

CHAPTER 5. RISK BEHAVIOURS

TOBACCO USE
ALCOHOL USE
CANNABIS USE
SEXUAL BEHAVIOUR
FIGHTING
BULLYING



TOBACCO USE

Tobacco is the leading cause of preventable death in the world, imposing a large burden on societies (1). Smoking behaviour is typically established during adolescence; most adult smokers had their first cigarette or were already addicted to nicotine by age 18 (2). The duration of smoking and number of cigarettes required to establish nicotine addiction are lower for adolescents than adults, so addiction is established more quickly (3). Although studies have clearly shown the negative health effects of tobacco use, adolescents typically remain attracted by it, perhaps because they perceive smoking as adult behaviour and have a strong desire to be perceived as adult by peers (4).

Previous HBSC research has shown that tobacco use is related to other risk behaviours and negative health outcomes in young people, including unhealthy dieting patterns (5), high levels of alcohol consumption (6), bullying (7), early sexual initiation (8), poor self-rated health and low life satisfaction (9), frequent multiple health complaints (10) and injuries (11). It can therefore be considered part of a broader pattern of unhealthy behaviours that cluster in adolescence.

Many family factors – such as divorce or separation (12), parental smoking (13) and low family cohesion and connectedness (14) – predict tobacco use. Positive relationships with parents are usually negatively associated with adolescent smoking, but peer relationships may encourage it through, for example, providing access to tobacco products and helping to create norms to support use (15). Peers have been suggested as agents in intervention programmes aiming to reduce tobacco use among adolescents precisely because they can have such a significant influence on behaviour (16).

MEASURES

Tobacco initiation

Young people were asked at what age they first smoked a cigarette, defined as “more than a puff”. The findings show the proportions who reported first smoking a cigarette at age 13 or younger.

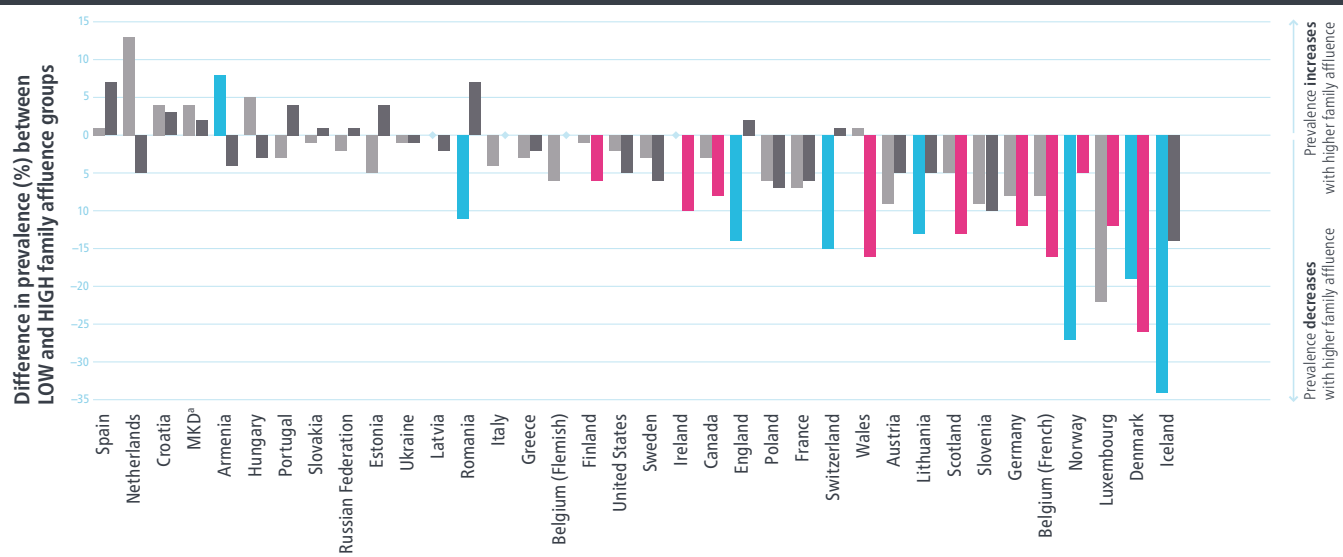
Weekly smoking

Young people were asked how often they smoke tobacco. Response options ranged from “I do not smoke” to “every day”. The findings presented here are the proportion who reported smoking at least once a week.

HBSC survey 2009/2010

Associations between family affluence and indicators of health, by country/region and gender:
TOBACCO INITIATION

BOYS
GIRLS SIGNIFICANT TRENDS

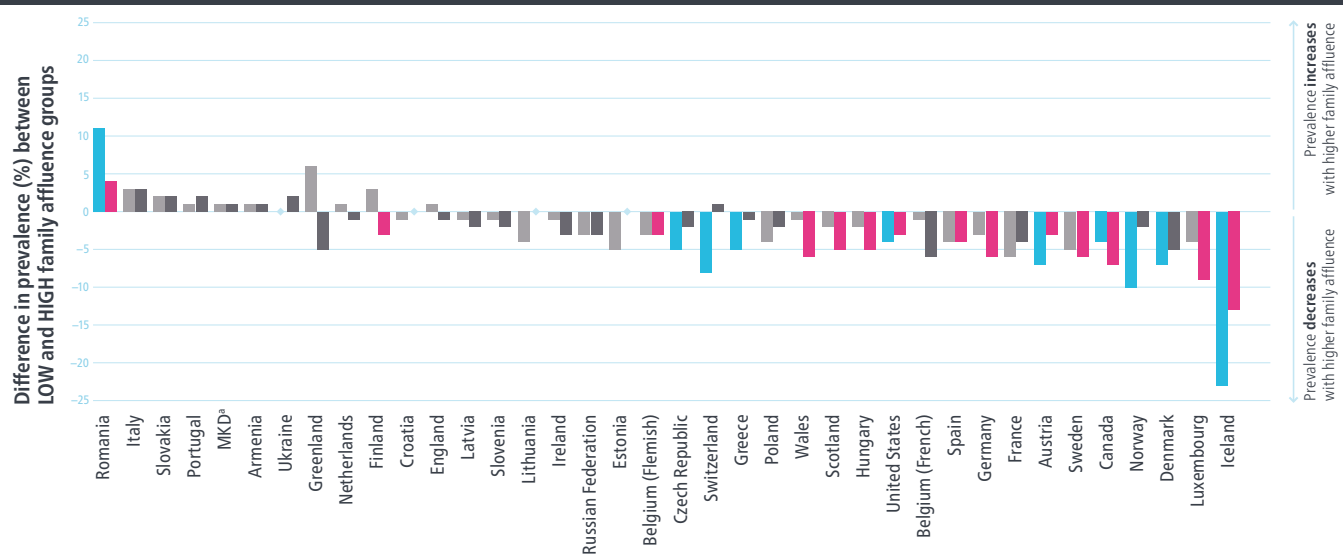


^aThe former Yugoslav Republic of Macedonia. ♦ Indicates less than +/-0.5%. Note: No data for Czech Republic, Greenland and Turkey.

HBSC survey 2009/2010

Associations between family affluence and indicators of health, by country/region and gender:
WEEKLY SMOKING

BOYS
GIRLS SIGNIFICANT TRENDS



^aThe former Yugoslav Republic of Macedonia. ♦ Indicates less than +/-0.5%. Note: No data for Turkey.

RESULTS

Tobacco initiation

Age

Only data from 15-year-olds are reported.

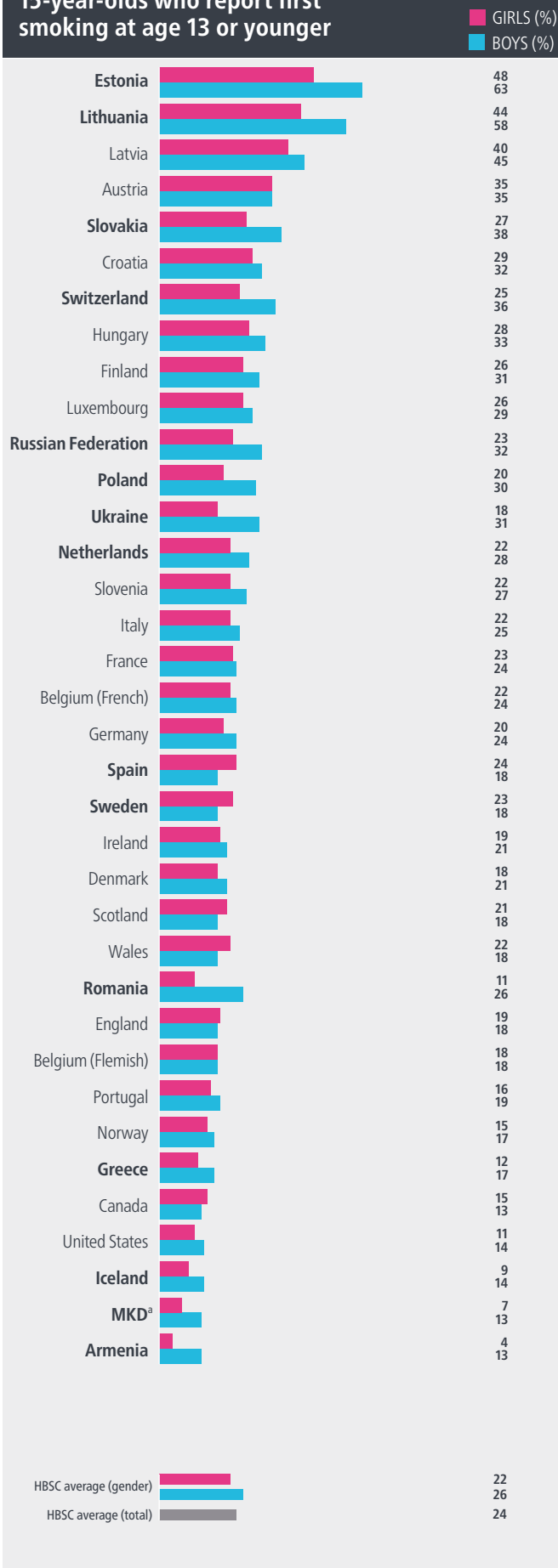
Gender

Younger onset of smoking was significantly more prevalent in boys in under half of countries and regions. More girls than boys began smoking at 13 years or younger in only two countries.

Family affluence

Younger onset was significantly more prevalent among boys and girls from lower-affluence families in a few countries. No country or region showed a significant positive relationship.

15-year-olds who report first smoking at age 13 or younger



Note. **Indicates** significant gender difference (at $p < 0.05$).
No data for Czech Republic, Greenland and Turkey.

RESULTS

Weekly smoking

Age

Prevalence of weekly smoking increased significantly with age for boys and girls in most countries and regions. The increase in prevalence from ages 11 to 15 exceeded 15% in a minority.

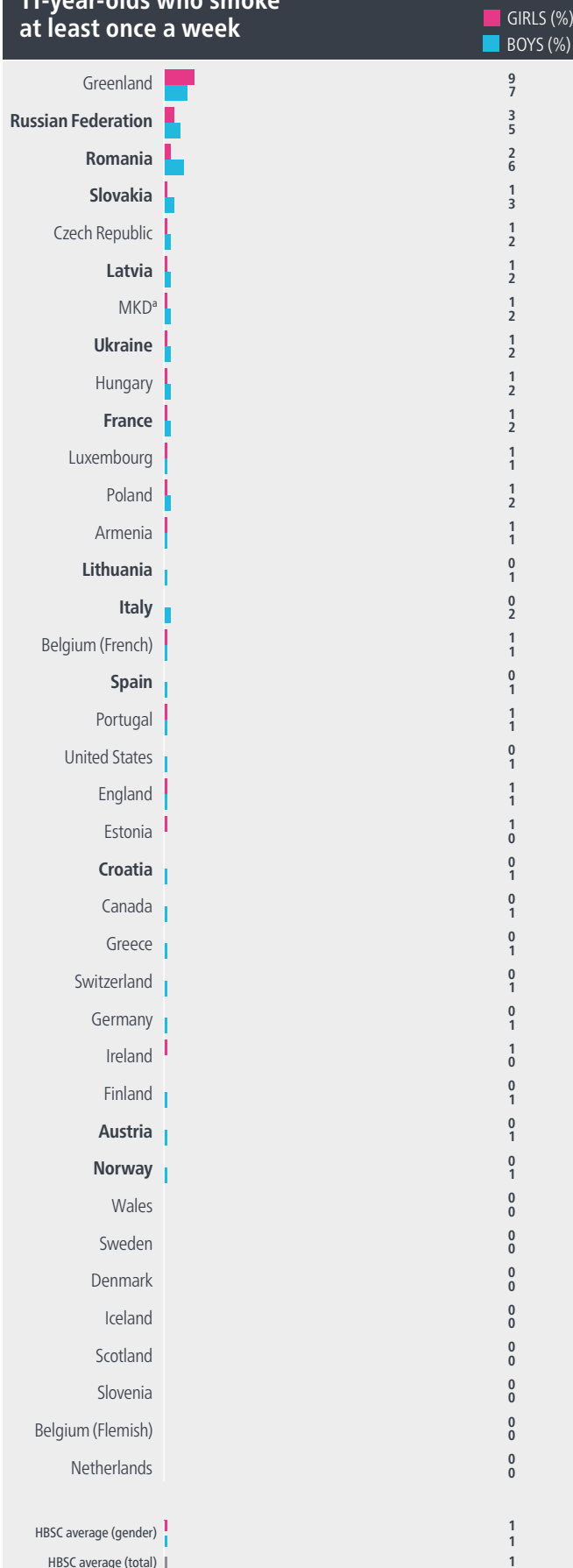
Gender

Large gender differences were seen in some countries and regions at age 15, mainly with higher prevalence among boys, but not at age 11. Girls had significantly higher prevalence in a small number.

Family affluence

Lower family affluence was significantly associated with increased prevalence in a minority of countries.

11-year-olds who smoke at least once a week

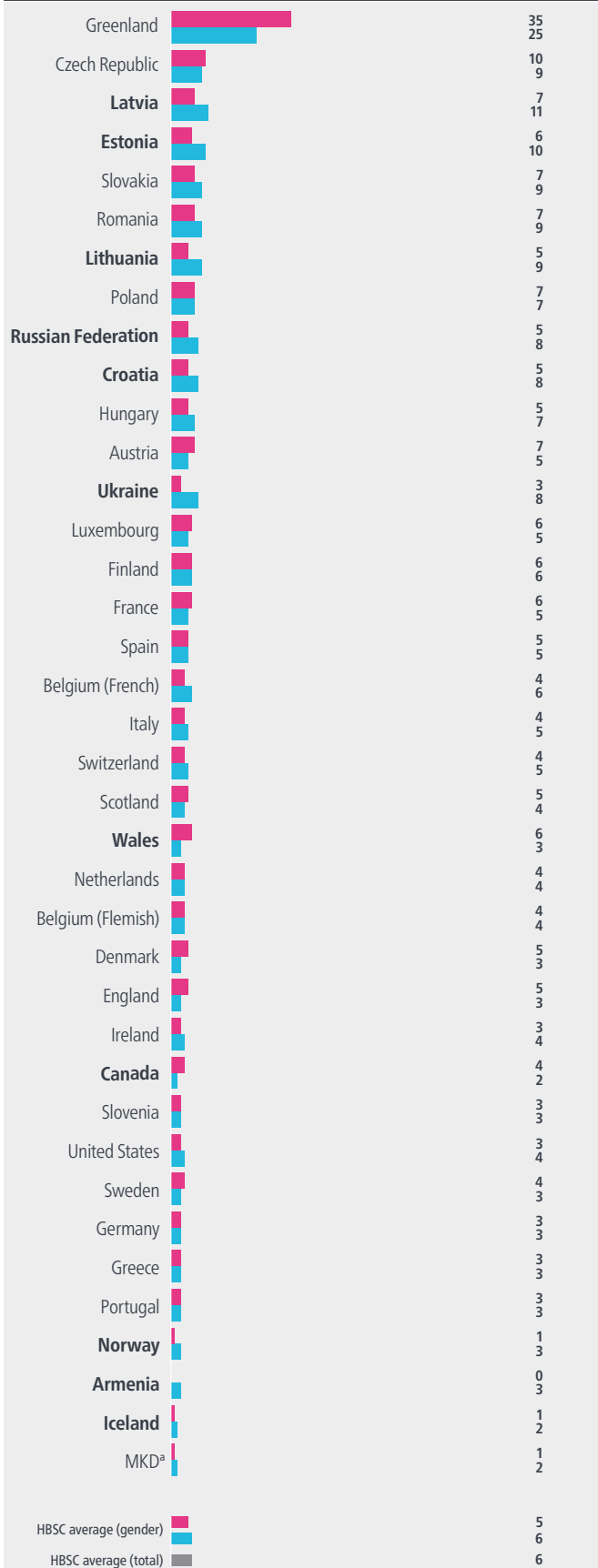


^a The former Yugoslav Republic of Macedonia.

HBSC survey 2009/2010

13-year-olds who smoke
at least once a week

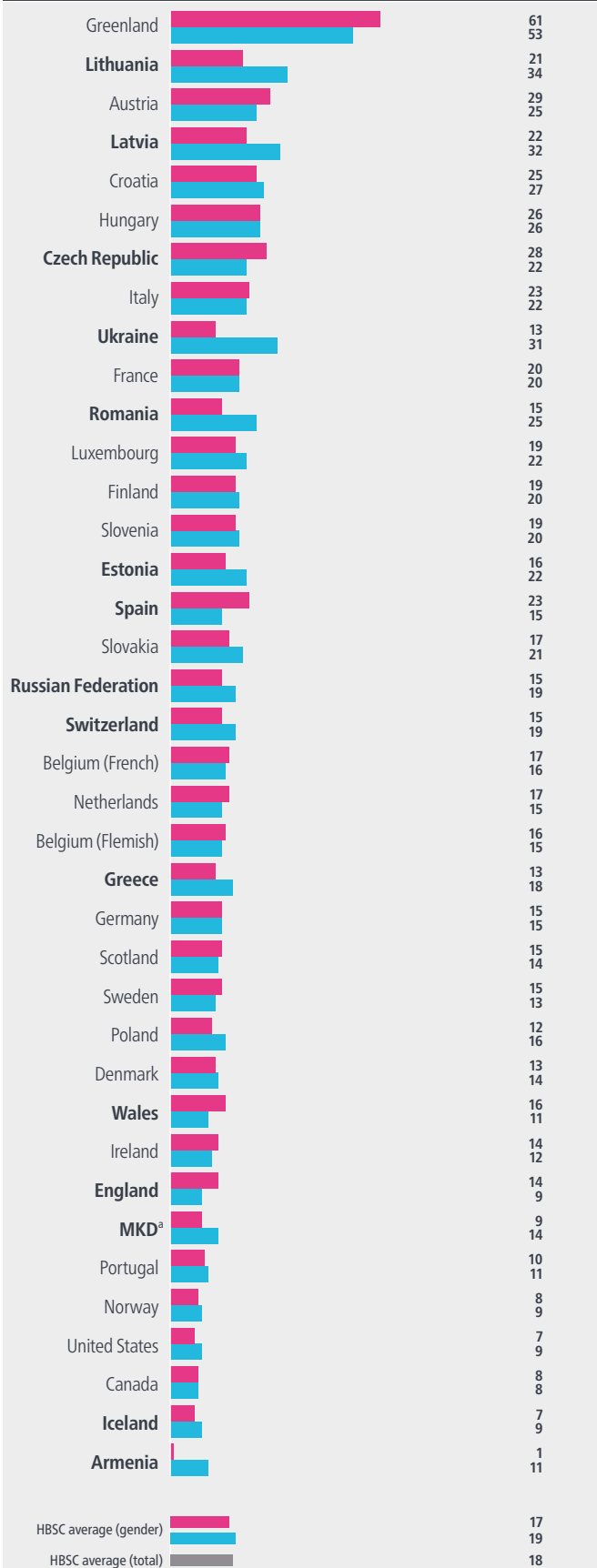
GIRLS (%)
BOYS (%)



HBSC survey 2009/2010

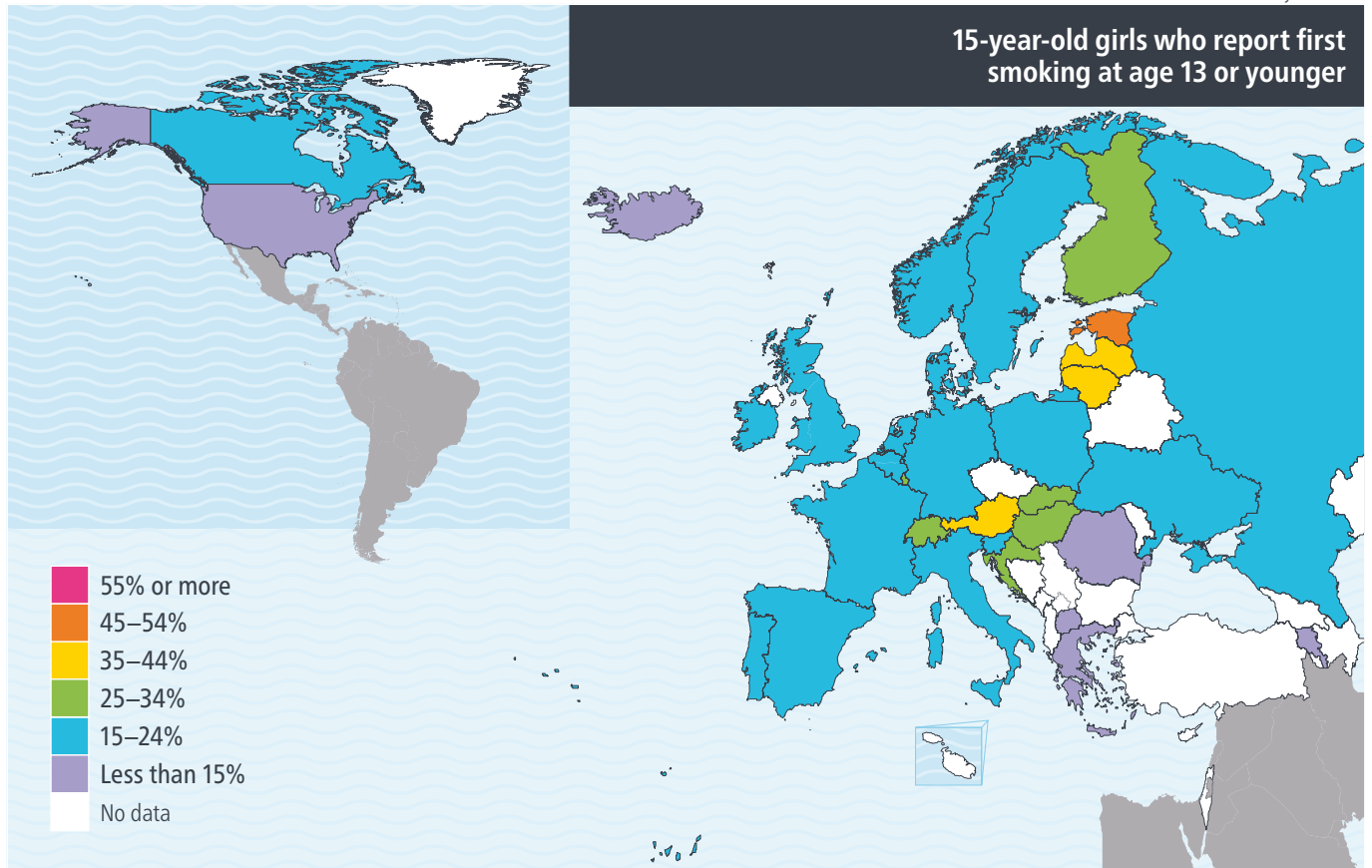
15-year-olds who smoke
at least once a week

GIRLS (%)
BOYS (%)



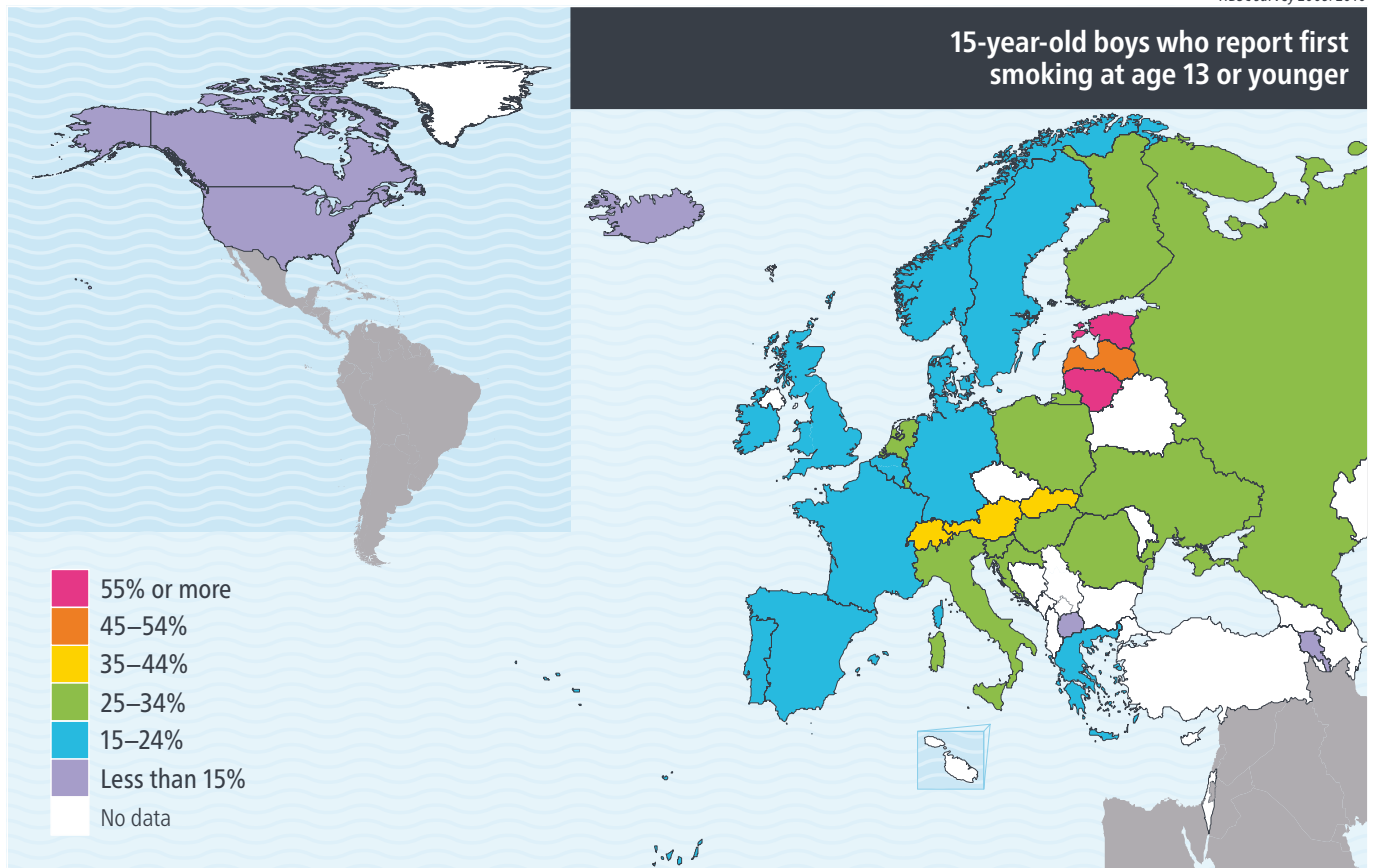
Note. Indicates significant gender difference (at $p < 0.05$). No data for Turkey. Zero values correspond to less than 0.5%.

HBSC survey 2009/2010

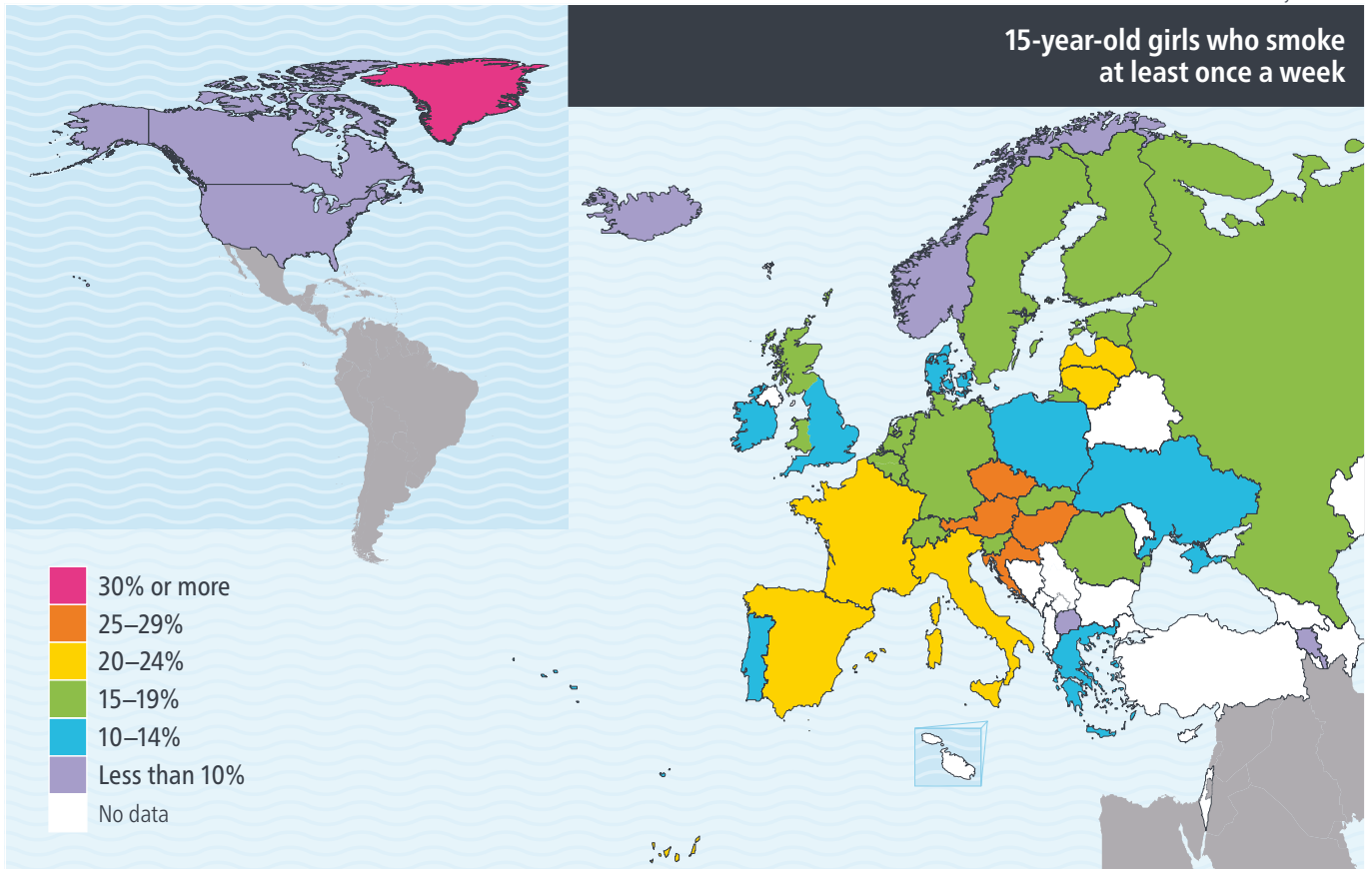


Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.

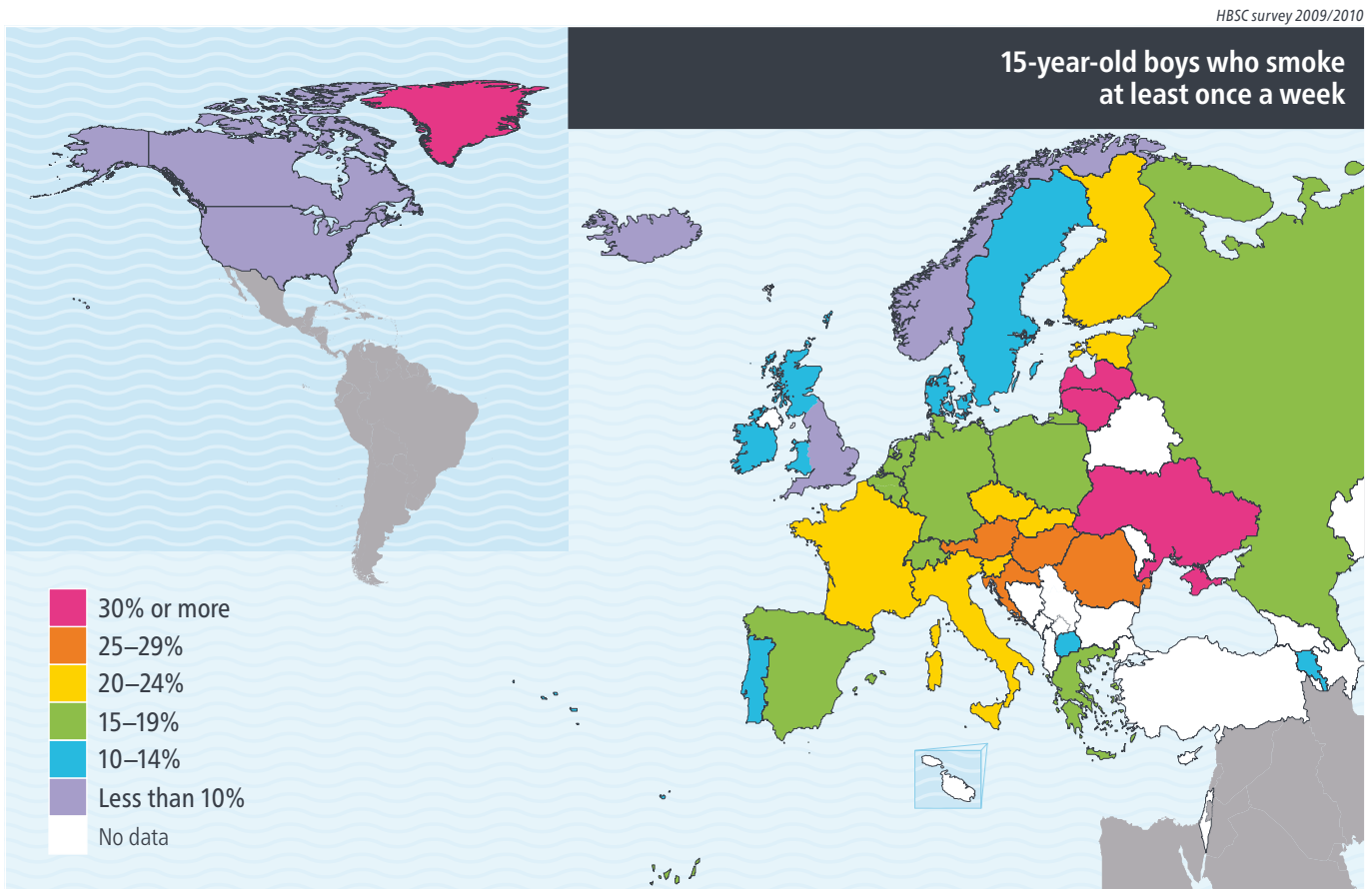
HBSC survey 2009/2010



Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.



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TOBACCO USE: SCIENTIFIC DISCUSSION AND POLICY REFLECTIONS

SCIENTIFIC DISCUSSION

The HBSC findings show considerable variation among countries in early smoking initiation and weekly smoking among 15-year-olds.

As duration influences smoking-related health problems, and as only a small number of adolescents who try to quit smoking succeed (17), a high burden on the health-care system may be predicted in countries with high prevalence.

Boys engage in smoking behaviours more frequently than girls, although the pattern is reversed in some countries. Changing gender differences may be explained by the fact that the smoking epidemic follows four stages that involve interactions between socioeconomic position and gender (18). While western European countries were previously in stage 3, in which smoking prevalence was declining among males while peaking among females, they are now moving towards stage 4, where both males' and females' smoking declines. Eastern European countries were generally in stage 1 or 2, characterized by high smoking rates among males, but are now mainly in stage 3 (19).

The finding that boys and adolescents with low family affluence are particularly vulnerable replicates earlier HBSC surveys (20,21). While the relationship between family affluence and smoking may be partially explained by parental modelling (22), more research is necessary to fully understand the underpinning mechanisms.

POLICY REFLECTIONS

The findings highlight the need for policy and programmes to reflect social influences on smoking initiation and weekly smoking. These include the high prevalence of early smoking initiation in some countries, higher smoking prevalence among boys (although the profile is changing in some countries) and the association between low family affluence and frequent tobacco use.

European and North American countries have launched national and international tobacco-prevention programmes in recent years to reduce smoking among young people. The WHO Framework Convention on Tobacco Control offers tools to support countries to build legislation (23). Its main goal is to increase tobacco taxes, as this has been shown to be an effective deterrent among adolescents and adults (1). Other initiatives that can contribute to reducing smoking prevalence include:

- smoking bans in public places
- bans on tobacco advertising, promotion and sponsorship
- regulation of the contents of tobacco products
- requirements on manufacturers to disclose product ingredients
- regulation of packaging and labelling of tobacco products
- education, communication, training and public awareness
- measures concerning tobacco dependence and cessation.

Smoking bans in school and restricted sale of tobacco to young people have been shown to be particularly effective (24–26).

Evidence to support school-based and family interventions is currently limited, but promising approaches include peer-led interventions and those focusing on coping skills and motivation enhancement that take account of smokers' stage of change regarding cessation. Family interventions have the potential to prevent adolescent smoking, but more research is needed (27).

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ALCOHOL USE

Adolescent alcohol use is common in many European and North American countries. It has been suggested that adults act as models for drinking behaviour in many cultures (1). Young people may perceive alcohol as fulfilling social and personal needs, intensifying contacts with peers and initiating new relationships (2).

Alcohol use is nevertheless one of the major risk factors for morbidity and mortality worldwide (3) and is involved in more than 60 different causes of ill health, constituting an enormous burden for individuals and societies (4). Risky drinking, including frequent drinking and drunkenness, is associated with adverse psychological, social and physical health consequences, including academic failure, violence, accidents, injury and unprotected sexual intercourse (5). Alcohol can disrupt brain development in childhood and adolescence, particularly in the cortical region, which influences cognitive, emotional and social development (6).

Adolescent alcohol use commonly occurs with other risk behaviours, such as tobacco and illicit drug use and risky sexual behaviour (7). Early initiators, excessive drinkers and those engaging in multiple risk behaviours are especially likely to experience adverse health outcomes (8).

MEASURES

Weekly drinking

Young people were asked how often they drink any alcoholic beverage and were given a list of drinks: beer, wine, spirits, alcopops, or any other drink that contains alcohol. Response options ranged from "never" to "every day". The findings presented here are the proportions who reported drinking any alcoholic beverage at least every week.

Drunkenness initiation

Young people were asked at what age they first got drunk. The findings presented here are for 15-year-olds only and show the proportions who reported first getting drunk at age 13 or younger.

Drunkenness

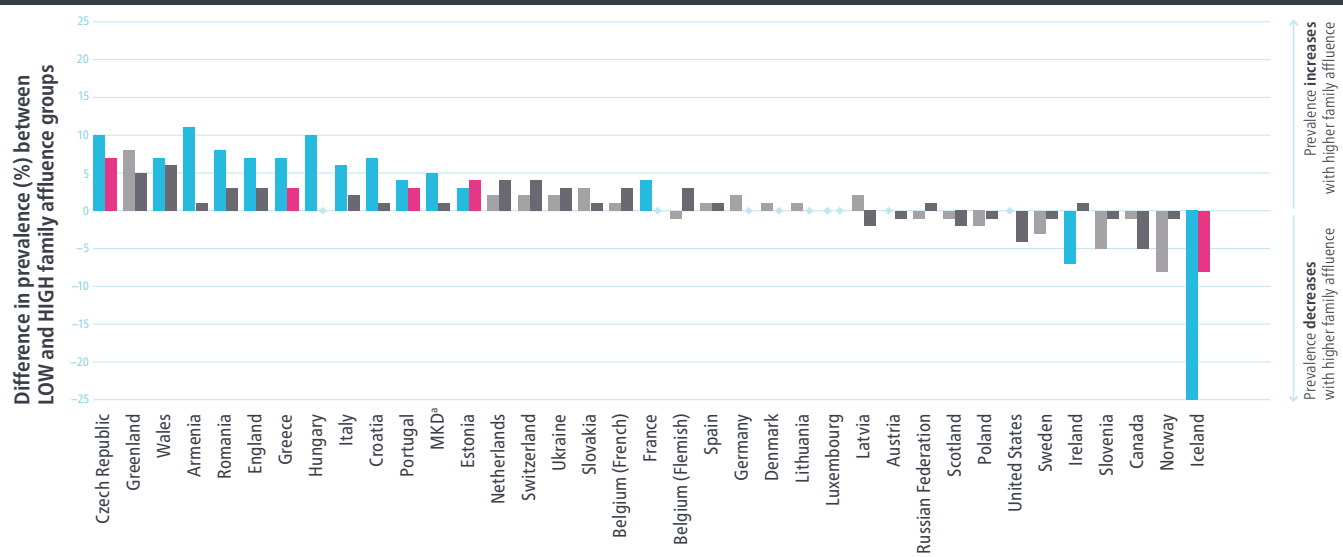
Young people were asked whether they had ever had so much alcohol that they were "really drunk". Response options range from "no, never" to "yes, more than 10 times". The findings presented here show the proportions who reported having been drunk twice or more.

HBSC survey 2009/2010

Associations between family affluence and indicators of health, by country/region and gender: WEEKLY ALCOHOL CONSUMPTION

BOYS
GIRLS

SIGNIFICANT
TRENDS



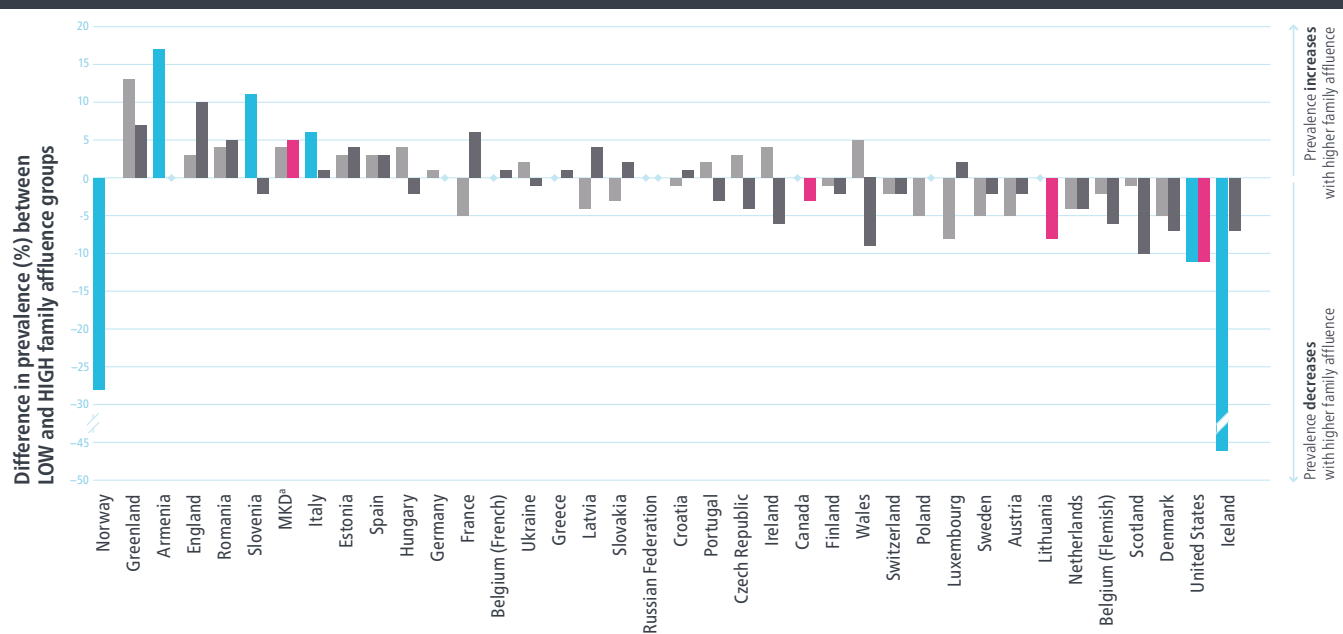
* The former Yugoslav Republic of Macedonia. ♦ Indicates less than +/- 0.5%. Note: No data for Finland and Turkey.

HBSC survey 2009/2010

Associations between family affluence and indicators of health, by country/region and gender: FIRST DRUNKENNESS AT AGE 13 OR YOUNGER

BOYS
GIRLS

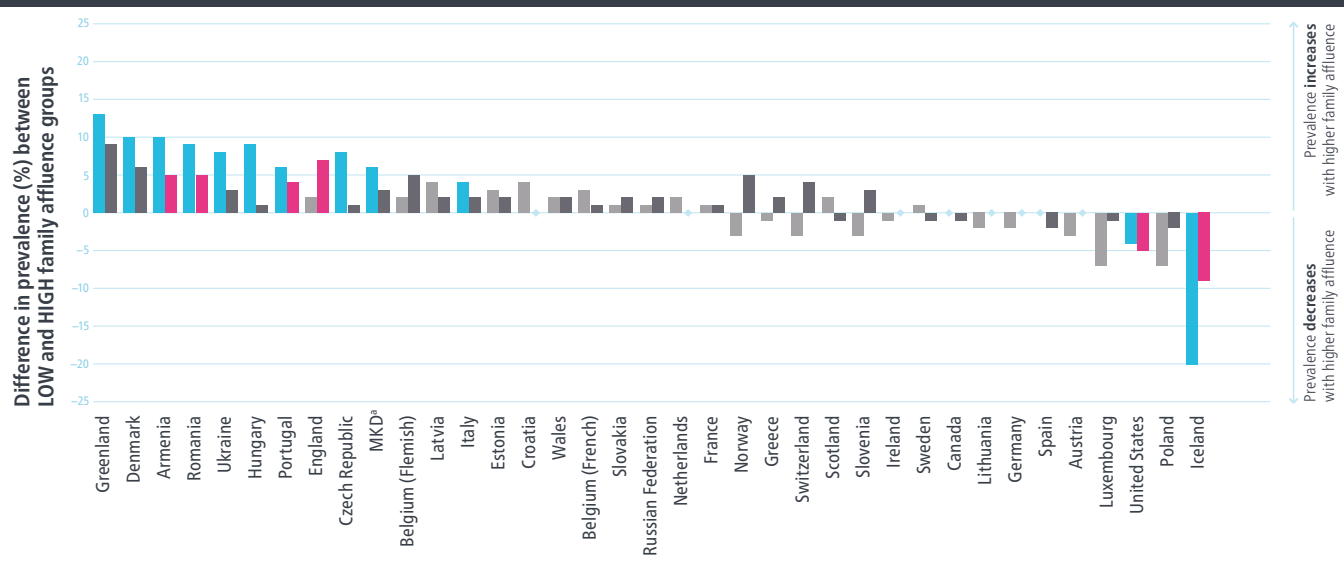
SIGNIFICANT
TRENDS



* The former Yugoslav Republic of Macedonia. ♦ Indicates less than +/- 0.5%. Note: No data for Turkey. Disaggregation by FAS not available for Norway (Girls).

Associations between family affluence and indicators of health, by country/region and gender:
HAVING BEEN DRUNK ON TWO OR MORE OCCASIONS

BOYS
 GIRLS
 SIGNIFICANT TRENDS



*The former Yugoslav Republic of Macedonia. ♦ Indicates less than +/-0.5%. No data for Finland and Turkey.

RESULTS

Weekly drinking

Age

Prevalence of weekly drinking increased significantly between ages 11 and 15 in almost all countries and regions for boys and girls. The difference exceeded 15% in most countries and regions for boys and just less than half for girls.

Gender

It tended to be more common among boys, with the difference being significant in most countries at all ages.

Family affluence

There was a significant association between higher prevalence and high family affluence in some countries and regions for boys, but in only a few for girls.

Drunkenness initiation

Age

Data are presented for 15-year-olds only.

Gender

Boys were slightly more likely to report that they were first drunk at or before the age of 13, but the gender difference was significant in under half of countries and greater than 10% in only a few.

Family affluence

A significant association between prevalence and family affluence was found in only a few countries, with no consistency in the direction of the association.

Drunkenness

Age

Prevalence of drunkenness increased significantly between ages 11 and 15 for boys and girls in almost all countries and regions. The change in prevalence with age was greater than 15% in almost all.

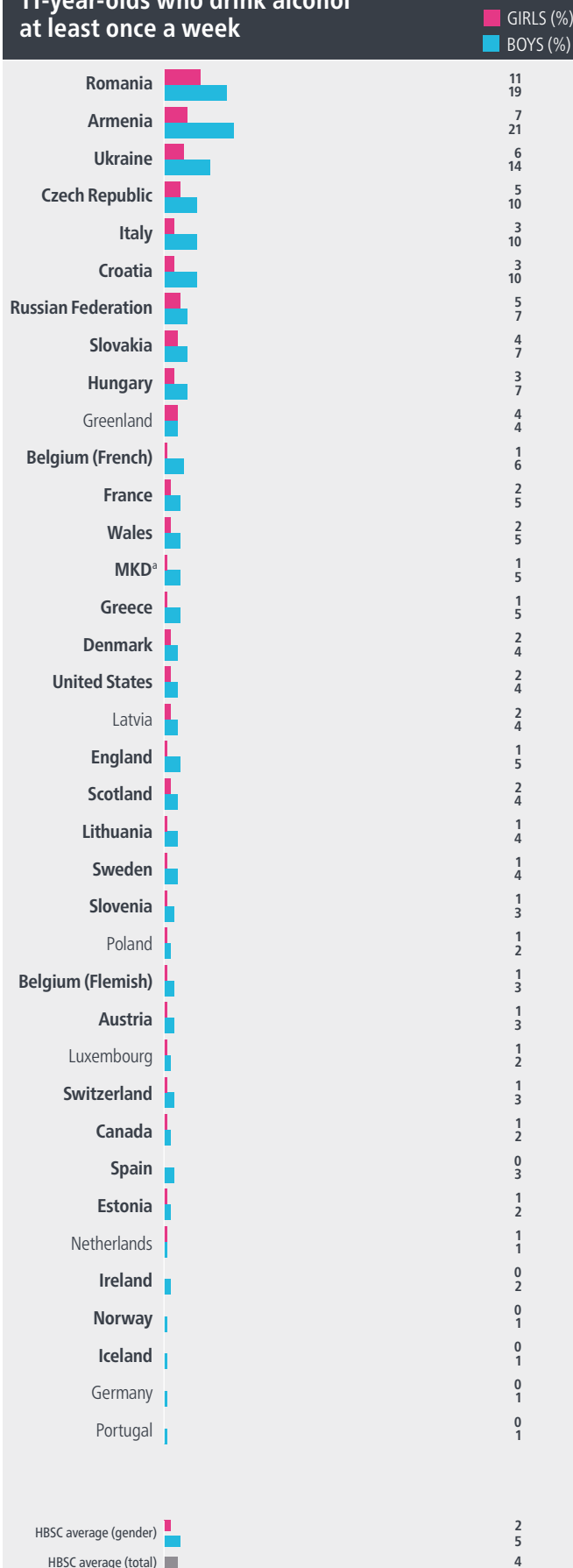
Gender

Boys were more likely to report drunkenness in most countries and regions, with 15-year-old girls having higher prevalence in only a few.

Family affluence

A significant association between high family affluence and higher prevalence was seen in only a few countries, with the opposite association apparent in some.

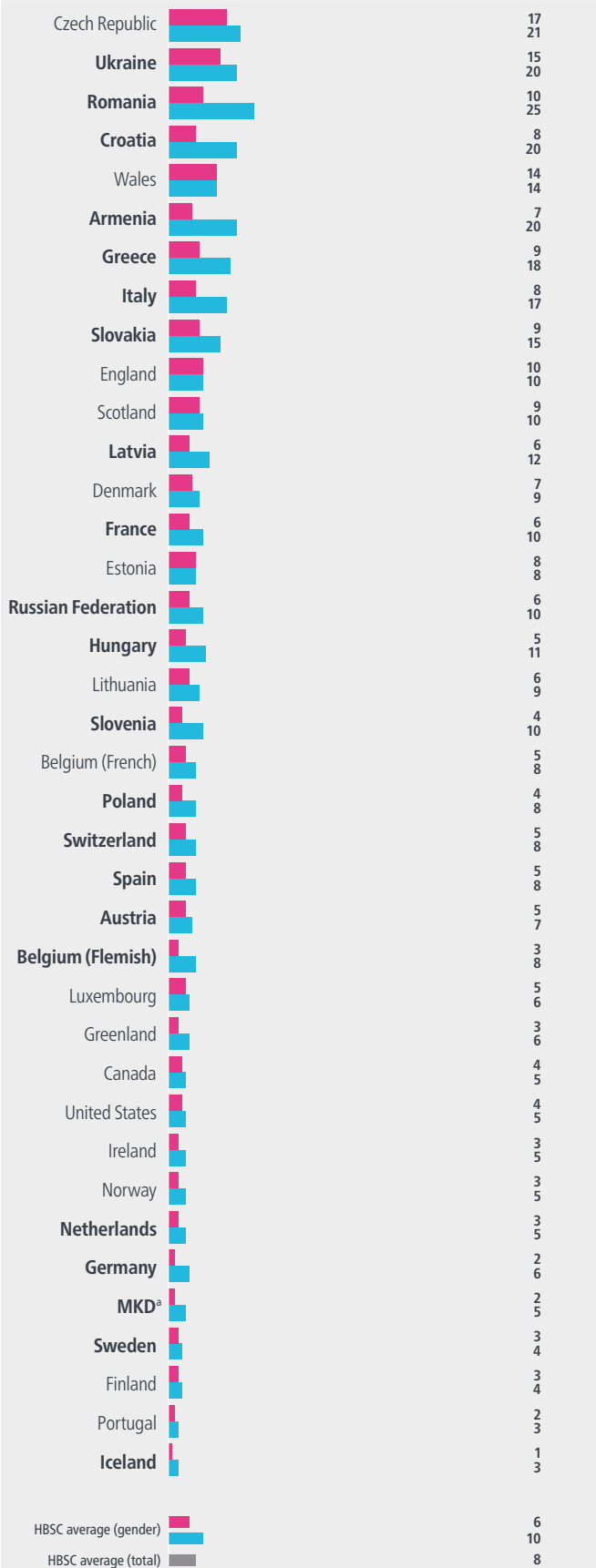
11-year-olds who drink alcohol at least once a week



^a The former Yugoslav Republic of Macedonia.

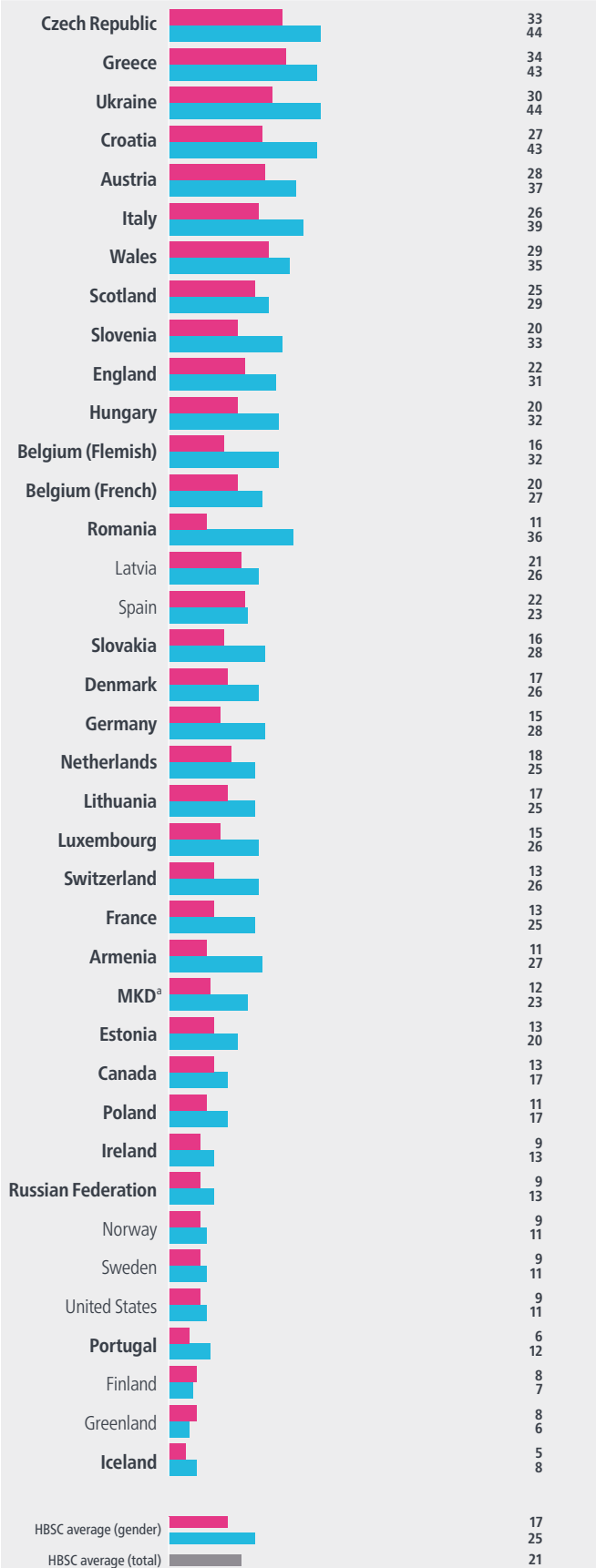
13-year-olds who drink alcohol at least once a week

GIRLS (%)
BOYS (%)



15-year-olds who drink alcohol at least once a week

GIRLS (%)
BOYS (%)



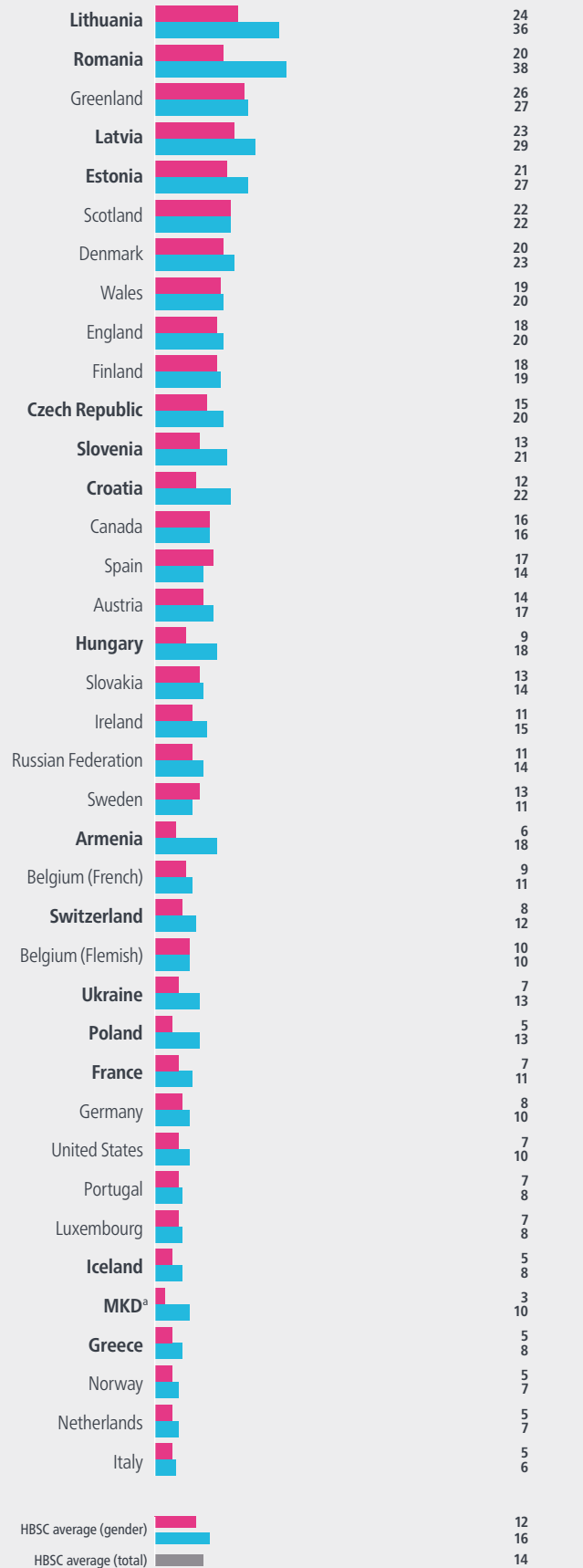
Note. **Indicates** significant gender difference (at p<0.05). No data for Finland (11-year-olds) and Turkey. Zero values correspond to less than 0.5%.

HBSC survey 2009/2010

HBSC survey 2009/2010

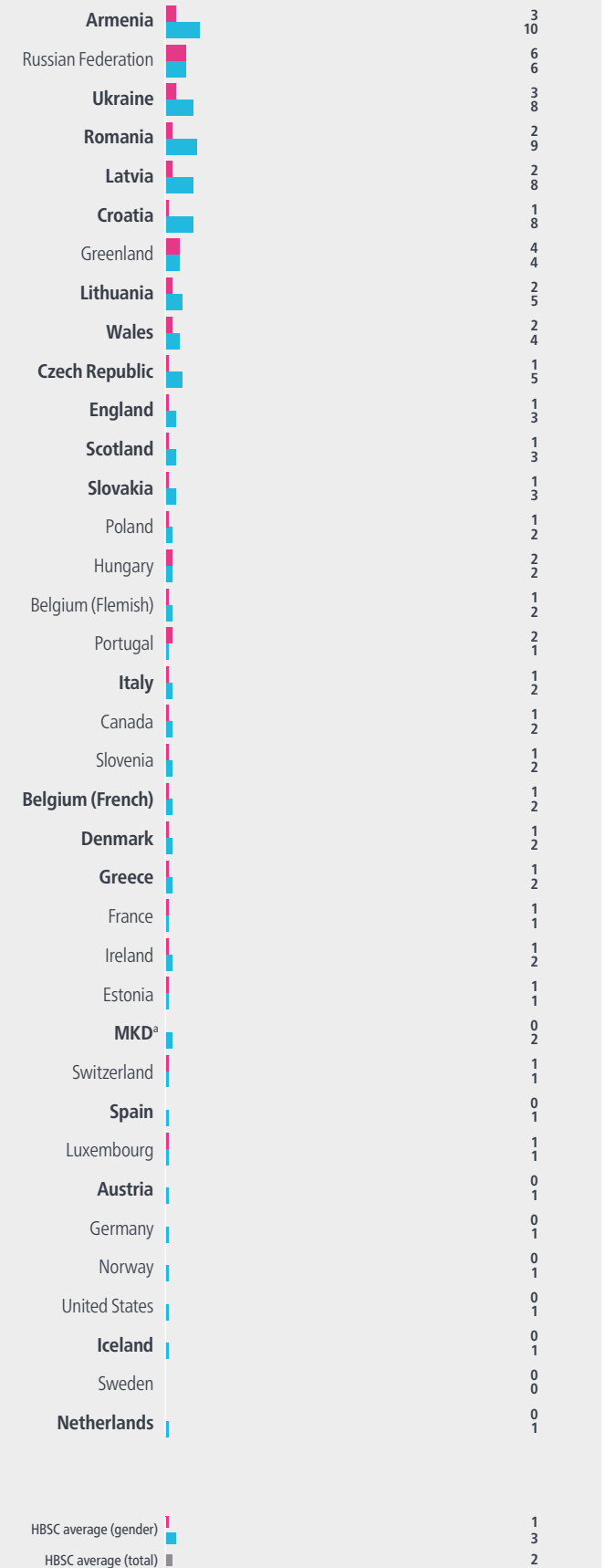
15-year-olds who report first drunkenness at age 13 or younger

■ GIRLS (%)
■ BOYS (%)



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

■ GIRLS (%)
■ BOYS (%)



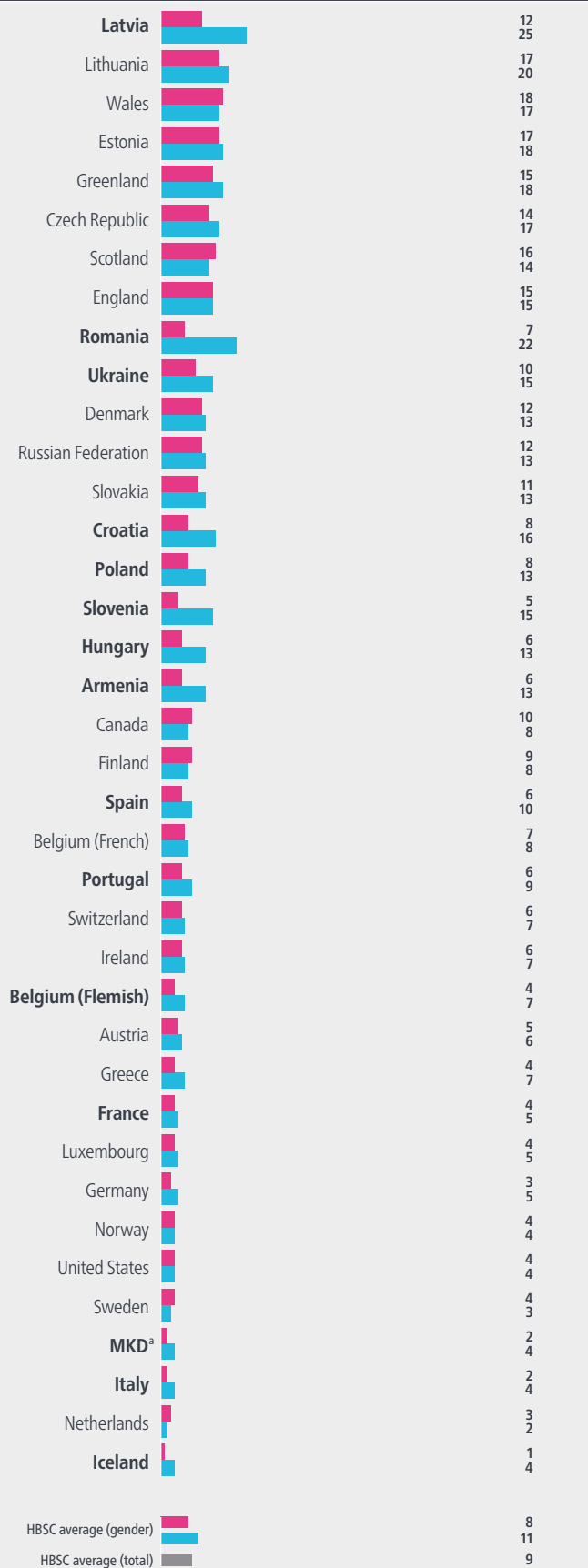
^a The former Yugoslav Republic of Macedonia.

No data for Turkey.

HBSC survey 2009/2010

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

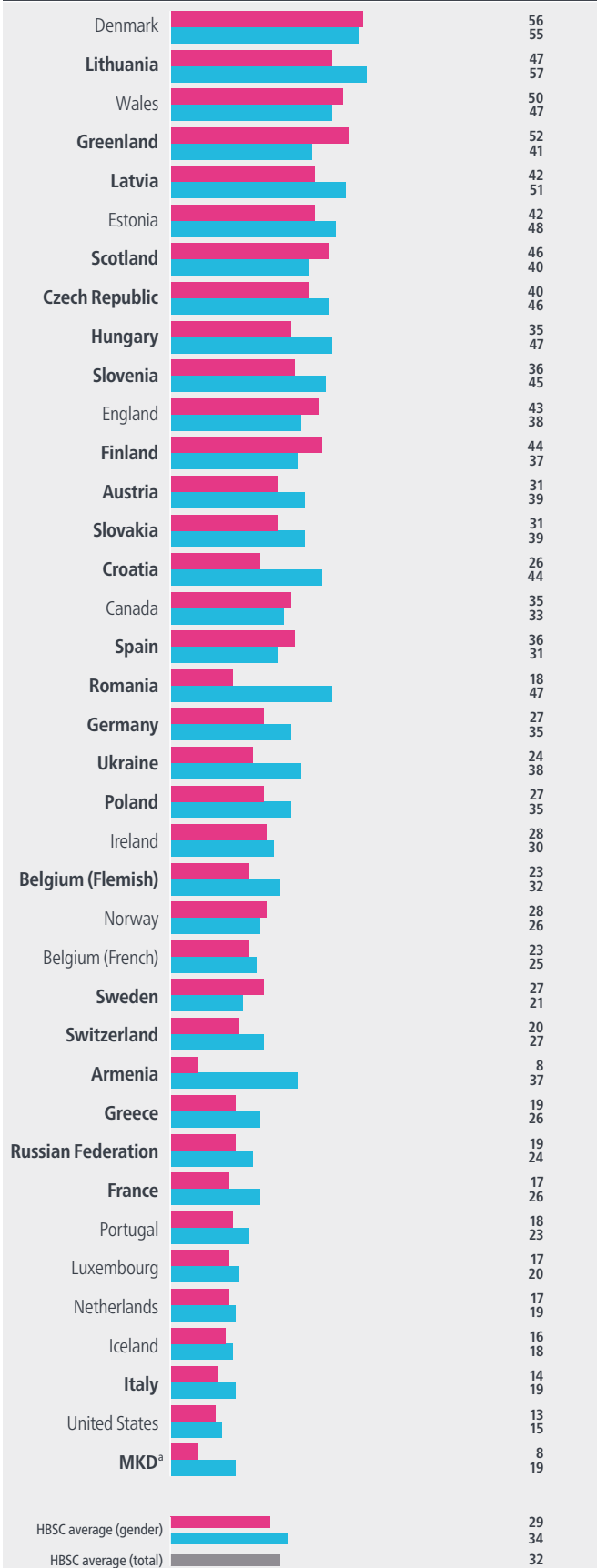
GIRLS (%)
BOYS (%)



HBSC survey 2009/2010

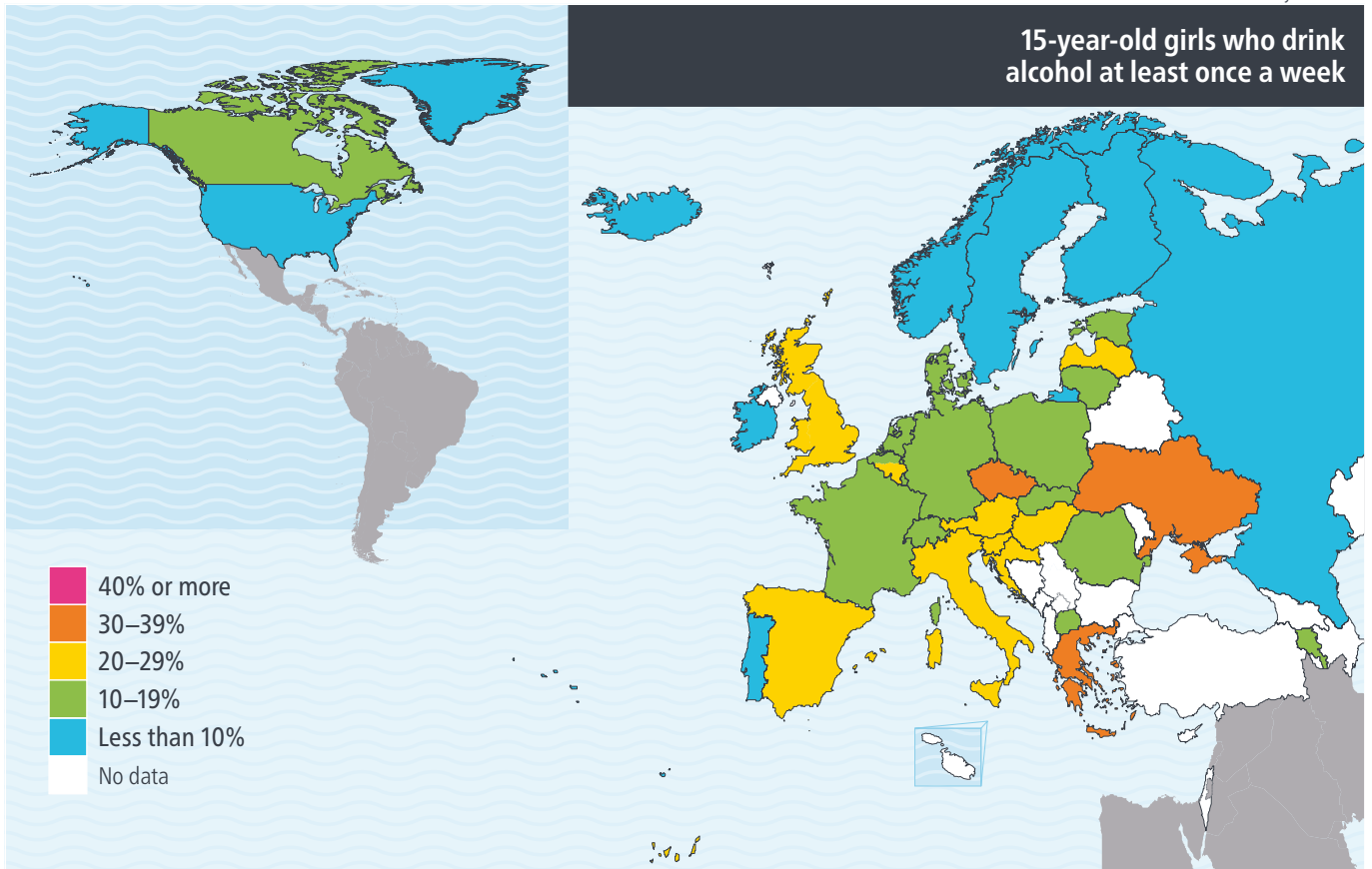
15-year-olds who have been drunk at least twice

GIRLS (%)
BOYS (%)



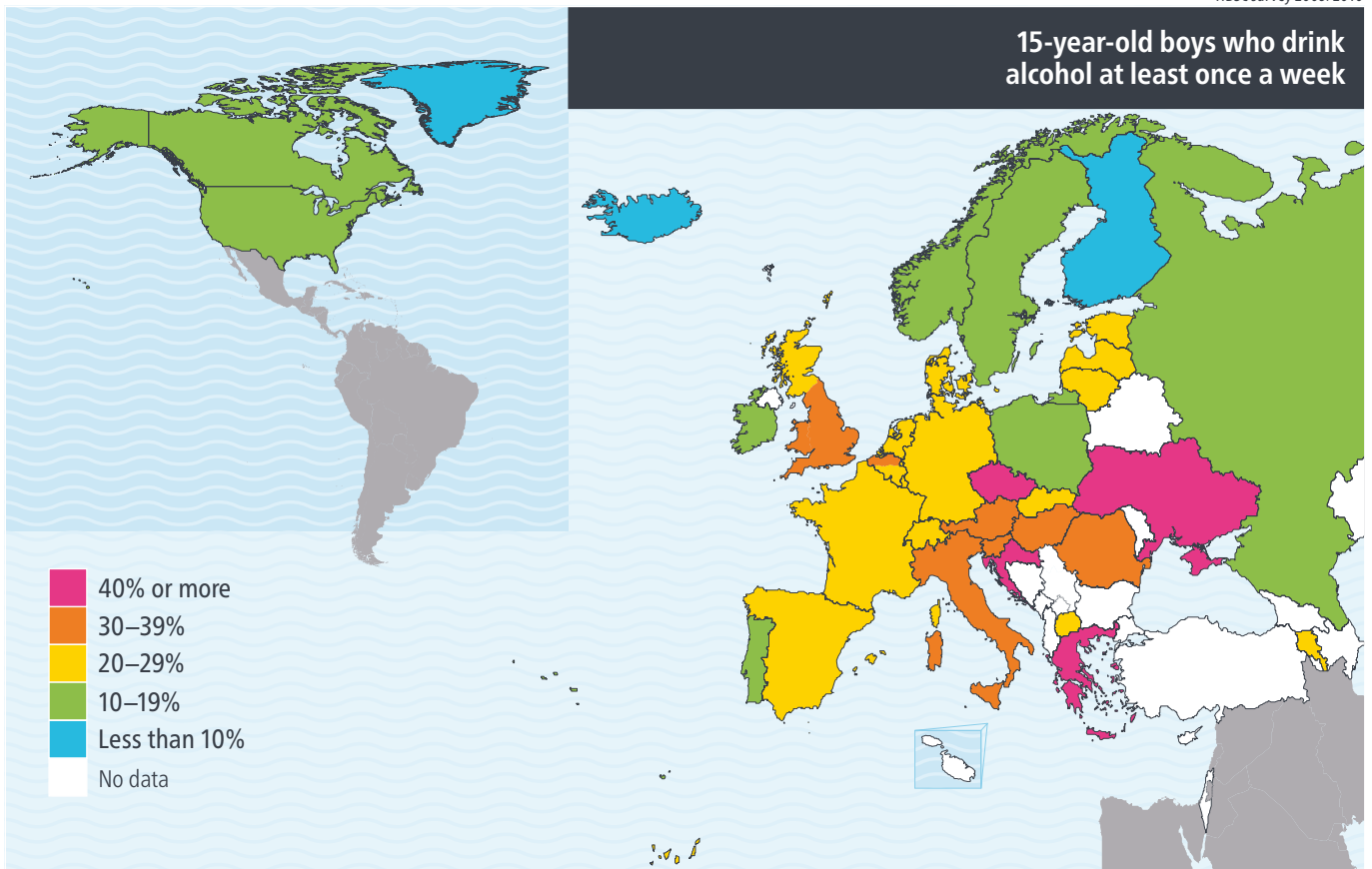
Note. **Indicates** significant gender difference (at $p < 0.05$). No data for Finland (11-year-olds) and Turkey. Zero values correspond to less than 0.5%.

HBSC survey 2009/2010



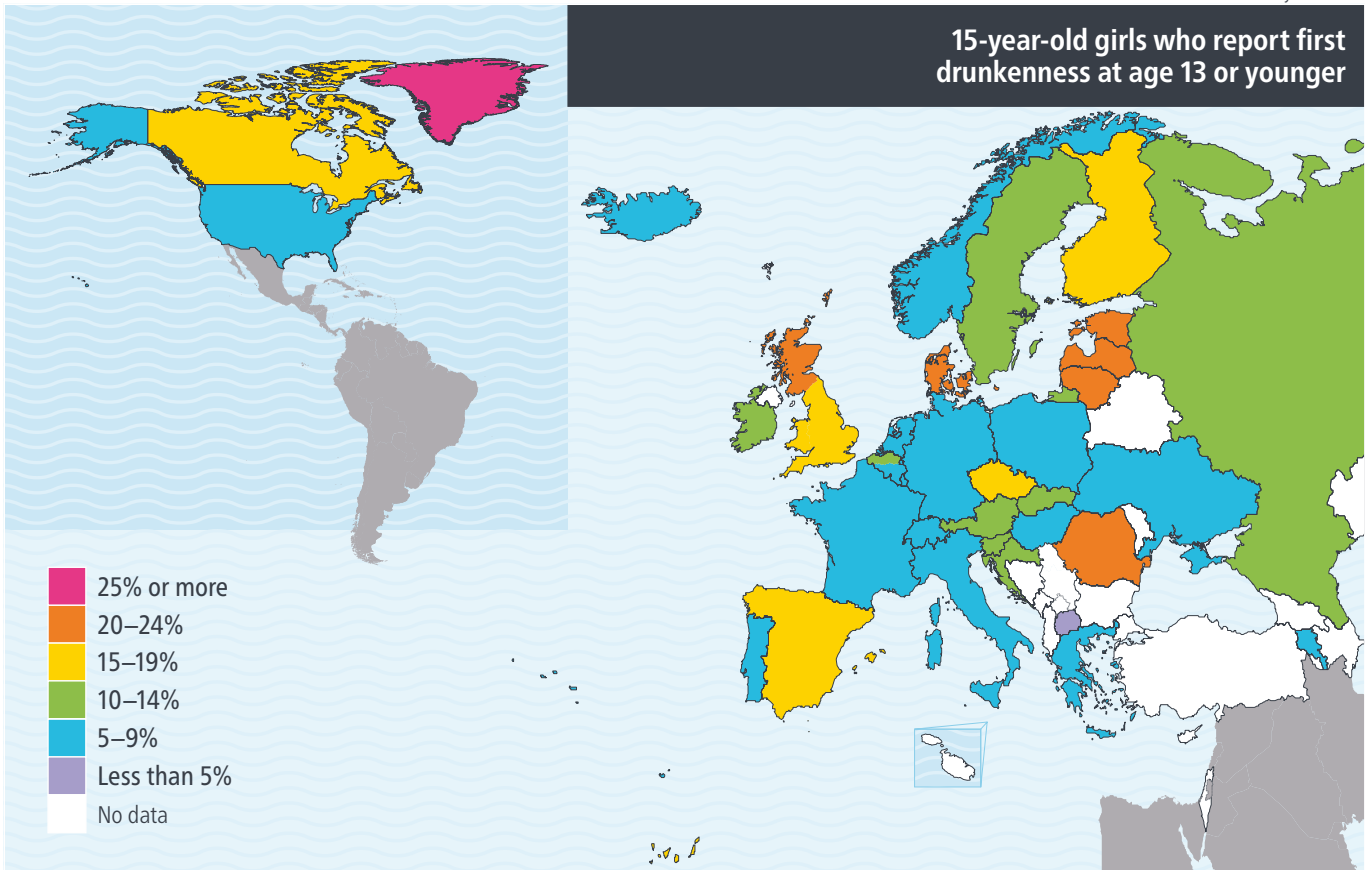
Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.

HBSC survey 2009/2010



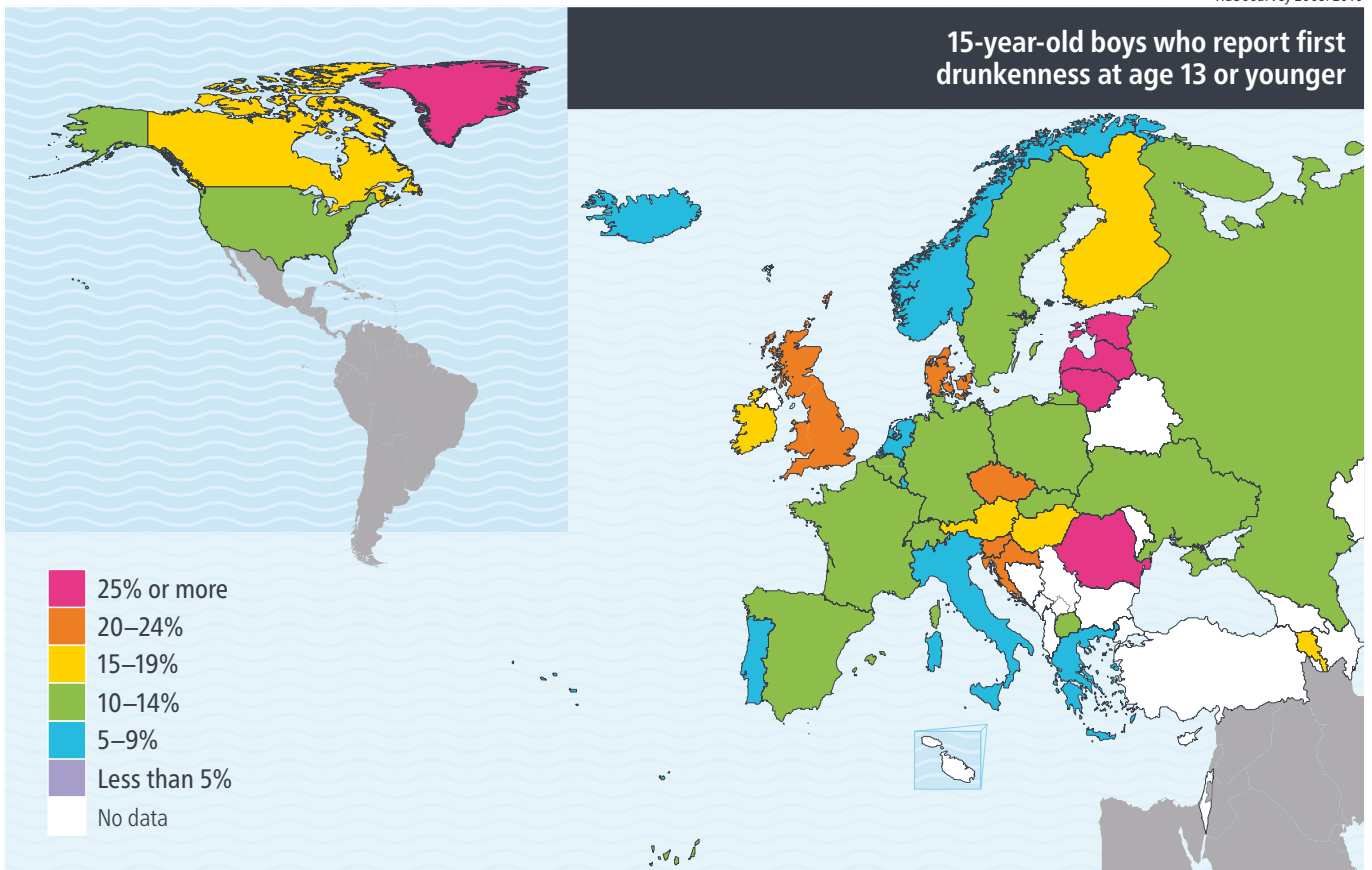
Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.

15-year-old girls who report first drunkenness at age 13 or younger



Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.

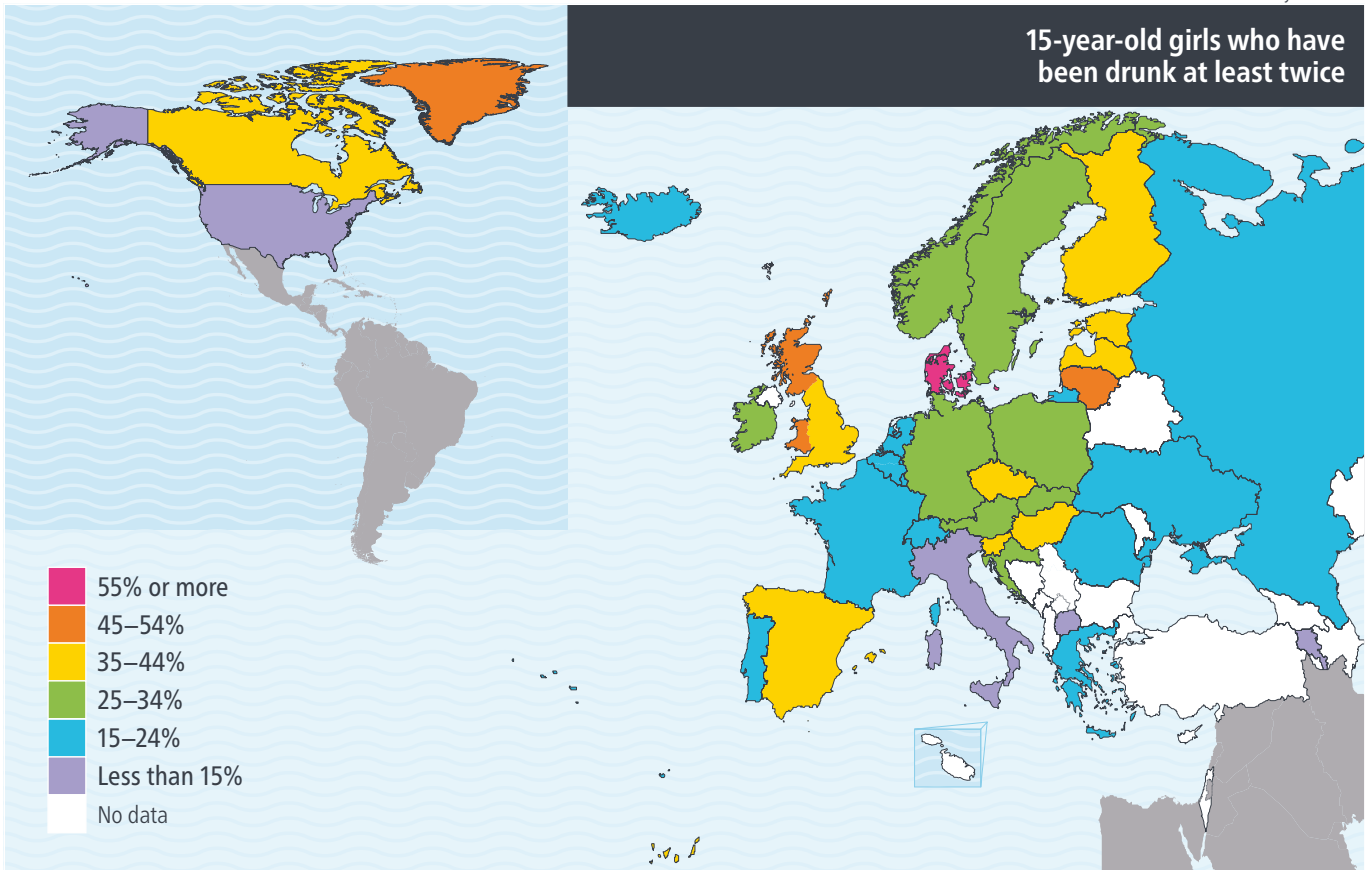
15-year-old boys who report first drunkenness at age 13 or younger



Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.

HBSC survey 2009/2010

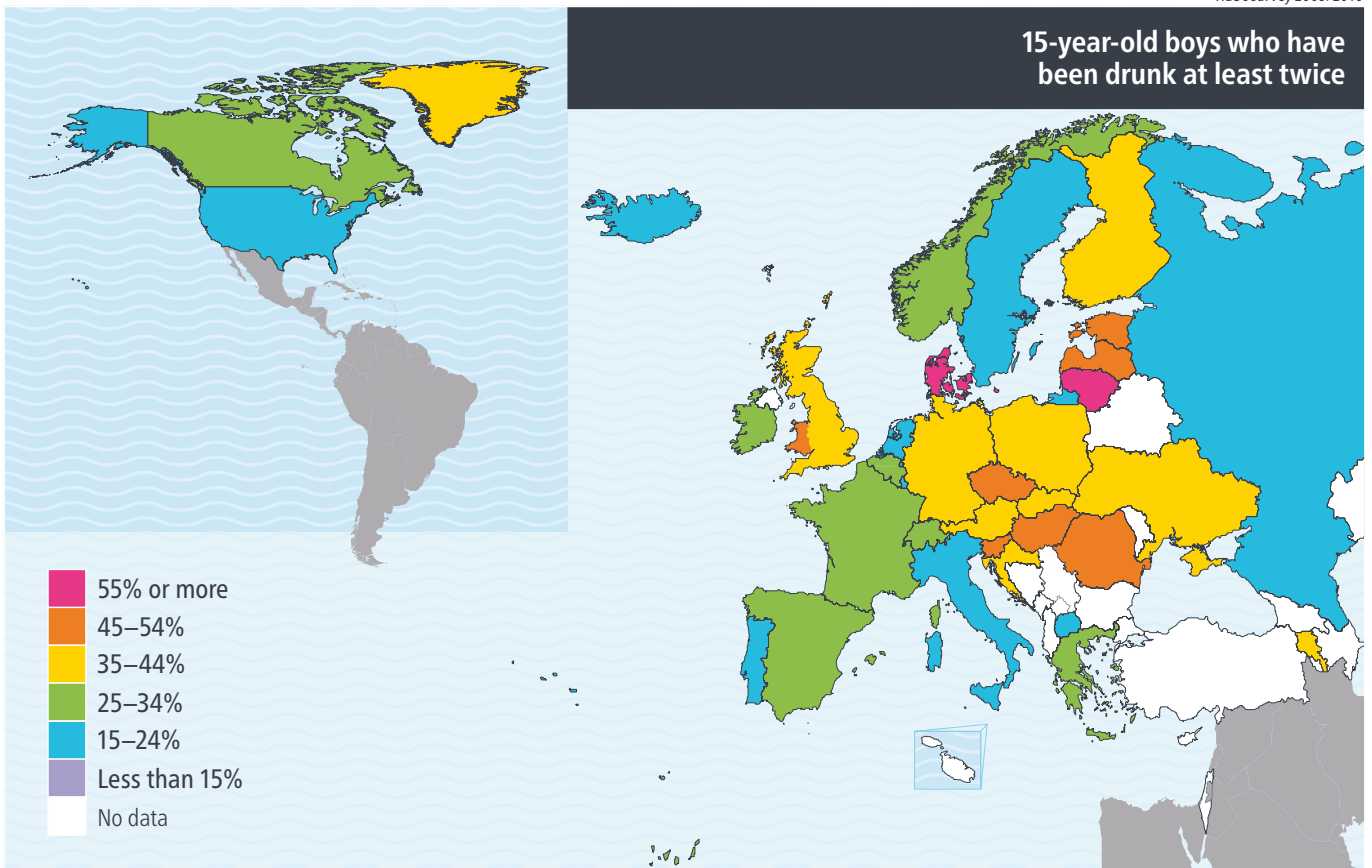
15-year-old girls who have been drunk at least twice



Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.

HBSC survey 2009/2010

15-year-old boys who have been drunk at least twice



Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.

ALCOHOL USE: SCIENTIFIC DISCUSSION AND POLICY REFLECTIONS

SCIENTIFIC DISCUSSION

The findings confirm previous HBSC surveys that showed prevalence rates of weekly alcohol use and (early) drunkenness increasing substantially with age (especially between ages 13 and 15) for boys and girls in all countries.

Boys are more likely to report weekly drinking and drunkenness, but the gender difference at age 13 is significant in fewer than half the countries and regions surveyed. Previous HBSC findings showed that the gender gap declined between 1998 and 2006 (9). Further research using data from the most recent survey will be able to confirm if the gender gap has narrowed further.

Family affluence is not found to have a large effect in most countries and regions. Social position among peers may be more important than family SES in predicting alcohol use (10). Family influence may decrease as the influence of peers and youth culture increases with age, particularly in relation to behaviours that do not start until adolescence (such as alcohol consumption), suggesting that the determining role of socioeconomic background for this type of behaviour might emerge only later in life (11).

POLICY REFLECTIONS

Risky drinking and drunkenness in adolescence are often embedded in a high-risk lifestyle (12) and may have negative social, physical, psychological and neurological consequences reaching into adult life.

Policy programmes that contribute to reductions in alcohol use include the following.

- Almost all European and North American countries currently have legal age limits on both off- and on-premises sales of alcohol (13). Legal purchase-age limits typically range from 16 to 21 years, but countries differ in the extent to which they are enforced. National drinking policies are related to lower rates of alcohol use among young people and seem an effective tool at macro level to reduce use (14).
- School-based intervention programmes focusing specifically on alcohol use and targeting adolescents and their parents have considerable effects (15). Generic, psychosocial and developmental, school-based prevention programmes focusing on life skills and a healthy lifestyle in general are also effective and could be considered as policy and practice options (16).
- Family interventions are effective in delaying alcohol initiation and reducing frequency of consumption among adolescents (17). Family treatments focused on change in maladaptive behaviours, multidimensional family therapy and group-administered cognitive behavioural therapies have received considerable empirical support (18).

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CANNABIS USE

Occasional cannabis use is reported among a substantial minority of young people in Europe and North America (1,2). Adolescents use the drug for a variety of reasons, including experimentation, mood enhancement, social enhancement and peer conformity, and relaxation (3).

Adolescents who occasionally use cannabis in modest doses are usually as well adjusted as those who do not use it, with no specific health, social or peer-related problems (4). Cannabis use, however, is a risk factor for mental disorders and may trigger psychosis, particularly among those who are prone to them (5). Early-onset, heavy and accelerating cannabis use is related to a range of problems, including cognitive impairment (6), deteriorating school performance and dropout (7), externalizing problems such as risk taking, aggression and delinquency (8) and internalizing problems such as depression and anxiety (8).

Boys are more likely to use cannabis (9), with social influences including friends or older siblings who use it (10); peers who use cannabis may act as models and can consequently shape norms, attitudes and values, as well as providing opportunities for use (9,11). Use has also been associated with low parental involvement and reinforcement and high levels of coercive discipline (12).

Family affluence does not appear to influence use at the individual level to any great extent, but does so at the macro level. Prevalence rates of lifetime and recent cannabis use have been found to be in general higher in wealthy countries (11).

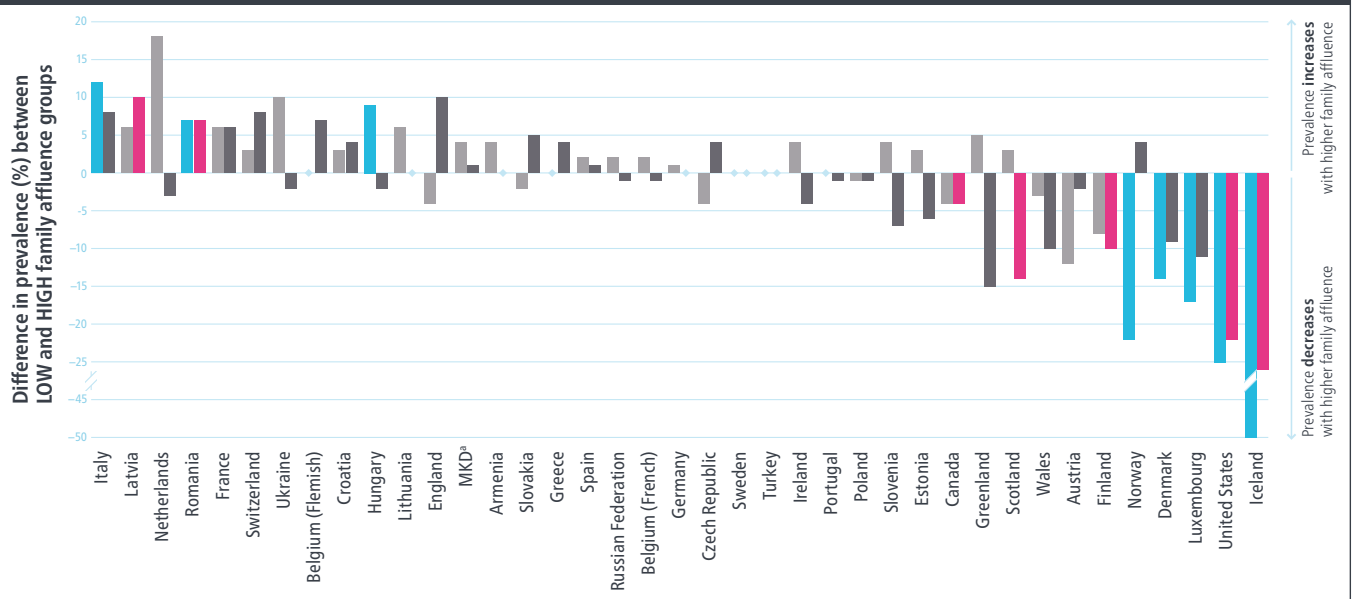
MEASURE

Young people were asked how often they had used cannabis in their lifetimes, during the last 12 months and during the last 30 days. The results presented here show the proportions who reported using cannabis at least once in their lives (lifetime use) and at least once in the last 30 days (recent use); the text reflects patterns of use across all three time spans.

Associations between family affluence and indicators of health, by country/region and gender:
LIFETIME CANNABIS USE

BOYS
GIRLS

SIGNIFICANT
TRENDS

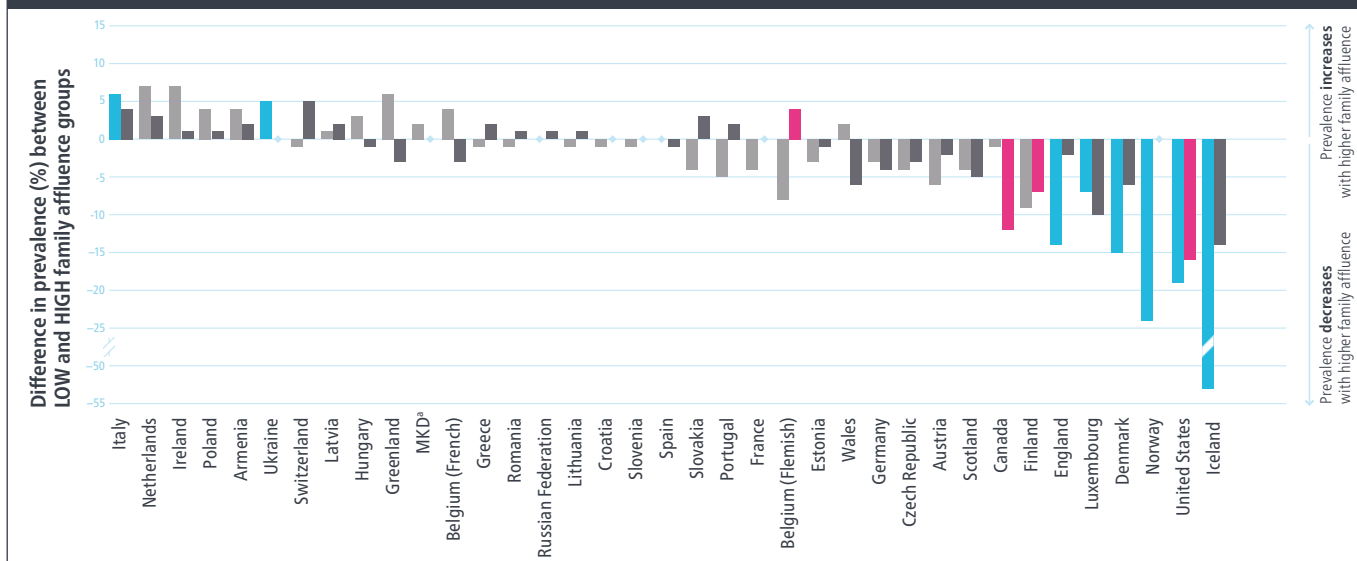


^aThe former Yugoslav Republic of Macedonia. ♦ Indicates less than +/- 0.5%. Note. No data for Sweden and Turkey.

Associations between family affluence and indicators of health, by country/region and gender:
CANNABIS USE IN THE LAST 30 DAYS

BOYS
GIRLS

SIGNIFICANT
TRENDS



*The former Yugoslav Republic of Macedonia. ♦ Indicates less than +/- 0.5%. Note: No data for Sweden and Turkey.

RESULTS

Age

Data are presented for 15-year-olds only.

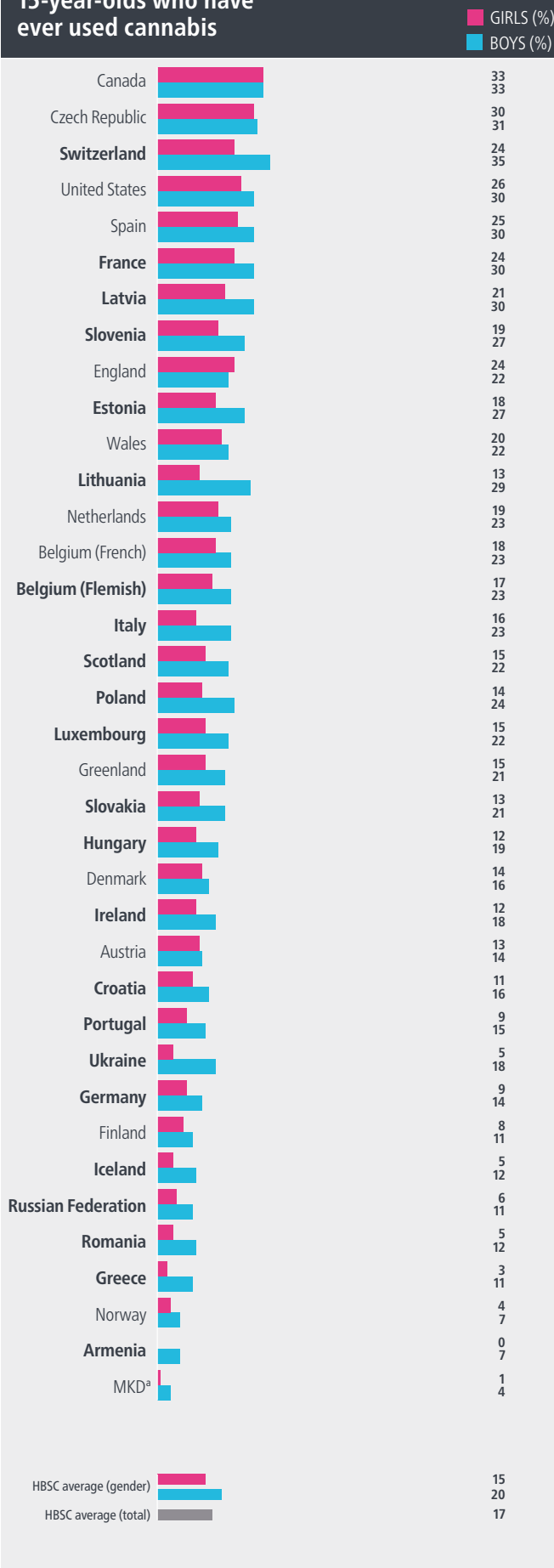
Gender

Boys reported higher prevalence of cannabis use in most countries across the three measures, but the gender difference was greater than 10% in only a few.

Family affluence

Use among boys and girls was significantly associated with family affluence in only a minority of countries and regions. Results were mixed in the few that had a significant association: higher prevalence was associated with both high and low family affluence. These findings need to be interpreted with caution, however, given the small number of frequent users.

15-year-olds who have ever used cannabis

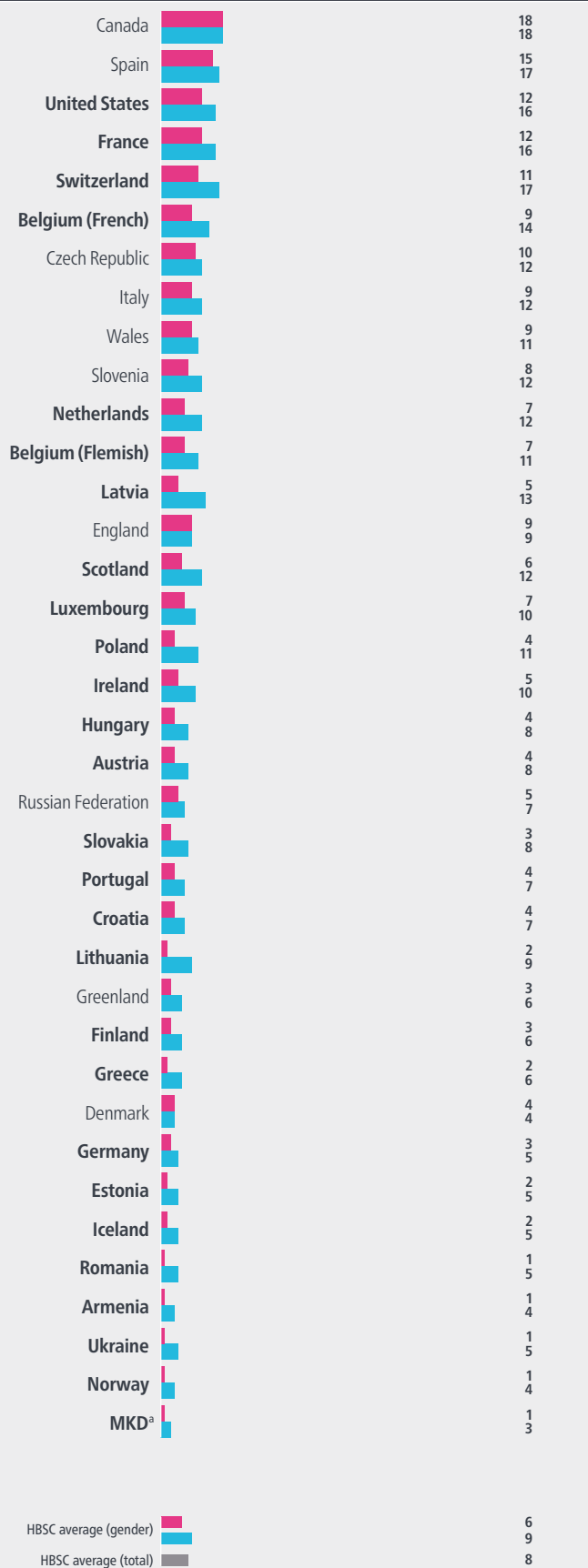


^a The former Yugoslav Republic of Macedonia.

HBS survey 2009/2010

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

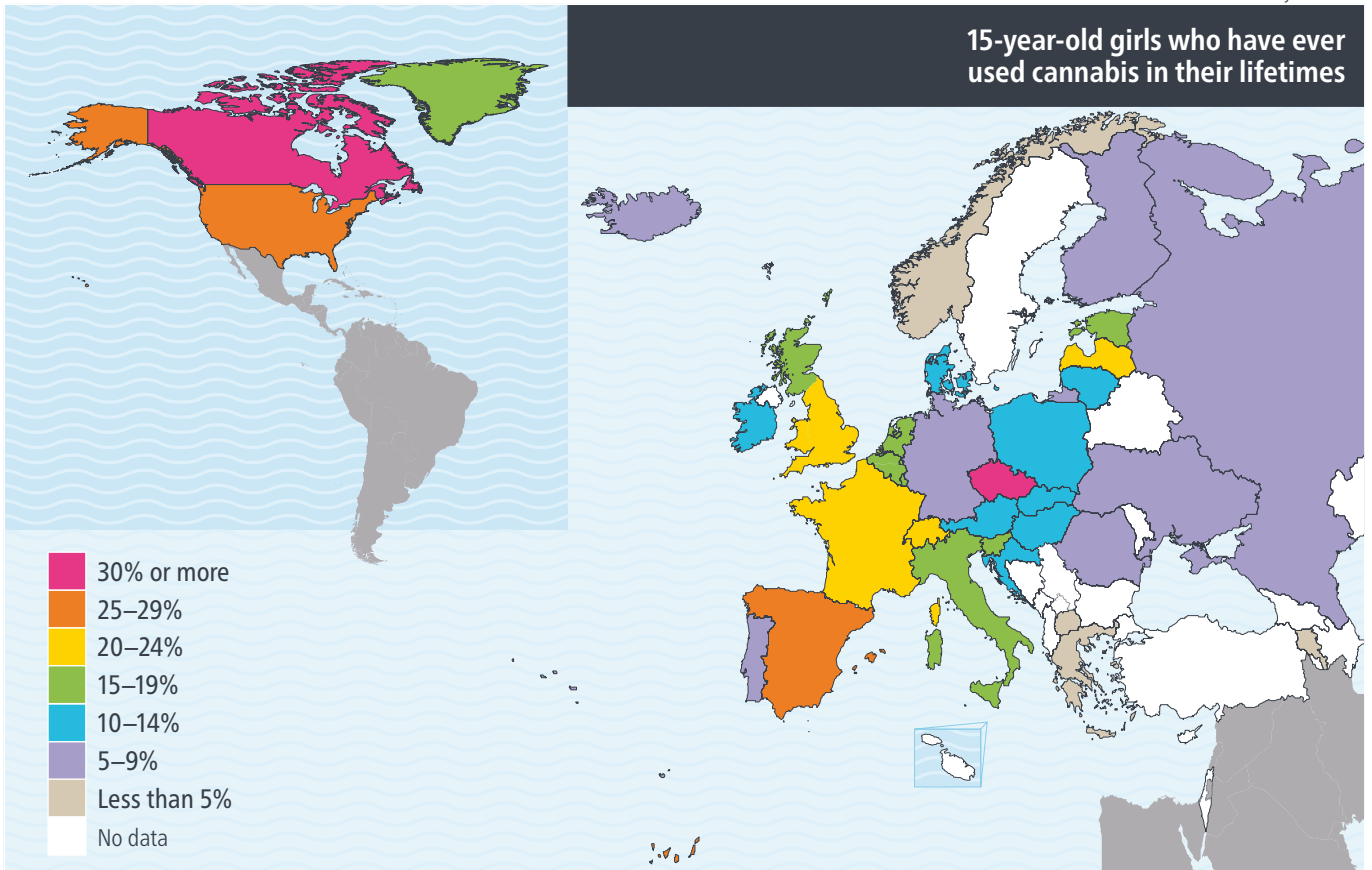
GIRLS (%)
BOYS (%)



Note. **Indicates** significant gender difference (at $p < 0.05$). No data for Sweden and Turkey. Zero values correspond to less than 0.5%

HBSC survey 2009/2010

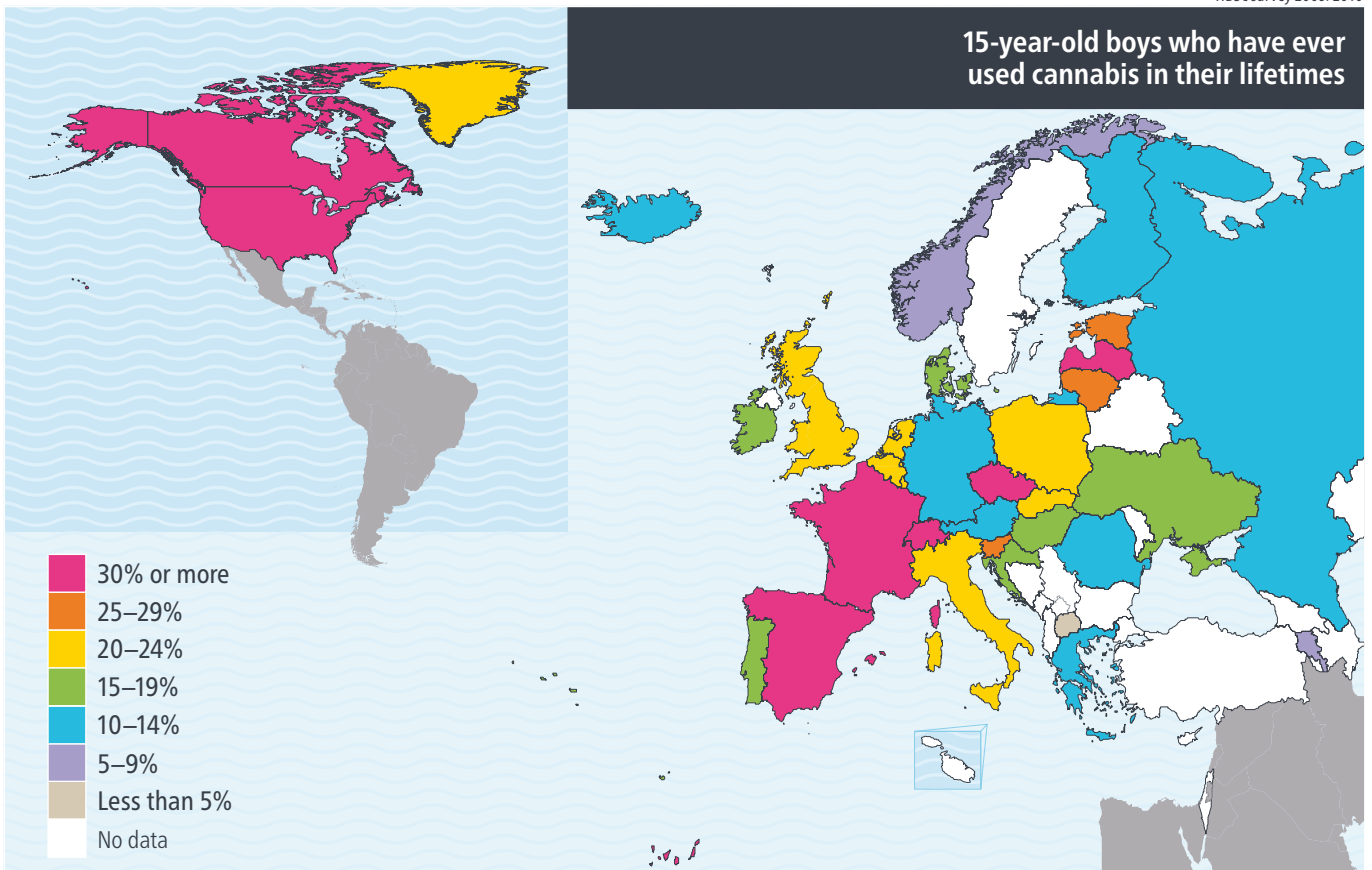
15-year-old girls who have ever used cannabis in their lifetimes



Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.

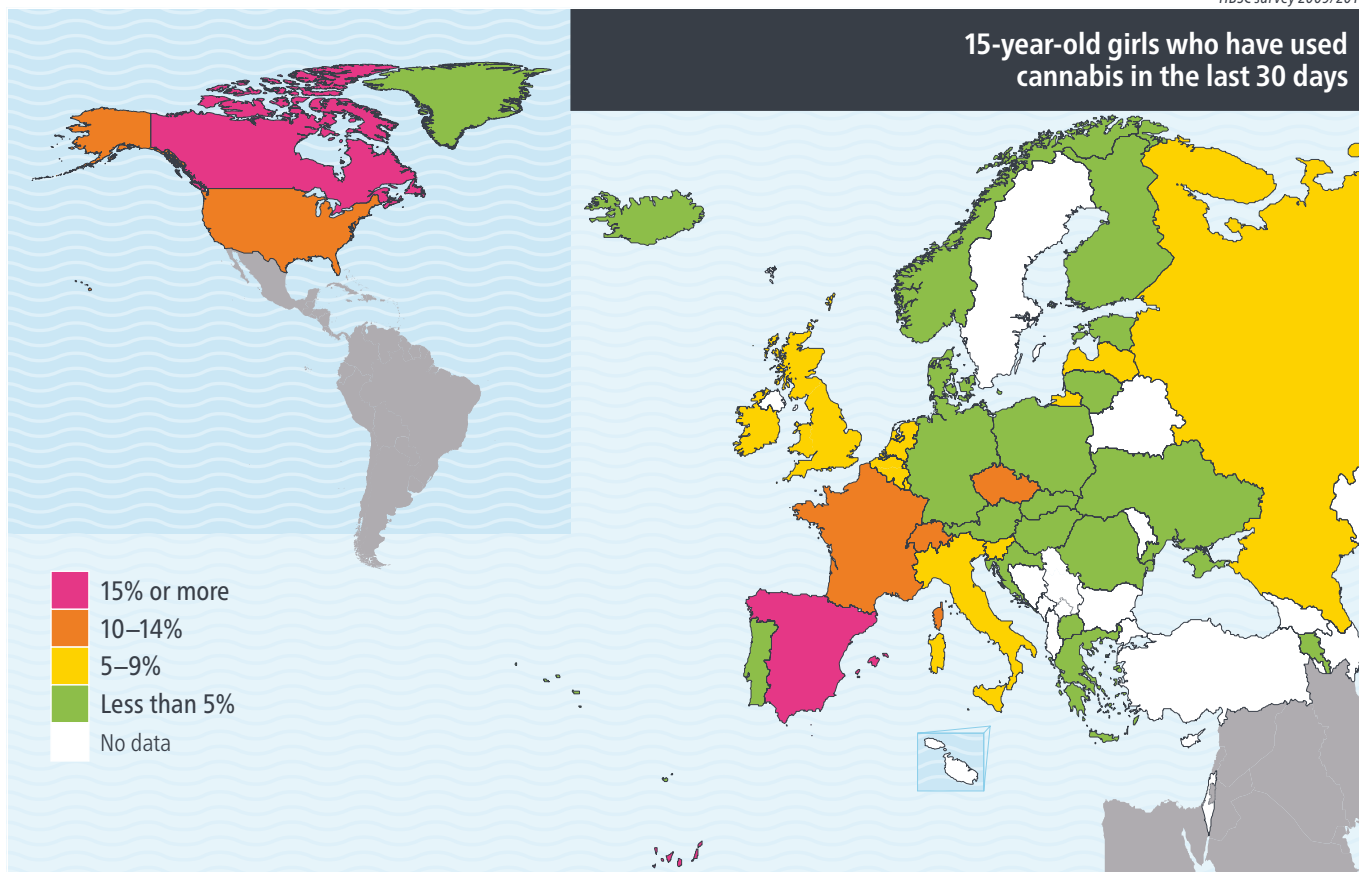
HBSC survey 2009/2010

15-year-old boys who have ever used cannabis in their lifetimes



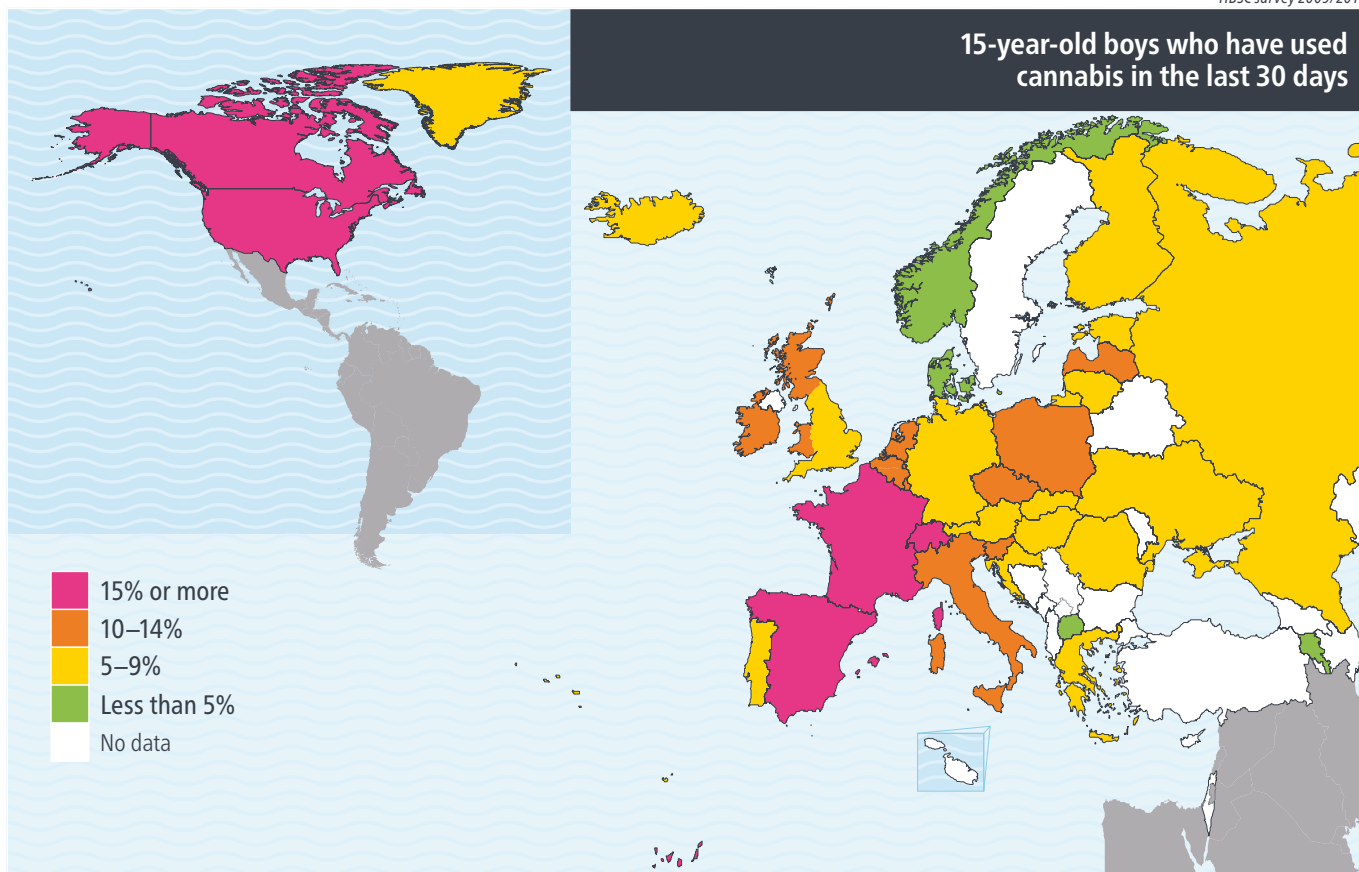
Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.

15-year-old girls who have used cannabis in the last 30 days



Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.

15-year-old boys who have used cannabis in the last 30 days



Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.

CANNABIS USE: SCIENTIFIC DISCUSSION AND POLICY REFLECTIONS

SCIENTIFIC DISCUSSION

The findings confirm that boys report using cannabis more frequently and that it is not consistently related to individual family affluence.

Substantial variations exist between countries and regions. Prevalence of recent cannabis use is less than 1% in some, but over 20% in others. Differences may be partly explained by cross-national differences in country wealth, perceived availability of cannabis in the peer culture and estimations of risks associated with use. Prevalence rates are in general higher among those living in countries in which the perceived availability of cannabis is high and where non-users associate fewer risks with use (11). These factors may foster the emergence of a drug-using community of young people that may play a crucial role in the socialization of younger potential cannabis users (11).

National policies may influence adolescent cannabis use, but a study comparing use in the Netherlands, the United States and Canada found that, while prohibition-oriented policies on alcohol deterred use (and liberal policies elevated it), this effect was not found for cannabis (13). More research into cross-national differences in young people's cannabis use is needed to enable understanding of the mechanisms involved.

POLICY REFLECTIONS

Adolescents who initiate substance use early and are frequent users are more likely to suffer adverse consequences (8–10) and therefore warrant particular attention from policy-makers.

Existing school- and family-based interventions can make help to alleviate the problem. Interventions in schools that focus on increasing drug knowledge, decision-making skills, self-esteem and resistance to peer pressure effectively reduce cannabis use (14), and family-based treatments concentrating on cannabis or substance use are similarly effective; indeed, family-based and multisystem approaches have a large effect (15). Motivational interviewing is also effective (15).

While cannabis use is illegal in most countries in Europe and North America, it is not clear which specific policies are effective in reducing adolescent use.

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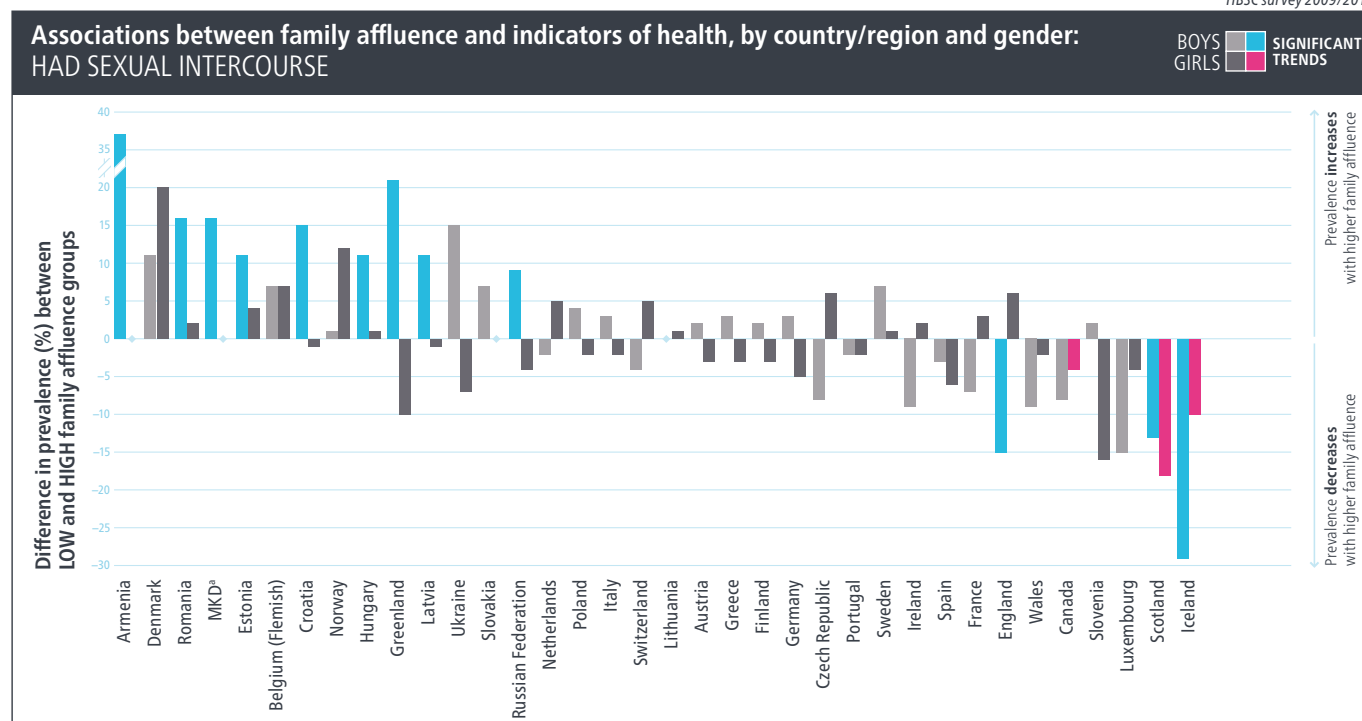
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SEXUAL BEHAVIOUR: EXPERIENCE OF SEXUAL INTERCOURSE

Adolescents usually initiate intimate relationships and become sexually active (1). Early sexual activity, initiated while young people are still developing emotionally and cognitively, may increase the risk of unwanted and unplanned pregnancy or sexually transmitted infections (STIs) (2), mainly owing to the misuse or non-use of condoms or other contraceptives.

Evidence suggests that the age of onset of sexual intercourse is declining in industrialized countries (3) and the rate of STIs among adolescents is rising (4). While fertility rates vary across countries, about 15 million adolescents worldwide give birth every year (5). Based on these observations, and combined with findings that early sexual activity is associated with risk factors such as substance use (6), lower academic achievement (6) and poor mental health (7), early onset of sexual activity has been pinpointed as an important marker for sexual health (5).

HBSC survey 2009/2010



*The former Yugoslav Republic of Macedonia. ♦ Indicates less than +/-0.5%. Note. No data for Turkey, United States and Belgium (French). Data not presented for girls in MKD as there were too few cases.

MEASURE

Only 15-year-olds were asked whether they had ever had sexual intercourse. The question was qualified by colloquial terminology (for instance, "having sex" or "going all the way") to ensure that respondents understood that the question was about full penetrative sex. The findings presented here show the proportions who reported that they had had sexual intercourse.

RESULTS

Age

Data are presented for 15-year-olds only.

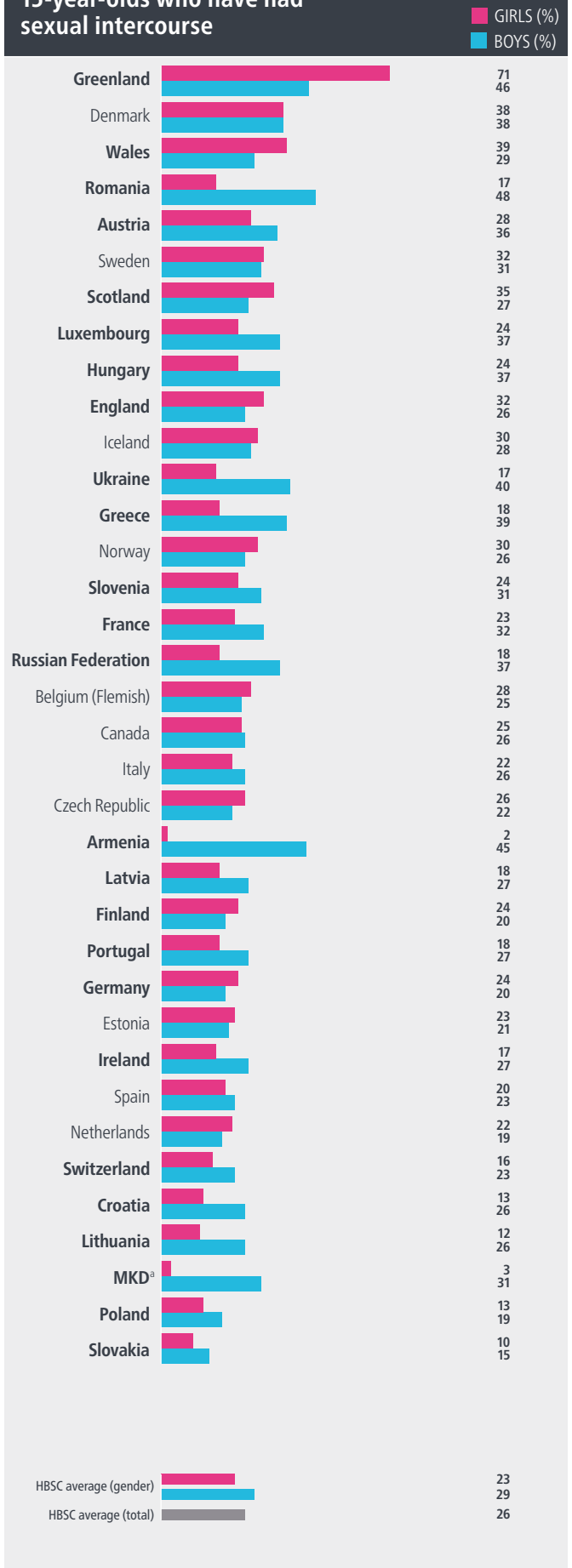
Gender

Boys were significantly more likely to report having had sexual intercourse in around half of countries. The greatest gender disparity was observed in eastern European countries, Armenia and Greece. Higher prevalence among girls was reported in seven, mainly Scandinavian countries and the United Kingdom.

Family affluence

Prevalence was associated with family affluence in only a few countries and regions. It was significantly higher among boys in high-affluence families in around a quarter and lower in only three, while for girls it was more prevalent among lower affluence families in a few. The size of prevalence differences tended to be greater among boys.

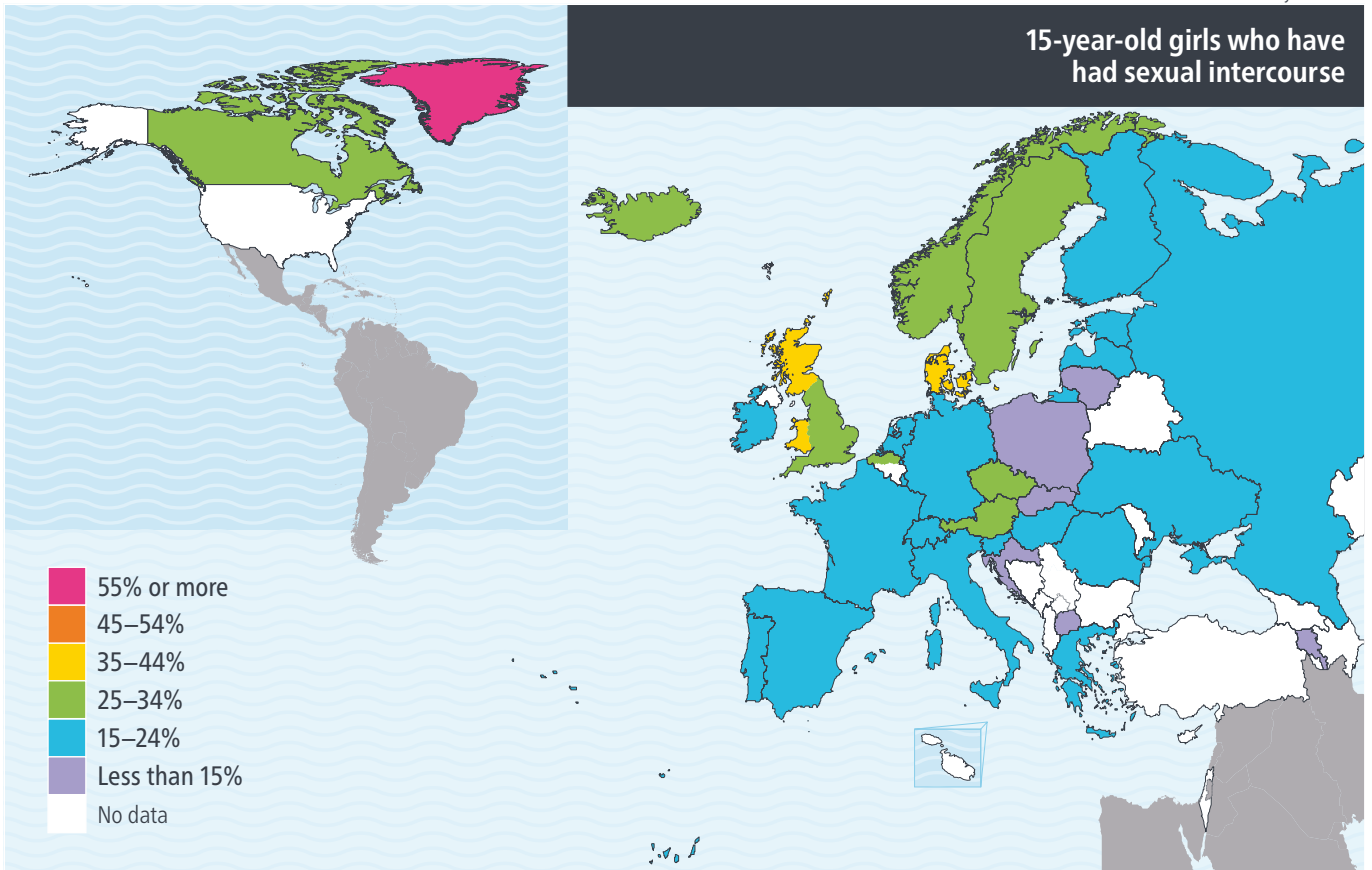
15-year-olds who have had sexual intercourse



^a The former Yugoslav Republic of Macedonia.

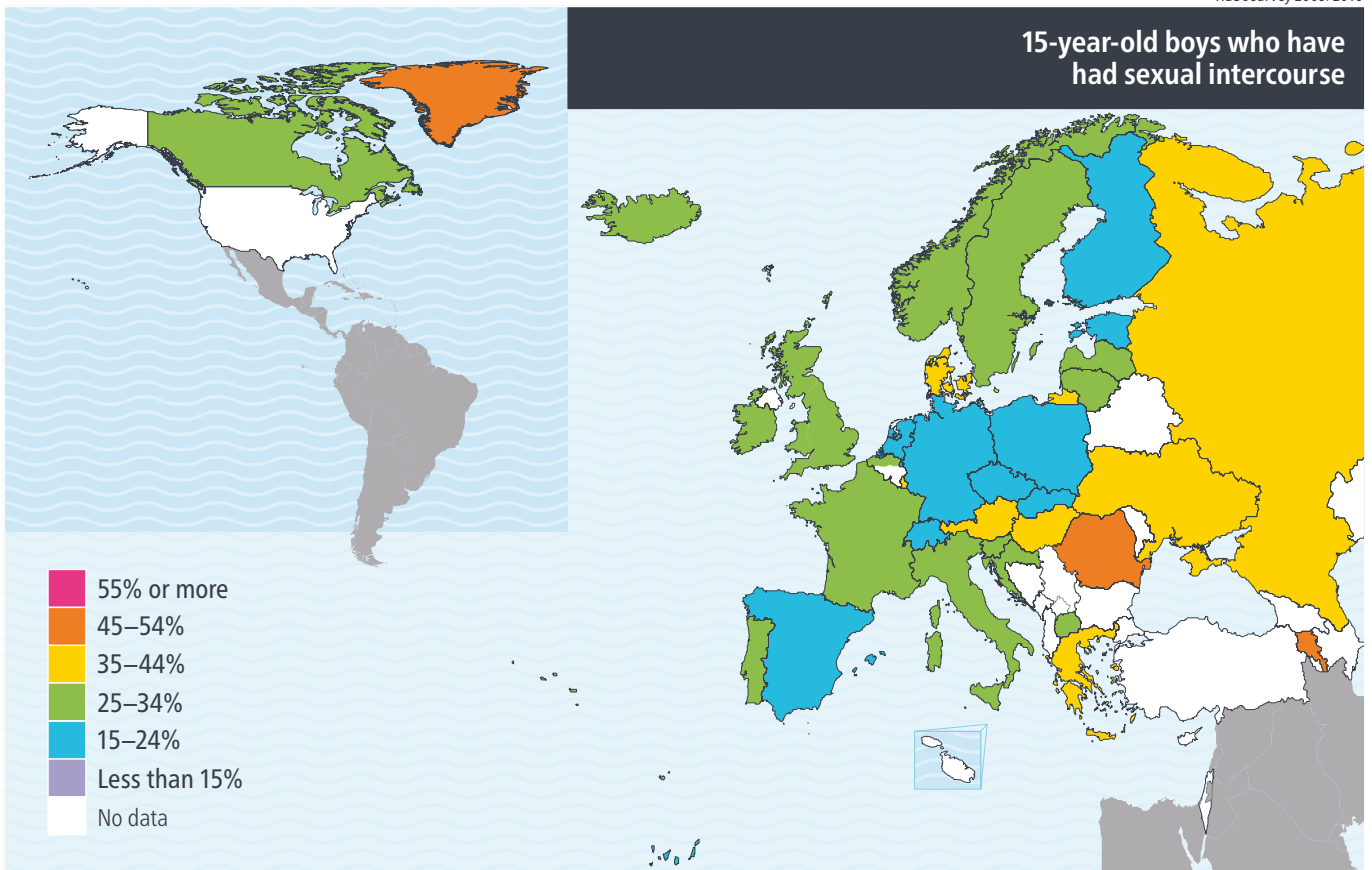
Note. **Indicates** significant gender difference (at $p < 0.05$).
No data for Turkey, United States and Belgium (French).

15-year-old girls who have had sexual intercourse



Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.

15-year-old boys who have had sexual intercourse



Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.

SEXUAL BEHAVIOUR: CONDOM AND PILL USE

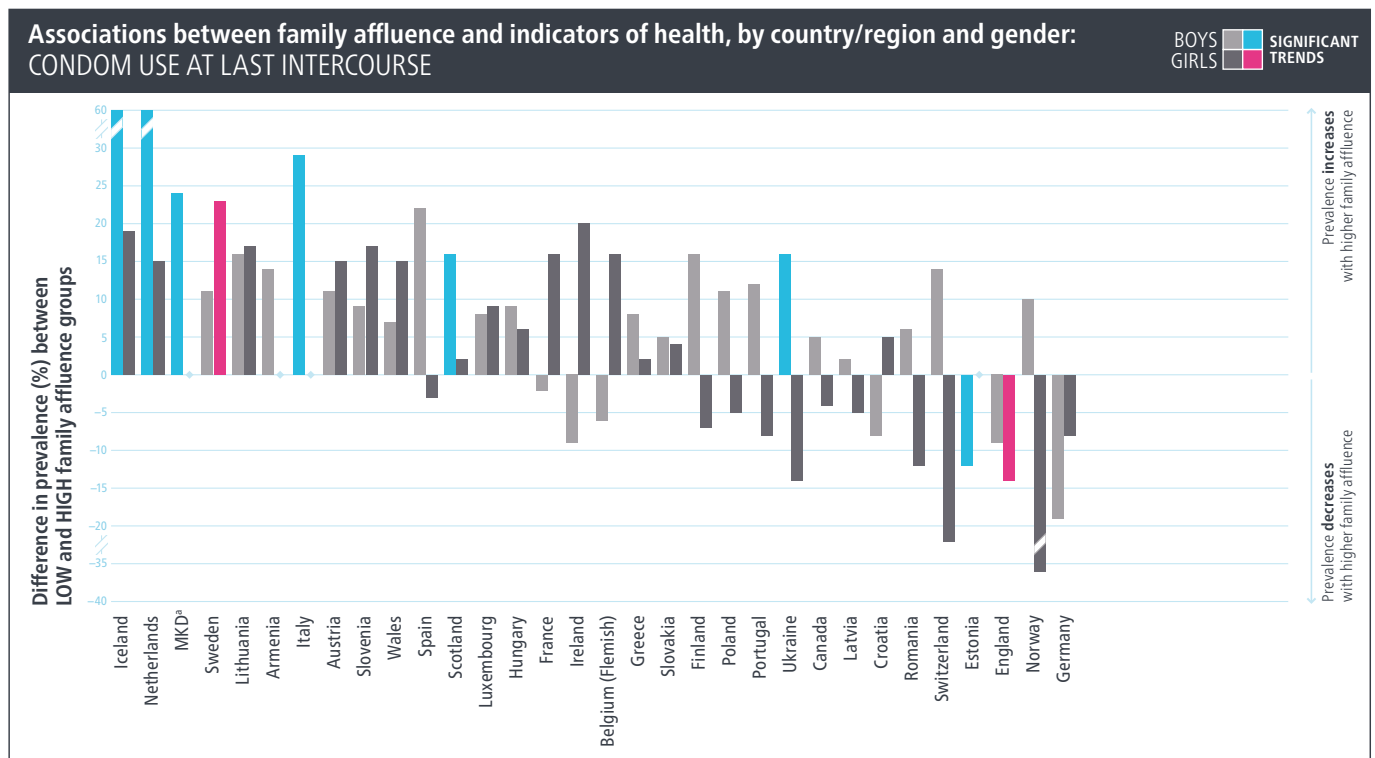
Estimating rates of STIs is difficult, particularly among adolescents, but there is evidence that, despite a decline in HIV, incidence of the most frequently occurring STIs (*Chlamydia*, gonorrhoea and syphilis) has increased in several European countries in the last decade (1).

Condoms are the most effective method of preventing STIs and the contraception method most commonly reported by 15-year-olds in many countries (4). Condom use remains inconsistent (8), however, and is influenced by factors such as self-efficacy, perceived attitudes of peers and assertiveness (9,10). Not using a condom has been associated with other risky sexual behaviours, such as early onset of sexual activity, having multiple partners and engaging in substance use before sexual intercourse (11).

Condoms offer an effective method of preventing pregnancy. Adolescent pregnancy rates have fallen significantly in Europe during the last two decades (1), but remain a high public health priority (1,12,13). It is reasonable to assume that teenage pregnancy is frequently unintended, at least in most developed countries (1,12,13), and is likely to result in negative outcomes for mother and child (1,13).

Teenage pregnancies can also be prevented by the use of oral contraceptive pills, which are safe and suitable for women of all ages. This is a frequently reported contraceptive method in industrialized countries, including among adolescents (12), but dual contraception (pill plus condom) is not common among young people (8).

European and North American countries show large differences in rates of contraceptive pill and condom use among adolescents (14), mainly due to issues around the accessibility and affordability of sexual health services, especially for those who are under the legal age. It is therefore essential to promote contraceptive use across countries through education and services that guarantee accessibility and confidentiality.



* The former Yugoslav Republic of Macedonia. ♦ Indicates less than +/- 0.5%. Note. No data for Belgium (French), Czech Republic, Denmark, Greenland, Russian Federation, Turkey and United States. Data not presented for girls in Armenia and girls in MKD as there were too few cases.

MEASURES

A list of contraceptive methods was provided: birth control pill, condom, withdrawal, or some other method. Some countries included additional nationally relevant items in the list (such as the so-called “morning-after pill” and “natural rhythm method”).

Condom use

Only 15-year-olds were asked whether they or their partners used a condom at their last sexual intercourse. The findings presented here show the proportions who reported “yes” to this question.

Pill use

Only 15-year-olds were asked what method(s) to prevent pregnancy had been used at their last sexual intercourse. The findings presented here show the proportions who reported that they or their partners used the contraceptive pill at their last sexual intercourse.

RESULTS

Condom use

Age

Data are presented for 15-year-olds only.

Gender

Prevalence of condom use was significantly higher among boys in around a third of countries and regions.

Family affluence

Overall, there was no strong association between condom use and family affluence, but this should be interpreted with caution as numbers in the low-affluence categories were small in many countries and regions.

Pill use

Age

Data are presented for 15-year-olds only.

Gender

Prevalence of pill use was significantly higher among girls in a minority of countries and regions.

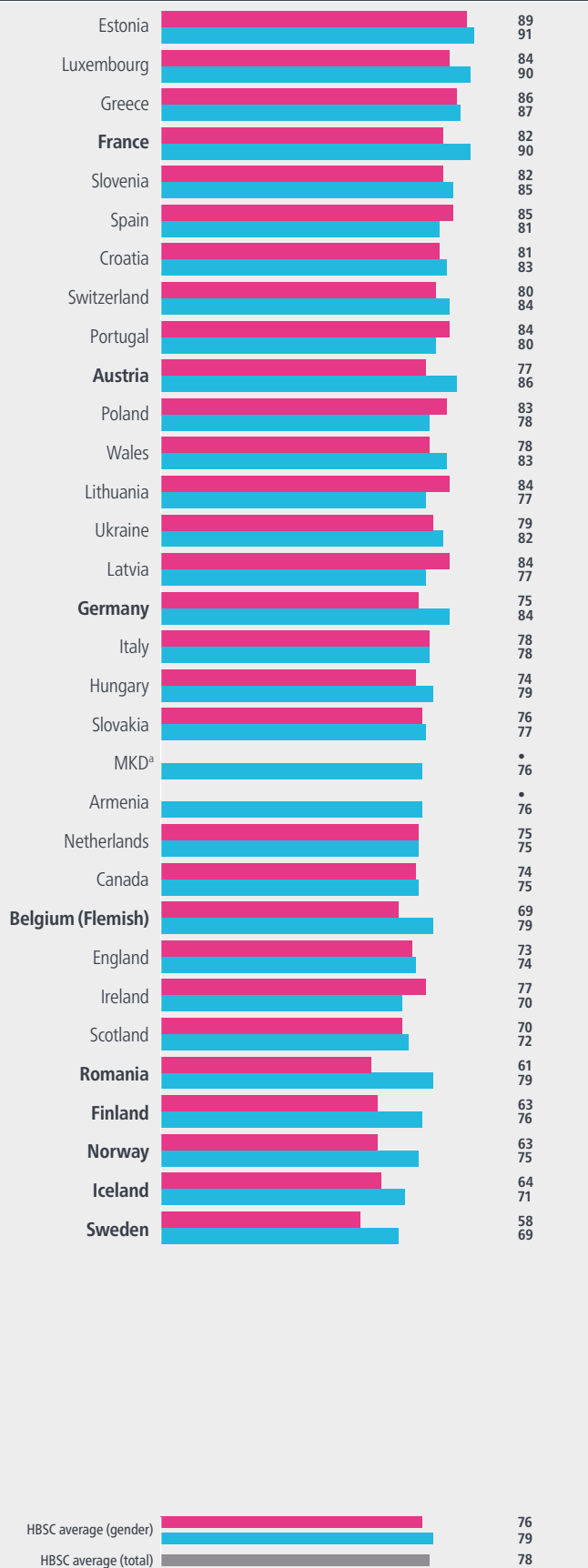
Family affluence

It was not possible to confirm significant associations between the pill use at last sexual intercourse and family affluence, as the numbers were too small to reliably identify statistical significance.

HBSC survey 2009/2010

15-year-olds who used a condom
at last intercourse

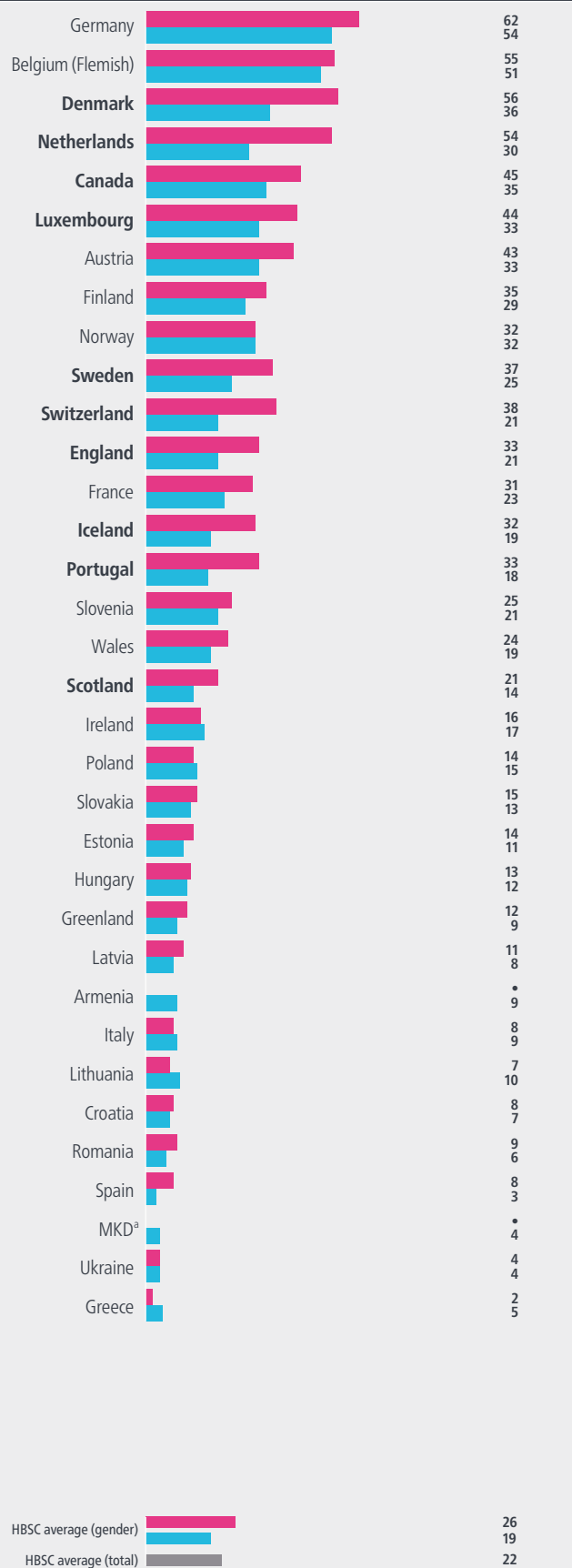
■ GIRLS (%)
■ BOYS (%)



HBSC survey 2009/2010

15-year-olds who used the
contraceptive pill at last intercourse

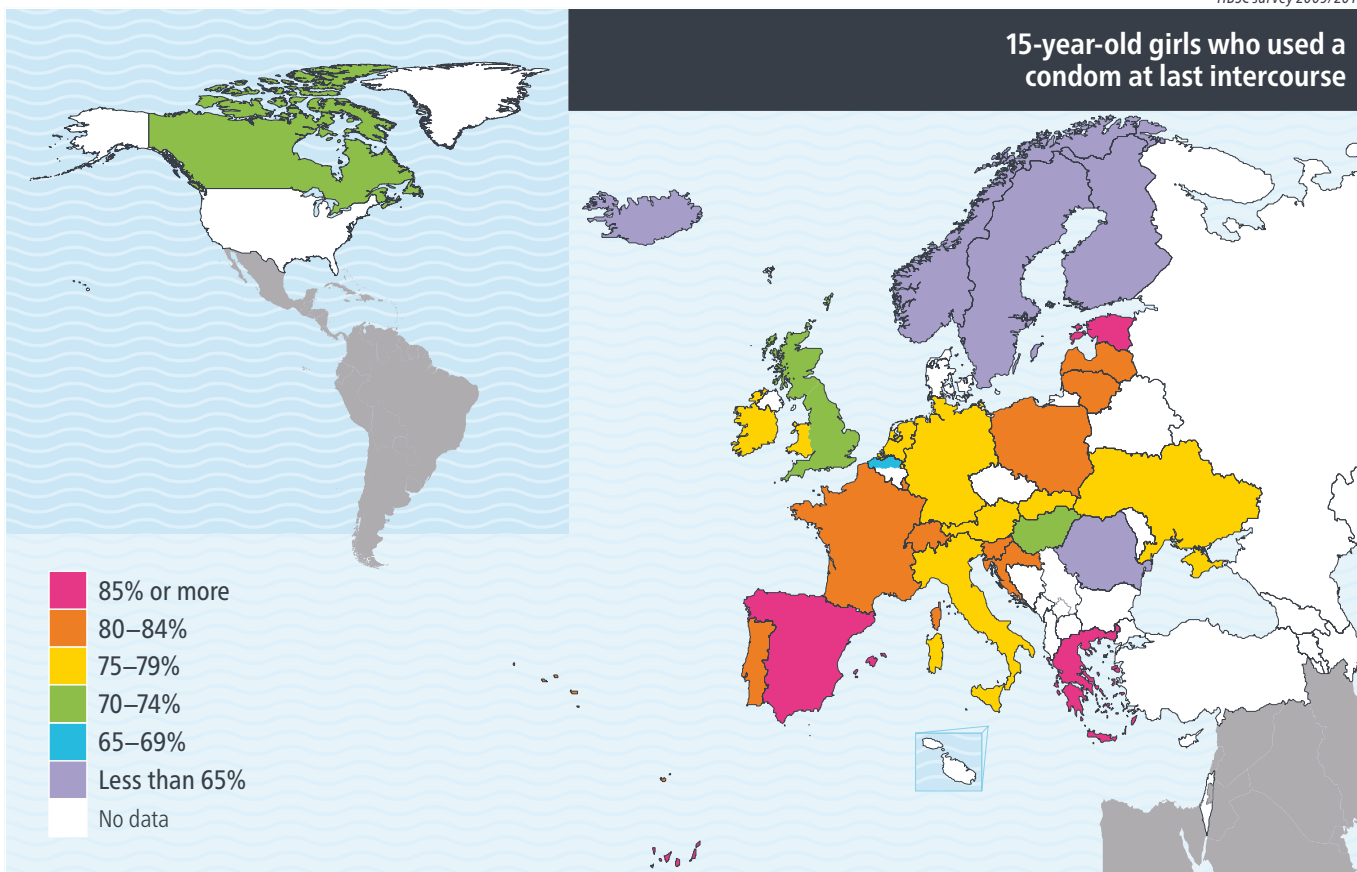
■ GIRLS (%)
■ BOYS (%)



^a The former Yugoslav Republic of Macedonia. Note. **Indicates** significant gender difference (at $p < 0.05$). No data for Belgium (French), Czech Republic, Denmark, Greenland, Russian Federation, Turkey and United States. Data not presented for girls in Armenia and girls in MKD as there were too few cases.

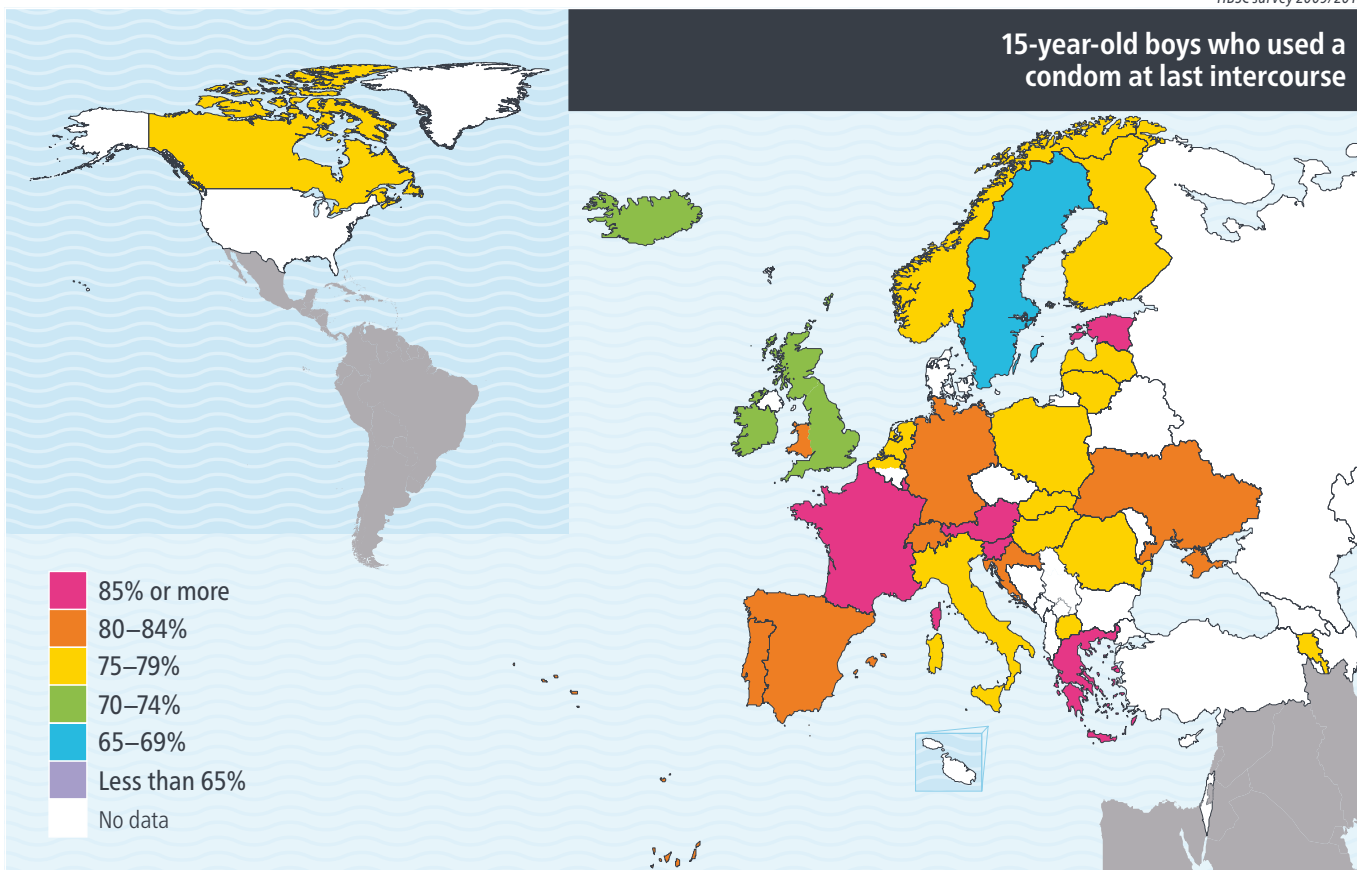
No data for Belgium (French), Czech Republic, Russian Federation, Turkey and United States.

HBSC survey 2009/2010



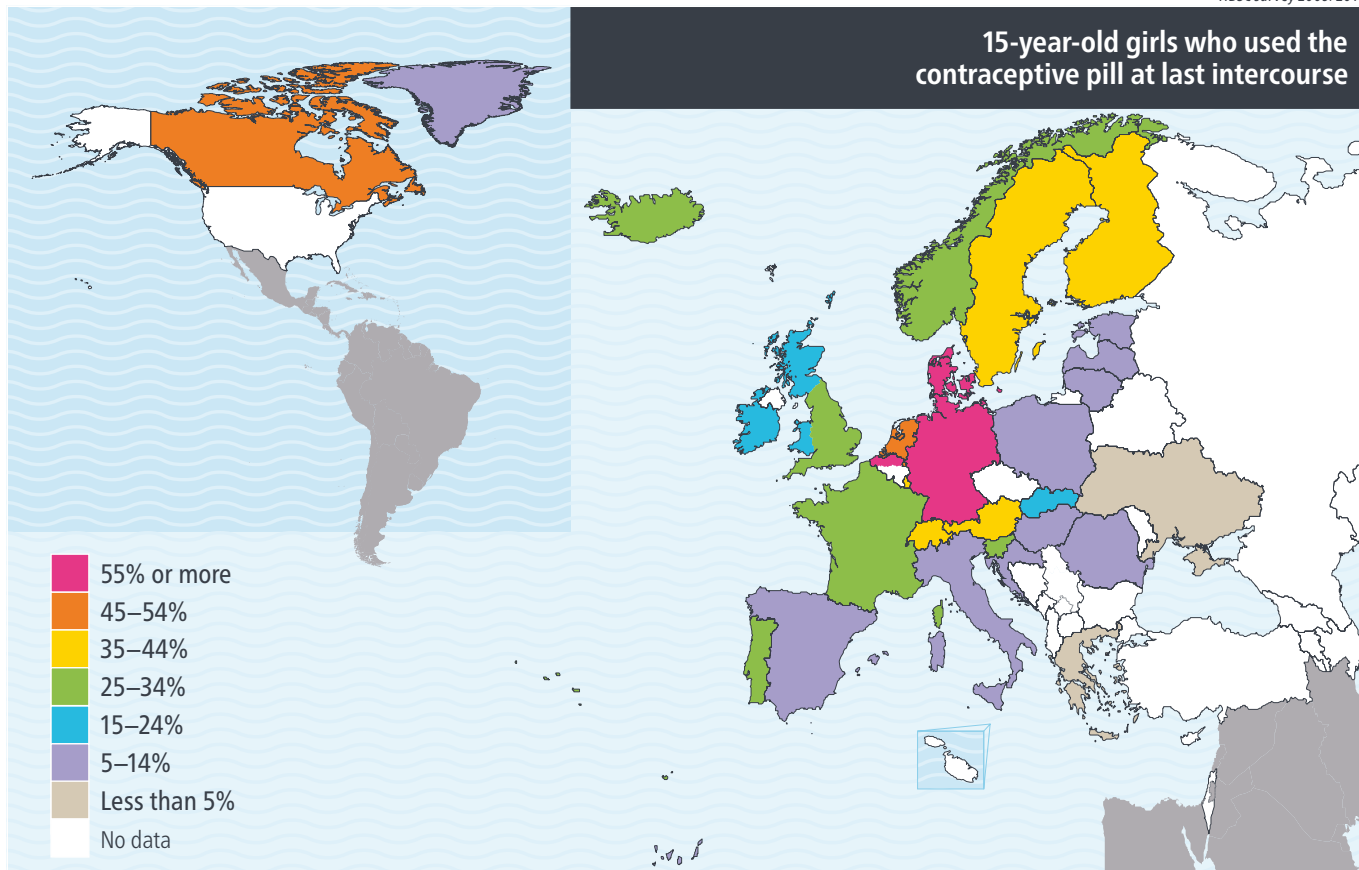
Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.

HBSC survey 2009/2010



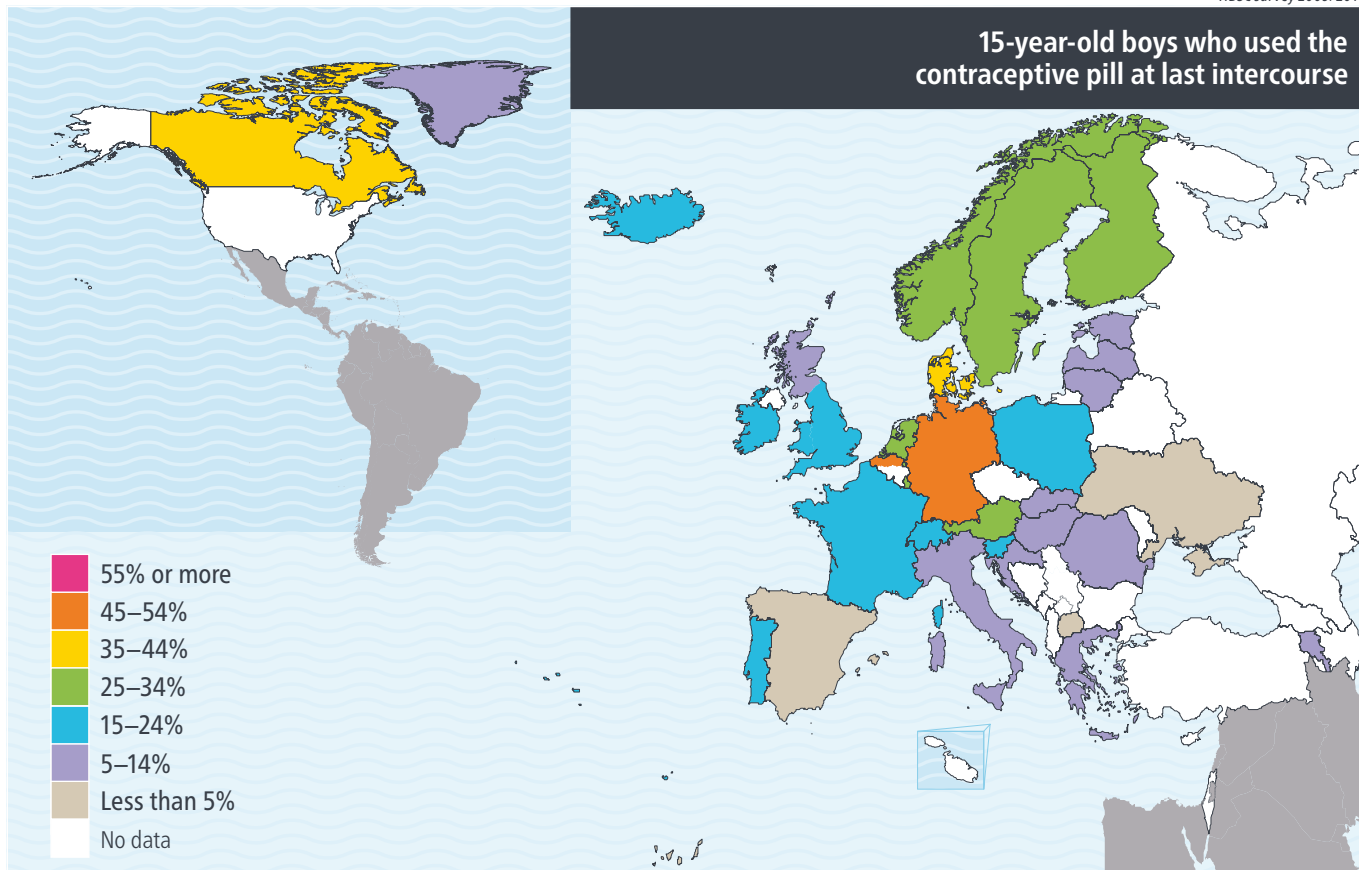
Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.

15-year-old girls who used the contraceptive pill at last intercourse



Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.

15-year-old boys who used the contraceptive pill at last intercourse



Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.

SEXUAL BEHAVIOUR: SCIENTIFIC DISCUSSION AND POLICY REFLECTIONS

SCIENTIFIC DISCUSSION

Experience of sexual intercourse

Much of the interest in adolescent sexual intercourse is driven by its serious consequences, which include STIs, unwanted pregnancy, abortion and negative psychosocial outcomes (1,2,13). Prevalence rates vary considerably across countries and cultures, as do gender differences. In many countries and regions, boys are still more likely to report sexual intercourse, but this is reversed in a few in northern and western Europe, perhaps reflecting an erosion in gender stereotypes (12,15).

Higher family affluence is associated with lower rates of sexual intercourse in only a few countries and regions. The association may be explained by better access to education and sexual health services (4,16), but family affluence is not a consistently strong predictor across countries.

Condom and pill use

The percentage of adolescents reporting condom use has increased in recent years (9), but a significant minority still reports non-use. This may be explained by young people lacking either access to or the necessary skills to buy or use condoms (8,9).

Boys are more likely to report condom use at last sexual intercourse, possibly as they feel less embarrassed buying and/or carrying them (17), but rates of use do not vary significantly between countries and does not appear to be associated with family affluence.

Contraceptive pill use remains low across countries and regions, with a clear geographic pattern. Rates are highest in northern and western Europe and lowest in southern and eastern Europe. Acceptance of sexual activity may be broader among those with higher pill use (linked to culture, religion, politics and economics), which enables better access to contraception and sexual health services for young people (12).

The tendency for girls to report use of oral contraceptives at last sexual intercourse more frequently may be explained by boys' not always knowing if their partners use the pill. Contraceptive-pill use is not associated with family affluence.

POLICY REFLECTIONS

Negative outcomes related to sexual health can be reduced if initiatives aim:

- to ensure that young people do not engage in sexual relationships before they are developmentally ready to do so; and
- to enable effective use of contraceptives.

Integrated programmes involving school, community and health care settings are most likely to be effective in reaching these goals (18).

Early implementation of comprehensive education on sex and relationships is recommended, as it is more likely to be effective if delivered before young people start sexual activity (19). Communication and negotiation skills to handle how and when first to engage in sexual relationships may form an important part of effective sex and relationships education, as these skills can enable young people to refrain from engaging before they are ready.

WHO has identified shortcomings in the availability and/or suitability of adolescent-specific health services in countries (18). Inequity in service provision based on age may prevent young people from seeking contraceptive advice before engaging in sexual activity, leaving them at risk. Services providing help and advice on the use of condoms and the contraceptive pill should be available to young people of all ages; the services should be accessible and confidential, with staff trained to meet the specific needs of adolescents (16).

Different messages may be needed for boys and girls within programmes that focus on the use of contraceptives, as reasons for and barriers to carrying and using condoms may differ between genders. Boys are more receptive to messages relating to HIV/AIDS, and girls are more likely to respond to pregnancy-prevention interventions (20).

In addition to comprehensive sex and relationships education and the provision of adolescent-friendly services, broad youth-development programmes that target social exclusion by developing self-esteem and providing educational support and vocational preparation are effective in countering potentially the negative outcomes of early sexual initiation (21).

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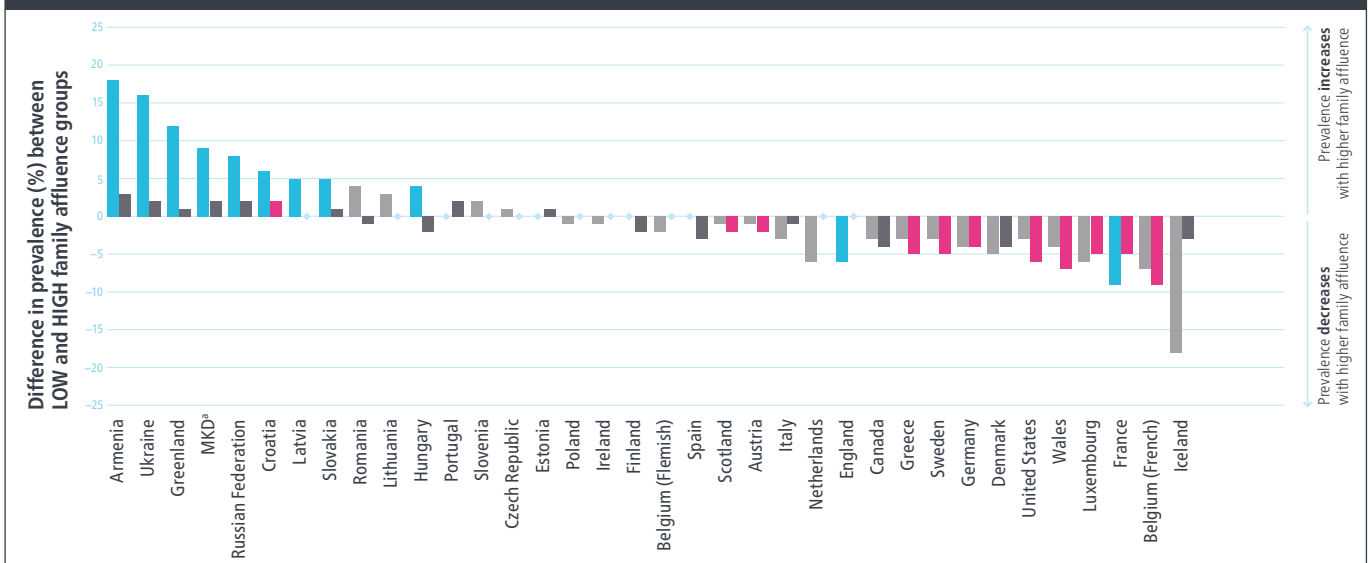
FIGHTING

Violence among young people is a major concern in most countries (1). Physical fighting is the most common manifestation of interpersonal violence and is associated with intentional injury, often requiring medical attention and hospitalization (2,3). It has consistently been found to be associated with substance use (3–5) and links have also been reported with weapon carrying and injuries (6,7). Children involved in fighting are more likely to report impaired life satisfaction, poor family and peer relationships (8) and poor school perceptions (9).

HBSC survey 2009/2010

Associations between family affluence and indicators of health, by country/region and gender:
FIGHTING THREE OR MORE TIMES IN THE LAST 12 MONTHS

BOYS
GIRLS SIGNIFICANT TRENDS



^a The former Yugoslav Republic of Macedonia. ♦ Indicates less than +/- 0.5%. Note. No data available for Norway, Switzerland and Turkey.

MEASURE

Young people were asked how many times during the last 12 months they had been involved in a physical fight. Response options ranged from "I have not been in a physical fight in the past 12 months" to "4 times or more". The findings presented here are the proportions of young people who reported fighting 3 times or more in the past 12 months, indicating a habitual behaviour.

RESULTS

Age

Prevalence of fighting declined with age in most countries and regions for boys, and in a few for girls. The decline between ages 11 and 15 was less than 10% in most countries and regions for boys and less than 5% in most for girls.

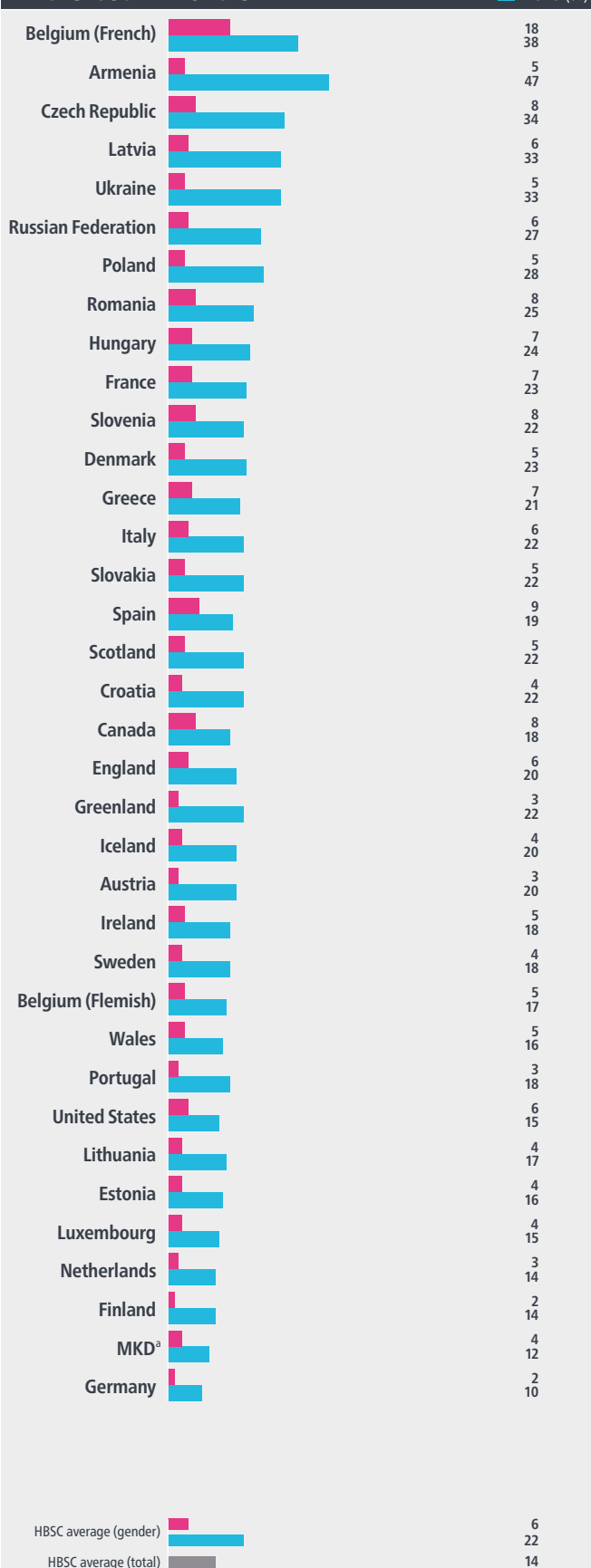
Gender

Girls at all ages were significantly less likely to report fighting in almost all countries and regions. The gender difference among 15-year-olds exceeded 10% in around half.

Family affluence

There was a significant association between increased prevalence and lower levels of family affluence for girls in a few countries, while prevalence was higher among boys from more affluent families in a small number. Differences tended to be 10% or less, with a few exceptions.

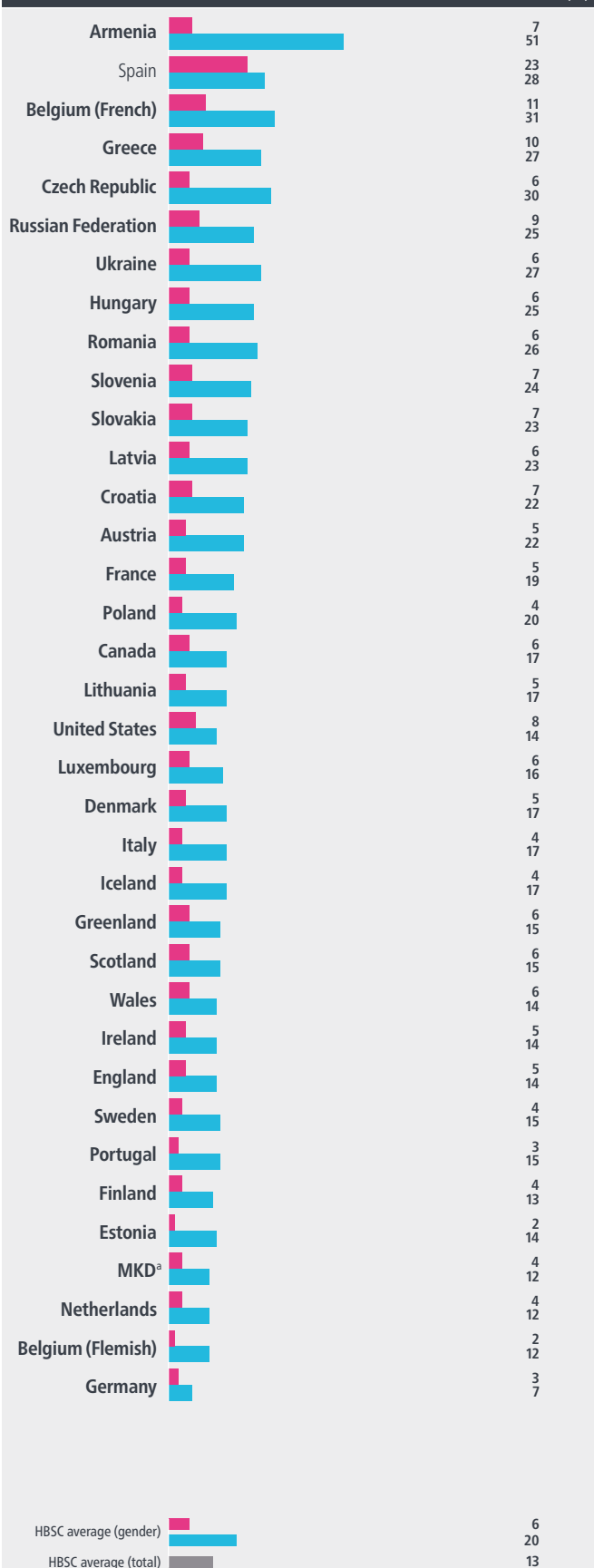
11-year olds who have been involved in a physical fight at least three times in the last 12 months



^a The former Yugoslav Republic of Macedonia.

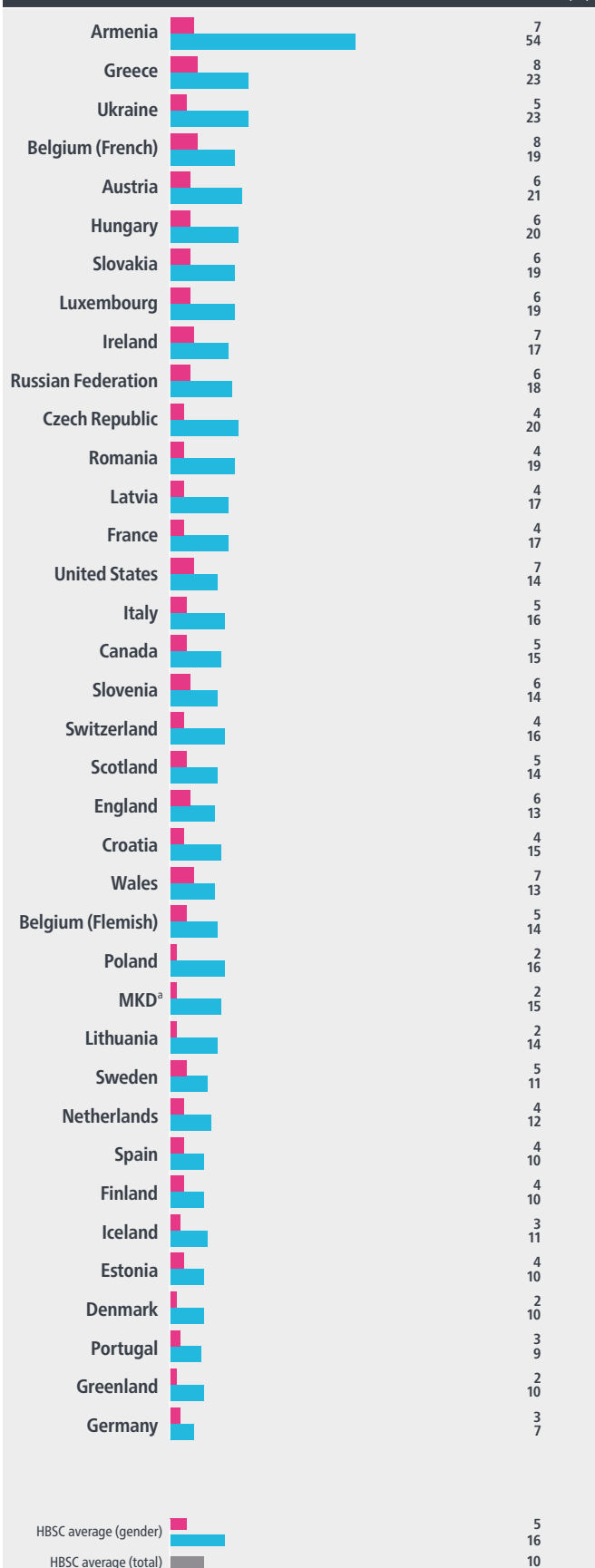
HBSC survey 2009/2010

13-year olds who have been involved in a physical fight at least three times in the last 12 months



HBSC survey 2009/2010

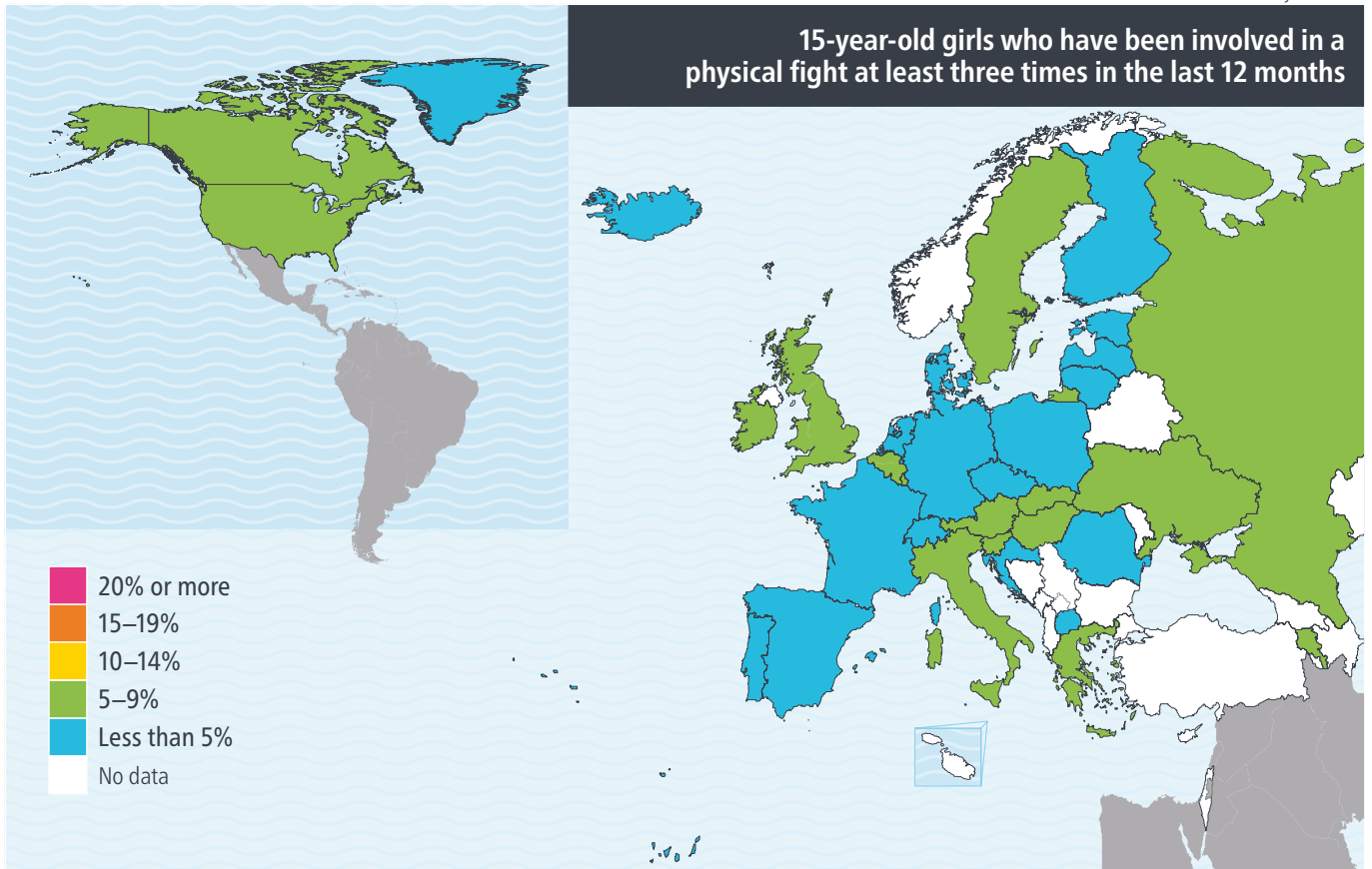
15-year olds who have been involved in a physical fight at least three times in the last 12 months



Note. **Indicates** significant gender difference (at $p < 0.05$).

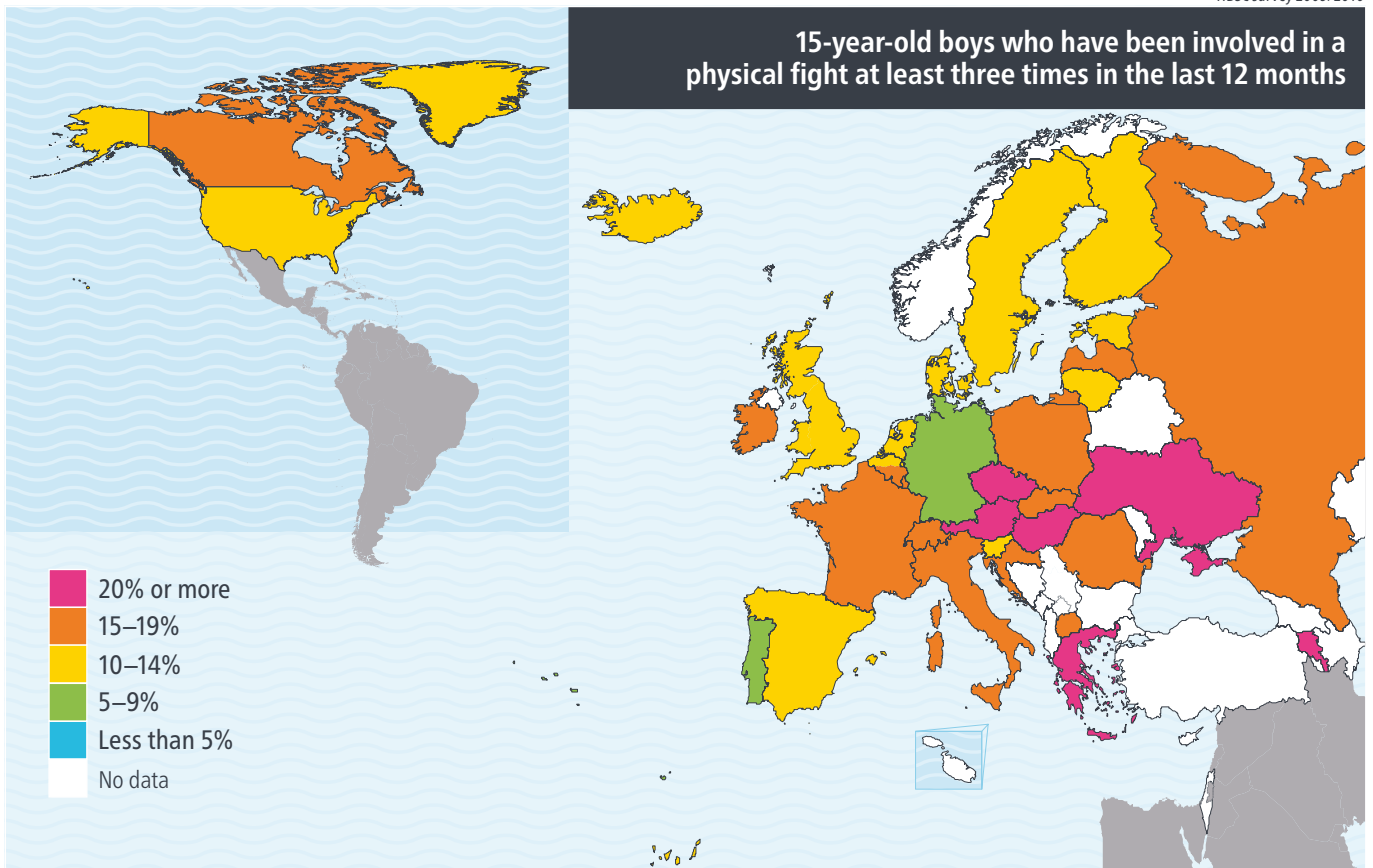
No data for Norway and Turkey (all ages) and Switzerland (11-year-olds and 13-year-olds).

HBSC survey 2009/2010



Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.

HBSC survey 2009/2010



Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.

FIGHTING: SCIENTIFIC DISCUSSION AND POLICY REFLECTIONS

SCIENTIFIC DISCUSSION

Around 25% of boys and 7% of girls reported that they have been involved in a physical fight at least three times in the last year. Observed gender differences show that boys are involved three times more than girls across all countries and within each age group. Prevalence of reported physical fighting in most countries is lower among 15-year-olds than those aged 11 and 13.

These findings are consistent with previous research (5,10,11) in suggesting that girls are less involved in physical violence and that children engage in emotional and verbal, rather than physical, violence as they grow older. Executive functioning (the cognitive process that regulates an individual's ability to organize thoughts and activities, prioritize tasks, manage time efficiently and make decisions) provides a possible explanation for observed gender and age differences, but the literature is equivocal about the link between deficits in executive-functioning skills and involvement in risk-taking behaviours (12). Other explanations include possible differences in cultural and societal acceptance of boys' and girls' fighting and biological differences related to testosterone levels and aggression (6).

POLICY REFLECTIONS

Fighting is more common in younger age groups. Older children may become involved in more subtle, socially acceptable and less visible types of violence, such as verbal and emotional abuse (11). Prevention efforts should therefore consider:

- interventions that promote the development of verbal and social skills at an early age to improve the chances of dealing with conflict in non-violent ways; and
- the further development of school-based programmes that have been found to be effective in reducing fighting among adolescents (13,14).

Observed cross-national differences in physical fighting could be attributable to national differences in prevention efforts and in the acceptability of violent behaviours. Further exploration of policy and societal contexts within which fighting takes place may be useful in defining the conditions required to minimize its occurrence.

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BEING BULLIED AND BULLYING OTHERS

Bullying is the assertion of interpersonal power through aggression (1). It is defined as negative physical or verbal actions that have hostile intent, cause distress to victims, are repeated and involve a power differential between perpetrators and victims (2,3). Power relationships become consolidated with repeated bullying: bullies increase their power, and victims lose theirs. Young people who are being bullied become increasingly less able to defend themselves.

Victims are likely to experience a range of problems, such as depression and anxiety (which can lead to suicide in extreme cases) (2,4), and are more likely to report internalizing issues, socially withdrawn behaviours and school difficulties (refusal, underachievement and dropout) (5). Being bullied is associated with lowered ability to make friends and loneliness (6), poor school perceptions (7), psychosomatic symptoms (8) and higher levels of substance use (9). The effects are acute but may also persist into later adolescence and adulthood (10,11), with a recent review suggesting that victimization from bullying at school significantly increases the likelihood of depression in adulthood (12).

Students who bully others report elevated rates of health-risk behaviours such as smoking and excessive drinking (13), weapon carrying, fighting and being injured through fighting (14). They also report disconnectedness with parents and negative school perceptions (15). The use of power and aggression in so-called playground bullying may be an indicator of future sexual harassment, marital aggression, child abuse and elder abuse (7) and is possibly a marker for future delinquency (16,17).

MEASURES

Being bullied

Olweus (18) originally developed the questions on bullying. Young people were asked how often they had been bullied at school in the past couple of months. The question was preceded by the following definition of bullying (18):

We say a student is being bullied when another student, or a group of students, say or do nasty and unpleasant things to him or her. It is also bullying when a student is teased repeatedly in a way he or she does not like or when he or she is deliberately left out of things. But it is not bullying when two students of about the same strength or power argue or fight. It is also not bullying when a student is teased in a friendly and playful way.

Response options ranged from "I was not bullied at school in the past couple of months" to "several times a week". The findings presented here show the proportions who reported being bullied at least twice a month at school in the past couple of months.

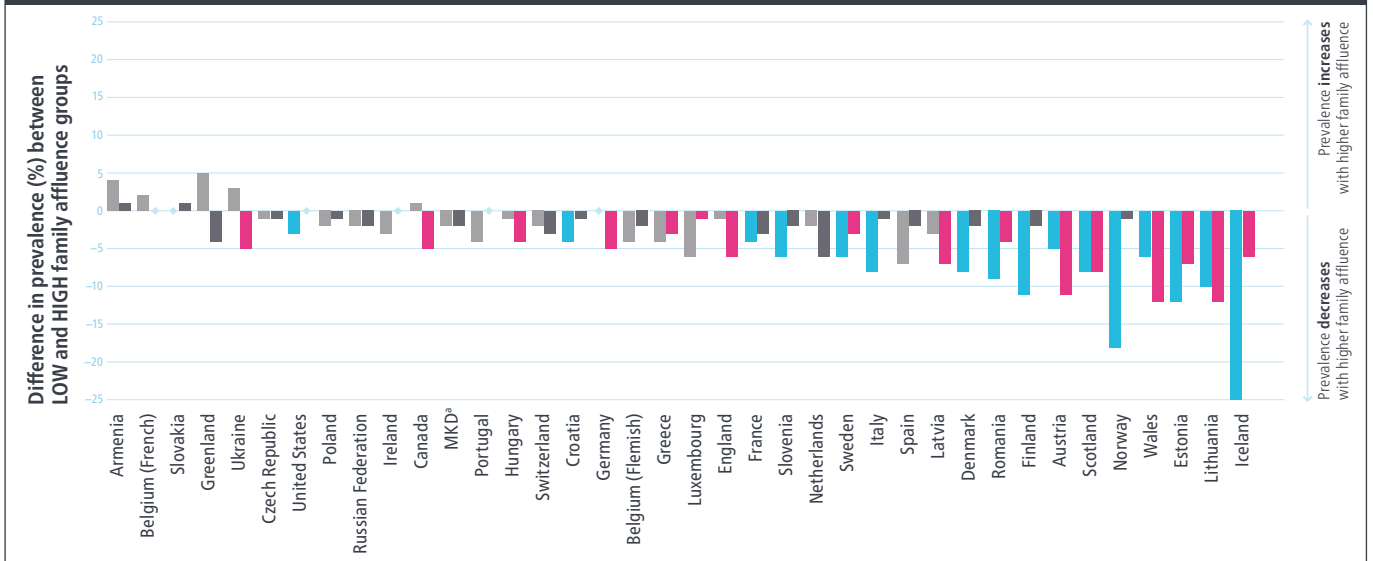
Bullying others

Young people were asked how often they had taken part in bullying (an)other student(s) at school in the past couple of months. The question was preceded by the Olweus definition (18). Response options ranged from "I have not bullied another student at school in the past couple of months" to "several times a week". The findings presented here indicate the proportions who reported bullying others at least twice a month at school in the past couple of months.

**Associations between family affluence and indicators of health, by country/region and gender:
BEING A VICTIM OF BULLYING AT SCHOOL AT LEAST TWICE A MONTH IN THE PAST COUPLE OF MONTHS**

BOYS
GIRLS

SIGNIFICANT
TRENDS

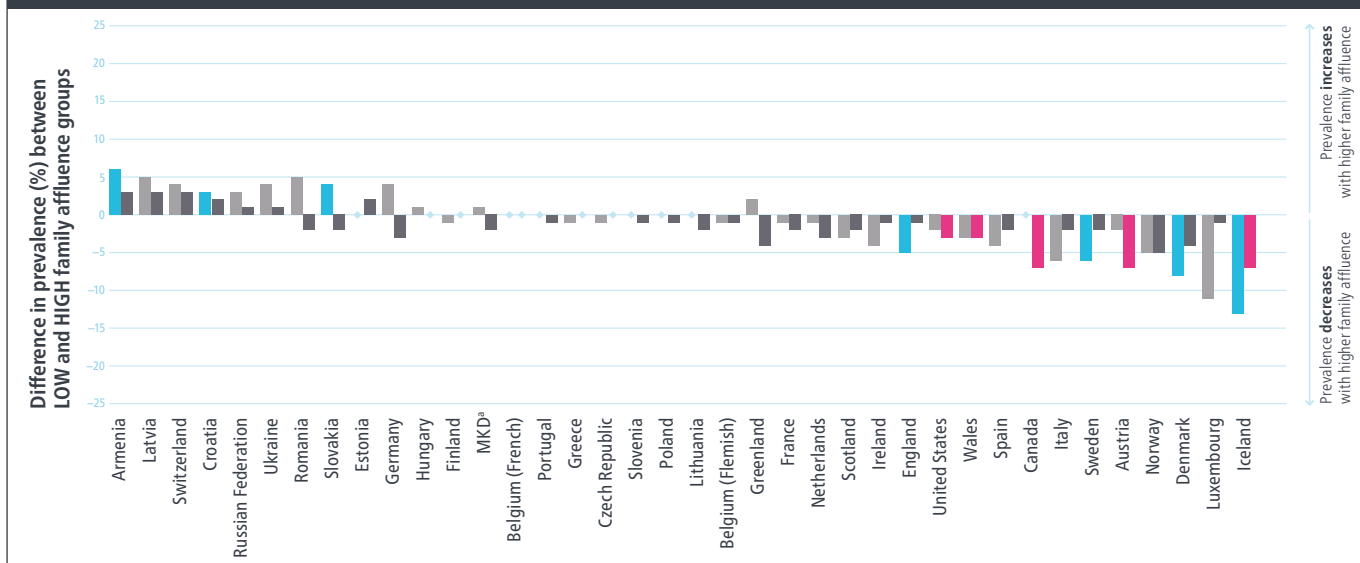


* The former Yugoslav Republic of Macedonia. ♦ Indicates less than +/- 0.5%. Note: No data available for Turkey.

Associations between family affluence and indicators of health, by country/region and gender:
BULLYING OTHERS AT SCHOOL AT LEAST TWICE A MONTH IN THE PAST COUPLE OF MONTHS

BOYS
 GIRLS

SIGNIFICANT TRENDS



^a The former Yugoslav Republic of Macedonia. ♦ Indicates less than +/- 0.5%. Note: No data available for Turkey.

RESULTS

Being bullied

Age

Prevalence declined between ages 11 and 15. Significant declines in prevalence were observed in most countries and regions among boys and girls, with the change usually being less than 10%.

Gender

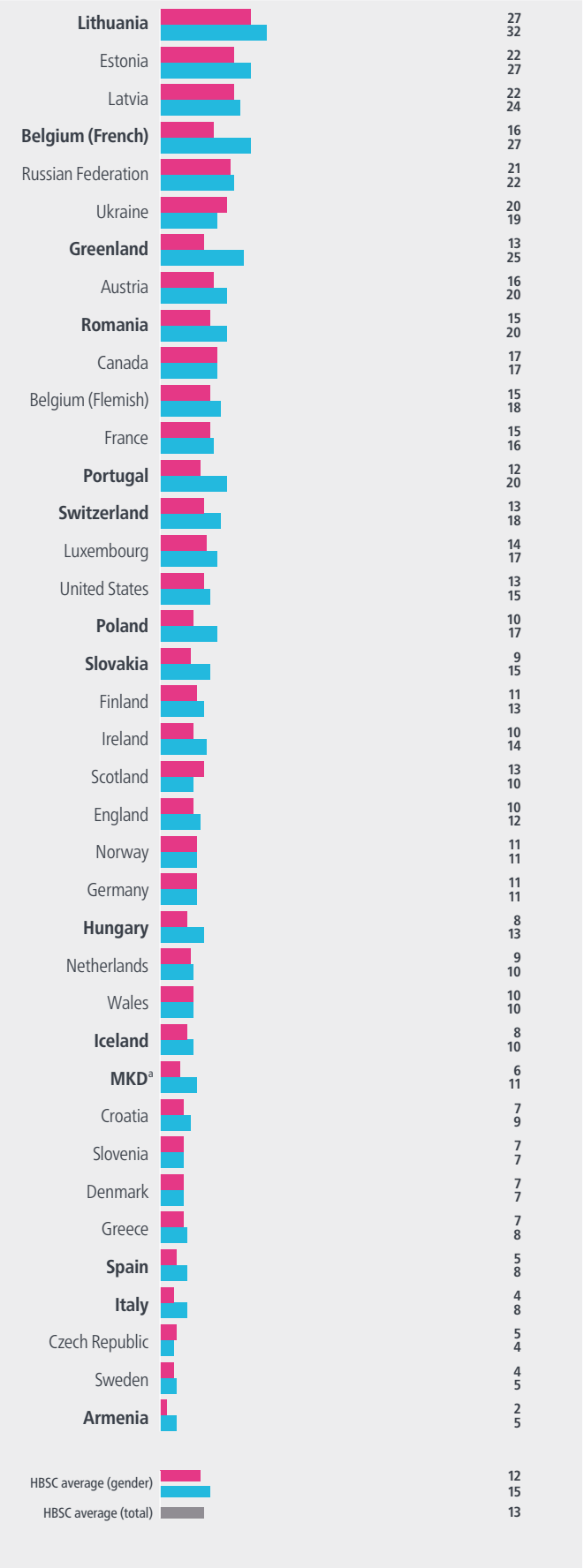
Boys were significantly more likely to report having been bullied in a minority of countries across each age group. Gender differences were usually less than 10%.

Family affluence

A significant association was found between lower levels of affluence and higher prevalence of being bullied in a minority of countries.

11-year-olds who have been bullied at school at least twice a month in the past couple of months

GIRLS (%)
BOYS (%)

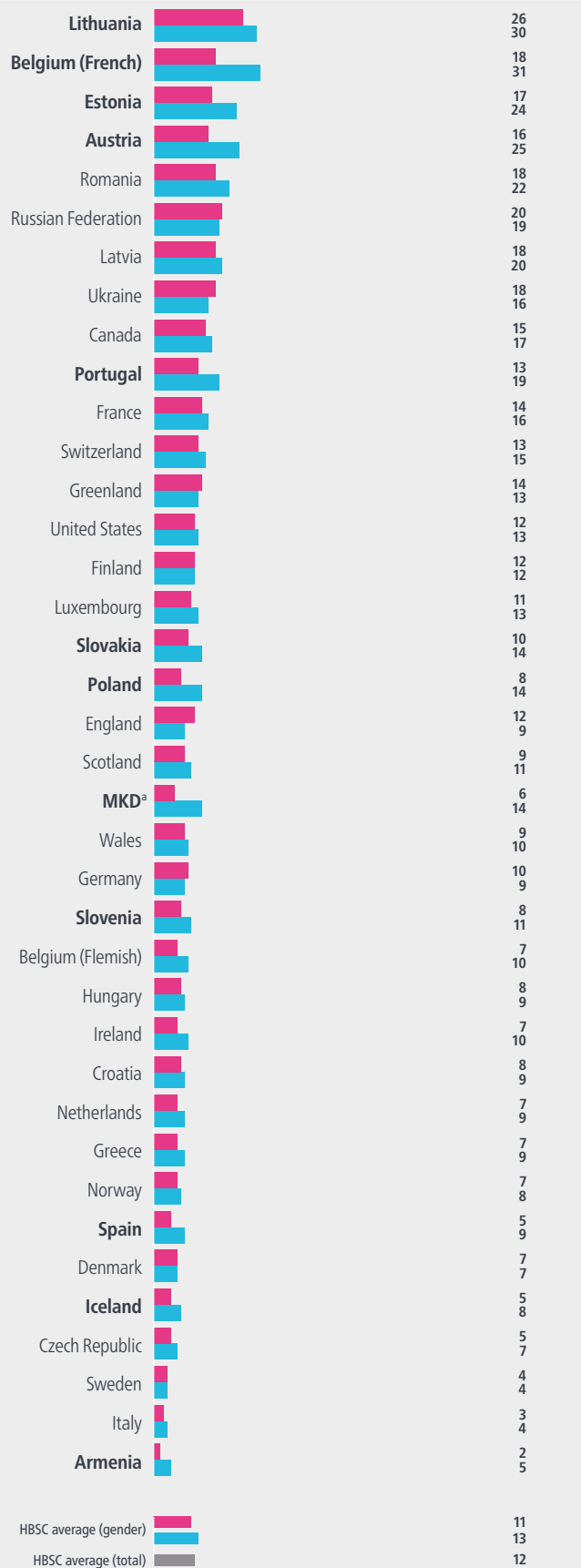


^a The former Yugoslav Republic of Macedonia.

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13-year-olds who have been bullied at school at least twice a month in the past couple of months

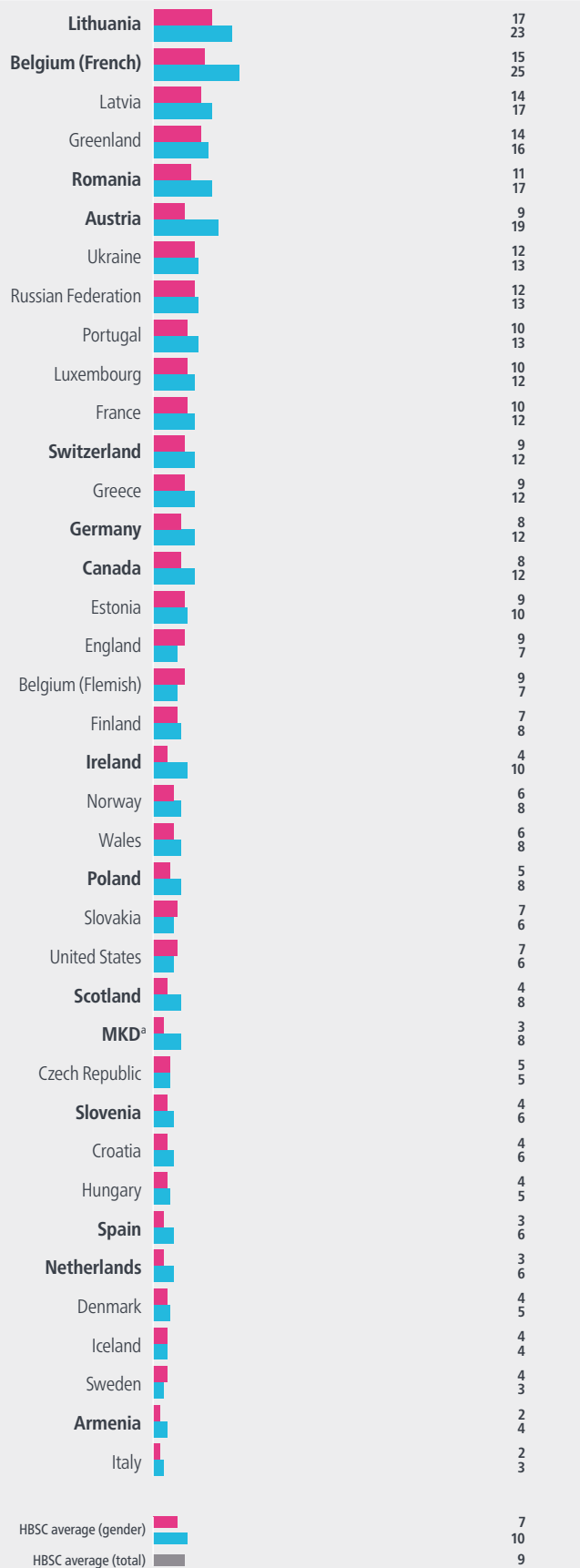
■ GIRLS (%)
■ BOYS (%)



HBS survey 2009/2010

15-year-olds who have been bullied at school at least twice a month in the past couple of months

■ GIRLS (%)
■ BOYS (%)



Note. **Indicates** significant gender difference (at $p < 0.05$). No data for Turkey.

RESULTS

Bullying others

Age

The reported prevalence of bullying others significantly increased in between ages 11 and 15 in around half of countries and regions for boys and in just under half for girls. This increase was relatively small in most countries and regions, particularly among girls, and was more than 10% in a few countries among boys.

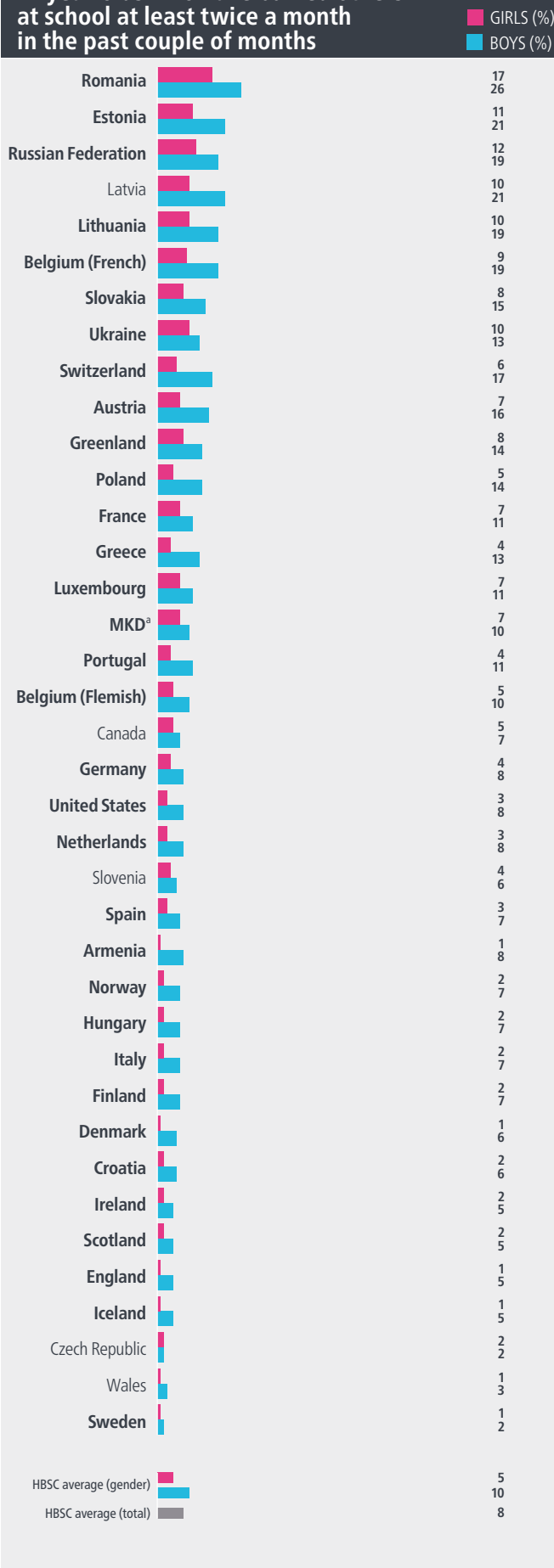
Gender

Boys were significantly more likely to report having bullied others. Almost all countries and regions showed this clear gender difference at all ages, with differences being greater than 10% in a few.

Family affluence

Increased prevalence was associated with lower family affluence in only a few countries.

11-year-olds who have bullied others at school at least twice a month in the past couple of months

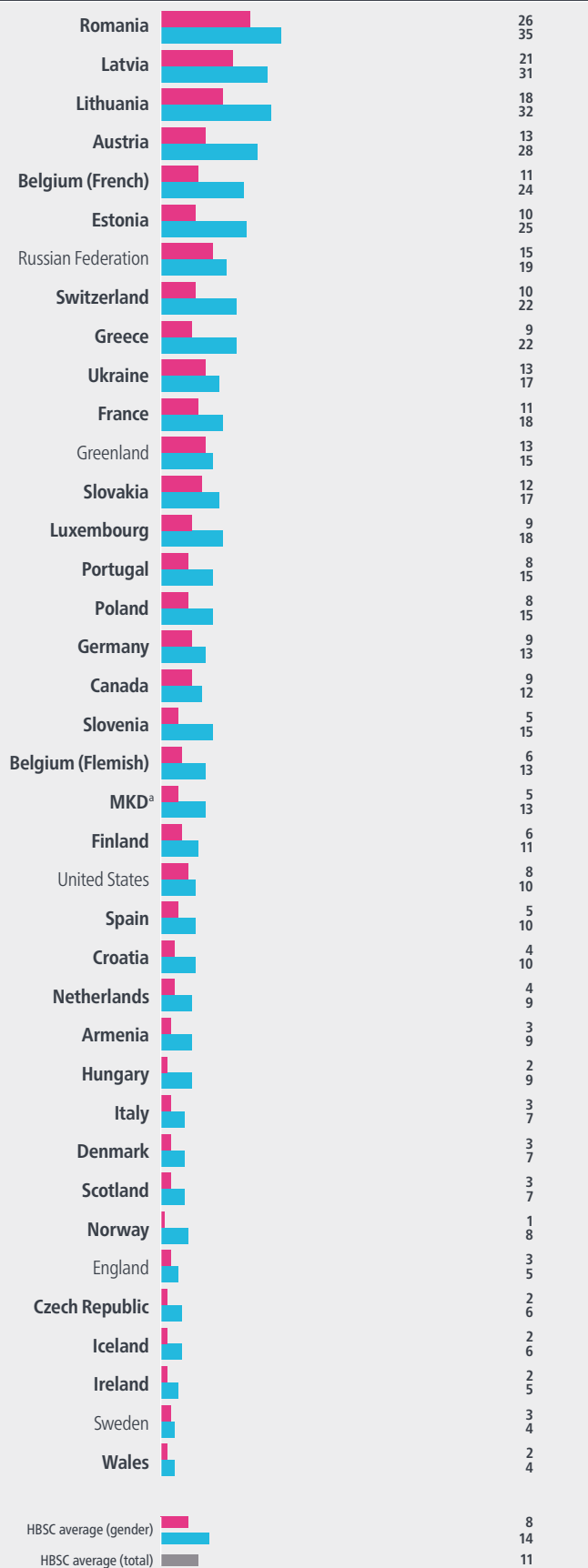


^a The former Yugoslav Republic of Macedonia.

HBSC survey 2009/2010

13-year-olds who have bullied others at school at least twice a month in the past couple of months

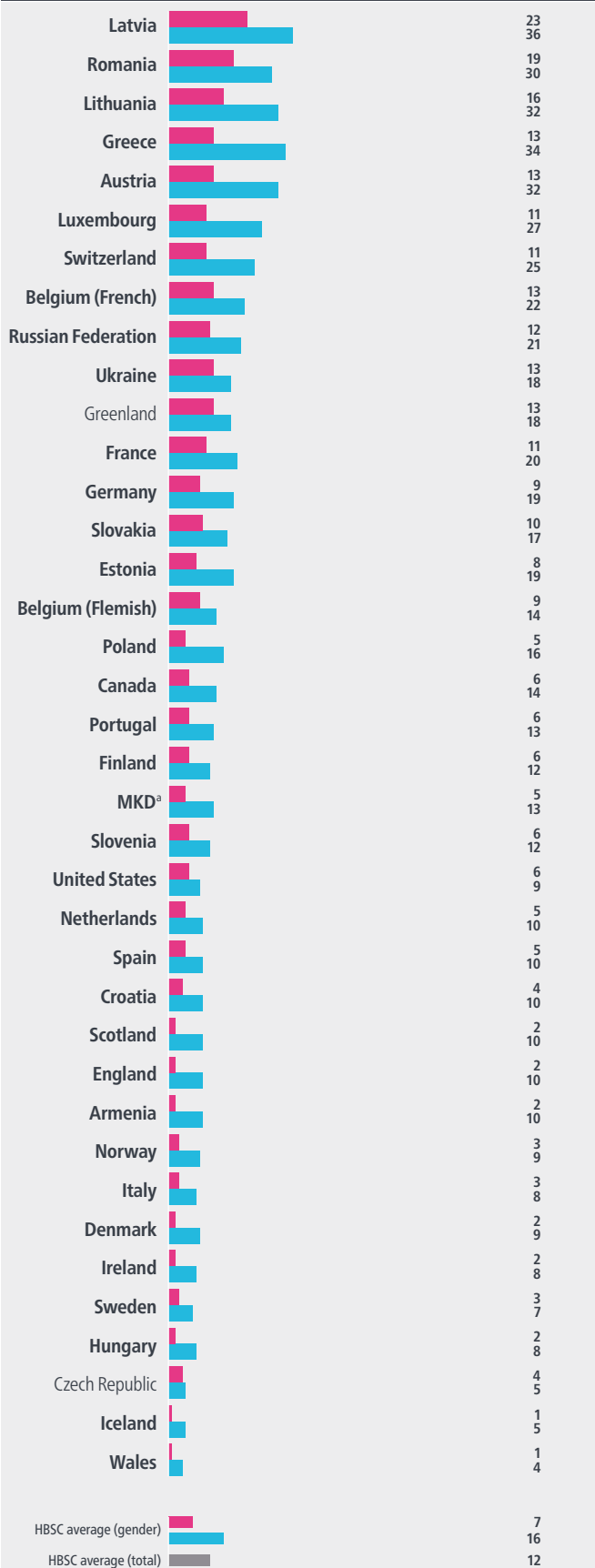
■ GIRLS (%)
■ BOYS (%)



HBSC survey 2009/2010

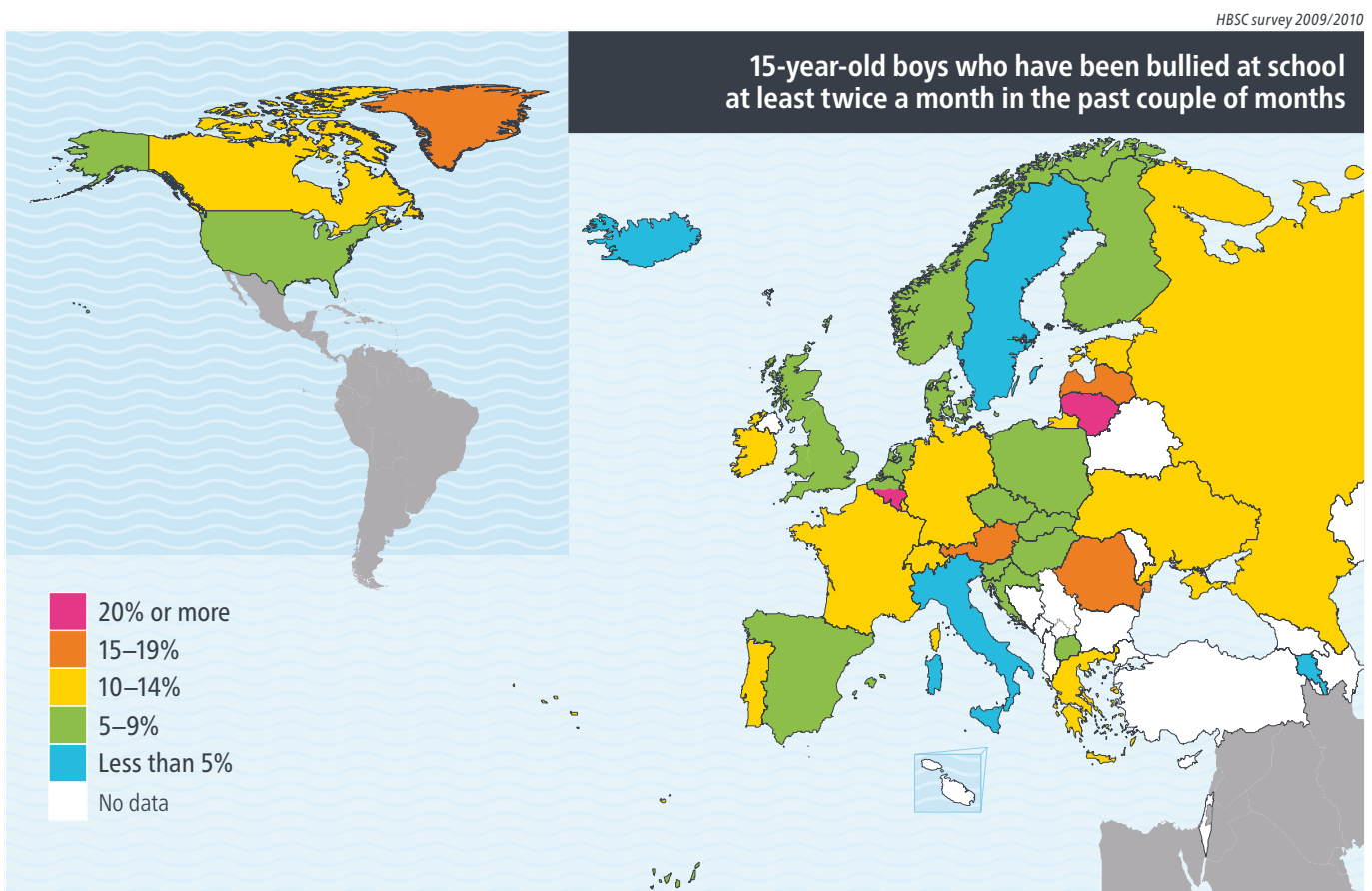
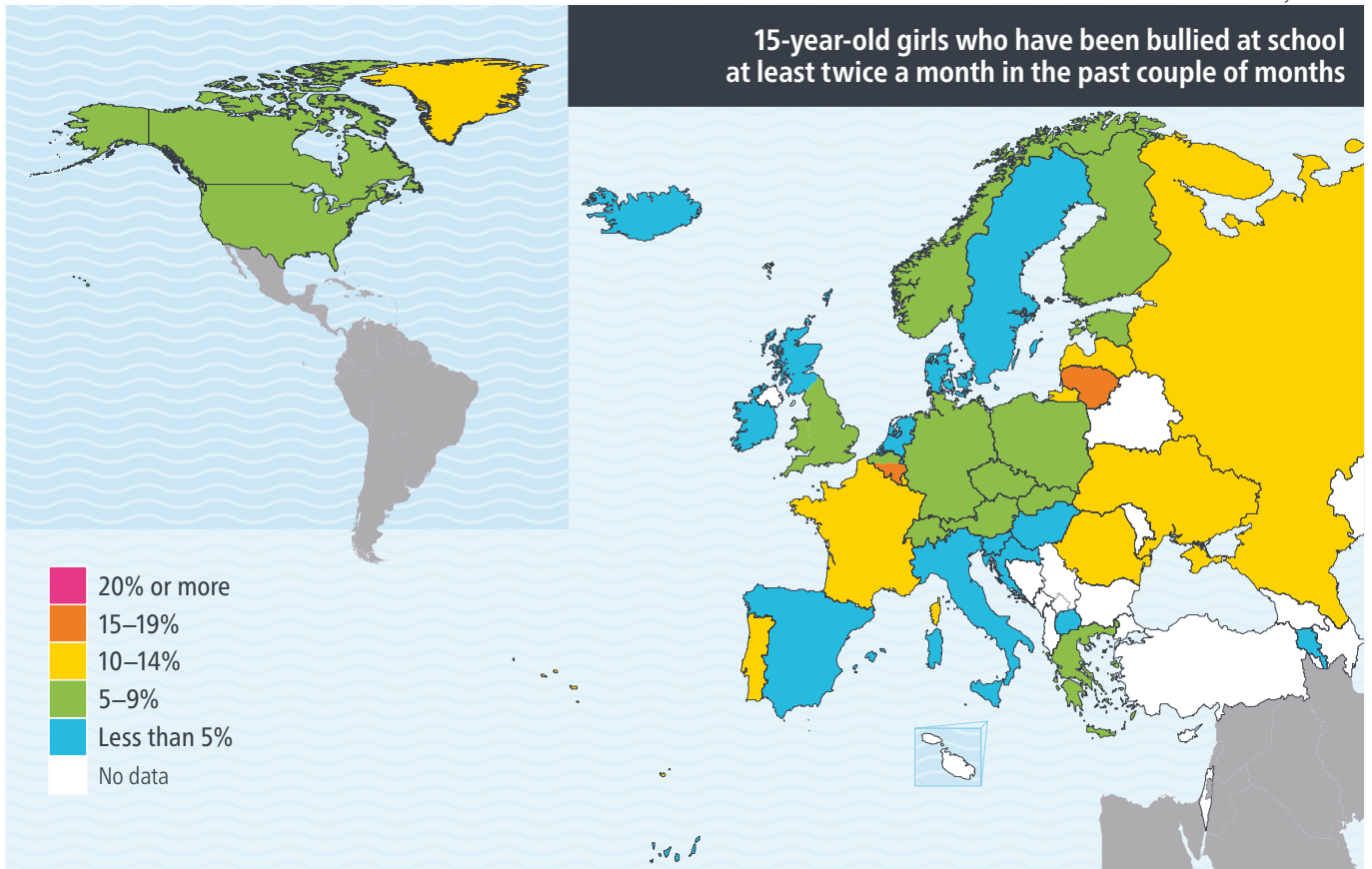
15-year-olds who have bullied others at school at least twice a month in the past couple of months

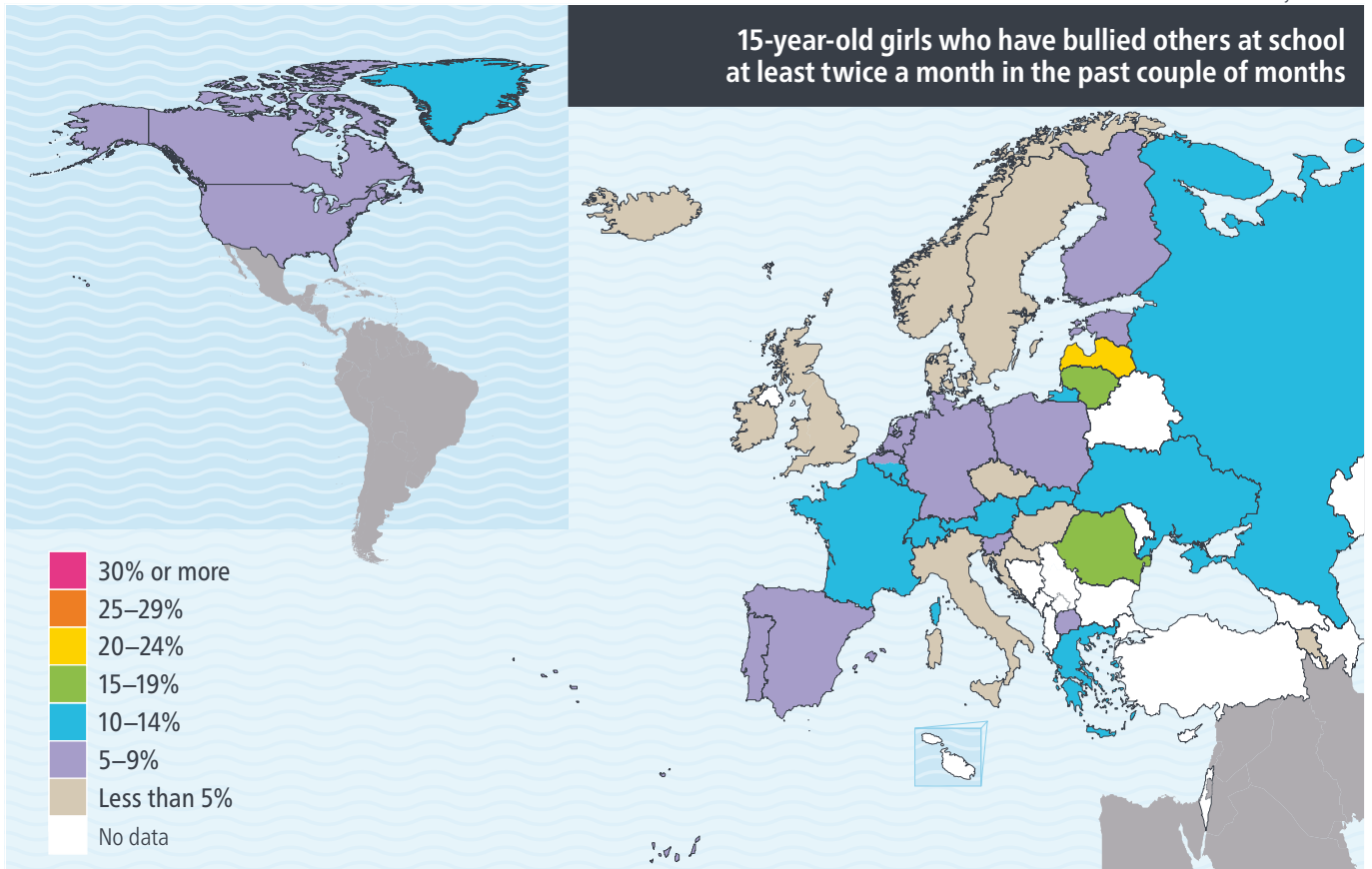
■ GIRLS (%)
■ BOYS (%)



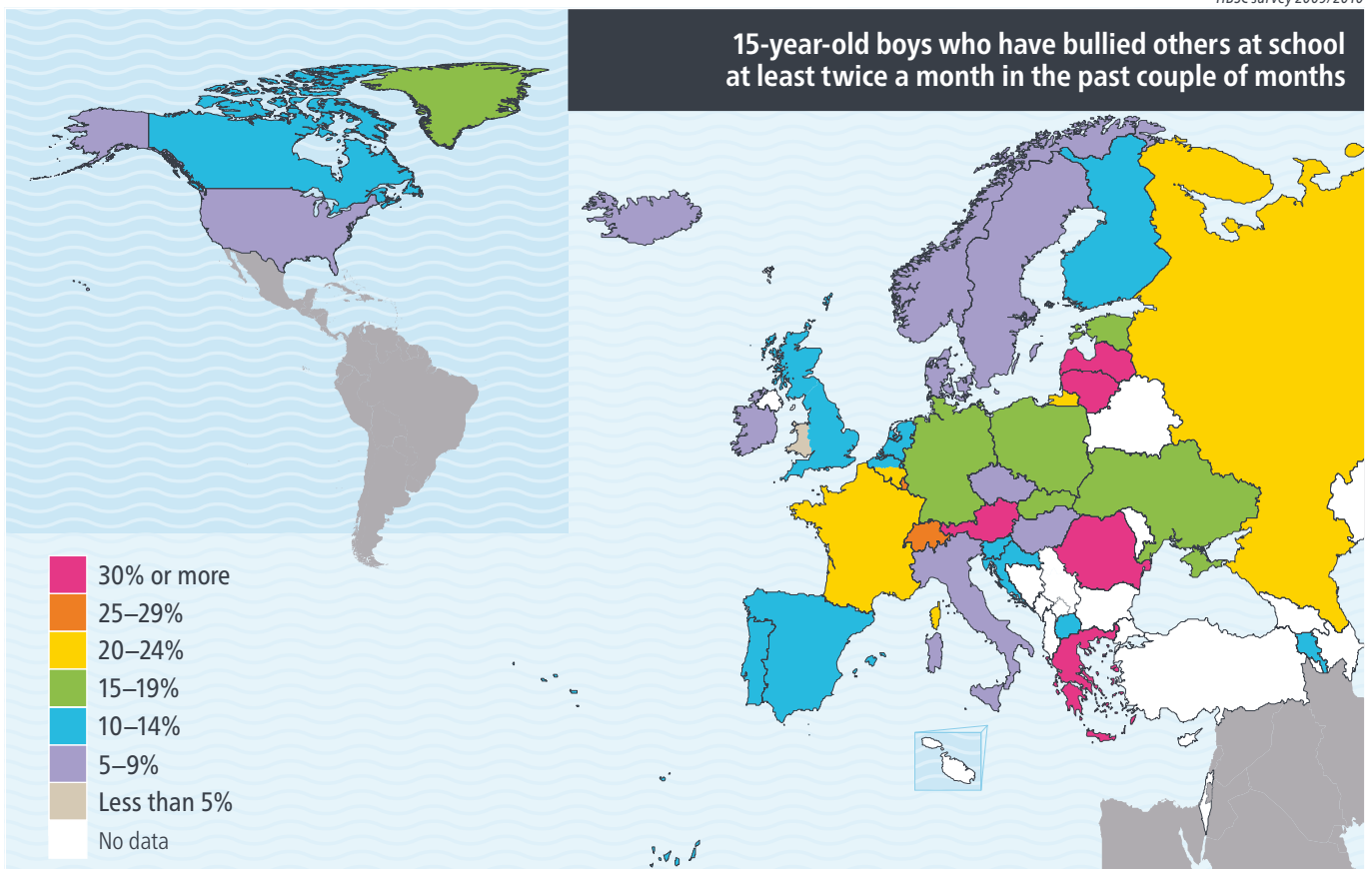
Note. **Indicates** significant gender difference (at $p < 0.05$). No data for Turkey.

HBSC survey 2009/2010





Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.



Note. HBSC teams provided disaggregated data for Belgium and the United Kingdom; these data appear in the map above.

BEING BULLIED AND BULLYING OTHERS: SCIENTIFIC DISCUSSION AND POLICY REFLECTIONS

SCIENTIFIC DISCUSSION

Bullying victimization and perpetration are prevalent behaviours among young people, but prevalence rates differ considerably across countries. This suggests that cultural factors may affect and influence its acceptability.

The finding that both victimization and perpetration are more common among boys confirms previous research. Boys and girls may be involved in different types of behaviours, however, with boys displaying more obvious physical expressions. Boys have been found to be more involved in physical, verbal and cyberbullying, with girls more inclined to relational bullying (19). Studies on more subtle and hidden methods may be necessary to better understand gender differences.

POLICY REFLECTIONS

Studies suggest that the prevalence of bullying is decreasing in most countries (14), possibly owing to continuing reduction efforts or changed attitudes and tolerance levels. The HBSC findings, however, show that prevalence remains high in some countries, suggesting the continuing need for prevention and intervention programmes.

Fairly consistent evidence suggests that school-based interventions can significantly reduce adolescents' bullying behaviour, with the opportunities for success being greatest if the intervention incorporates a whole-school approach involving multiple disciplines and the entire school community (20). Staff commitment to implementing the intervention plays a crucial role in its success (20). Curriculum-based interventions or targeted social-skills groups are less effective and may sometimes worsen bullying and victimization (20). Public health policies may play an important role in supporting the implementation of effective programmes at schools and in facilitating future research to identify factors that increase their effectiveness and cost efficiency.

The emergence of new types of bullying involving modern communication technologies, such as cyberbullying, means that prevention and intervention programmes are now challenged to cover a wider range of behaviours. Programmes on cyberbullying have been developed in recent years, including web-based psychoeducational programmes addressing parents, adolescents (victims and perpetrators) and educators. Their effectiveness has not yet been assessed: research on the effectiveness of prevention and intervention programmes on cyberbullying is therefore strongly encouraged (21).

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