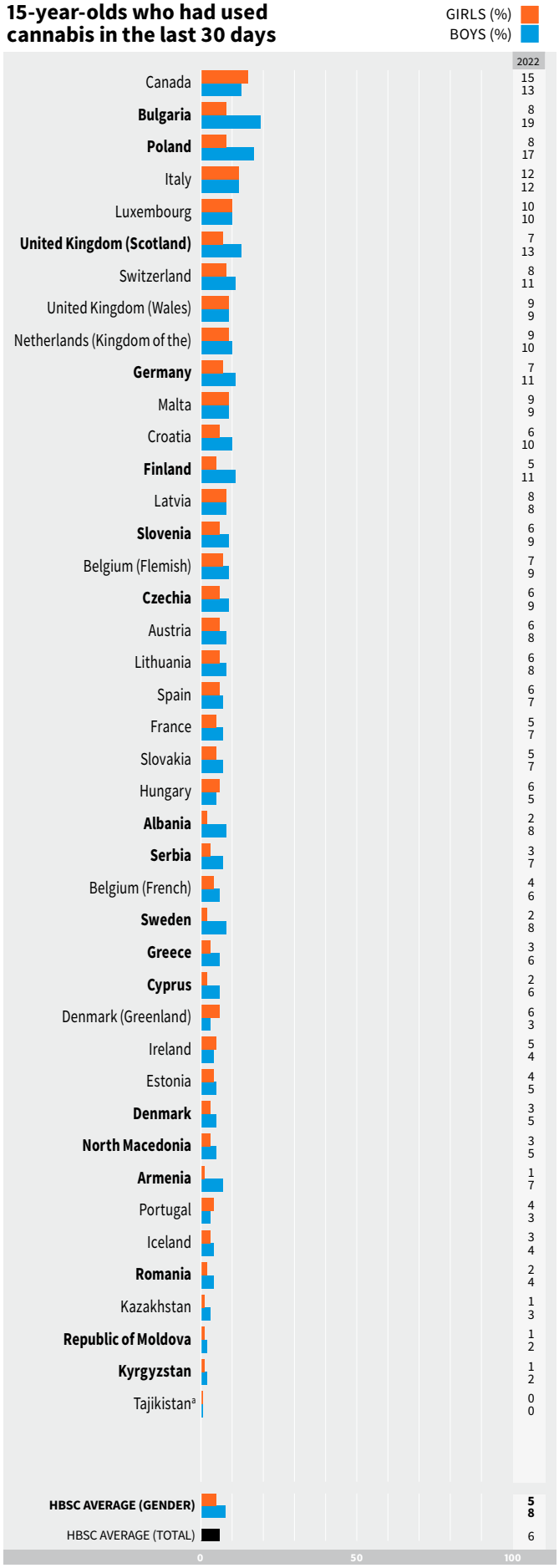


FAS: Family Affluence Scale. [a]Low-affluence girls: < 0.5%. [b]Low- and high-affluence boys and low-affluence girls: < 0.5%. *Note:* **bold** indicates a significant difference in prevalence by family affluence group (at $P < 0.05$). Low- and high-affluence groups represent the lowest 20% and highest 20% in each country/region. No data were received from Norway and United Kingdom (England).

Cannabis use: last 30 days (current) use

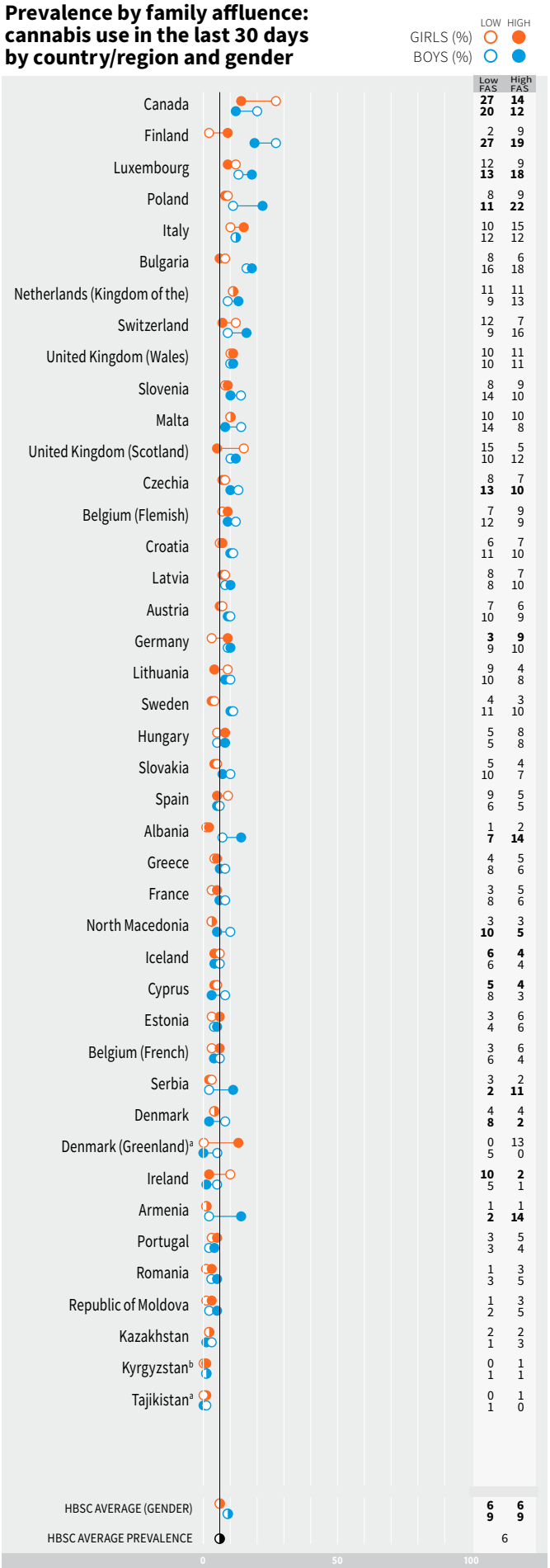
MEASURE: 15-year-olds only were asked how often they had used cannabis during the last 30 days. Response options were never, 1–2 days, 3–5 days, 6–9 days, 10–19 days, 20–29 days and 30 days (or more). Findings presented here show the proportions who had used cannabis on at least one day in the last 30 days (current use).

15-year-olds who had used cannabis in the last 30 days



[a]15-year-old boys and girls: < 0.5%. *Note:* country/region name in **bold** indicates a significant gender difference (at $P < 0.05$). No data were received from Norway and United Kingdom (England).

Prevalence by family affluence: cannabis use in the last 30 days by country/region and gender



FAS: Family Affluence Scale. [a]High-affluence boys and low-affluence girls: < 0.5%. [b]Low-affluence girls: < 0.5%. *Note:* **bold** indicates a significant difference in prevalence by family affluence group (at $P < 0.05$). Low- and high-affluence groups represent the lowest 20% and highest 20% in each country/region. No data were received from Norway and United Kingdom (England).

The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

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