World Health Organization

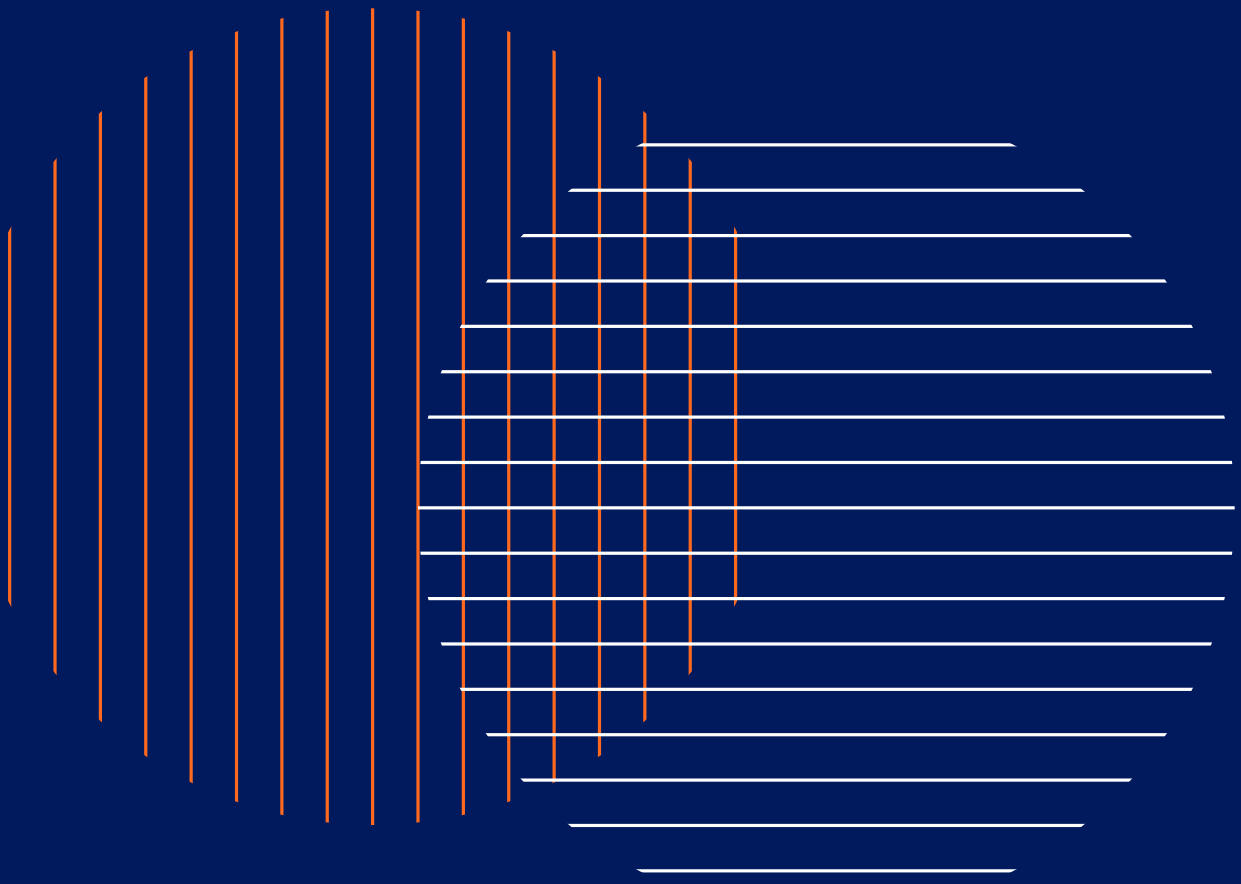
European Region

hbsc HEALTH BEHAVIOUR IN SCHOOL-AGED CHILDREN

A focus on adolescent mental health and well-being in Europe, central Asia and Canada

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

Volume 1



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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 1 in the series, focuses on adolescent mental health and well-being, using the unique HBSC evidence on the mental health of adolescents aged 11, 13 and 15 years across 44 countries and regions in Europe, central Asia and Canada. It describes the status of adolescent mental health and well-being across a range of indicators, the role of gender, age and social inequality, and how adolescent mental health and well-being 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
MENTAL HEALTH

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Contents

Foreword iv

Preface v

Acknowledgements vi

Key findings and implications vii

Introduction **1**

Insights into adolescent mental health **3**

- Self-rated health 3
- Life satisfaction 4
- Mental well-being 5
- Self-efficacy 6
- Individual health complaints 7
- Multiple health complaints 8
- Loneliness 12

Cross-cutting themes **14**

- The impact of age: progress through adolescence comes with a cost for mental health and well-being 14
- The role of gender: girls generally report worse mental health than boys 15
- Social inequalities: poorer mental health and well-being among less affluent adolescents 15
- Cross-national/regional variations 16

Policy implications **17**

Conclusions **19**

HBSC study **20**

References **21**

Annex. Key data **22**

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 COVID-19 pandemic and, more specifically, the mitigation measures put in place by countries 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, which focuses on findings from the HBSC survey on adolescent mental health and well-being, highlights the challenges adolescents face, their perceptions of satisfaction with life and their overall sense of well-being.

While results varied widely across the countries and regions, the general picture since the HBSC survey in 2014 is of declines in adolescents' life satisfaction and perceptions of excellent health, and increases in multiple health complaints. Worryingly, the well established gender differences in adolescent mental health persist, with girls systematically reporting worse mental health than boys across all indicators. Socioeconomic inequalities were evident in the findings, showing that adolescents from high-affluence families generally reported better mental health and well-being.

This high-quality evidence shows there is much to do to restore and replenish the mental health and well-being of children and young people in our Region.

To this end, the Regional Office has prioritized this area of work under the Pan-European Mental Health Coalition and the WHO Athens Office on Quality of Care and Patient Safety. Our aim is to help countries improve the quality of child and adolescent mental health care and strengthen policy and service models.

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 mental health and well-being 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 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 1 in the series, focuses on adolescent mental health and well-being. It presents some challenging findings, with many countries and regions seeing worsening mental health and well-being, particularly among older girls.

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.

Jo Inchley
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Key findings and implications

Key findings

- Girls reported worse outcomes for mental health and well-being than boys across all outcomes included in the 2021/2022 Health Behaviour in School-aged Children (HBSC) survey.
- An increasing gender difference with age was observed for all the indicators examined.
- The proportion of adolescents who reported excellent health decreased with age. More boys than girls reported excellent health at ages 13 and 15 in nearly all countries and regions.
- Life satisfaction and mental well-being were higher among boys than girls across all three age groups in most countries and regions.
- Adolescents from more affluent families reported higher levels of life satisfaction and mental well-being across almost all countries and regions.
- Life satisfaction and self-rated health declined between the HBSC surveys in 2017/2018 and 2021/2022. This trend was more pronounced among girls.
- Girls consistently reported higher levels of loneliness than boys, except at age 11, where gender differences were found in six countries.
- Almost twice as many 15-year-olds (13% for boys and 28% for girls) than 11-year-olds (8% for boys and 14% for girls) reported feeling lonely in the last year.
- Girls reported more frequent health complaints than boys across all age groups.
- The prevalence of multiple health complaints increased with age, particularly among girls. At age 15, two thirds of girls reported experiencing multiple health complaints compared with just over a third of boys. This gender gap is the largest since 2013/2014.
- One third of adolescents (33%) experienced feeling nervous or irritable more than once a week in the last six months. One in four reported sleep difficulties (29%) and/or feeling low (25%). One in five (20%) reported having headaches more than once a week.
- The prevalence of 13- and 15-year-olds feeling low, having headaches and experiencing dizziness was twice as high for girls than for boys in most countries and regions.

Implications

- Adolescents have faced many challenges over the past four years, including the COVID-19 pandemic, that have had an impact on their mental health. The findings from the 2021/2022 HBSC survey provide an important evidence benchmark for interventions and policy-planning.
- Countries and regions can consider the benefits of investing in their national/regional programmes that aim to improve adolescent mental health, with a particular focus on gender, age and affluence.
- The persistent mental health concerns of 15-year-old girls across countries and regions highlight the need to implement targeted interventions in school curricula.
- Monitoring mental health and well-being in adolescents is paramount to further maintaining and promoting good mental health and preventing mental health problems.
- Placing schools at the centre of the delivery of mental health programmes will require more resources and training in most countries and regions, but it will also probably bring the greatest return on investment and create healthier children and adolescents who can look forward to a healthier future.

Introduction

Mental health is defined as "a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community"*(1)*. This definition places a holistic emphasis on individuals' ability to thrive and successfully adapt to their environment, thereby implying that mental health means more than just the absence of problems.

More than half of adult mental health disorders have their onset before or during adolescence *(2)*. It therefore is vital to understand young people's experiences of mental health during these critical developmental years – the challenges they face and their satisfaction with life and overall well-being.

Research emphasizes that contemporary cohorts of adolescents report poorer mental health than previous generations *(3,4)*. Girls and older adolescents generally report the worst mental health outcomes. At individual level, factors such as schoolwork pressure *(4)*, body image *(5)*, problematic social media use *(6)* and bullying victimization *(7)* have been identified as important predictors for mental health problems.

The COVID-19 pandemic has had a major impact on many aspects of adolescents' lives, including mental health, and research shows that the negative effects of the pandemic can be long-term *(8,9)*. Societal factors such as acceleration of climate change, migration, and economical and political instability have also affected this generation *(10,11)*.

The 2021/2022 Health Behaviour in School-aged Children (HBSC) survey provides unique evidence on the mental health of adolescents aged 11, 13 and 15 years across 44 countries and regions in Europe, central Asia and Canada. This report describes:

- the status of adolescent mental health and well-being across a range of indicators (see Table 1 and the Annex);
- the role of gender, age and social inequality; and
- how adolescent mental health and well-being has changed over time by examining changes since the HBSC survey of 2013/2014.

The biggest problem in young people in Slovakia in the area of health is, for sure, mental health. I feel that strongly in the circle of my classmates and my close circles in school.

Table 1. Mental health measures included in the report

Self-rated health[a]	Young people were asked to describe their health ("Would you say your health is …?"). Response options were excellent, good, fair and poor. Findings presented in the Annex show the proportions reporting their health as excellent.
Life satisfaction[a]	Young people were asked to rate their life satisfaction using a visual analogue scale. The Cantril ladder has 11 steps: the top indicates the best possible life and the bottom the worst. Respondents were asked to indicate the ladder step at which they would place their lives at present (from zero to 10). Mean life satisfaction is presented in the Annex.
Mental well-being[b]	Mental well-being was measured using the WHO-5 Well-being Index. Young people were asked how often over the last two weeks they had: felt cheerful and in good spirits; calm and relaxed; active and vigorous; woken up feeling fresh and rested; and felt their life was filled with things that interested them. Response options ranged from all the time to at no time. Average scores are presented in the Annex.
Self-efficacy[b]	Young people were asked how often they can find a solution to a problem if they try hard enough and how often they manage to do things they have decided to do. Response options ranged from never to always. Findings presented in the Annex show the proportions reporting always or most of the time.
Health complaints[a]	Young people were asked how often they had experienced the following symptoms in the last six months: headache; stomach-ache; back-ache; feeling low; feeling irritable or bad tempered; feeling nervous; difficulties in getting to sleep; and feeling dizzy. Response options for each symptom ranged from about every day to rarely or never. Findings presented in the Annex show the proportions reporting each individual complaint more than once a week and those with multiple (two or more) health complaints more than once a week in the last six months.
Loneliness[b]	Young people were asked how often they had felt lonely during the last year. Responses options were never, rarely, sometimes, most of the time and always. Findings presented in the Annex show the proportions reporting they felt lonely most of the time or always.

[a] Trend data are available for these indicators. [b] These indicators were first included in the 2021/2022 HBSC survey.

Insights into adolescent mental health

Self-rated health

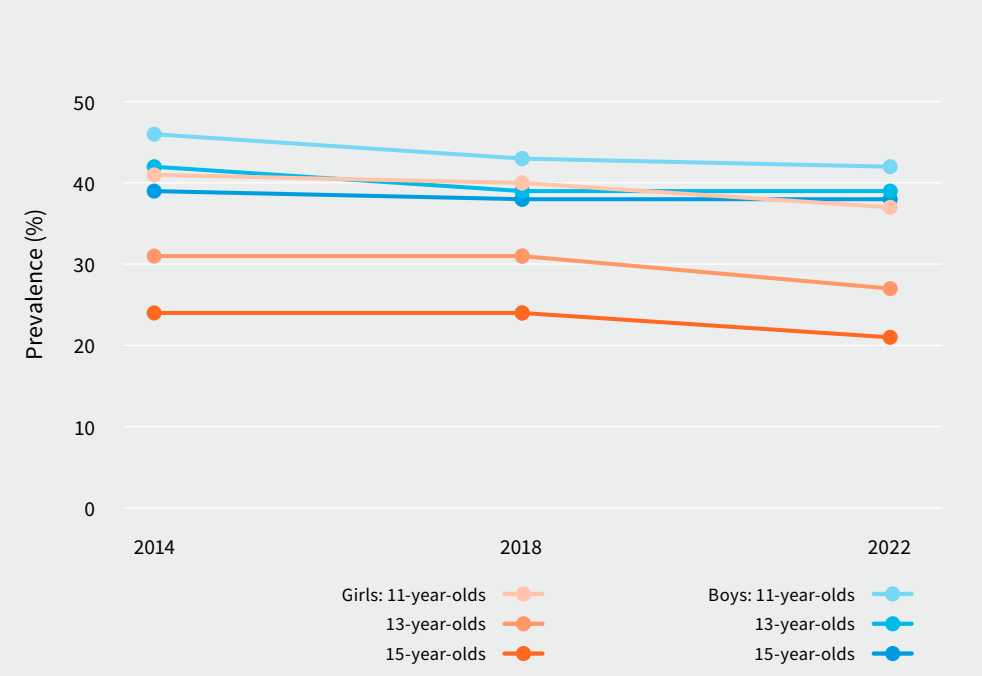
Overall, 36% of adolescents rated their health as “excellent”, but wide variations were seen by gender, age and country/region. Reported prevalence of excellent health declined with increasing age, particularly among girls. By age 15, only 23% of girls reported excellent health, compared to 40% of boys.

Boys at ages 13 and 15 were more likely to report excellent health than girls in nearly all countries and regions. The largest gender difference among 15-year-olds was in Denmark (43% boys, 20% girls) and the smallest in Bulgaria (48% boys, 40% girls).

In most countries, adolescents from wealthier (high-affluence) families were more likely to report excellent health than less affluent adolescents. No significant differences across both genders were found only in Denmark (Greenland) and Kazakhstan; no significant differences were found for boys in Armenia and Greece and for girls in Croatia, Ireland, Kyrgyzstan, North Macedonia, Norway, Poland, Slovakia, Slovenia and Switzerland.

Prevalence of excellent self-rated health was stable between HBSC surveys in 2014 and 2018, but a decrease was observed to 2022 (Fig. 1). The decrease over time was stronger for girls than boys. An overall decrease over time was seen for girls across all age groups.

Fig. 1. Trends in excellent self-rated health from 2014 to 2022 by age and gender (HBSC average)



Note: HBSC average for this figure does not include Cyprus, Kazakstan, Kyrgyzstan, Malta and Serbia, as data from these countries were not available for all three survey years.

Life satisfaction

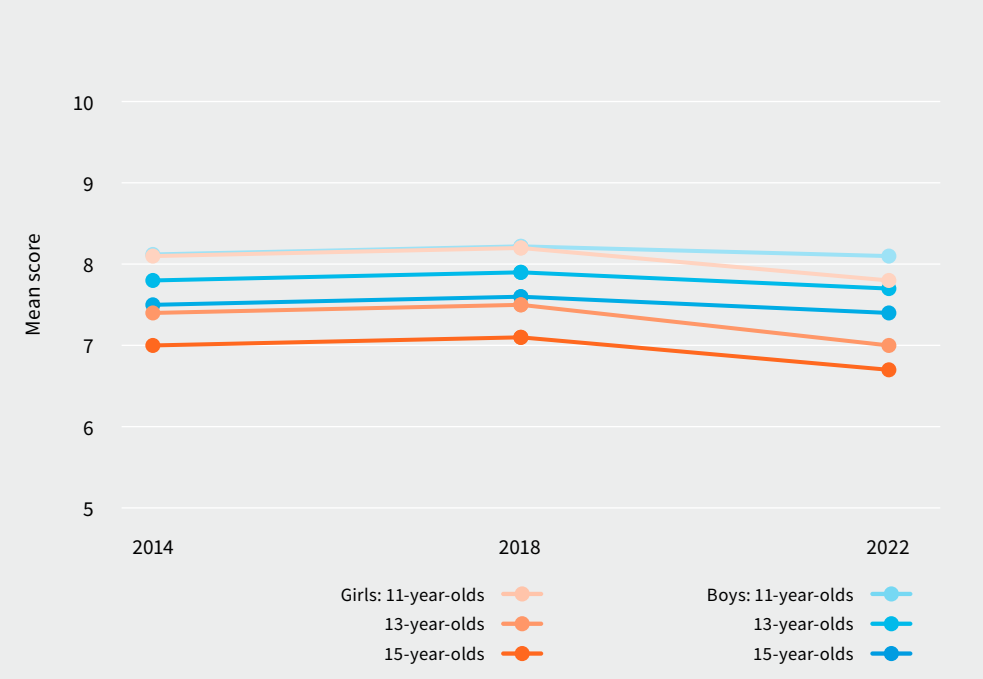
Overall, the average life satisfaction score across all countries and regions was 7.5 out of 10. Large cross-national/regional variation was seen, with average life satisfaction ranging from 9.2 in Albania (at age 11) to 6.0 in Slovakia (at age 15). Adolescents in Armenia, Kazakhstan, Kyrgyzstan and Serbia reported higher levels of life satisfaction, with the lowest levels being reported in Denmark (Greenland), Poland and United Kingdom (England).

Life satisfaction was higher among boys than girls in most countries and regions. The largest gender differences were observed in Greece, Finland, Lithuania, Poland, Sweden, Switzerland, United Kingdom (England) and United Kingdom (Scotland). Countries/regions with the highest overall levels of life satisfaction also had the smallest gender differences. Gender differences increased with age, with a peak at age 15 in over two thirds of countries and regions.

Adolescents from more affluent families reported higher levels of life satisfaction across almost all countries and regions (except Denmark (Greenland), Kazakhstan and Sweden). The largest differences between adolescents from high- and low-affluence families were observed in Austria, Bulgaria, Canada, Hungary and United Kingdom (England).

Overall mean life satisfaction decreased from 7.74 in the 2017/2018 HBSC survey to 7.47, although this follows a small increase between 2014 and 2018. The decrease in 2022 was larger for girls than boys (Fig. 2).

Fig. 2. Trends in life satisfaction (mean score) from 2014 to 2022 by age and gender (HBSC average)



Note: life satisfaction score ranges from zero to 10. HBSC average for this figure does not include Croatia, Cyprus, Kyrgyzstan, Kazakstan and Malta, as data from these countries were not available for all three survey years.

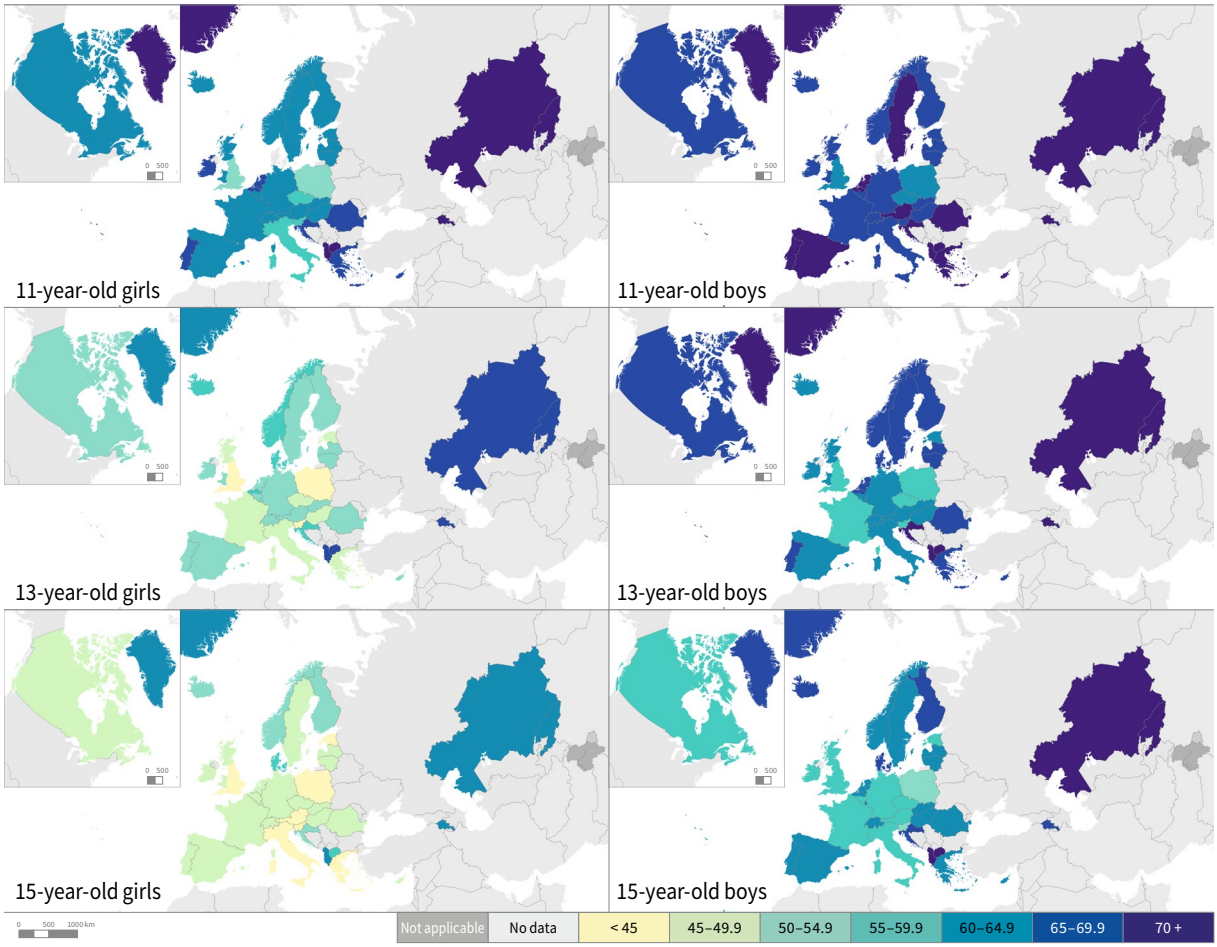
Mental well-being

Mental well-being was measured using the WHO-5 Well-being Index, with the overall average across countries and regions being 61.1 out of 100. The highest levels of mental well-being were reported in Albania, Armenia, Kazakhstan, Kyrgyzstan and North Macedonia and the lowest in Poland and United Kingdom (England). The average WHO-5 Well-being Index score decreased with age in almost all countries and regions across both genders, with exceptions being observed for boys in Denmark (Greenland), Finland and Iceland and for girls in Denmark (Fig. 3).

Mental well-being was higher among boys than girls across all age groups and in most countries and regions, with the exception of Armenia and the Republic of Moldova (age 11), Denmark (Greenland) (ages 11 and 15) and Denmark (age 15). The largest gender differences were observed among 15-year-olds, with Croatia, Greece and United Kingdom (England) having the largest gender differences at age 15.

Adolescents from more affluent families reported higher levels of mental well-being in most countries and regions. These differences were significant in all except Cyprus, Finland, Denmark (Greenland), Finland, Italy, Kazakhstan, the Republic of Moldova and Switzerland.

Fig. 3. Mental well-being (mean WHO-5 Well-being Index value) by country, age and gender



Note: WHO-5 Well-being Index score ranges from zero to 100. No data were available for Bulgaria, Serbia and Tajikistan (all ages) and Denmark (11-year-olds).

Self-efficacy

General self-efficacy was measured with two items: how often a person finds solutions to problems if they try hard enough, and how often a person is able to manage to do things they decide to do. Together, they reflect adolescents' ability to organize and carry out actions required to deal with challenges.

Finding solutions to problems

Overall, 61% of adolescents reported being able to find solutions to a problem always or most of the time. There was wide cross-national/regional variation, with the highest prevalence found in Serbia, where 76% of 11-year-olds and 82% of 15-year-olds reported finding solutions to a problem always or most of the time. The lowest proportion was in Kyrgyzstan, with 28% for 11-year-olds and 37% for 15-year-olds.

Self-efficacy in finding solutions to problems gradually increased with age, from 58% at age 11 to 65% at age 15. Age differences were observed for boys in 30 countries/regions and for girls in 22. For girls in about half of the countries and regions, the lowest prevalence was reported by those aged 13.

Boys were more likely than girls to report being able to find solutions to problems (66% and 57%, respectively). This gender pattern was observed in 15 countries and regions for 11-year-olds, 28 for 13-year-olds and 27 for 15-year-olds. The largest gender differences were observed in Denmark and United Kingdom (England) and the lowest in Italy and Kazakhstan.

Managing to do things

Overall, 57% of adolescents reported managing to do things they had decided to do always or most of the time. There was wide cross-national/regional variation, with the highest prevalence in Denmark (84% for 15-year-old boys) and the lowest in Denmark (Greenland) (33% for 11-year-old girls).

Boys were more likely than girls to report managing to do things they had decided to do always or most of the time (60% and 54%, respectively). Prevalence was higher among boys in 15 countries and regions at age 11 and in 30 at ages 13 and 15.

Age-related differences were less pronounced than those observed for other mental health indicators. A small increase with age was seen among boys, from 59% at age 11 to 62% at 15. For girls, the overall proportion decreased slightly with age, from 56% at age 11 to 54% at 15. An increase in prevalence with age was observed in 15 countries and regions for boys and a decrease in 14 for girls.

Self-efficacy showed a consistent socioeconomic pattern. Boys and girls from low-affluence families were less likely to report that they could find solutions to problems and manage to do the things they decided to do than those from high-affluence families. A notable exception was observed in northern European countries and regions: in Denmark (Greenland) and Finland, for example, prevalence was similar across family affluence groups, and differences were small and significant only for one gender in Italy, Netherlands (Kingdom of the), Norway and Sweden. Kyrgyzstan also showed no association with family affluence.

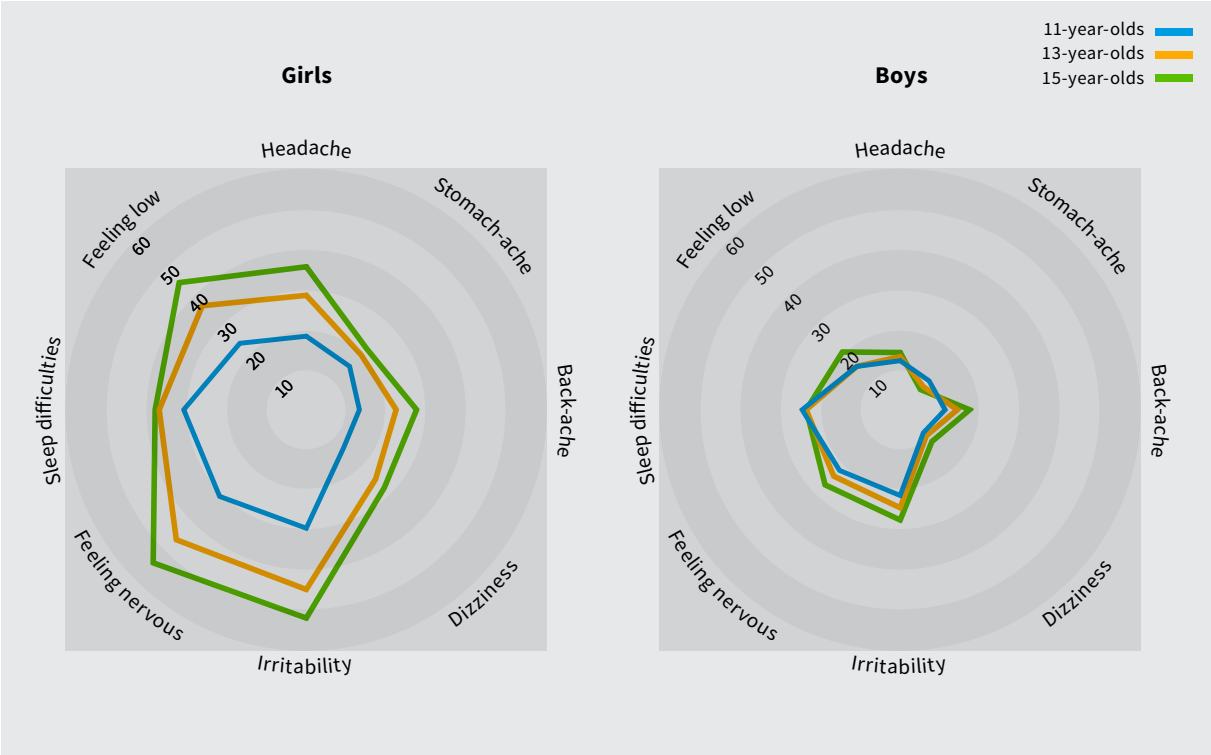
Individual health complaints

The HBSC symptom checklist presents a nonclinical measure of subjective health complaints that may have both somatic and psychological origins (headache, stomach-ache, back-ache, feeling low, feeling irritable or bad tempered, feeling nervous, difficulties in getting to sleep and feeling dizzy) experienced over the last six months. Overall, the most common health complaints were those associated with psychological health: nervousness (33%), irritability (33%) and difficulties in getting to sleep (29%), followed by feeling low (25%). Lower prevalence rates were observed for somatic complaints: headache (20%), back-ache, (17%), stomach-ache (14%) and dizziness (15%).

Prevalence of feeling low and experiencing headache and dizziness among 13- and 15-year-olds was twice as high for girls than boys in most countries and regions. Prevalence of feeling nervous was twice as high among 13- and 15-year-old girls than boys in more than half of countries and regions. Thirteen-year-old girls had three times higher prevalence of stomach-ache than boys of the same age in 10 countries and regions and in 25 for 15-year-olds.

Individual health complaints were highest among 15-year-olds, but age effects varied by gender (Fig. 4). For boys, prevalence of back-ache, feeling low, feeling irritable and feeling nervous increased with age, while prevalence of sleep difficulties, dizziness, headache and stomach-ache remained stable across the three age groups in most countries and regions. For girls, prevalence of all eight individual complaints increased considerably between ages 11 and 15 in almost all countries and regions.

Fig. 4. Prevalence of eight individual health complaints experienced more than once a week by gender and age (HBSC average)



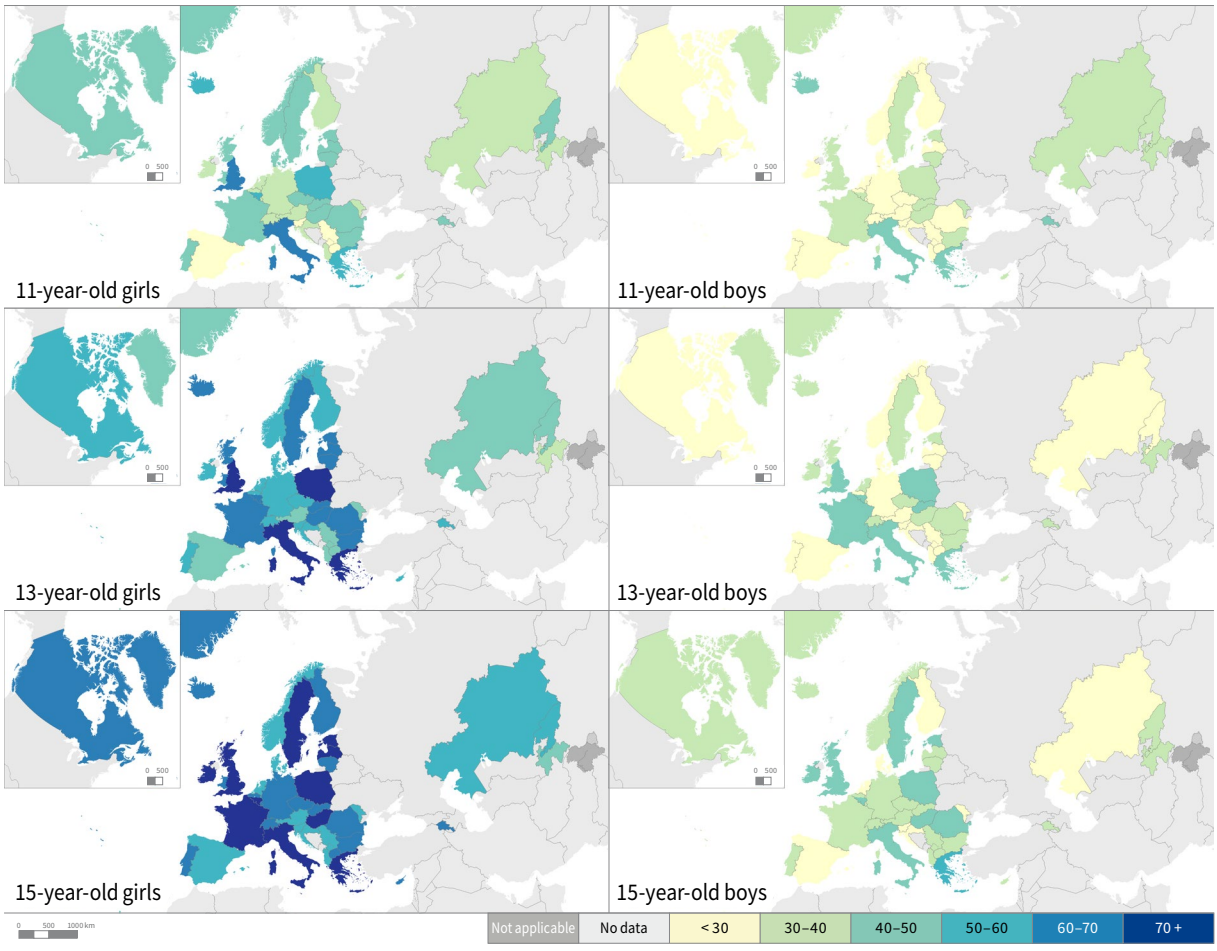
Socioeconomic inequalities in health complaints were observed in fewer than half of the countries and regions. In most of those in which differences were observed, adolescents from less affluent families reported more frequent health complaints. This pattern nevertheless was reversed in some countries and regions, with boys and/or girls from high-affluence families having higher prevalence.

Multiple health complaints

Multiple health complaints, defined as having experienced two or more symptoms more than once a week, were reported by 44% of adolescents. The highest prevalence was among older girls, affecting two thirds of 15-year-olds. Girls reported higher prevalence than boys across all age groups and the gender difference increased with age, from 31% of boys and 42% of girls at age 11 to 36% of boys and 66% of girls at age 15.

Prevalence of multiple health complaints increased with age in all countries and regions for girls and in 23 for boys. For girls, the increase with age was larger between ages 11 and 13 than 13 and 15. Country/region variation was wide, from 16% of 11-year-old boys in Slovenia to 86% of 15-year-old girls in Italy (Fig. 5).

Fig. 5. Prevalence of adolescents reporting multiple health complaints experienced more than once a week by gender and age (percentage)

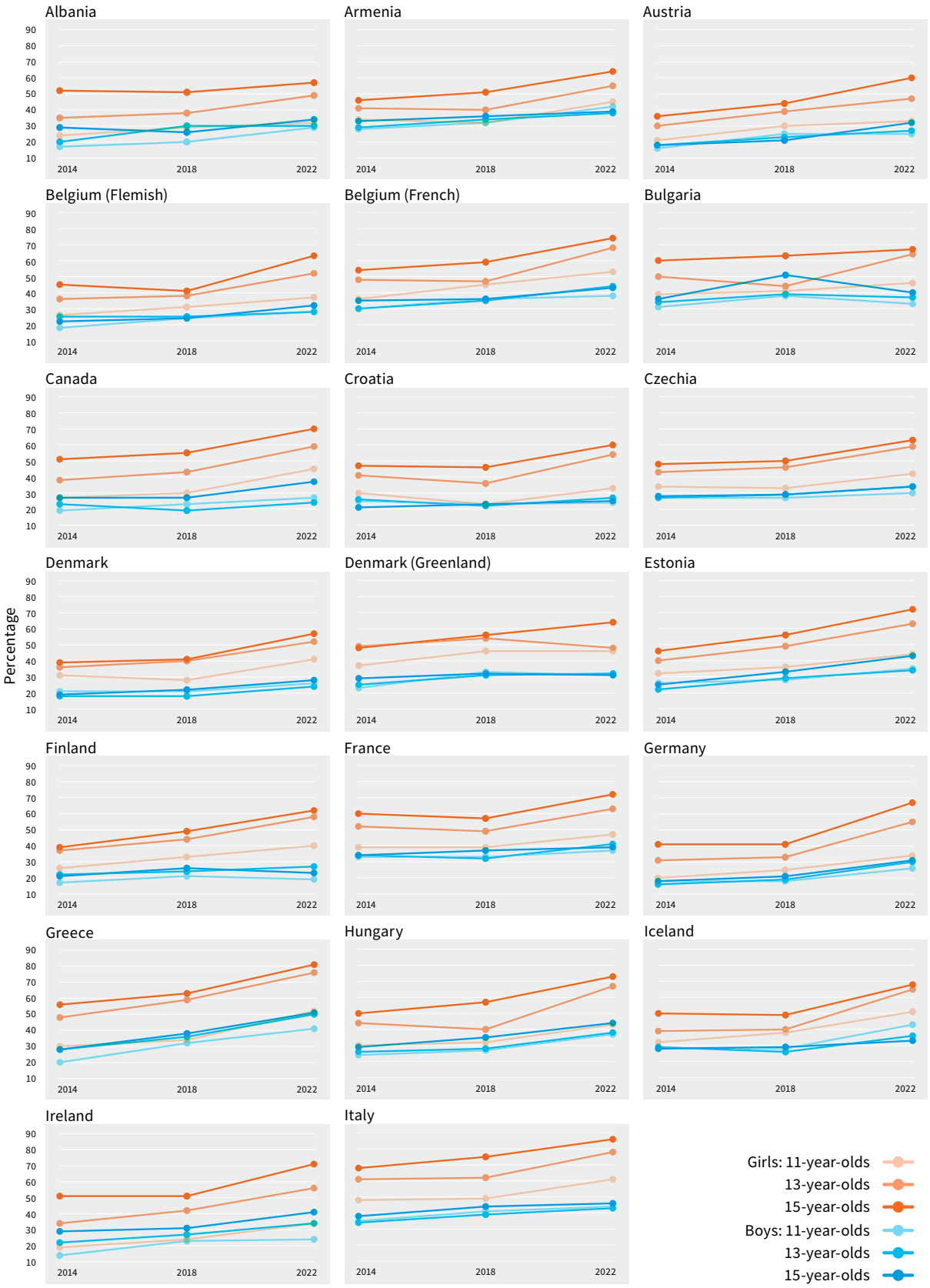


I'm most concerned about the younger generation's mental health because they have started to use technologies more these days. Technology tends to make you tired and makes you lazy as well, which means you can't get out of bed or even brush your own teeth at this point. The mental health of kids could also be affected by teachers, kids and any type of people actually.

No significant difference in relation to multiple health complaints was found between adolescents from high- and low-affluence families in most countries and regions. Prevalence was higher among less affluent adolescents in eight (Austria, Belgium (Flemish), Canada, Czechia, Estonia, Hungary, United Kingdom (England) and United Kingdom (Wales)), but the reverse was observed in Denmark (Greenland) and Romania for boys and girls, and in Bulgaria, North Macedonia and Switzerland for girls.

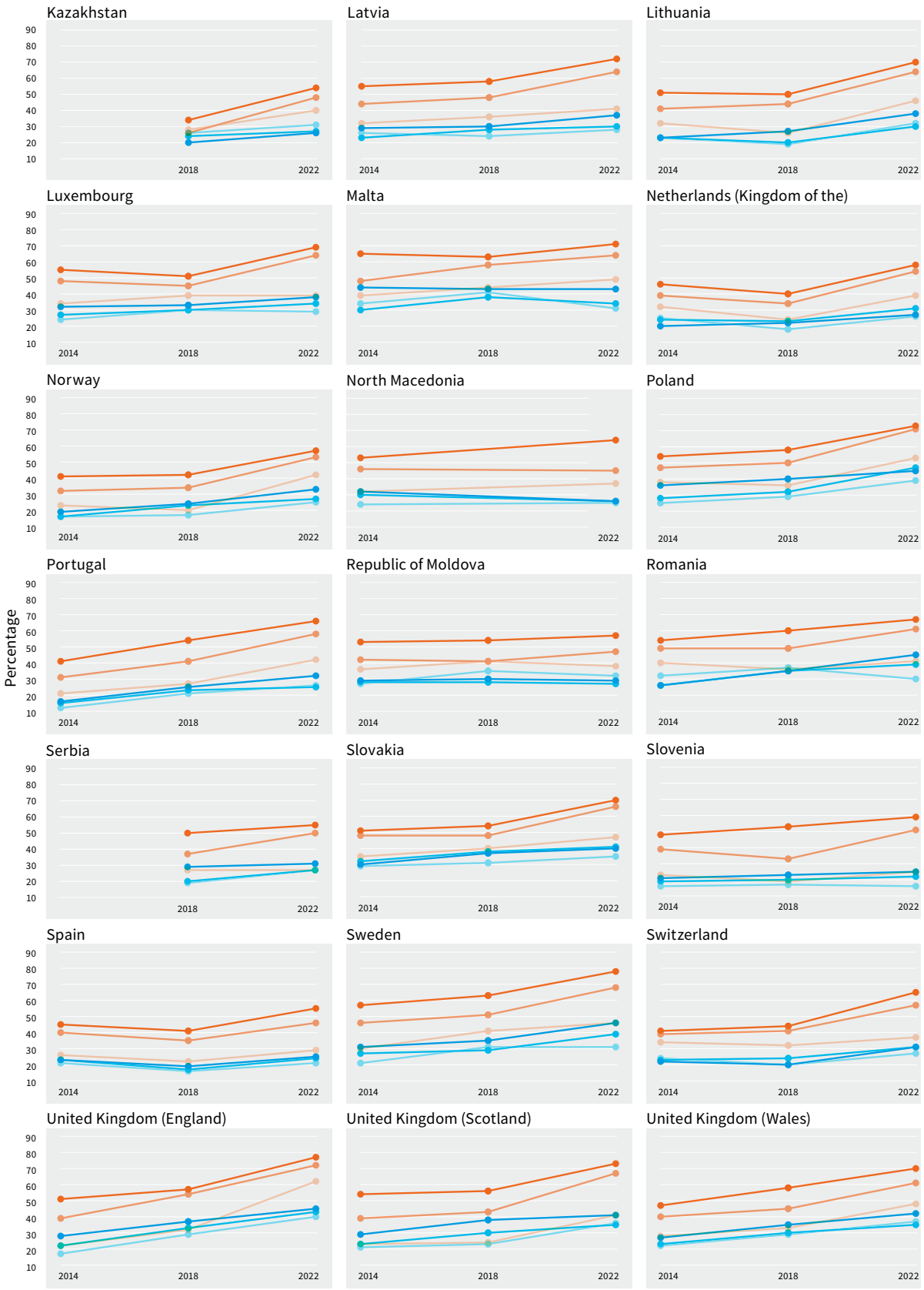
Prevalence of multiple health complaints has increased across the last three HBSC surveys, from 33% in 2014 to 36% in 2018 and 44% in 2022 (Fig. 6). Boys have shown a linear increase since 2014, while girls had a steeper increase between 2018 and 2022: among 15-year-olds, for example, 27% of boys reported multiple health complaints in 2014, 31% in 2018 and 36% in 2022. By comparison, 50% of girls reported multiple health complaints in 2014, 52% in 2018 and 66% in 2022. Although prevalence for boys was lower than for girls across all survey years, the gender gap increased over time.

Fig. 6. Trends in prevalence in multiple health complaints from 2014 to 2022 by country, age and gender



Note: data are not presented for Cyprus, Kyrgyzstan and Tajikistan, as fewer than two data points were available.

Fig. 6. contd


Kazakhstan
Latvia
Lithuania
Luxembourg
Malta
Netherlands (Kingdom of the)
Norway
North Macedonia
Poland
Portugal
Republic of Moldova
Romania
Serbia
Slovakia
Slovenia
Spain
Sweden
Switzerland
United Kingdom (England)
United Kingdom (Scotland)
United Kingdom (Wales)
Percentage
90
80
70
60
50
40
30
20
10
2014
2018
2022

Loneliness

Sixteen per cent of adolescents reported feeling lonely most of the time or always in the past year. The percentages almost doubled between age 11 (8% for boys and 14% for girls) and 15 (13% boys and 28% girls).

The gender difference was consistent, with girls reporting higher levels of loneliness than boys across all countries/regions and age groups (Table 2).

Table 2. Prevalence of feeling lonely most of the time or always in the past year by country, age and gender

Country/region	GIRLS (%) 11-year-olds	GIRLS (%) 13-year-olds	GIRLS (%) 15-year-olds	BOYS (%) 11-year-olds	BOYS (%) 13-year-olds	BOYS (%) 15-year-olds
United Kingdom (England)	23	34	40	13	14	18
Poland	22	36	38	13	18	20
Belgium (French)	23	30	37	10	11	12
Estonia	14	27	36	8	12	19
Latvia	16	28	36	11	14	20
Lithuania	22	28	36	10	11	18
Canada	24	34	35	10	13	21
France	20	28	35	11	13	14
United Kingdom (Wales)	17	25	33	13	13	19
Ireland	12	21	33	7	12	19
Germany	12	26	32	7	7	11
Romania	15	28	32	10	12	21
Kyrgyzstan	13	22	31	8	11	13
Czechia	18	27	31	8	10	15
Malta	16	27	30	11	13	19
Slovakia	13	26	30	7	11	11
North Macedonia	–	–	30	–	–	12
Cyprus	13	27	30	9	11	14
Greece	11	26	29	7	11	14
United Kingdom (Scotland)	17	26	29	11	10	17
Luxembourg	12	25	28	8	8	14
Italy	15	25	28	7	7	10
Republic of Moldova	13	19	28	10	9	13
Slovenia	9	24	27	7	9	12
Switzerland	13	22	27	8	9	11
Austria	13	20	27	7	7	12
Iceland	15	25	27	10	10	12
Belgium (Flemish)	13	18	27	9	7	10
Finland	10	17	26	3	8	7
Bulgaria	15	24	25	8	10	16
Spain	12	20	24	5	9	9
Sweden	11	21	24	4	10	13
Croatia	12	20	23	6	8	10
Hungary	11	20	23	6	9	13
Serbia	9	17	22	8	8	11
Kazakhstan	11	17	22	8	7	10
Norway	12	15	22	6	7	10
Portugal	10	18	20	7	6	11
Armenia	9	15	20	10	8	8
Denmark (Greenland)	12	20	20	7	12	10
Tajikistan	9	11	20	10	7	10
Netherlands (Kingdom of the)	11	15	19	5	6	10
Albania	6	16	19	5	5	8
Denmark	10	12	13	3	5	6

KEY: < 10% | 10–15% | 15–20% | 20–25% | 25–30% | 30–35% | 35% + | – No data

Note: no data for 11- and 13-year-olds were received from North Macedonia.

The largest gender differences emerged at age 15. Fifteen-year-old girls in a few countries and regions had a threefold higher prevalence of loneliness than boys: Belgium (French) (12% boys and 37% girls), Finland (7% and 26%) and Germany (11% and 32%).

Family affluence was significantly associated with loneliness in around half of the countries and regions (25 for girls and 21 for boys), with adolescents from low-affluence families reporting higher levels of loneliness (except in Kazakhstan for girls and Tajikistan for boys). Loneliness did not vary according to family affluence in either boys or girls in 13 countries and regions.

I think there's a lot of girls who put themselves down because they're like 'am I good enough? Am I strong enough? Am I capable of doing things?' And they put themselves down and beat themselves up for nothing. They don't appreciate themselves for who they are.

Cross-cutting themes

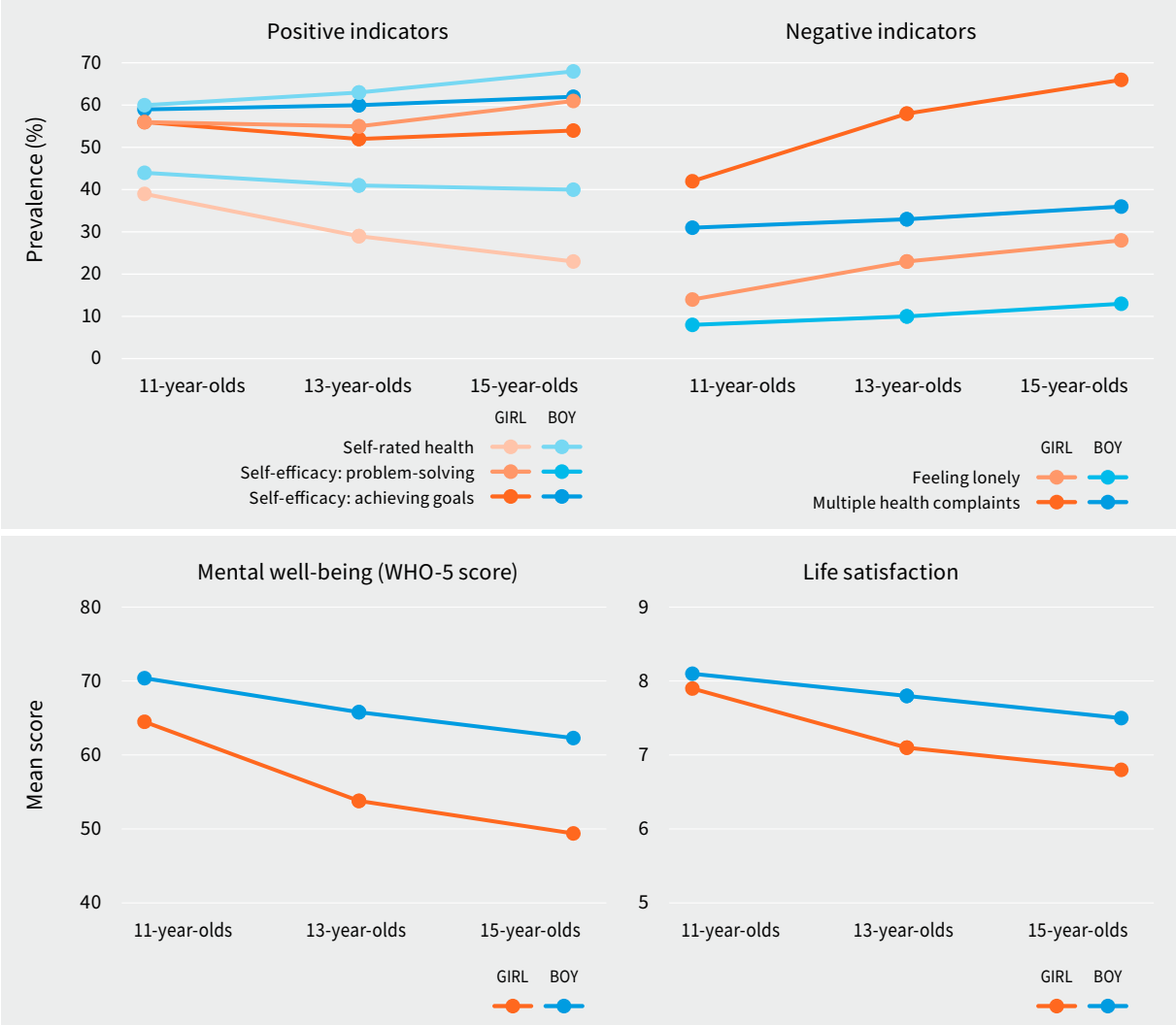
The impact of age: progress through adolescence comes with a cost for mental health and well-being

Mental health worsened with age across many indicators, with 15-year-olds having the poorest mental health overall. The decline with age was reflected in a decrease in mental well-being and an increase in mental health problems.

This general pattern nevertheless masks important gender differences. Age-related declines were greater for girls than for boys across most indicators (Fig. 7), but while self-efficacy increased in prevalence with age, it did so more for boys than girls.

Some exceptions to these general patterns were noted. Prevalence of multiple health complaints increased with age among girls across all countries and regions but was observed for boys only in 23. Similarly, a decrease with age in the percentage reporting excellent health was observed for girls in all countries and regions but in only 19 for boys.

Fig. 7. Age-related patterns in mental health outcomes by gender (HBSC average)



Note: self-rated health: no data were received from Malta. Self-efficacy: no data were received from France. Feeling lonely: no data were received from North Macedonia (11- and 13-year-olds). Mental well-being (WHO-5 score): no data were available from Bulgaria, Serbia and Tajikistan (all ages) and Denmark (11-year-olds).

The role of gender: girls generally report worse mental health than boys

The findings confirm the well established gender differences in adolescent mental health. Girls systematically reported worse mental health than boys across all indicators included in the survey. Where comparable data exist, the gender gap was larger in 2022 than in previous years.

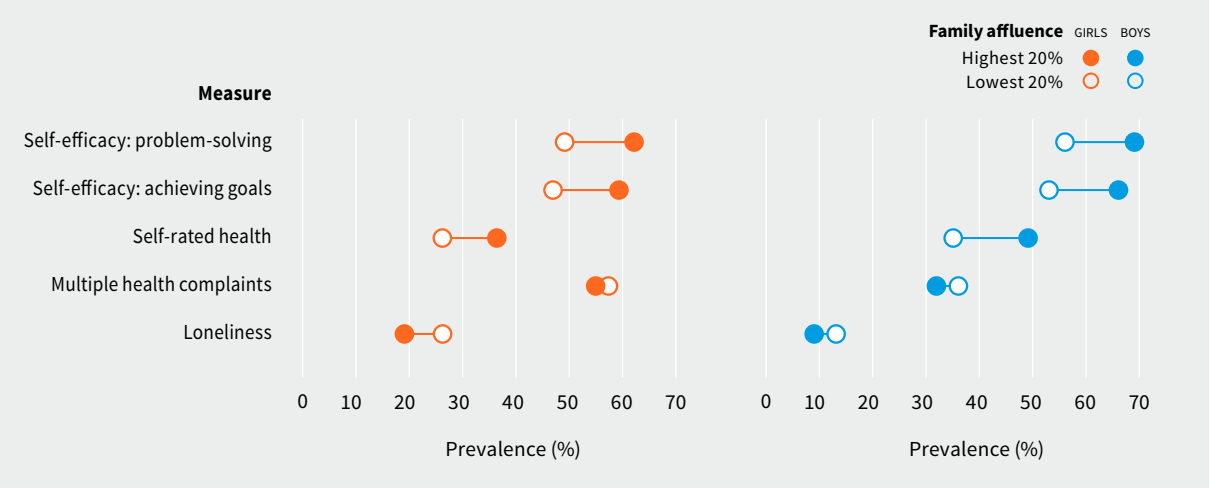
Mental health indicators worsened with increasing age, with stronger effects for girls than boys. An increase in gender difference with age could be observed for all the indicators examined. Reporting of multiple health complaints, for example, increased with age in both boys and girls, but at age 15, twice as many girls than boys reported experiencing multiple health complaints. In relation to self-efficacy, which may be considered a positive resource for dealing with challenges, an increase with age was observed for boys but not for girls.

Social inequalities: poorer mental health and well-being among less affluent adolescents

The findings show marked socioeconomic inequalities in adolescent mental health across most indicators and countries/regions. Where differences between adolescents from low- and high-affluence families were seen, adolescents growing up in high-affluence families generally reported better outcomes.

Significant differences between low and high family-affluence groups were seen for some indicators in almost all countries and regions and across both genders. Specifically, adolescents from high-affluence families had better outcomes in terms of overall life satisfaction, self-rated health and mental well-being. They were also more likely than less affluent adolescents to report that they could always find solutions to problems and manage to do the things they had decided to do. Loneliness varied little with family affluence in Albania, Armenia, Bulgaria, Denmark (Greenland), Finland, Greece, Hungary, Kyrgyzstan, North Macedonia, Poland, Romania and Serbia. Associations with family affluence were largely similar for boys and girls (Fig. 8).

Fig. 8. Overall family affluence differences across mental health indicators by gender (HBSC average)



Note: low- and high-affluence groups represent the lowest 20% and highest 20% in each country/region. No data were received from Malta for self-rated health or from France for either self-efficacy measure. No data were received from North Macedonia for feeling lonely (11- and 13-year-olds).

Cross-national/regional variations

Cross-national/regional variations were wide for all indicators featured in this report. The highest scores in mental well-being and life satisfaction, for example, were observed in Albania, Armenia, Kazakhstan, Kyrgyzstan and North Macedonia for mental well-being, and in Albania, Armenia, Kazakhstan, Kyrgyzstan, Romania and Serbia for life satisfaction. Only small decreases in life satisfaction with age were observed in Kazakhstan and Kyrgyzstan for boys and Tajikistan for girls, and a similar pattern was observed for mental well-being in Kazakhstan and the Republic of Moldova for boys. Differences between boys and girls in these countries generally were smaller for mental well-being and life satisfaction than in other countries and regions, especially among 11-year-olds. A similar pattern was observed for multiple health complaints among 11-year-olds in countries such as Albania, Armenia, North Macedonia, Serbia and Tajikistan.

Policy implications

The high prevalence and persistence of mental health difficulties before and after the pandemic, especially for girls and those from less affluent families, highlight the ongoing mental health and well-being challenges faced by children and adolescents. The findings from the 2021/2022 HBSC survey emphasize the need to intervene early, develop comprehensive national strategies that focus on children's and adolescents' well-being, and conduct ongoing monitoring and surveillance of children's and adolescents' mental health needs and support *(1,12).* The results have significant policy implications.

- Countries and regions can consider the benefits of investing in their national/regional programmes that aim to improve adolescent mental health, with a particular focus on gender, age and affluence, based on their national/regional HBSC results.
- The similar trends across countries and regions on gender and affluence highlight the need for a joint problem-solving approach on how best to support adolescents defined as being more at risk of mental health issues. Collaboration and sharing at subregional level may also be useful.
- Policy-makers, practitioners and intervention researchers may consider how schools and other institutions can best address well known determinants of poor mental health, such as gender and poverty.
- Schools in most countries and regions are the first point of contact and support for adolescents with mental health concerns. They also provide a common setting for prevention and intervention programmes focusing on school-based mental health. Schools can:
  - implement universal evidence-based school mental health programmes to prevent mental health problems, enhance social and emotional skills, build resilience in managing difficult situations, increase mental health literacy, and prevent associated problems such as bullying and self-harm;
  - provide professional support to all children and young people regardless of their family's ability to access community mental health services;
  - identify students who may be at risk of mental health problems; and
  - connect those higher-risk children and young people and their families with community services.
- School-based interventions should be linked with broader mental health and social care systems.
- The Helping Adolescents Thrive initiative provides countries and regions with evidence-based guidelines, a toolkit *(13)* and resources to be used in schools to promote adolescent mental health. It recommends that governments use a multilayered approach to promote adolescent mental health, including strengthening policies, enriching environments, bolstering caregiver support and providing psychosocial interventions for adolescents.
- Placing schools at the centre of the delivery of mental health programmes will require more resources and training in most countries and regions, but it will also probably bring the greatest return on investment and create healthier children and adolescents who can look forward to a healthier future.

- For some adolescents, such as girls and those living in poverty, school-based programmes alone may not be effective in reducing the mental health burden. Partnerships in the broader community with, for example, community mental health centres, hospitals and youth friendship centres, and strong referral systems can be mobilized to provide culturally sensitive specialized services to address more upstream determinants, especially those relating to income disparities. Addressing upstream determinants requires governments to invest in areas such as social protection, housing, employment and income support.
- The persistent mental health concerns of 15-year-old girls across countries and regions is notable. Implementing targeted interventions and skills-training specifically for girls in school curricula may enable them to develop better mental health and well-being.

Monitoring mental health and well-being in adolescents is paramount to further maintaining and promoting good mental health and preventing mental health problems. Continued and long-term surveillance of these issues will help to ensure that adolescents can enjoy ongoing positive mental well-being and that efforts to support this aim are having the desired effects.

I think the biggest problem for young people in my country is depression. In my opinion the government should allow better access to psychologists for young people and also promote talking about depression.

Conclusions

This report shows a decline in life satisfaction and excellent self-rated health from 2017/2018 to 2021/2022 and an increase in multiple health complaints between 2013/2014 and 2021/2022. These changes over time are not similar across all age/gender groups, with the largest changes being observed in 13- and 15-year-old girls. The gender gap (girls reporting worsening outcomes compared to boys) has also increased over time.

Older adolescent girls generally are identified as the most vulnerable group across the mental health indicators in the 2021/2022 HBSC survey. Girls reported worse mental health than boys for all indicators. An increase in the gender difference with increasing age was observed for all the indicators included in this report. These findings are consistent with previous surveys, in which older adolescent girls reported worse outcomes than their younger peers and boys.

Adolescents have faced many challenges over the past four years, including the COVID-19 pandemic, acceleration of climate change and increases in living costs, that may have had an impact on their mental health. These findings from the 2021/2022 HBSC survey provide an important evidence benchmark for current research, intervention and policy-planning.

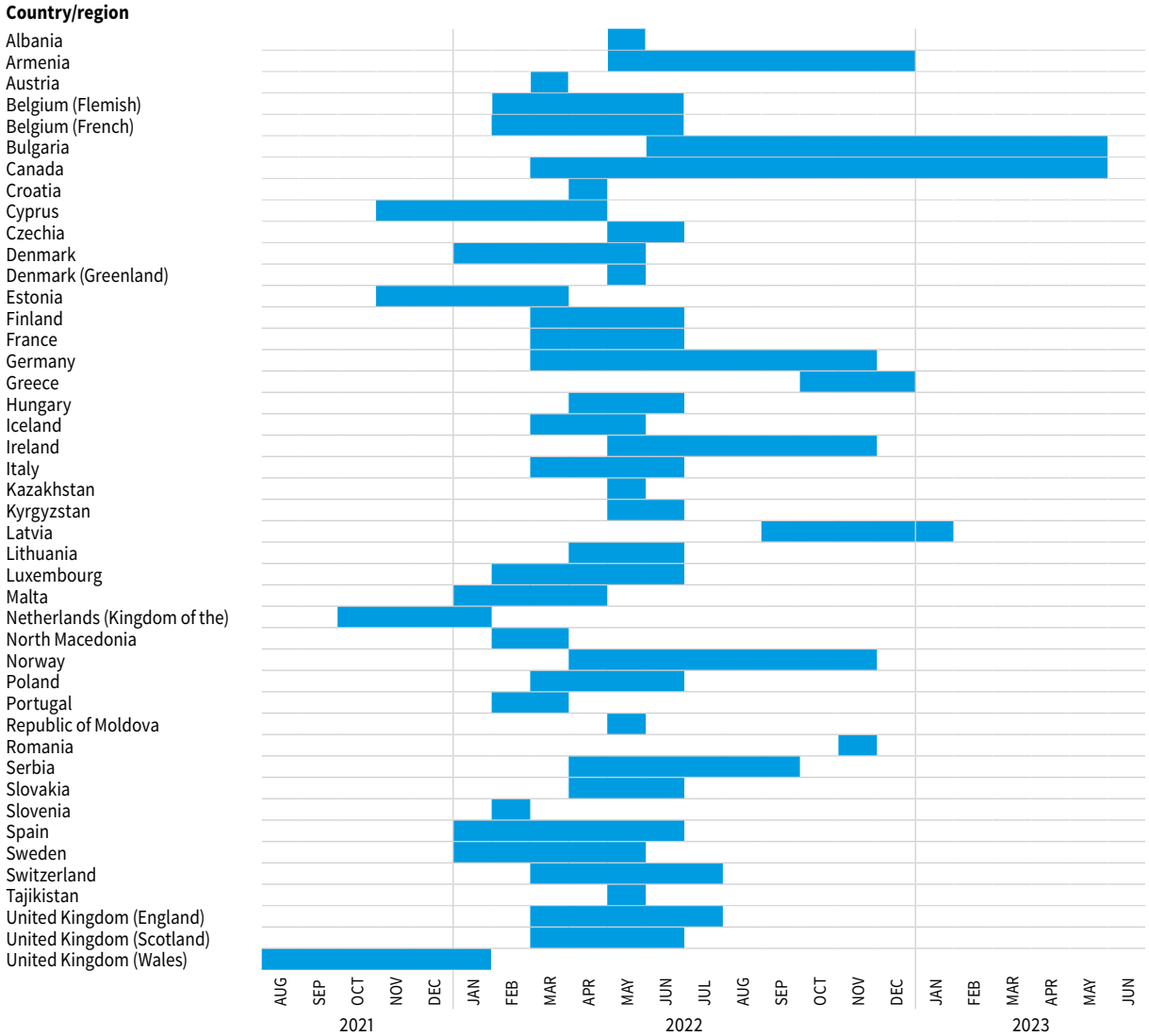
HBSC study

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 mental health and well-being, including issues related to gender, age, socioeconomic factors and changes over time. It is the first volume in a series of eight reports that present findings from the latest international HBSC survey and discuss what they mean for young people's health and well-being. Fig. 9 shows the dates on which the 44 countries and regions conducted the survey.

Fig. 9. 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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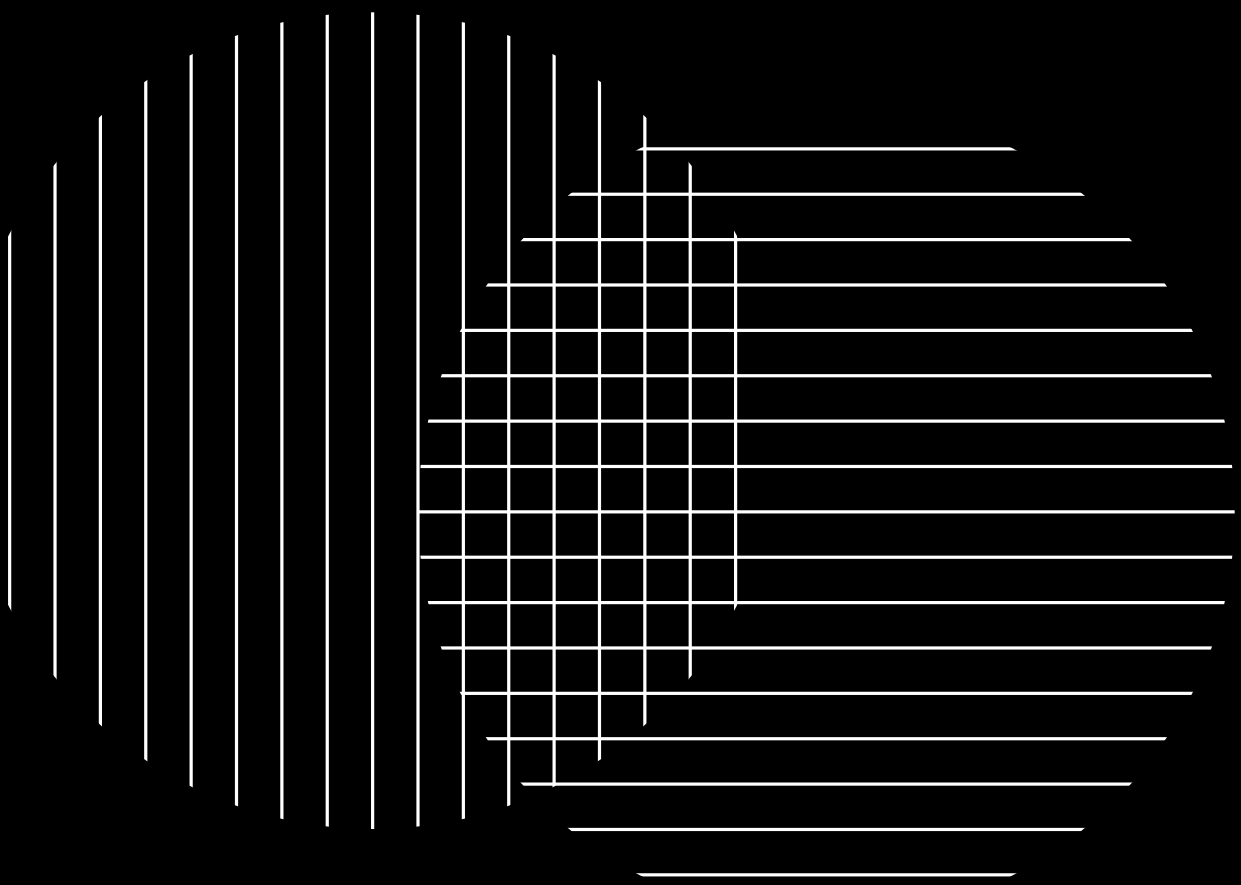
1 All references accessed 19 September 2023.

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 mental health and well-being.

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 mental health and well-being 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 that participated in the 2021/2022 HBSC survey. Data are presented for each of the 15 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.

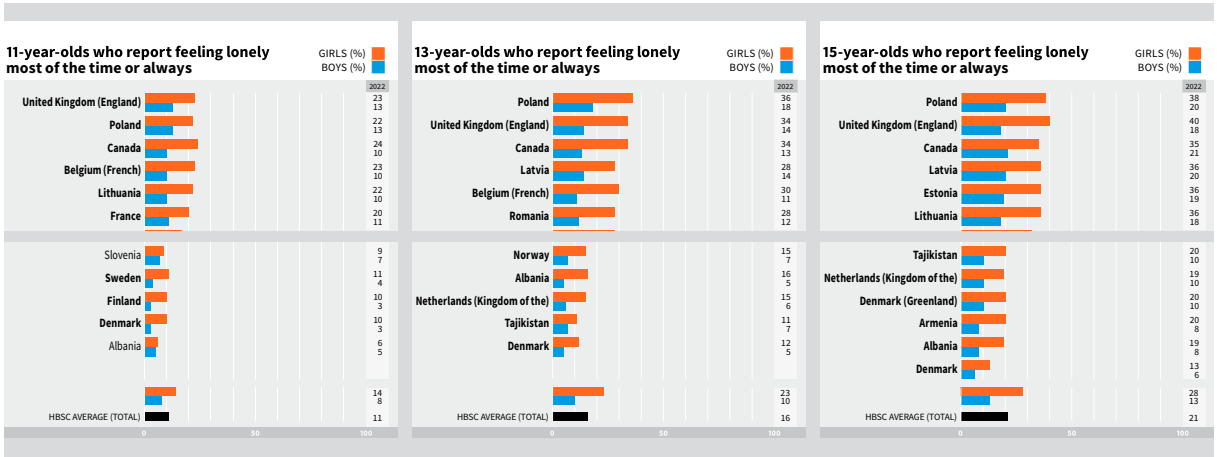
Life satisfaction is presented as the average score on a scale of 0–10, and mental well-being (using the WHO-5 Well-being Index) as the average score on a scale of 0–100, but other elements indicating gender and statistical significance remain the same.

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, 28% of 15-year-old girls and 13% of 15-year-old boys report feeling lonely most or all of the time. Prevalence of loneliness is significantly higher among girls than boys in all countries, with Poland having some of the highest prevalence (38% of 15-year-old girls and 20% of 15-year-old boys reporting feeling lonely most or all of the time).

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 FAS group illustrate the relationship between family affluence and each mental health and well-being 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.

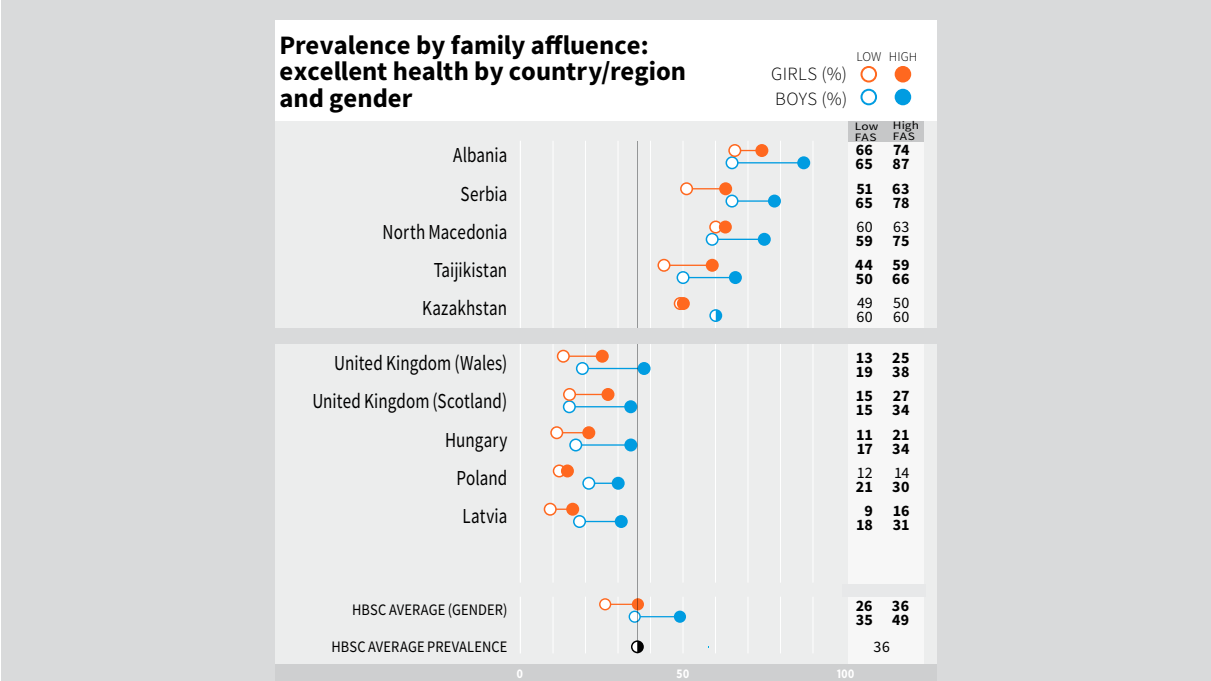
Countries and regions are ordered on the FAS charts by prevalence (or average score) averaged across genders.

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 for most countries and regions, high-affluence boys and girls have higher prevalence of self-rated health than young people from low-affluence families. In Albania, for example, 87% boys in the 20% most affluent households report having excellent health, while only 65% of boys in the 20% least affluent households do so. Prevalence of reporting excellent health is lower in Latvia (at the bottom of the chart), but there is still a significant difference in prevalence of excellent health between low- and high-affluence groups of young boys and girls.

Fig. A2. Example of family affluence chart



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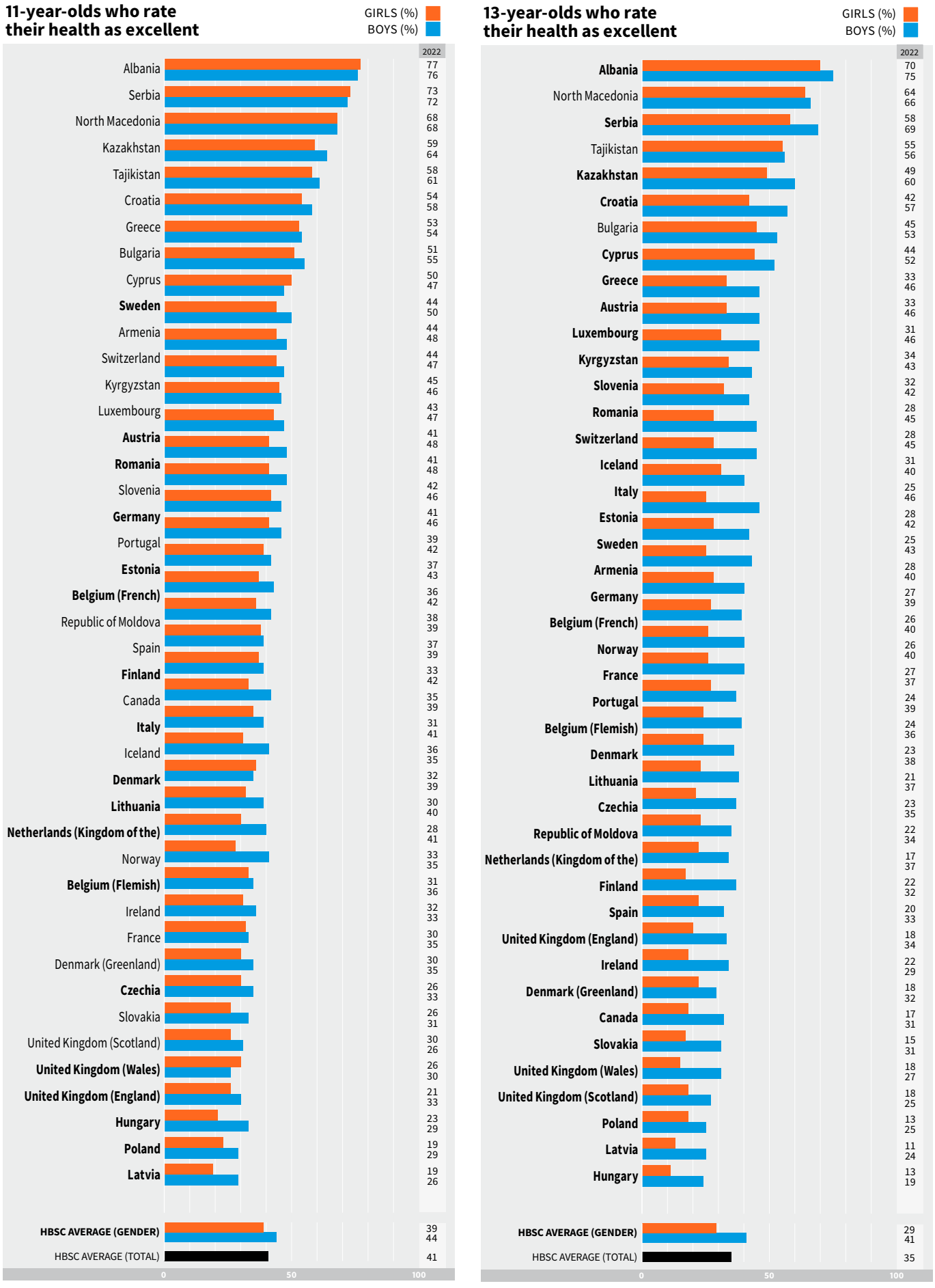
2 All references accessed 19 September 2023.

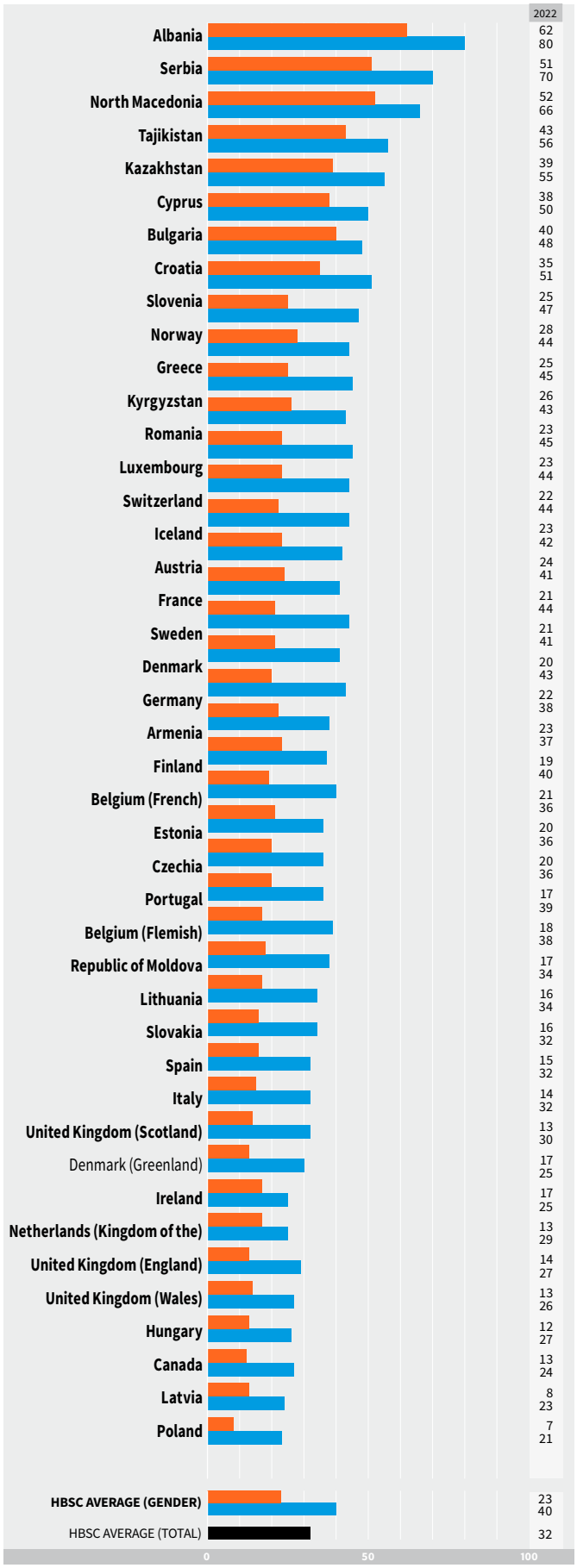
Self-rated health



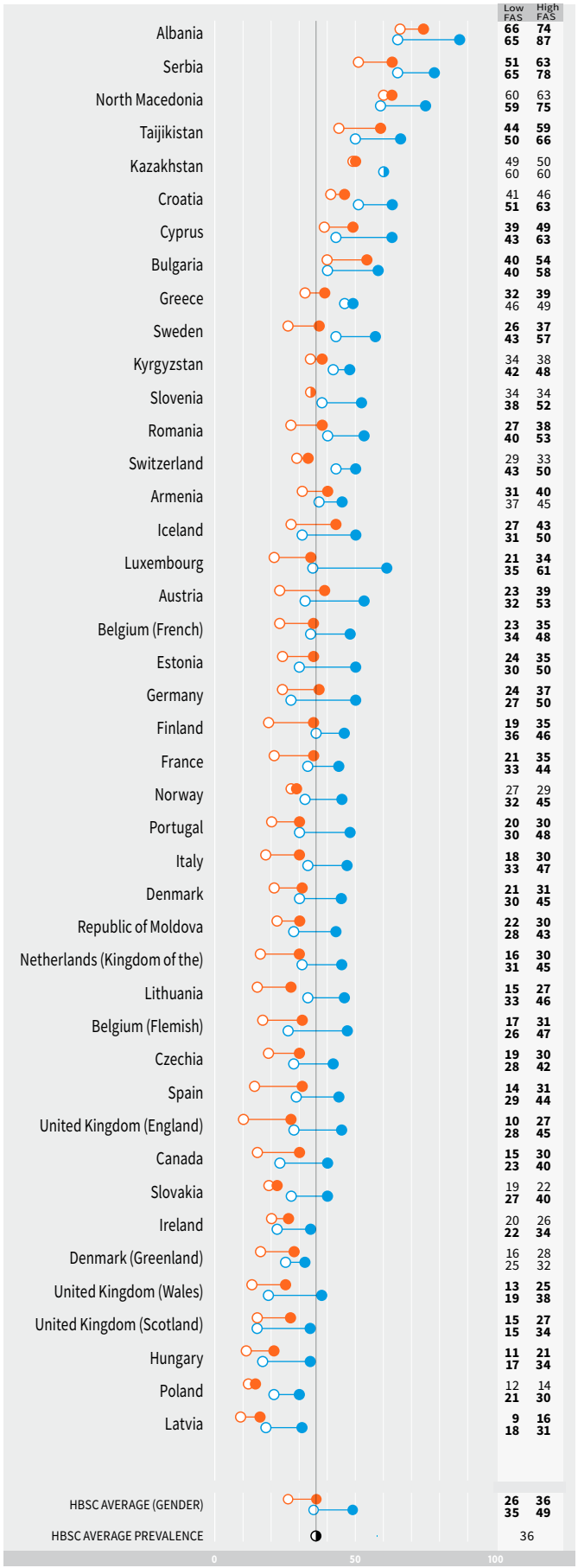
Note: country/region name in **bold** indicates a significant gender difference (at $P < 0.05$). No data were received from Malta.

MEASURE: young people were asked to describe their health ("Would you say your health is … ?"). Response options were excellent, good, fair and poor. Findings presented here show the proportions reporting their health as excellent.

15-year-olds who rate their health as excellent

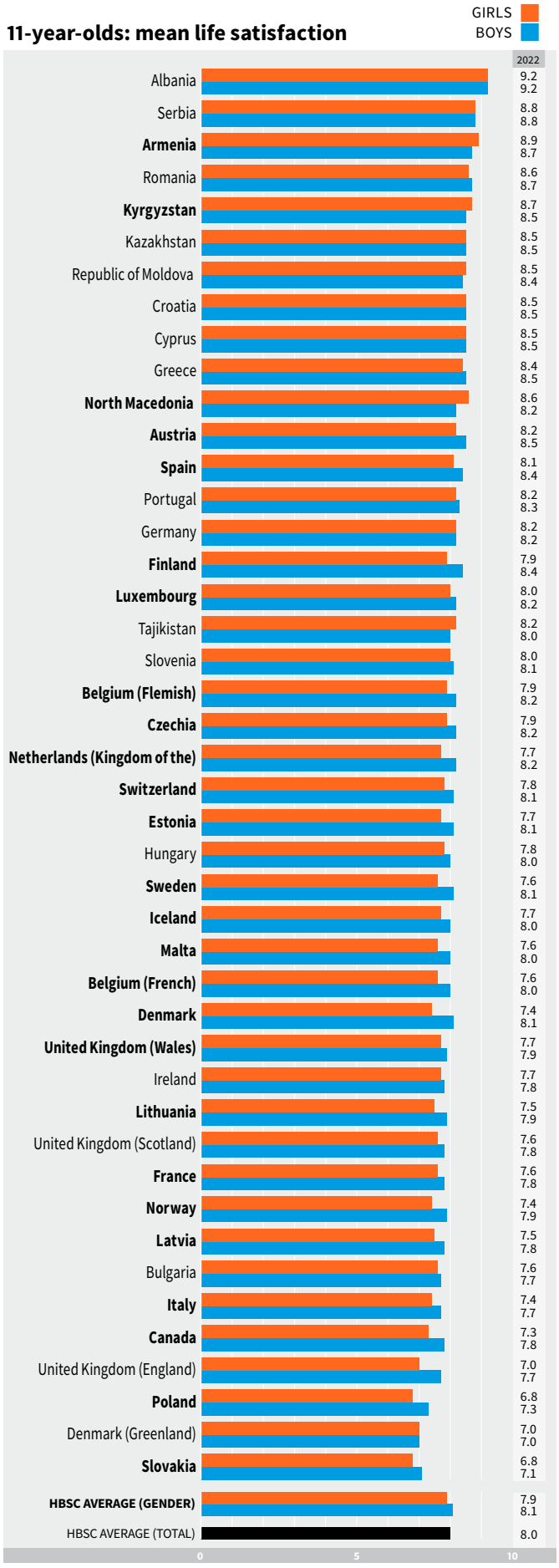


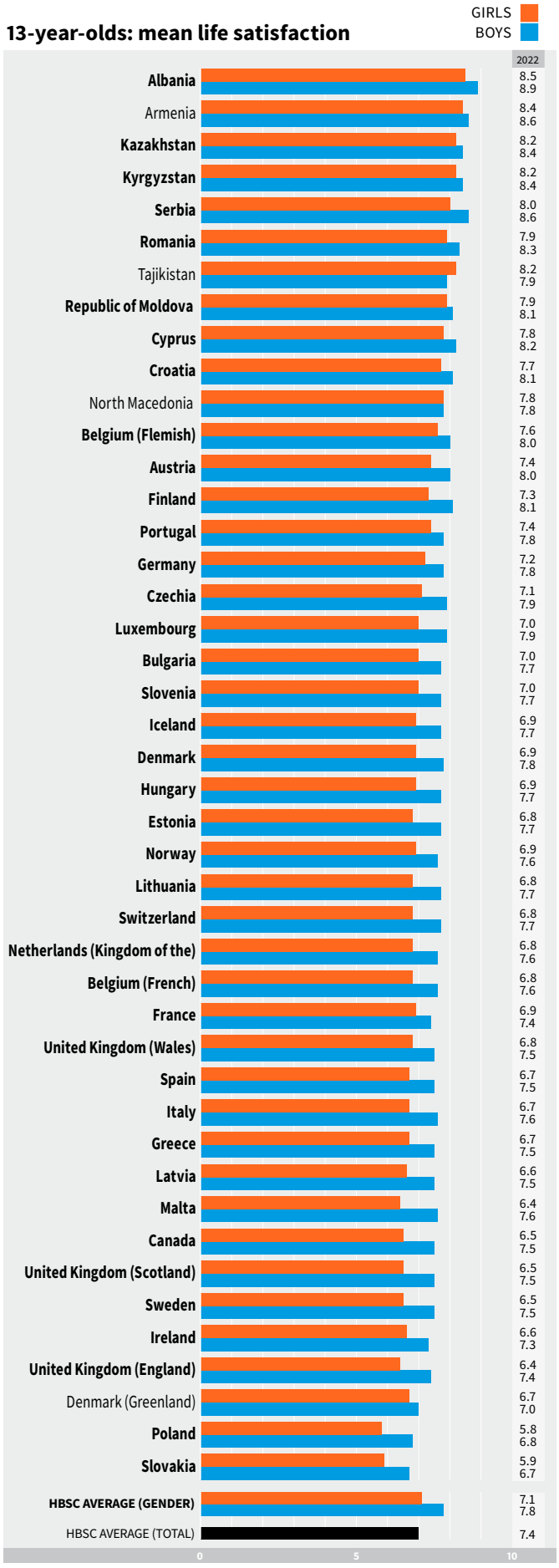
Prevalence by family affluence: excellent health by country/region and gender



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. No data were received from Malta.

Life satisfaction

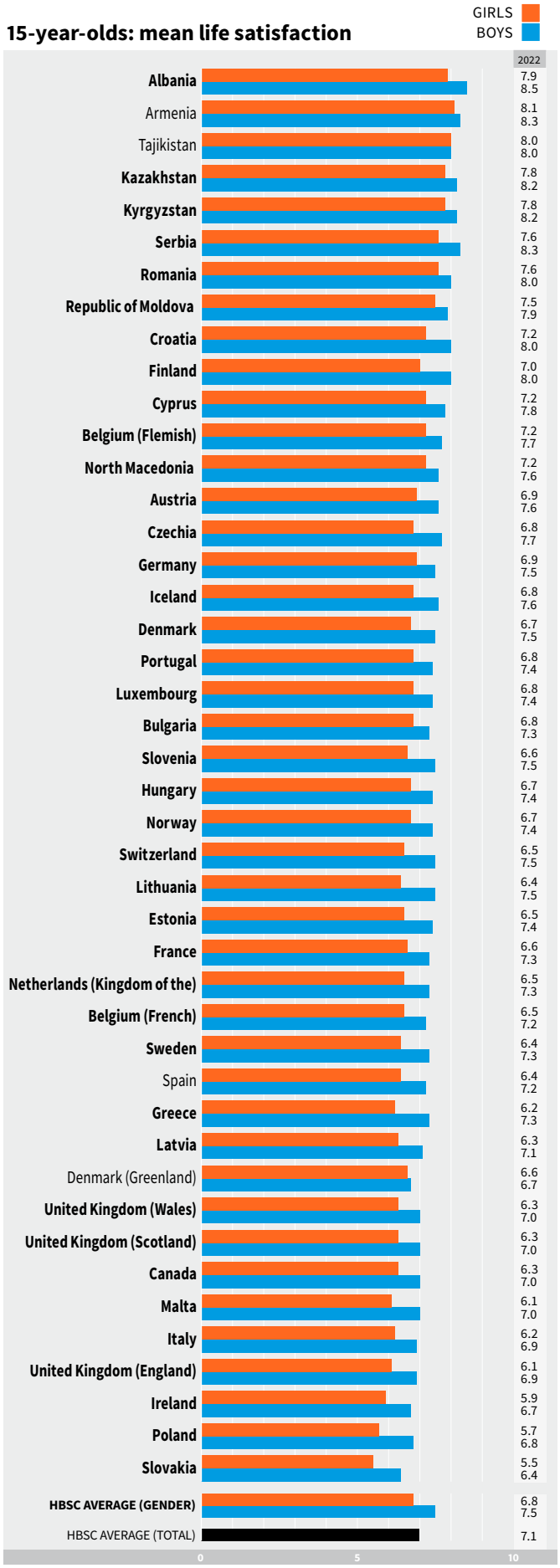




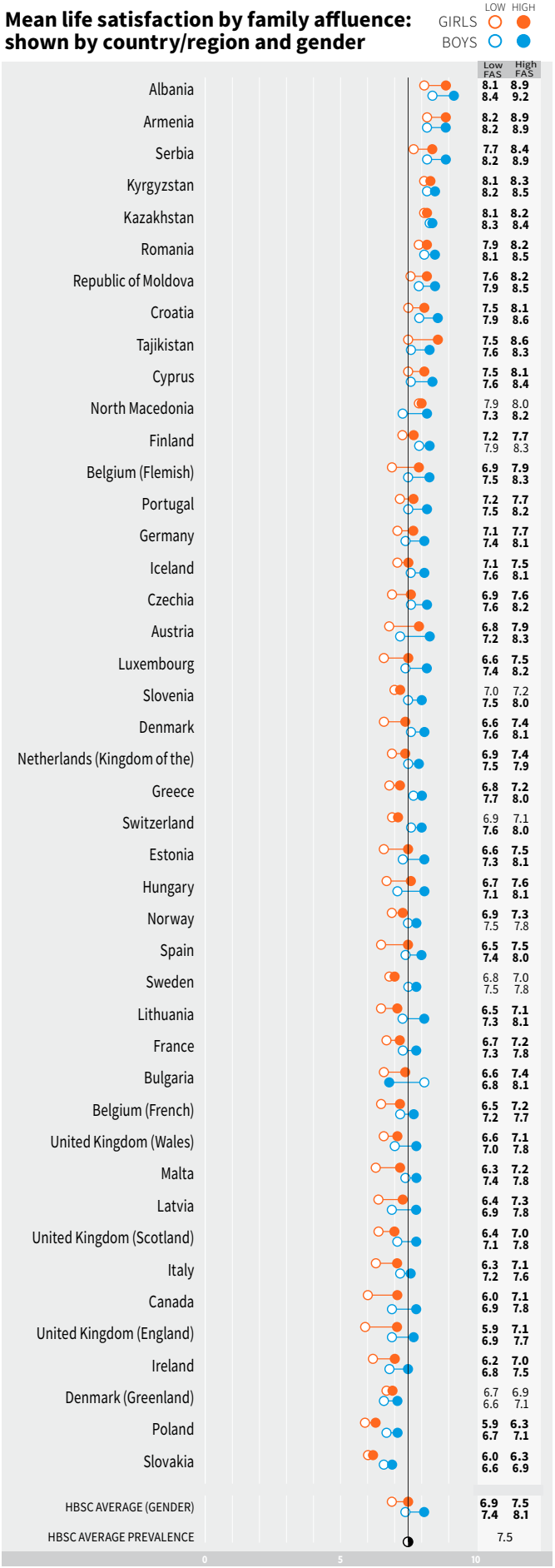
Note: country/region name in **bold** indicates a significant gender difference (at $P < 0.05$).

MEASURE: young people were asked to rate their life satisfaction using a visual analogue scale. The Cantril ladder has 11 steps: the top indicates the best possible life and the bottom the worst. Respondents were asked to indicate the ladder step at which they would place their lives at present (from zero to 10). Mean life satisfaction is presented here.

15-year-olds: mean life satisfaction

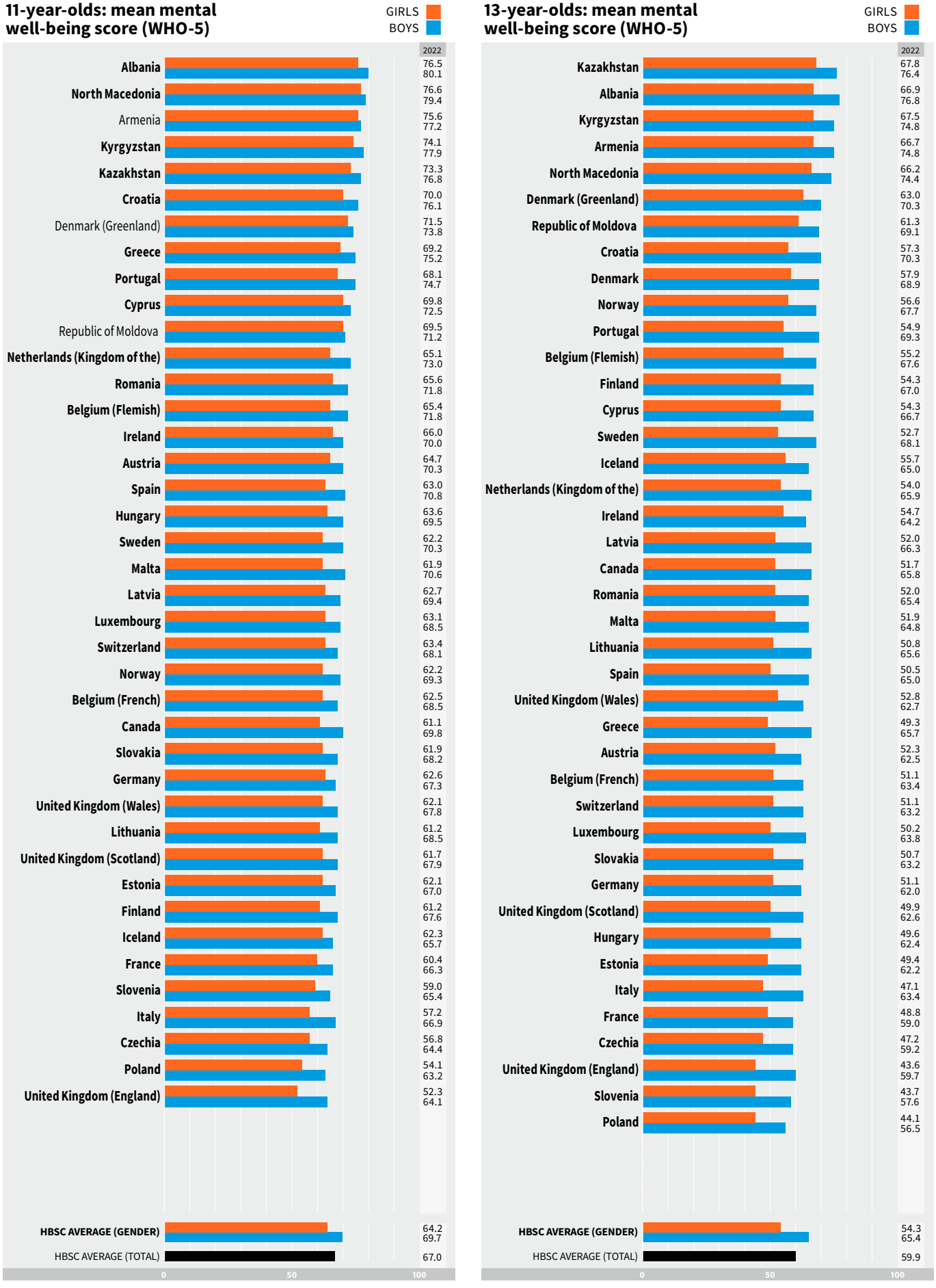


Mean life satisfaction by family affluence: shown by country/region and gender



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.

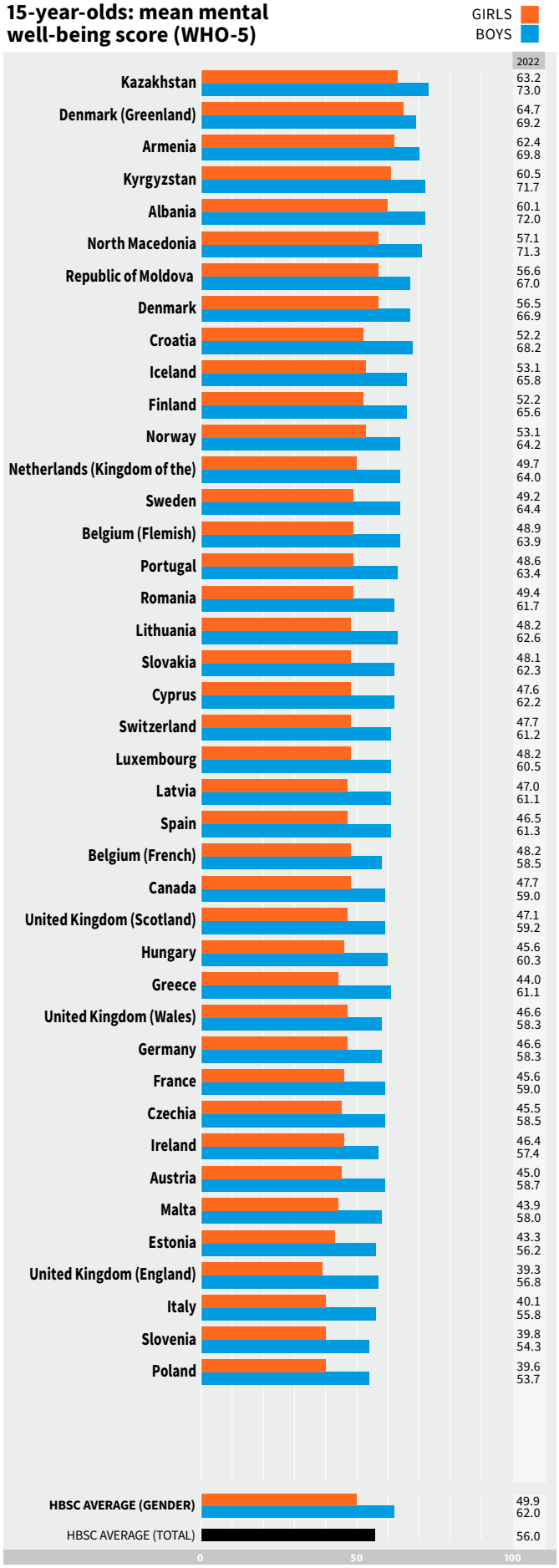
Mental well-being (WHO-5 Well-being Index score)



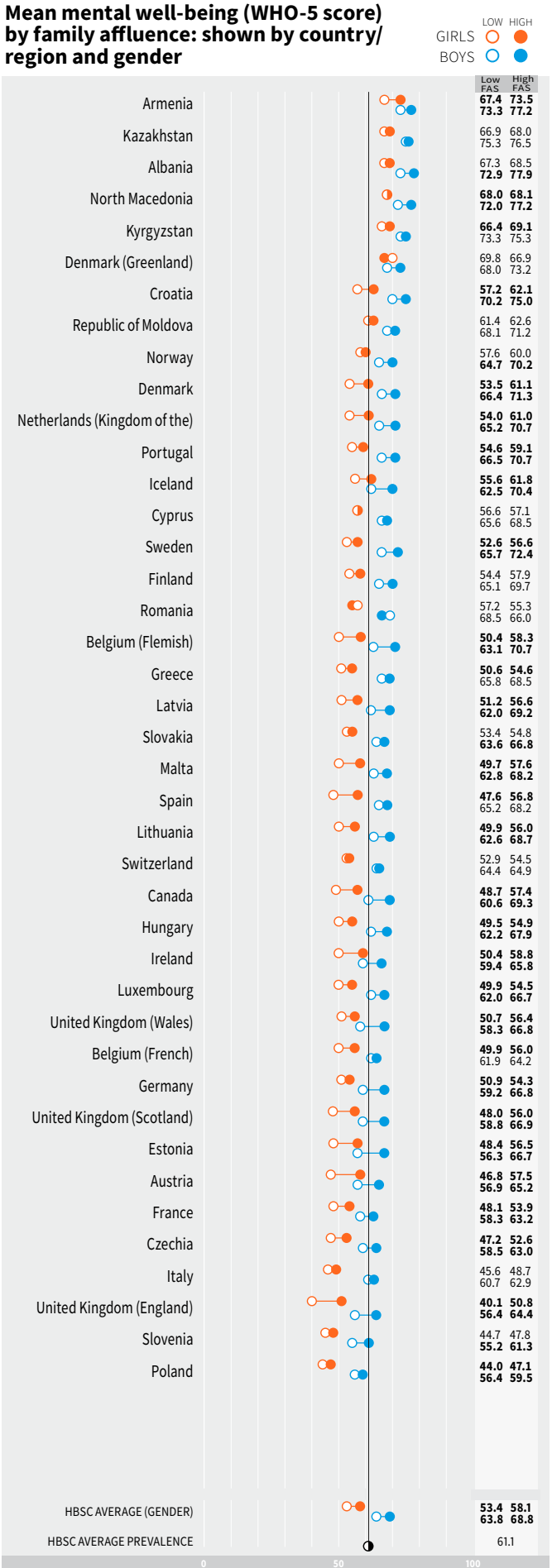
Note: country/region name in **bold** indicates a significant gender difference (at $P < 0.05$). No data were available for Bulgaria, Serbia or Tajikistan (all ages) and Denmark (11-year-olds).

MEASURE: young people were asked how often over the last two weeks they had: felt cheerful and in good spirits; calm and relaxed; active and vigorous; woken up feeling fresh and rested; and felt their daily life was filled with things that interested them. Response options ranged from all the time to at no time and were combined to make a score (from zero to 100). Higher scores indicate higher mental well-being. Mean mental well-being score is presented here.

15-year-olds: mean mental well-being score (WHO-5)



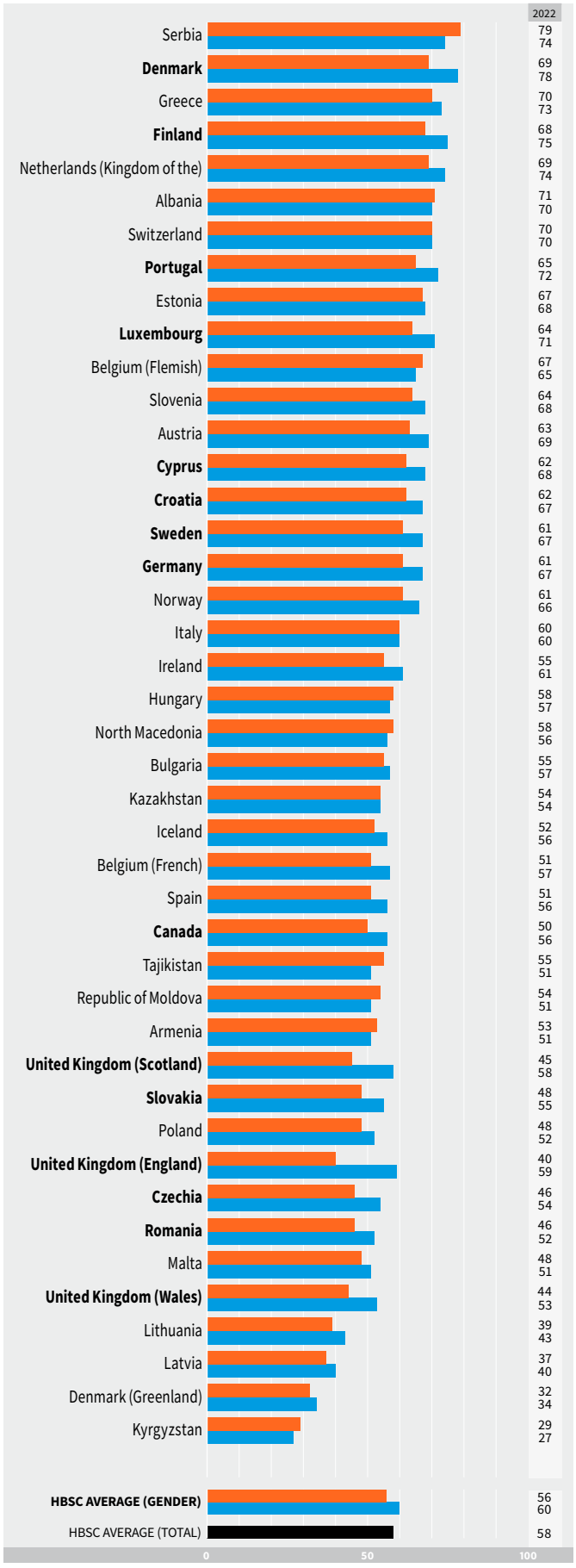
Mean mental well-being (WHO-5 score) by family affluence: shown by country/ region and gender



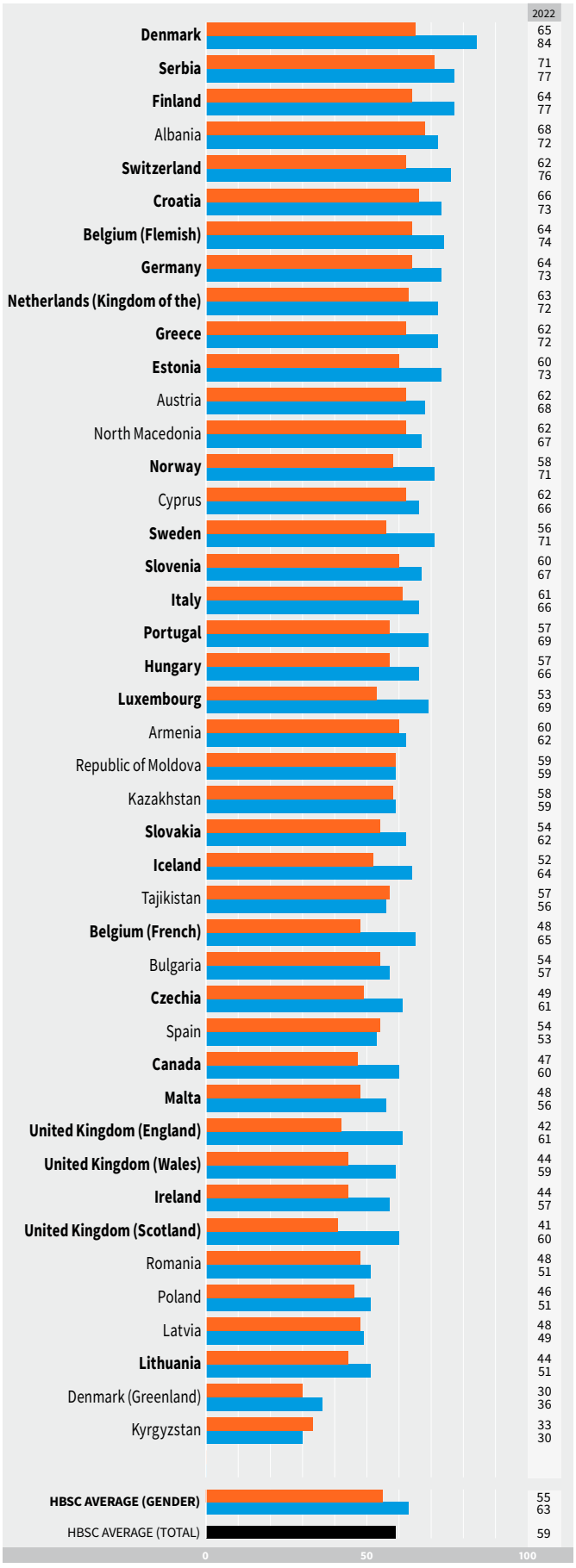
FAS: Family Affluence Scale.
Note: **bold** indicates a significant difference in prevalence by family affluence group (at $P < 0.05$). Low- and high-affluence groups represent the lowest 20% and highest 20% in each country/region. No data were available for Bulgaria, Serbia or Tajikistan.

Self-efficacy: problem-solving

11-year-olds who report they can find solutions most of the time or always



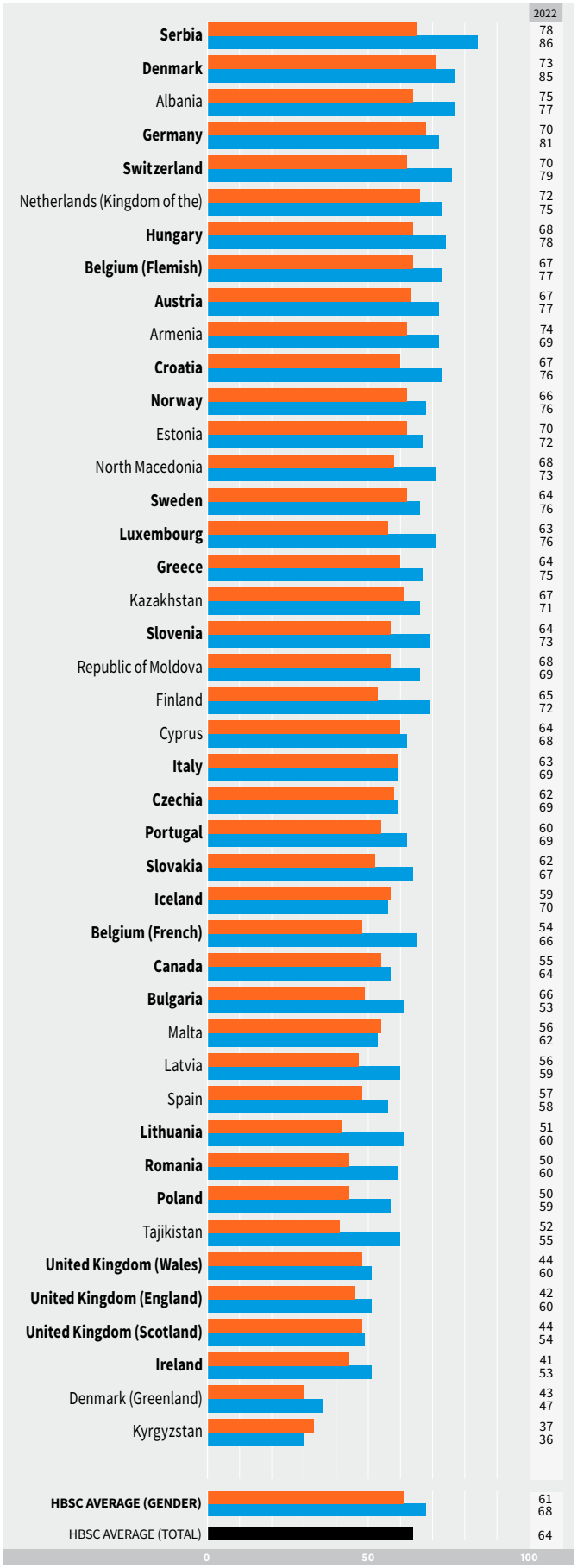
13-year-olds who report they can find solutions most of the time or always



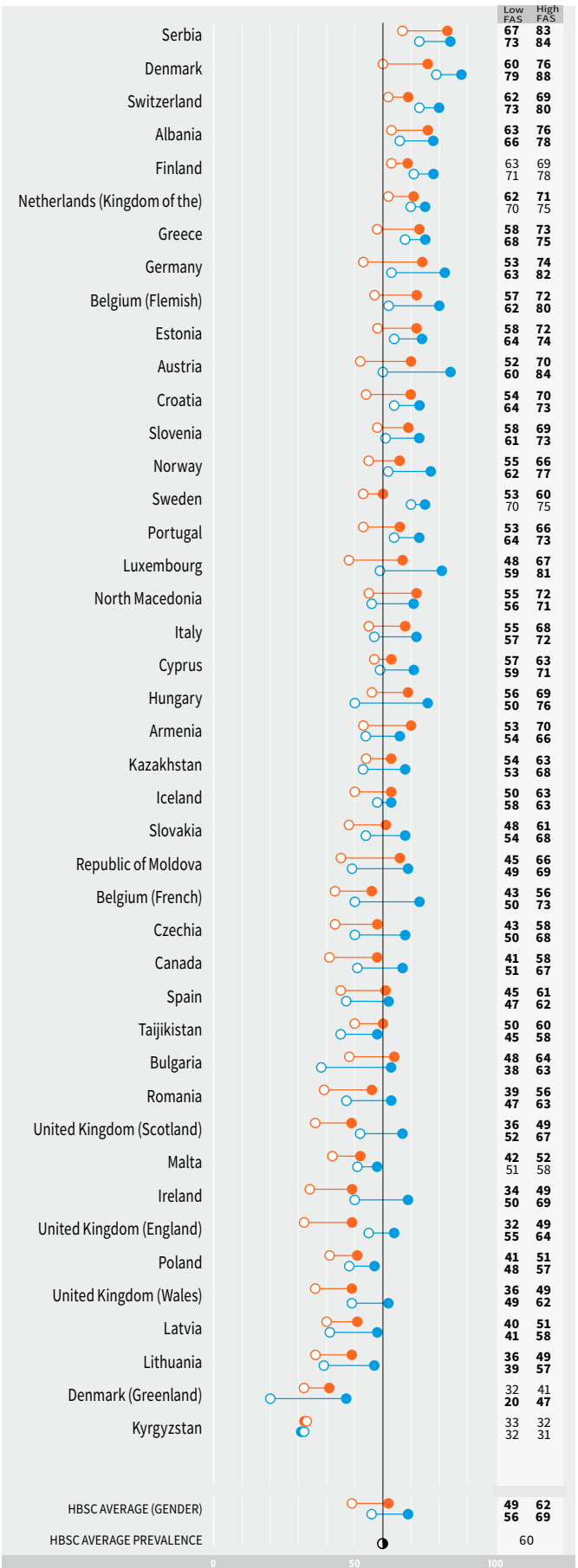
Note: country/region name in **bold** indicates a significant gender difference (at $P < 0.05$). No data were received from France.

MEASURE: young people were asked about how often they can find a solution to a problem if they try hard enough. Response options were never, rarely, sometimes, most of the time and always. Findings presented here show the proportions who reported they can find solutions most of the time or always.

15-year-olds who report they can find solutions most of the time or always



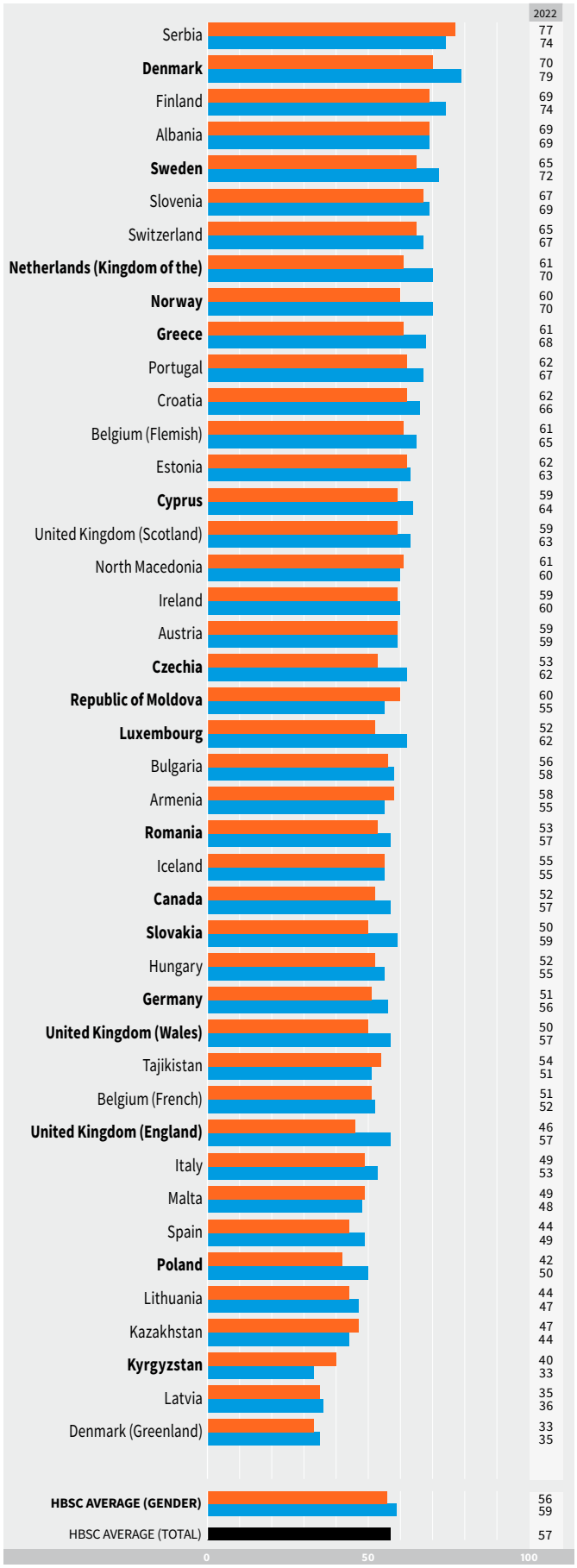
Prevalence by family affluence: can find solutions most of the time or always by country/region and gender



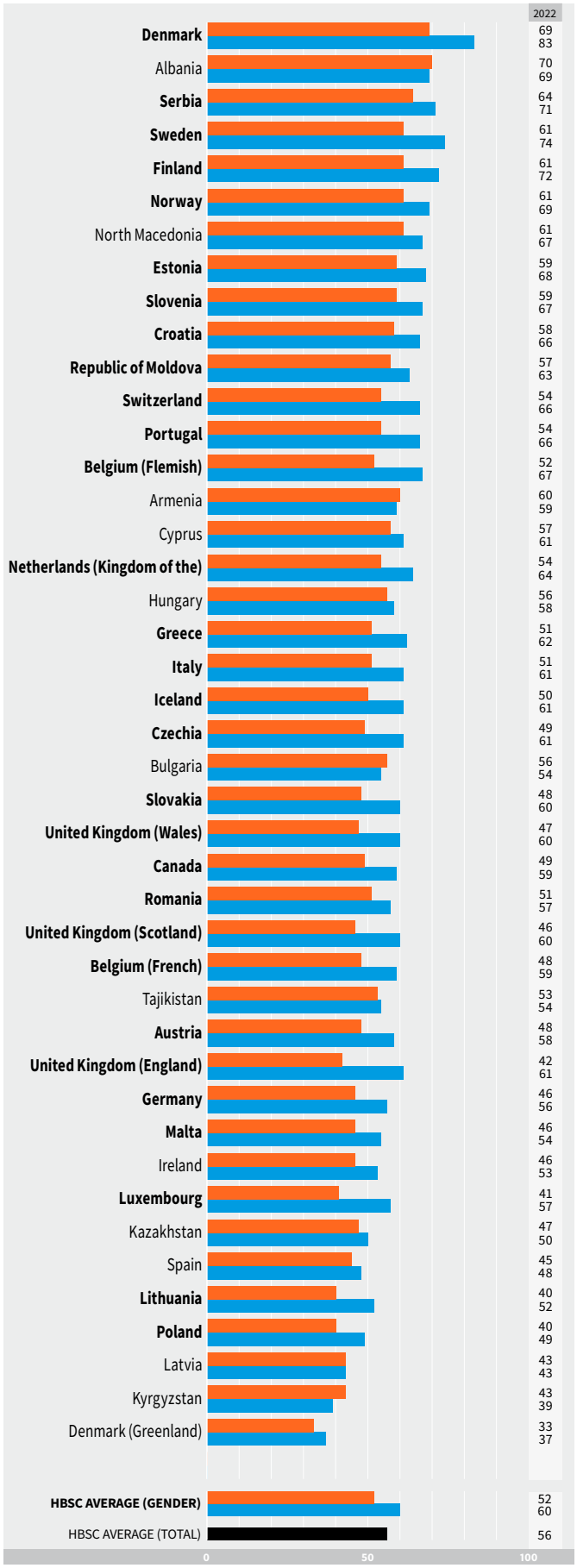
FAS: Family Affluence Scale.
Note: **bold** indicates a significant difference in prevalence by family affluence group (at $P < 0.05$). Low- and high-affluence groups represent the lowest 20% and highest 20% in each country/region. No data were received from France.

Sefl-efficacy: achieve goals

11-year-olds who report they can manage to do things they decided to do most of the time or always



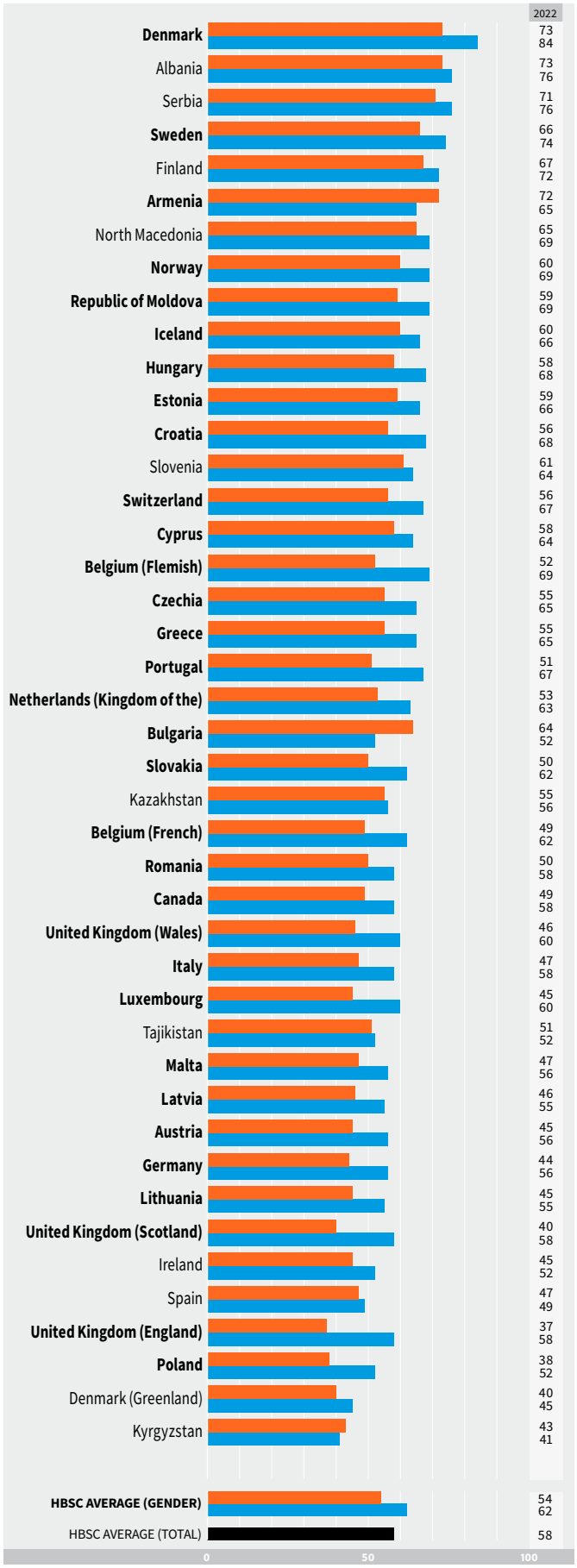
13-year-olds who report they can manage to do things they decided to do most of the time or always



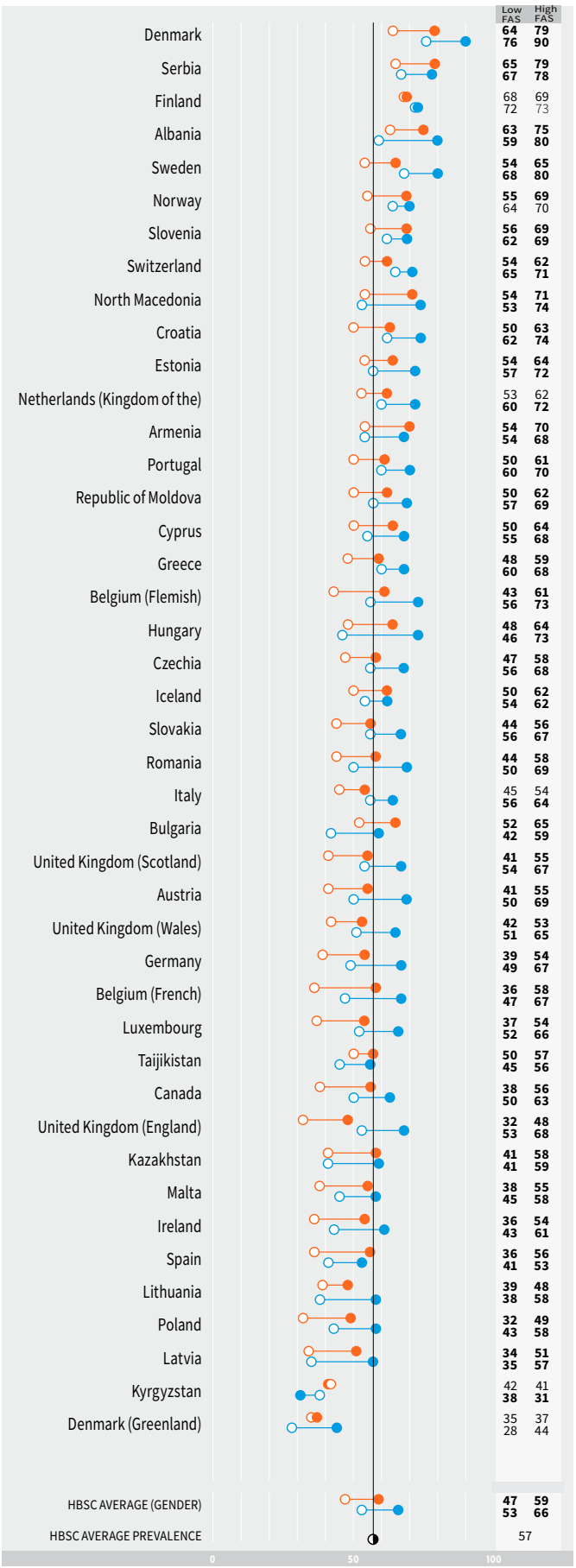
Note: country/region name in **bold** indicates a significant gender difference (at $P < 0.05$). No data were received from France.

MEASURE: young people were asked about how often they manage to do things they have decided to do. Response options were never, rarely, sometimes, most of the time and always. Findings presented here show the proportions who reported they can manage to do things they had decided to do most of the time or always.

15-year-olds who report they can manage to do things they decided to do most of the time or always

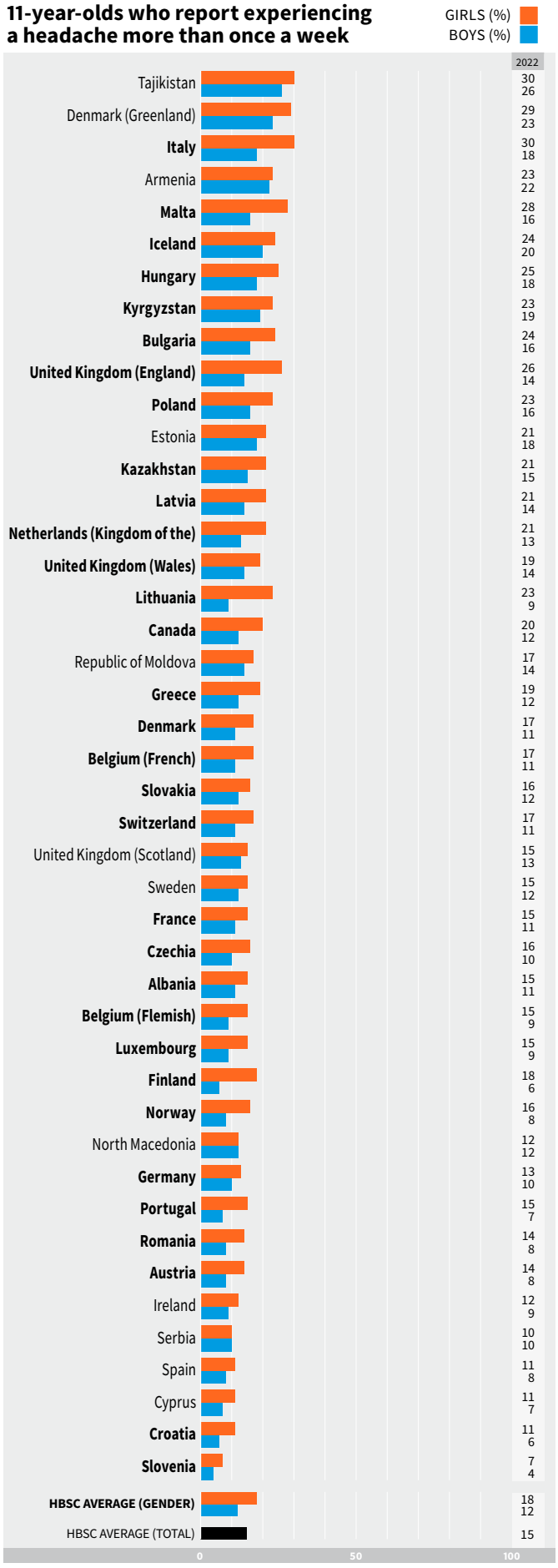


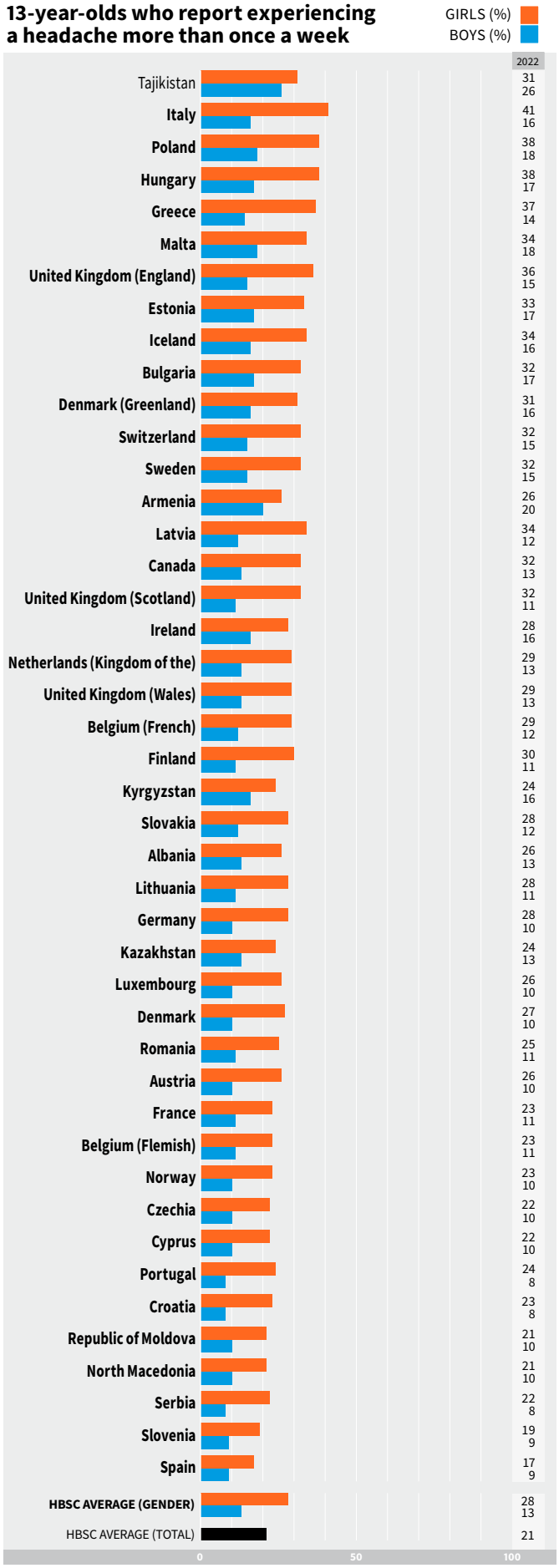
Prevalence by family affluence: can manage to do things they decided to do most of the time or always by country/region and gender



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. No data were received from France.

Individual health complaints: headache

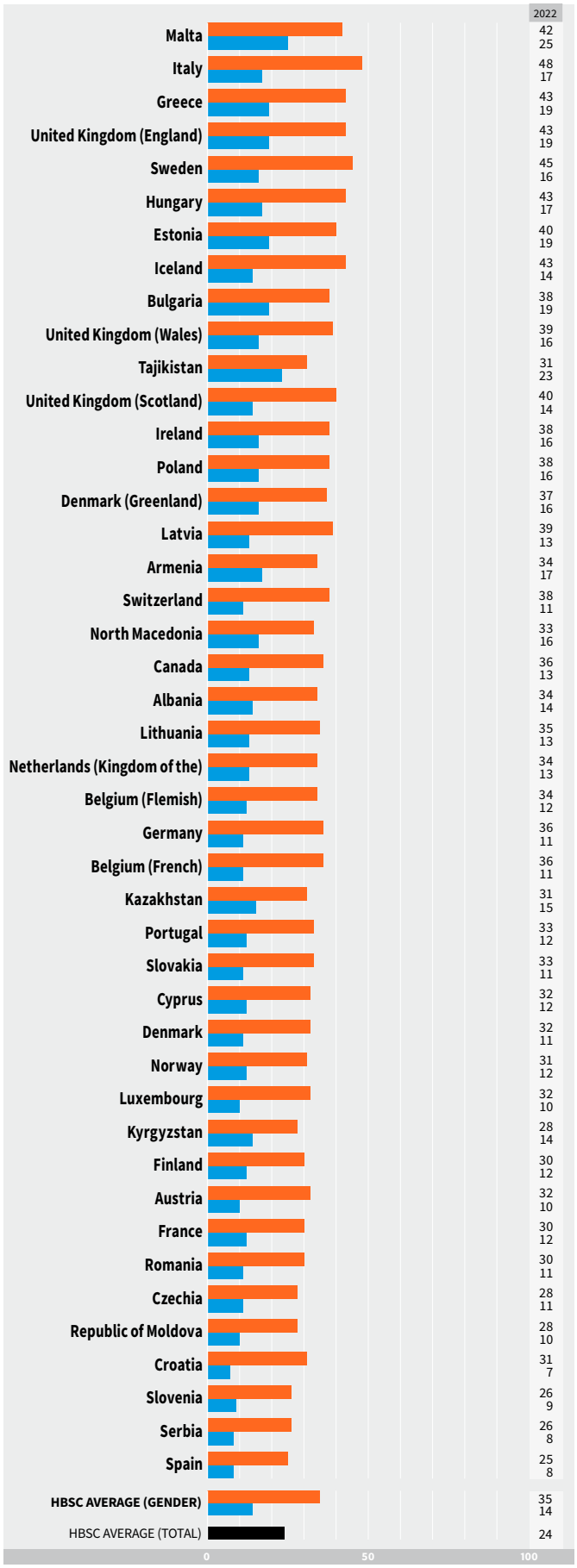




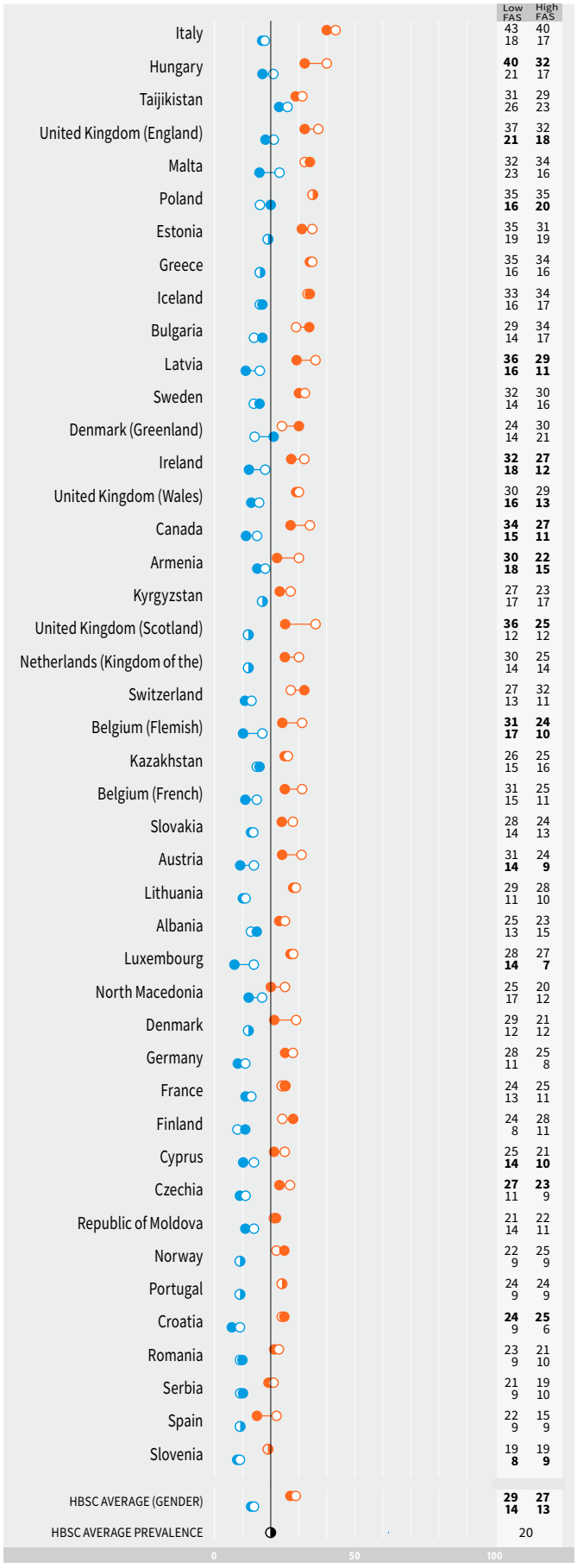
Note: country/region name in **bold** indicates a significant gender difference (at $P < 0.05$).

MEASURE: young people were asked how often they had experienced a headache in the last six months. Response options ranged from about every day to rarely or never. Findings presented here show the proportions who reported experiencing a headache more than once a week.

15-year-olds who report experiencing a headache more than once a week

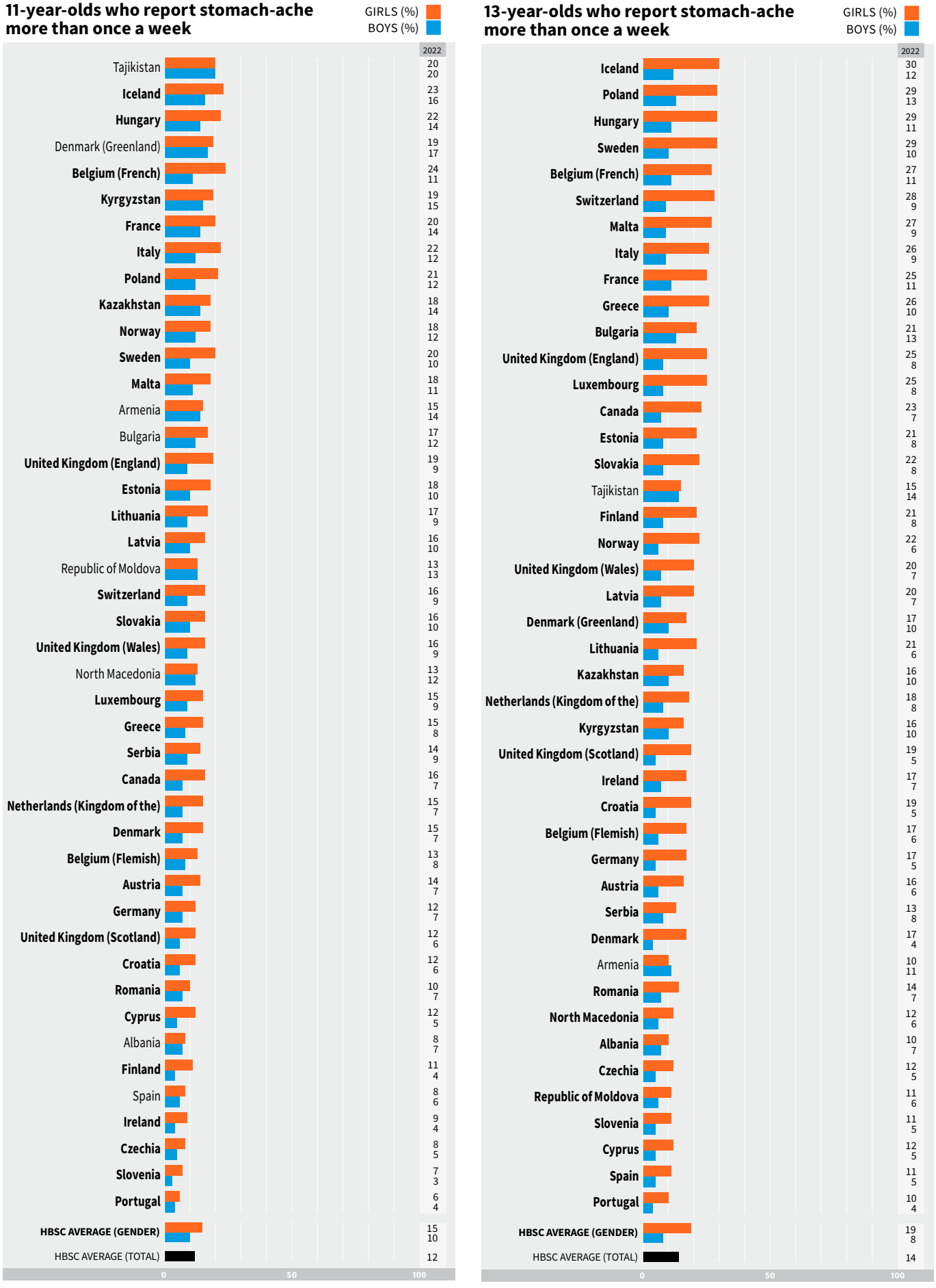


Prevalence by family affluence: headache more than once a week by country/region and gender



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.

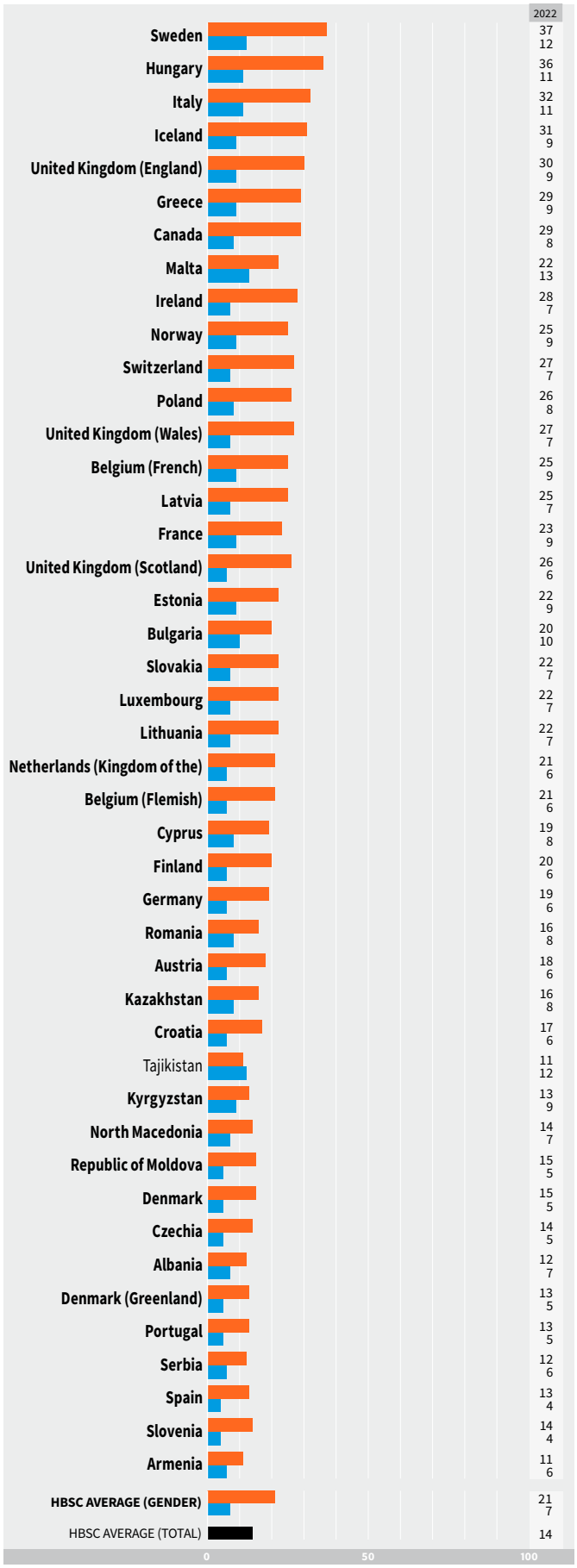
Individual health complaints: stomach-ache



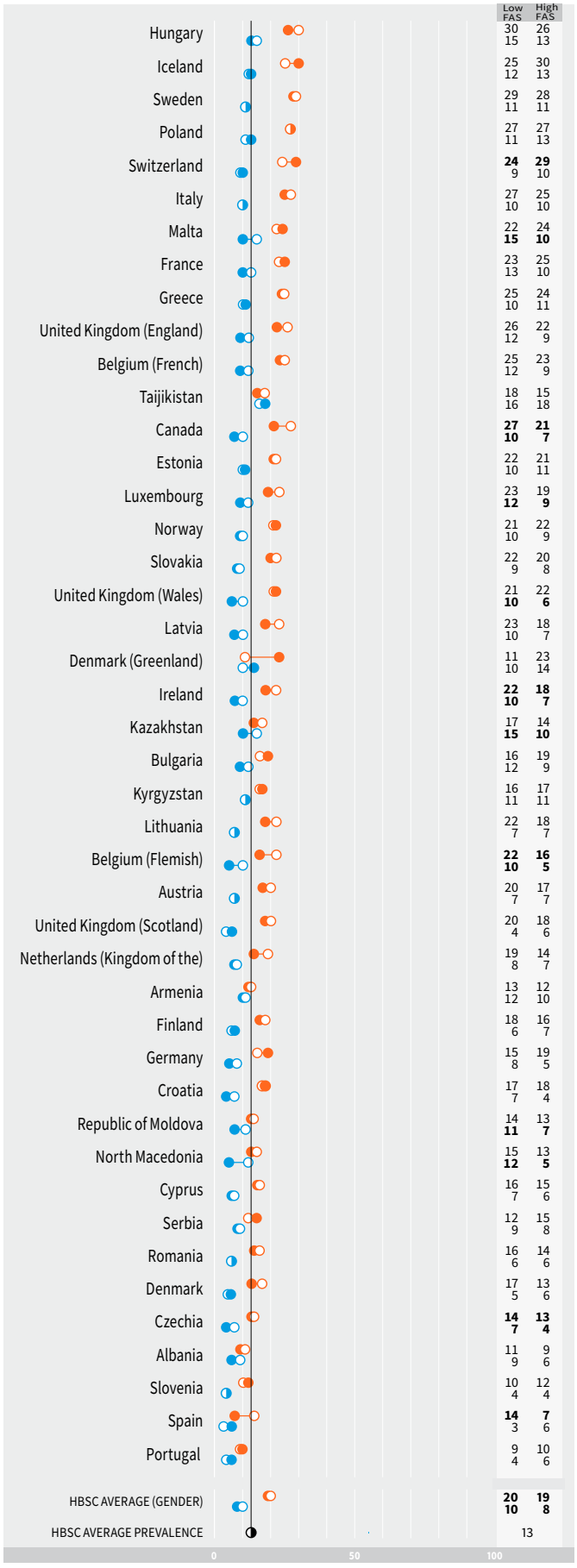
Note: country/region name in **bold** indicates a significant gender difference (at $P < 0.05$).

MEASURE: young people were asked how often they had experienced a stomach-ache in the last six months. Response options ranged from about every day to rarely or never. Findings presented here show the proportions who reported experiencing stomach-ache more than once a week.

15-year-olds who report stomach-ache more than once a week

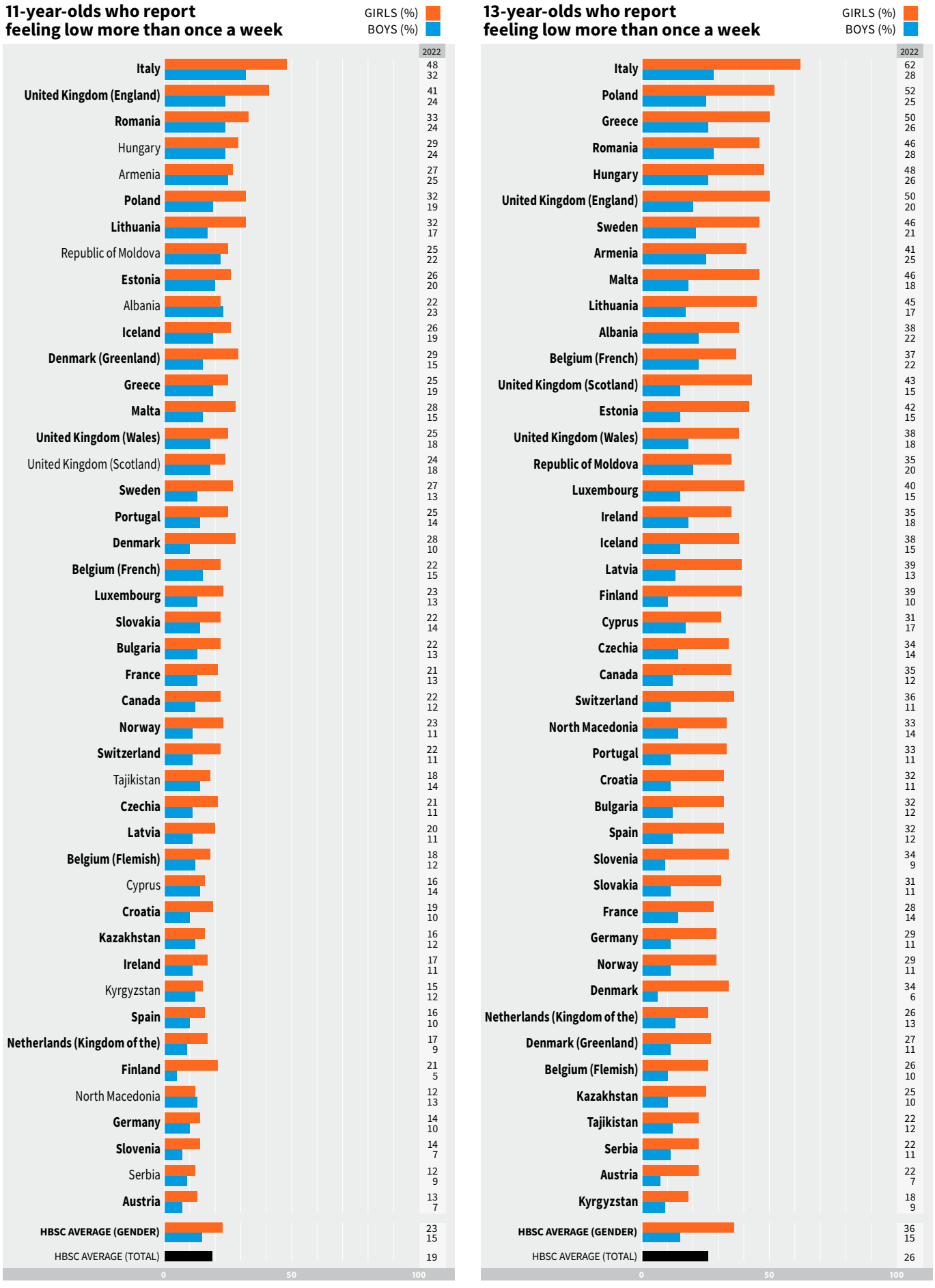


Prevalence by family affluence: stomach-ache more than once a week by country/region and gender



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.

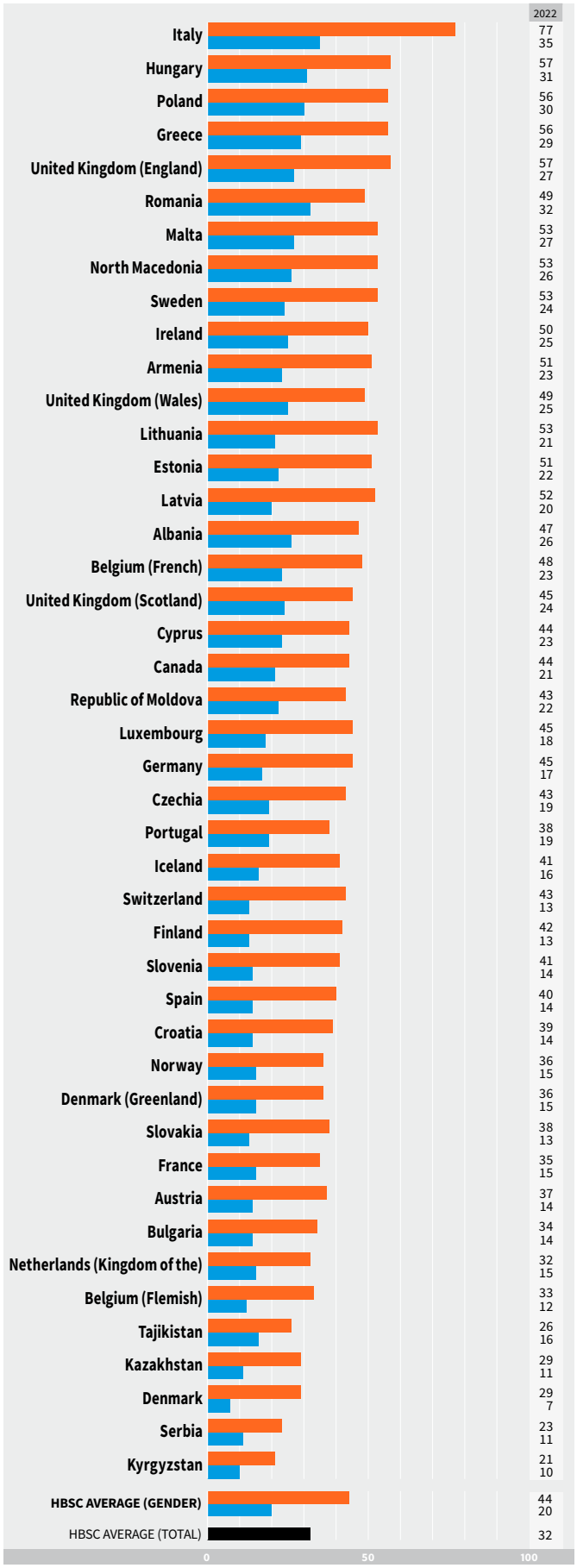
Individual health complaints: feeling low



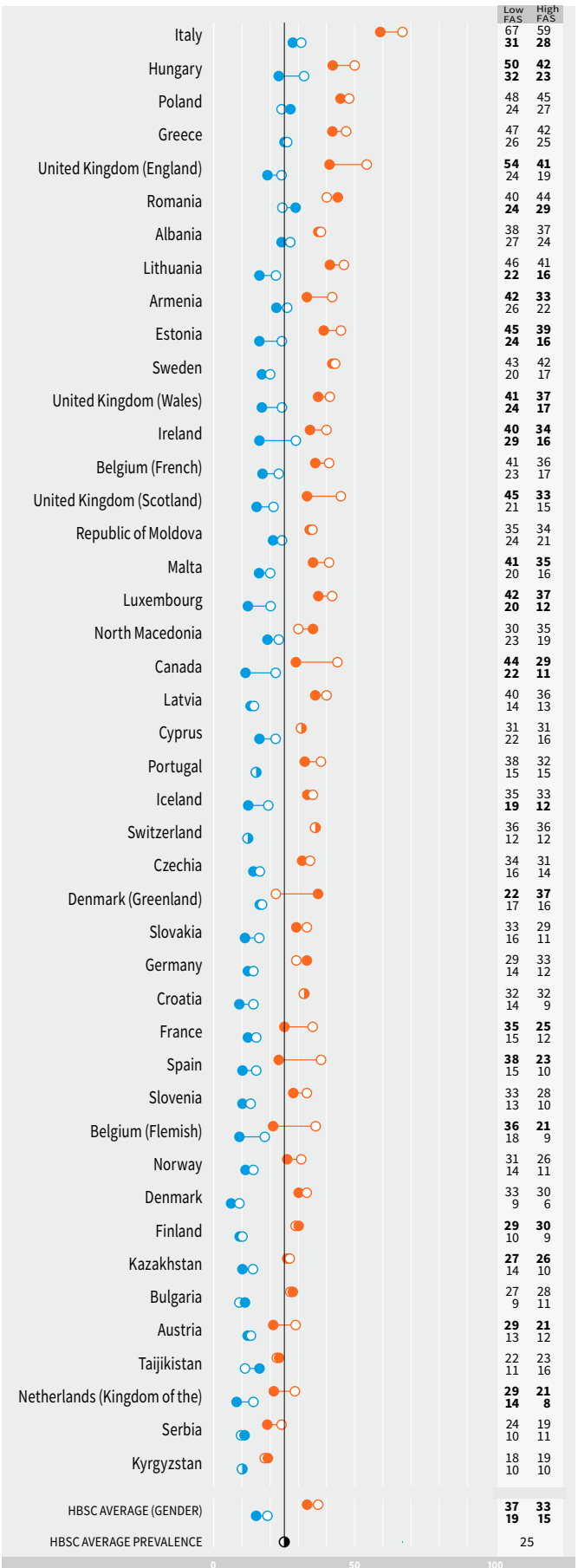
Note: country/region name in **bold** indicates a significant gender difference (at $P < 0.05$).

MEASURE: young people were asked how often they had experienced feeling low in the last six months. Response options ranged from about every day to rarely or never. Findings presented here show the proportions who reported feeling low more than once a week.

15-year-olds who report feeling low more than once a week

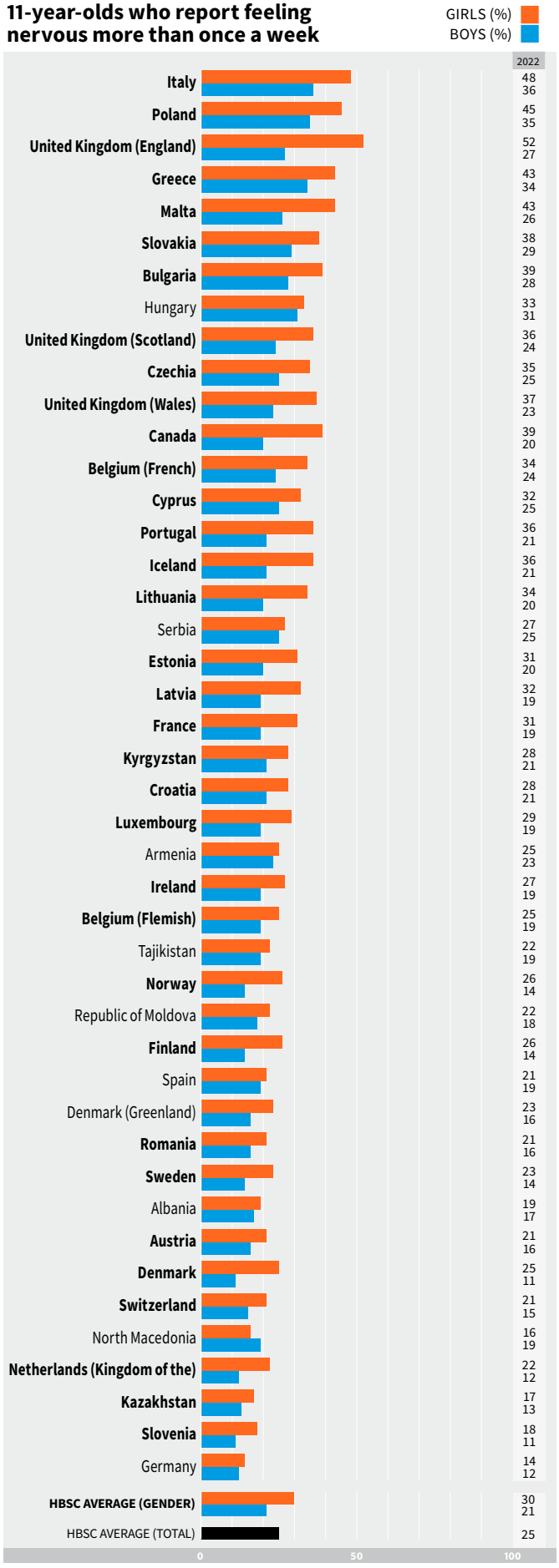


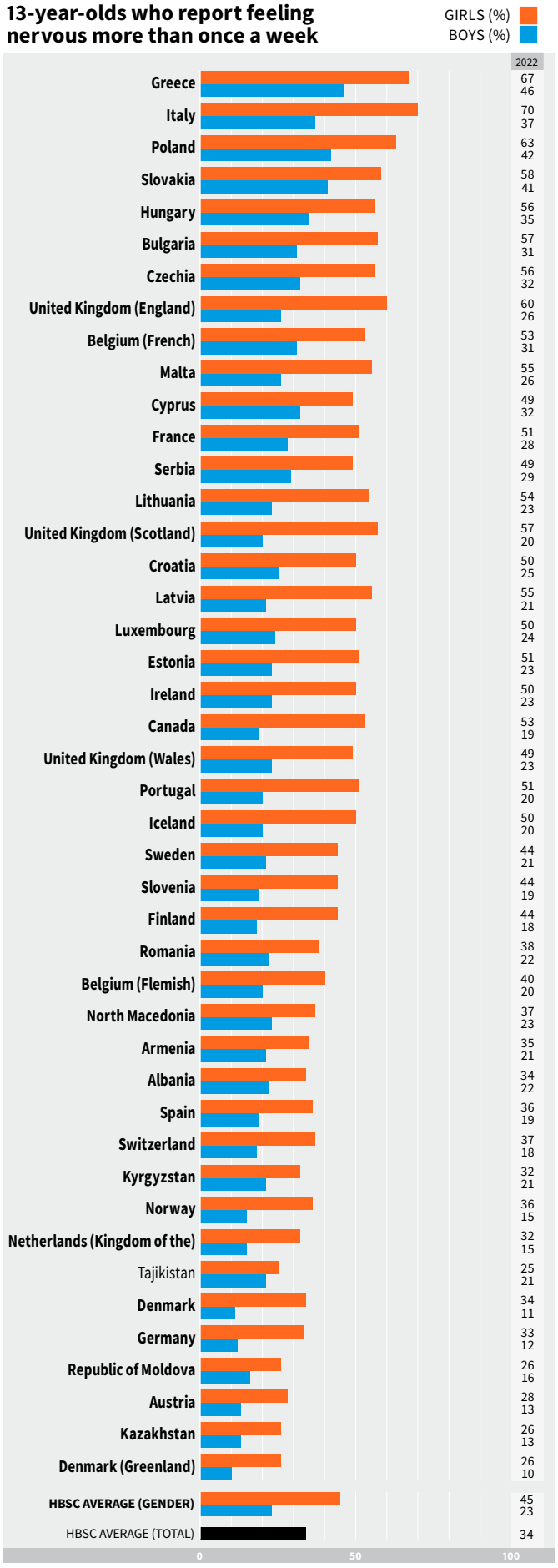
Prevalence by family affluence: feeling low more than once a week by country/region and gender



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.

Individual health complaints: feeling nervous

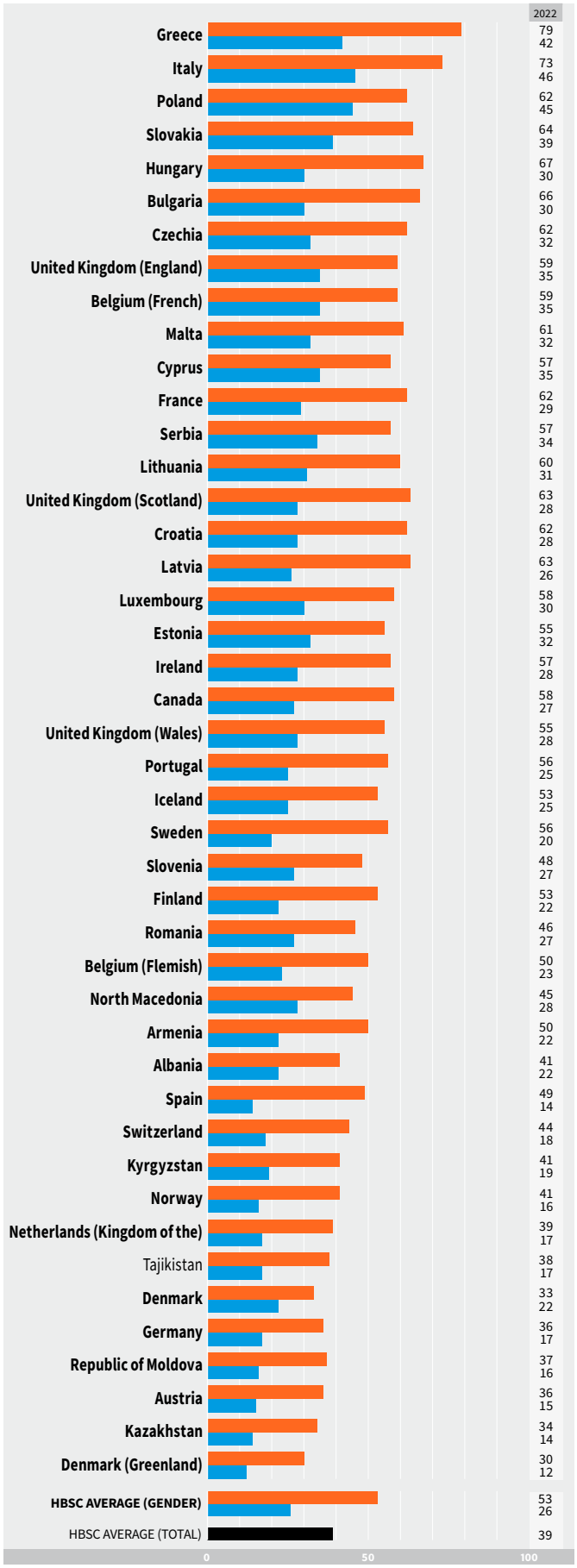




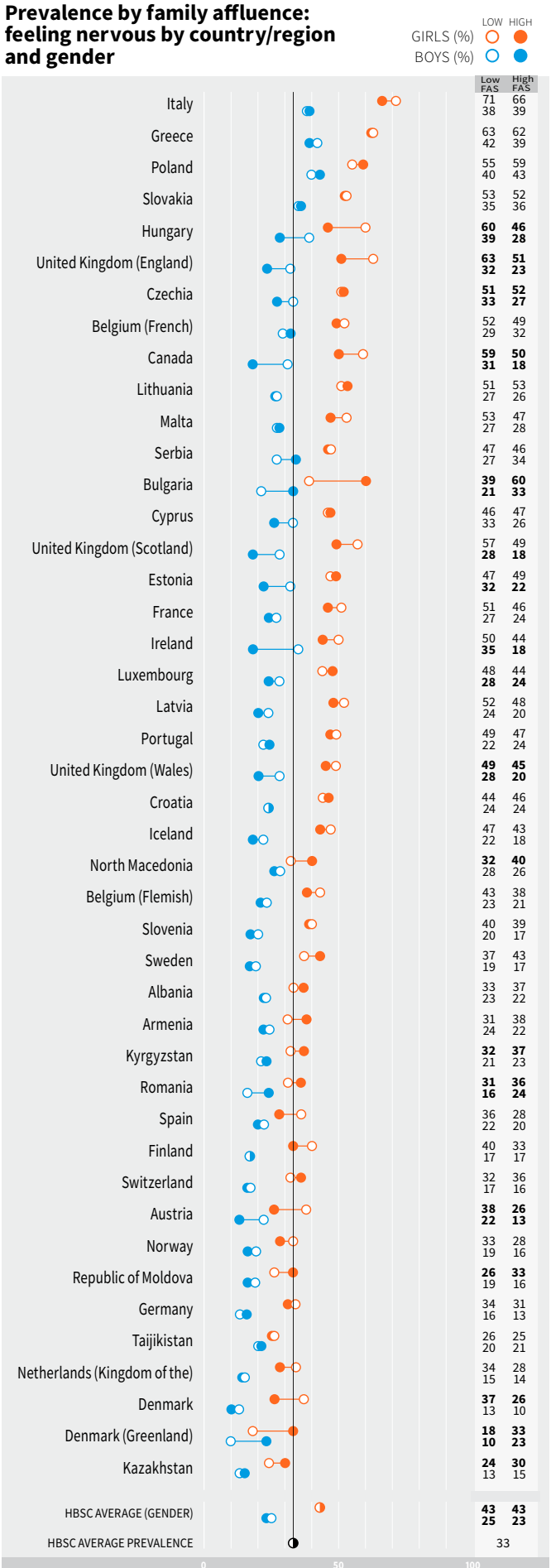
Note: country/region name in **bold** indicates a significant gender difference (at $P < 0.05$).

MEASURE: young people were asked how often they had experienced feeling nervous in the last six months. Response options ranged from about every day to rarely or never. Findings presented here show the proportions who reported feeling nervous more than once a week.

15-year-olds who report feeling nervous more than once a week



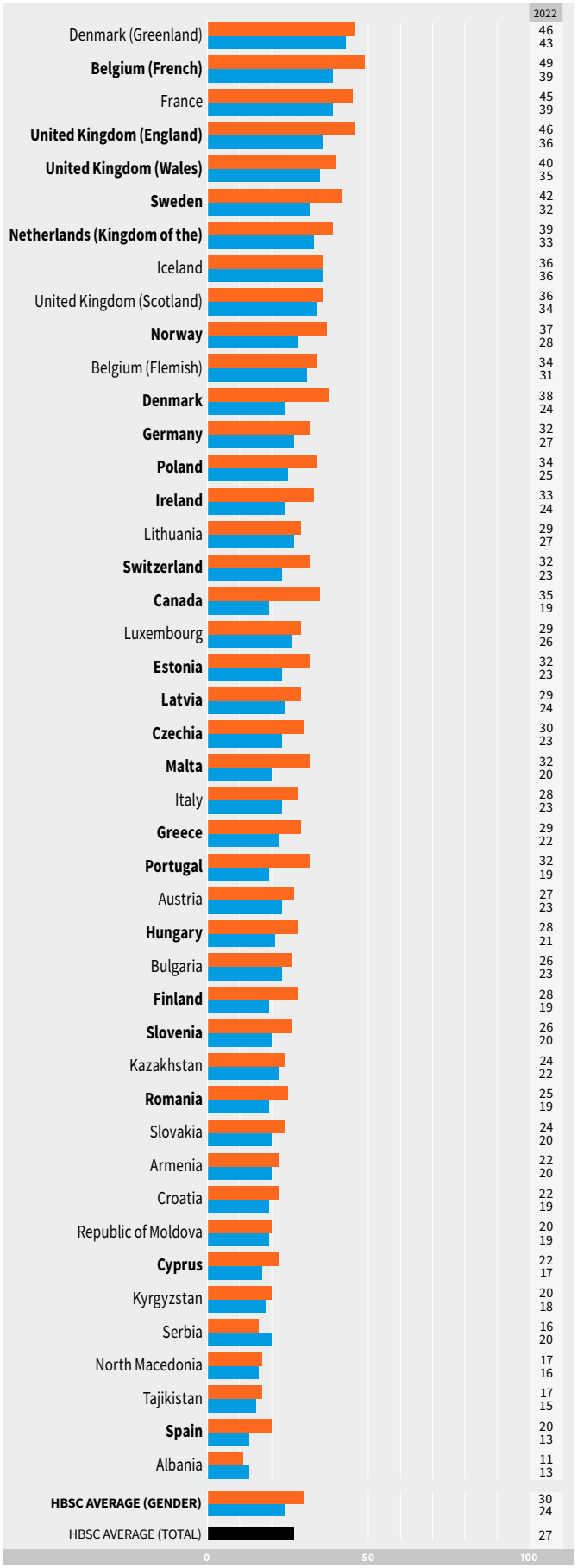
Prevalence by family affluence: feeling nervous by country/region and gender



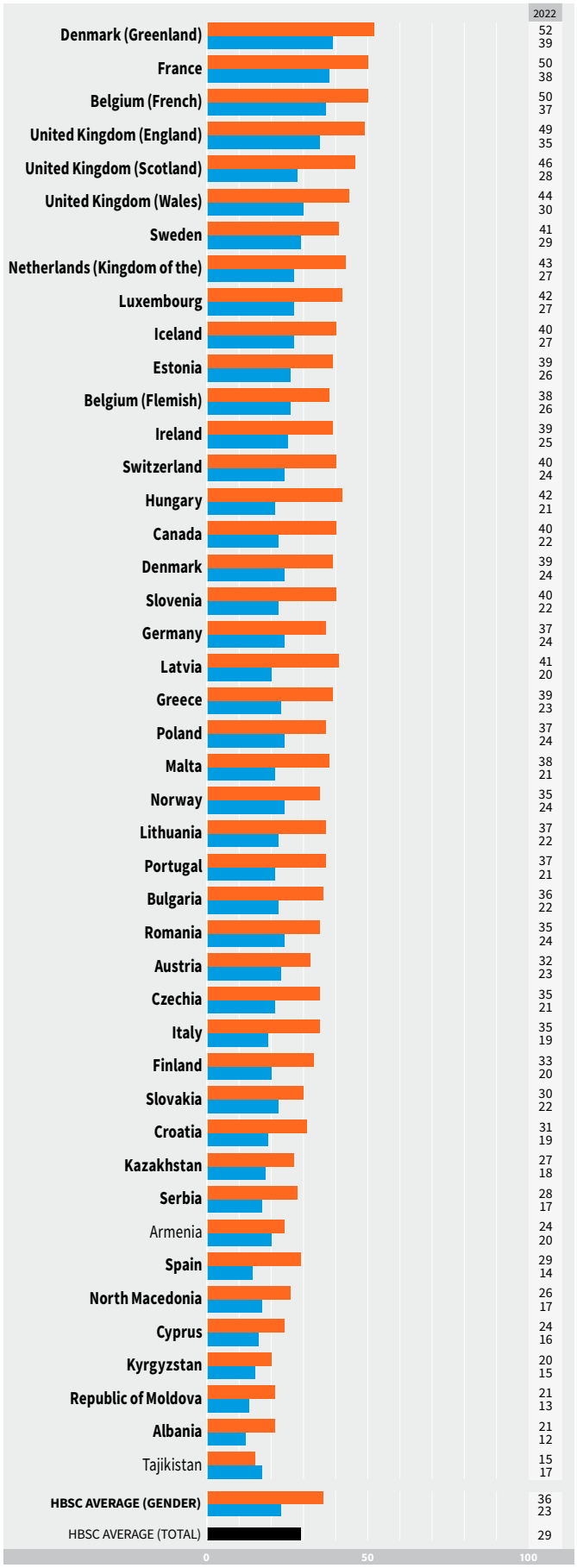
FAS: Family Affluence Scale.
Note: **bold** indicates a significant difference in prevalence by family affluence group (at $P < 0.05$). Low- and high-affluence groups represent the lowest 20% and highest 20% in each country/region.

Individual health complaints: sleep difficulties

11-year-olds who report experiencing difficulties getting to sleep more than once a week



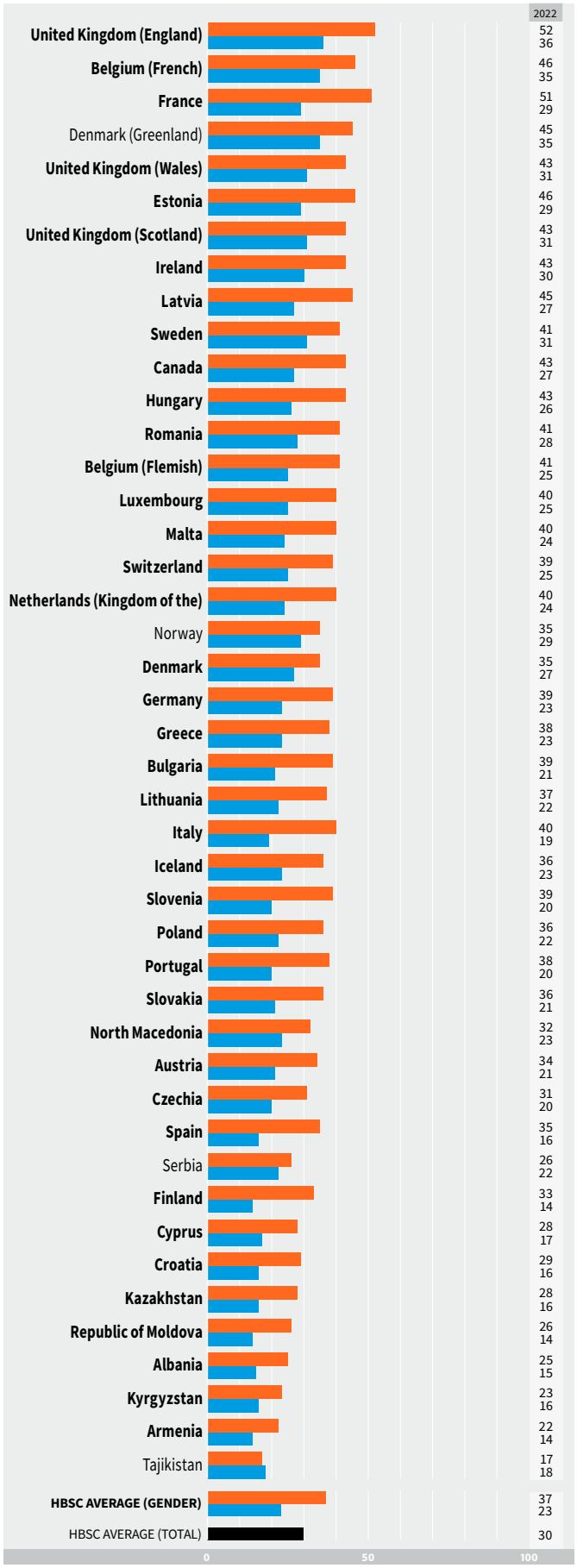
13-year-olds who report experiencing difficulties getting to sleep more than once a week



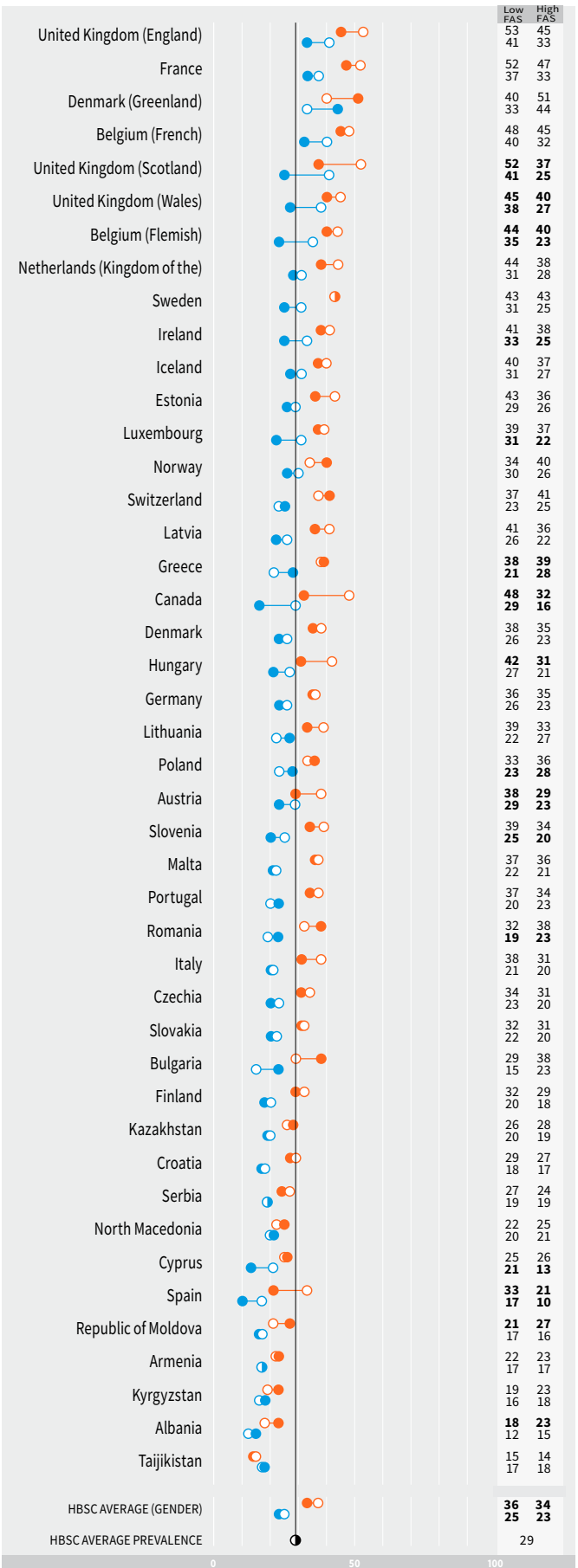
Note: country/region name in **bold** indicates a significant gender difference (at $P < 0.05$).

MEASURE: young people were asked how often they had experienced difficulties in getting to sleep in the last six months. Response options ranged from about every day to rarely or never. Findings presented here show the proportions who reported experiencing difficulties getting to sleep more than once a week.

15-year-olds who report experiencing difficulties getting to sleep more than once a week

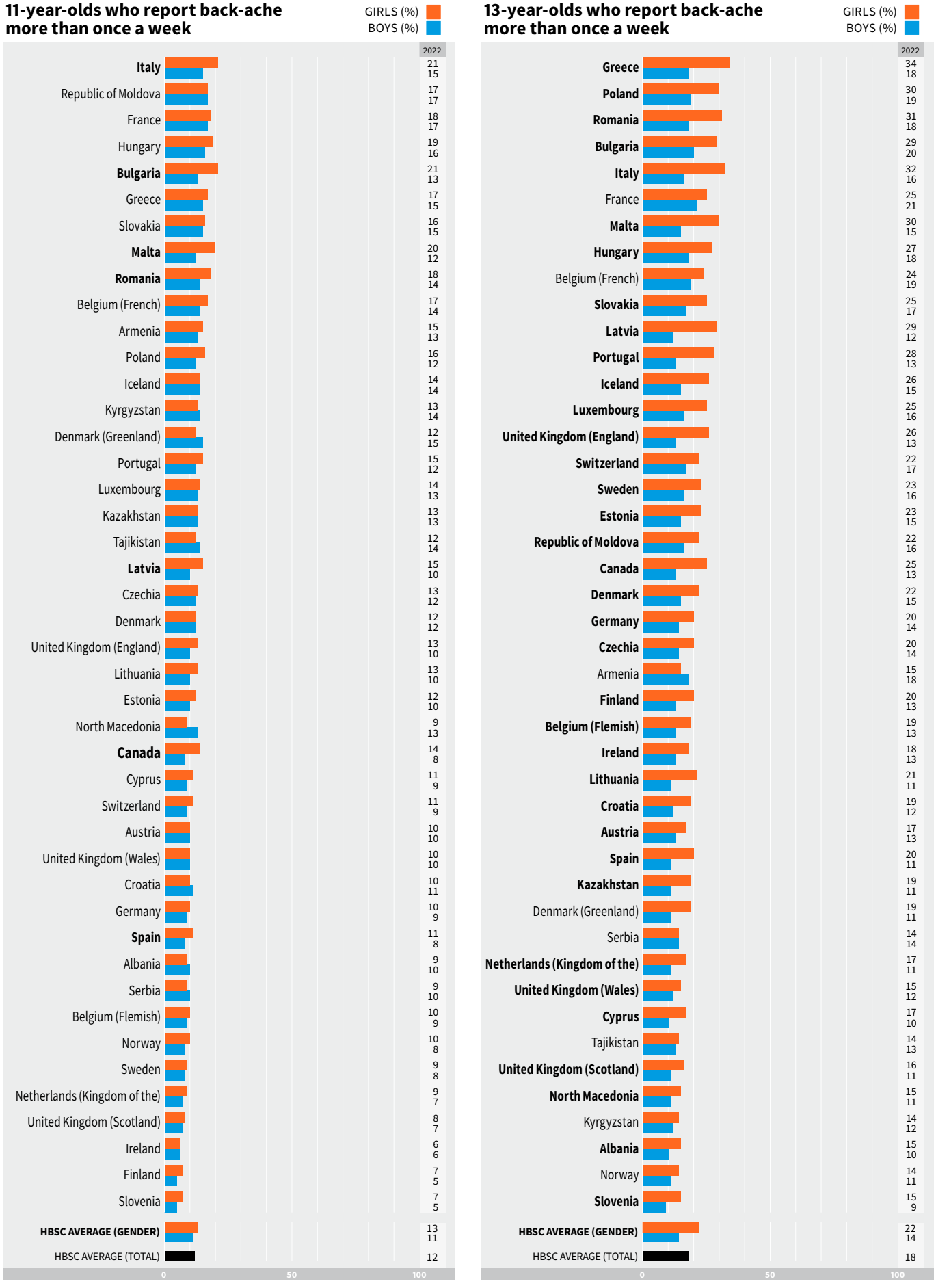


Prevalence by family affluence: sleep difficulties more than once a week by country/region and gender



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.

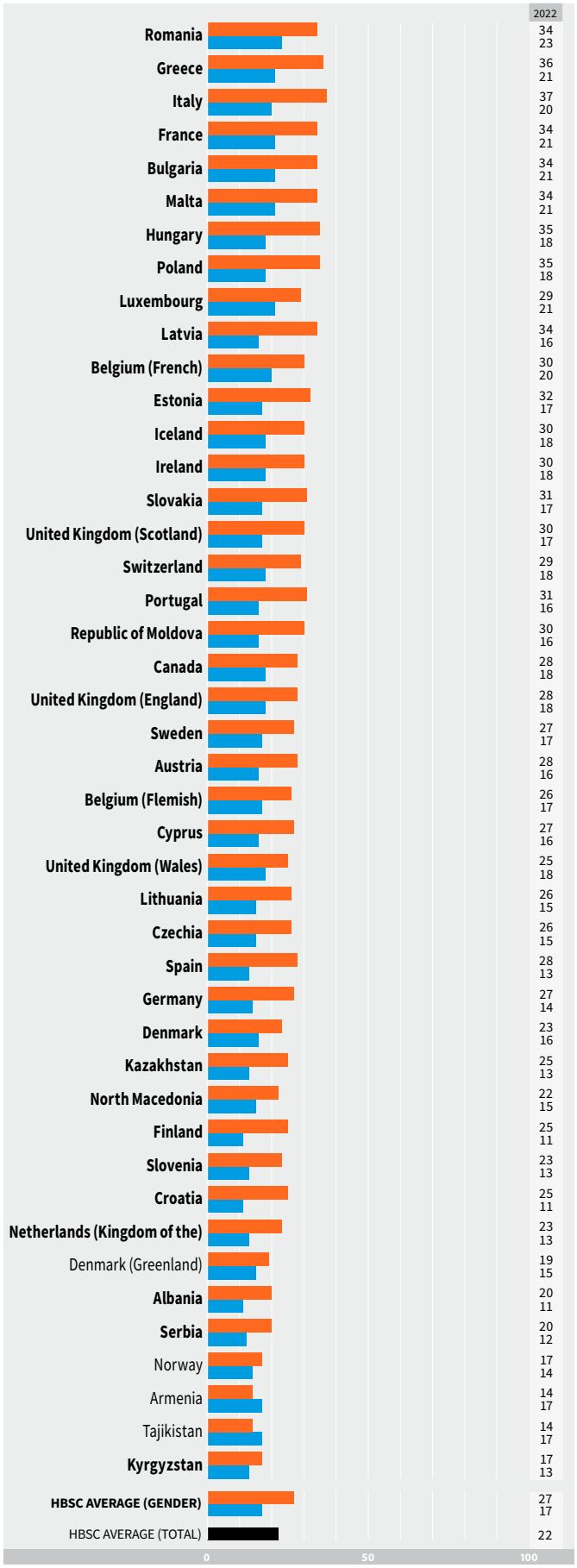
Individual health complaints: back-ache



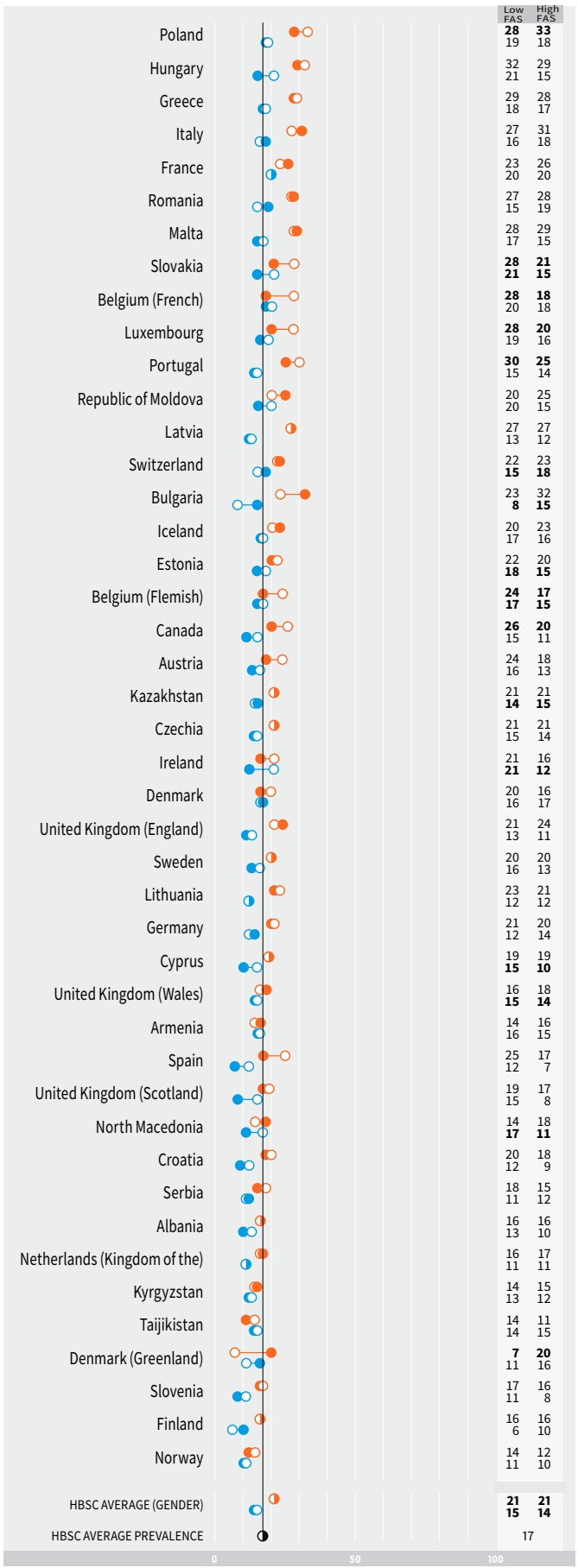
Note: country/region name in **bold** indicates a significant gender difference (at $P < 0.05$).

MEASURE: young people were asked how often they had had back-ache in the last six months. Response options ranged from about every day to rarely or never. Findings presented here show the proportions who reported experiencing back-ache more than once a week.

15-year-olds who report back-ache more than once a week

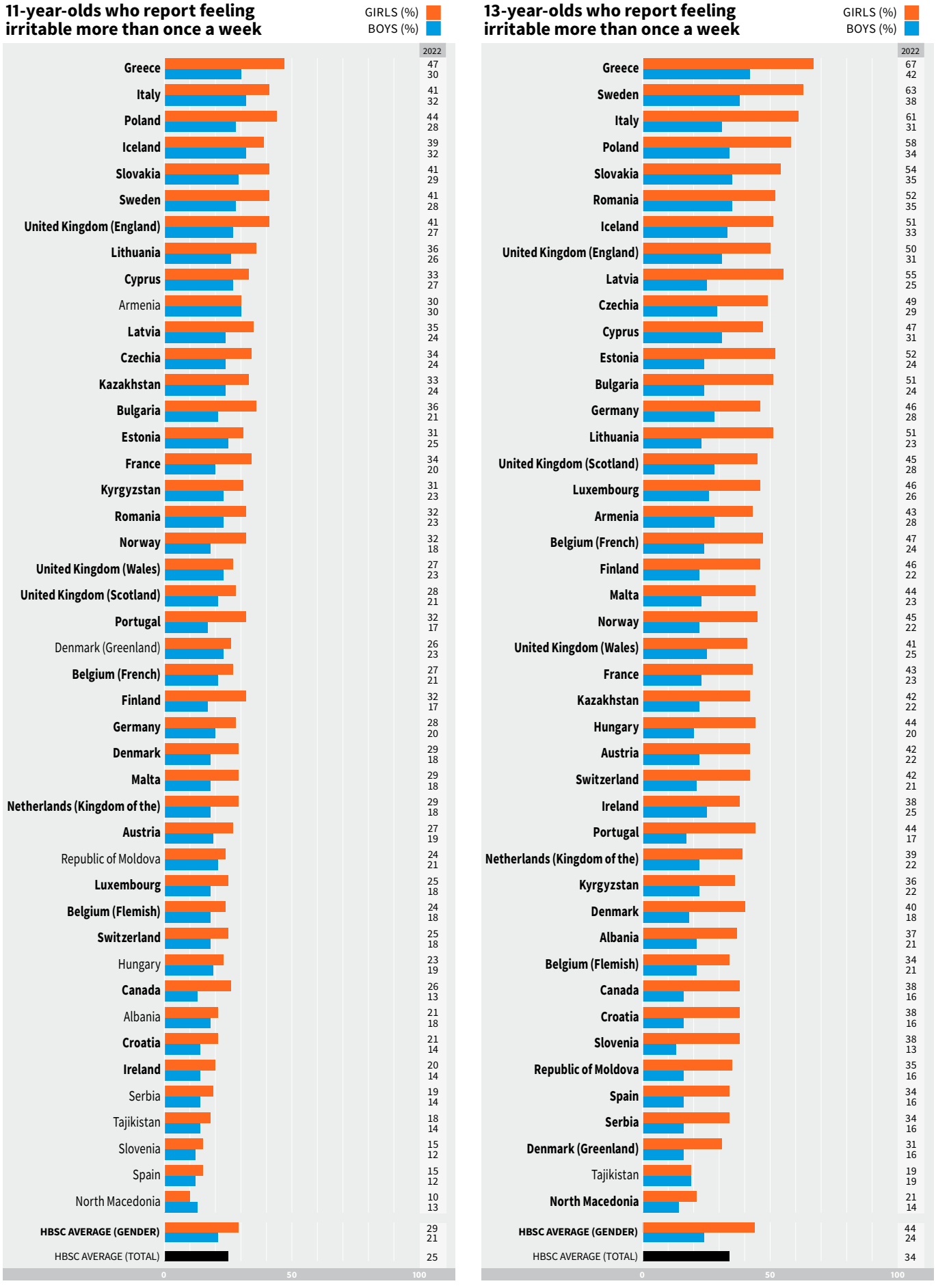


Prevalence by family affluence: back-ache more than once a week by country/region and gender



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.

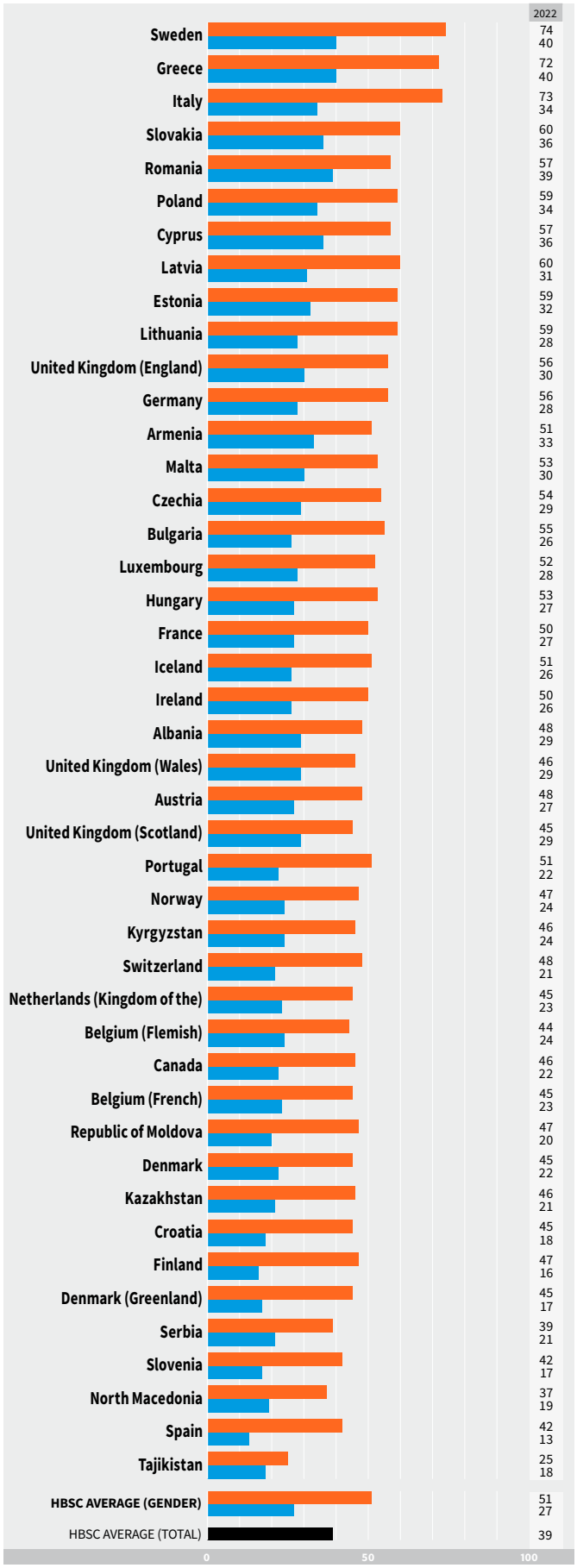
Individual health complaints: feeling irritable



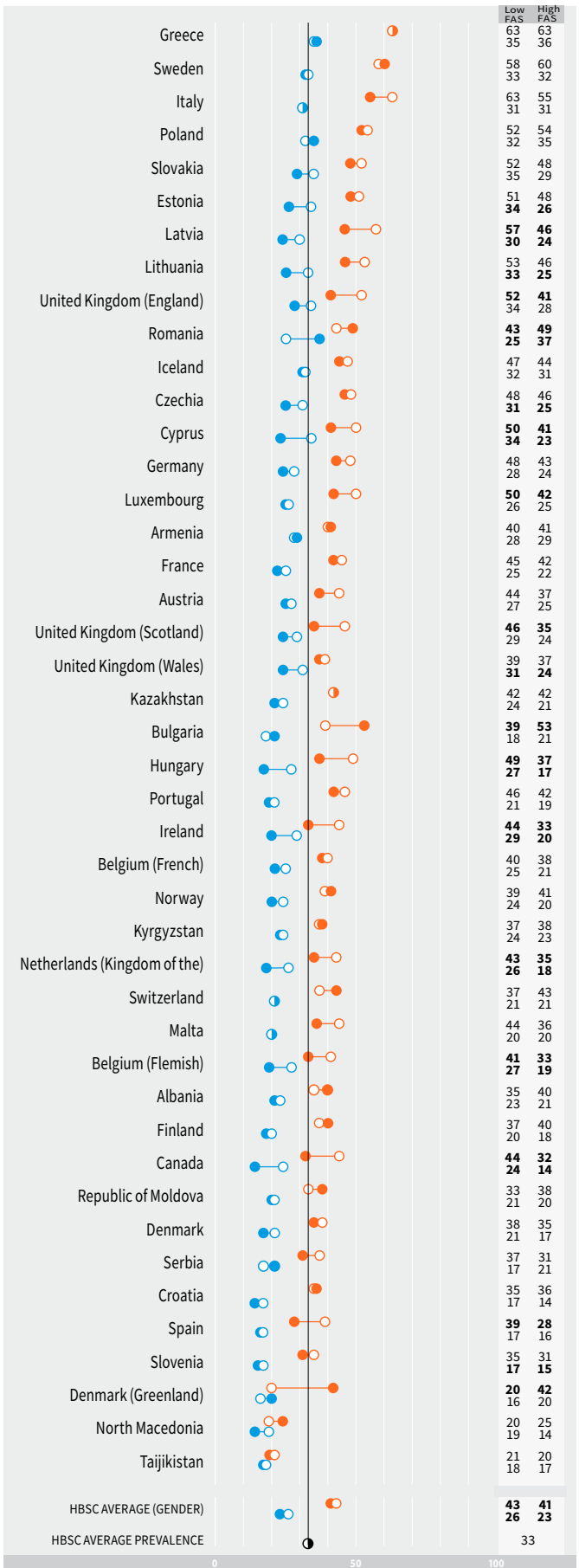
Note: country/region name in **bold** indicates a significant gender difference (at $P < 0.05$).

MEASURE: young people were asked how often they had felt irritable or bad tempered in the last six months. Response options ranged from about every day to rarely or never. Findings presented here show the proportions who reported feeling irritable more than once a week.

15-year-olds who report feeling irritable more than once a week

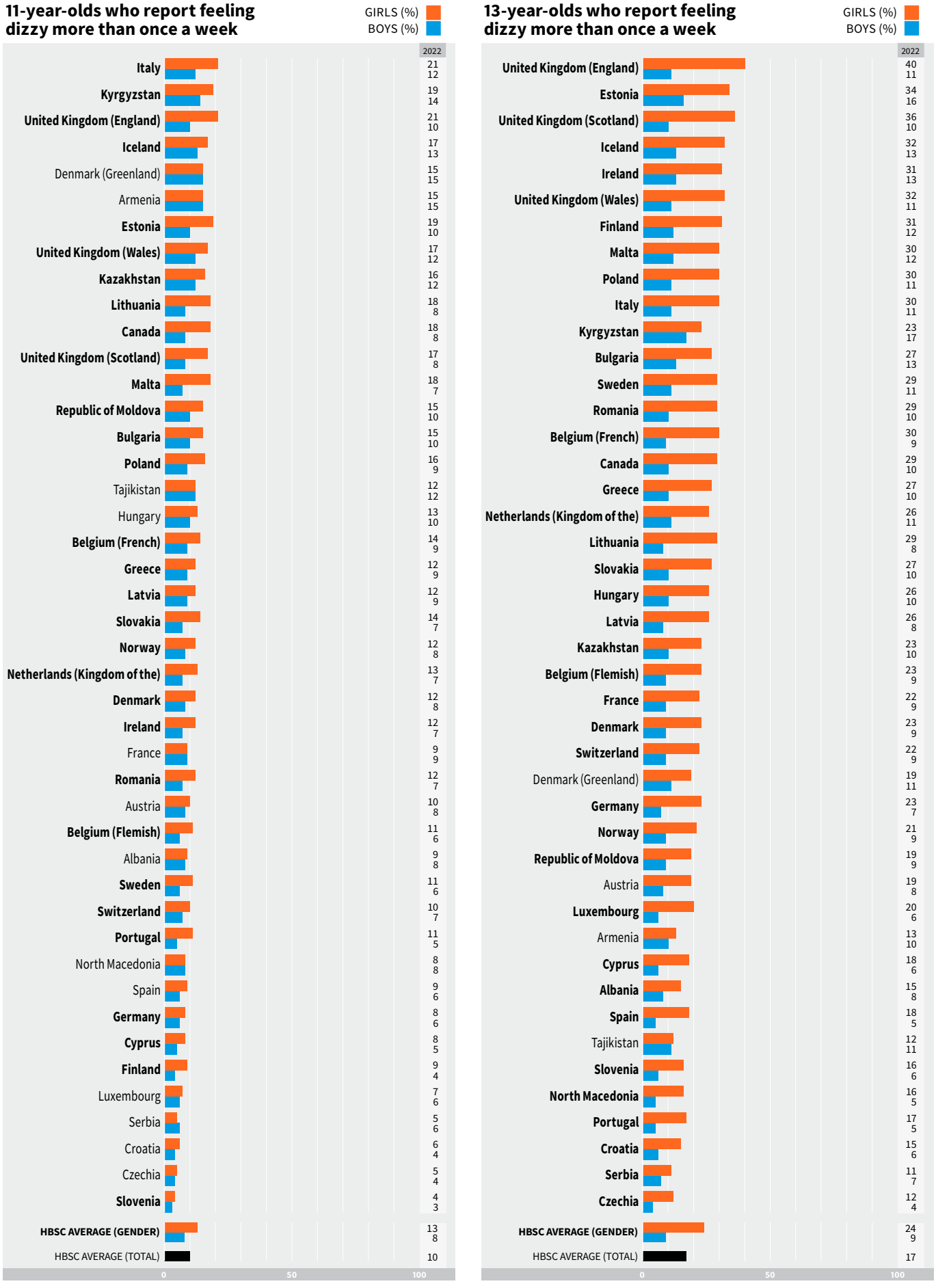


Prevalence by family affluence: feeling irritable by country/region and gender



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.

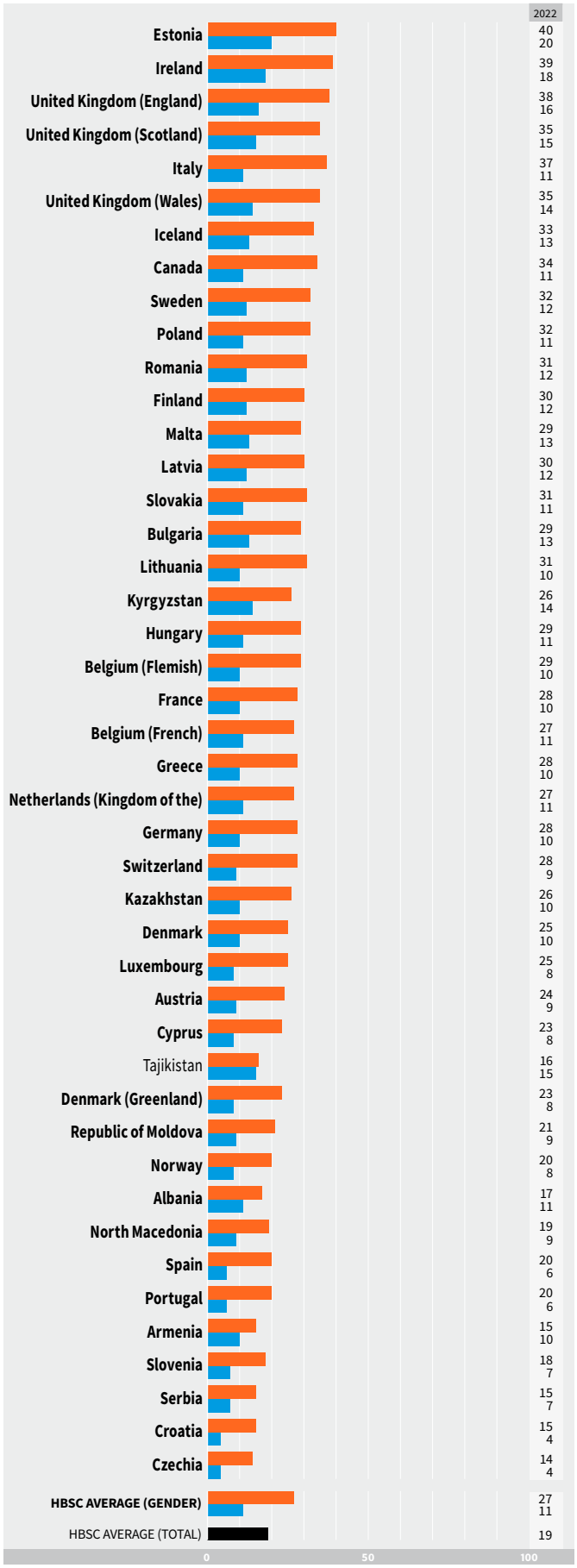
Individual health complaints: feeling dizzy



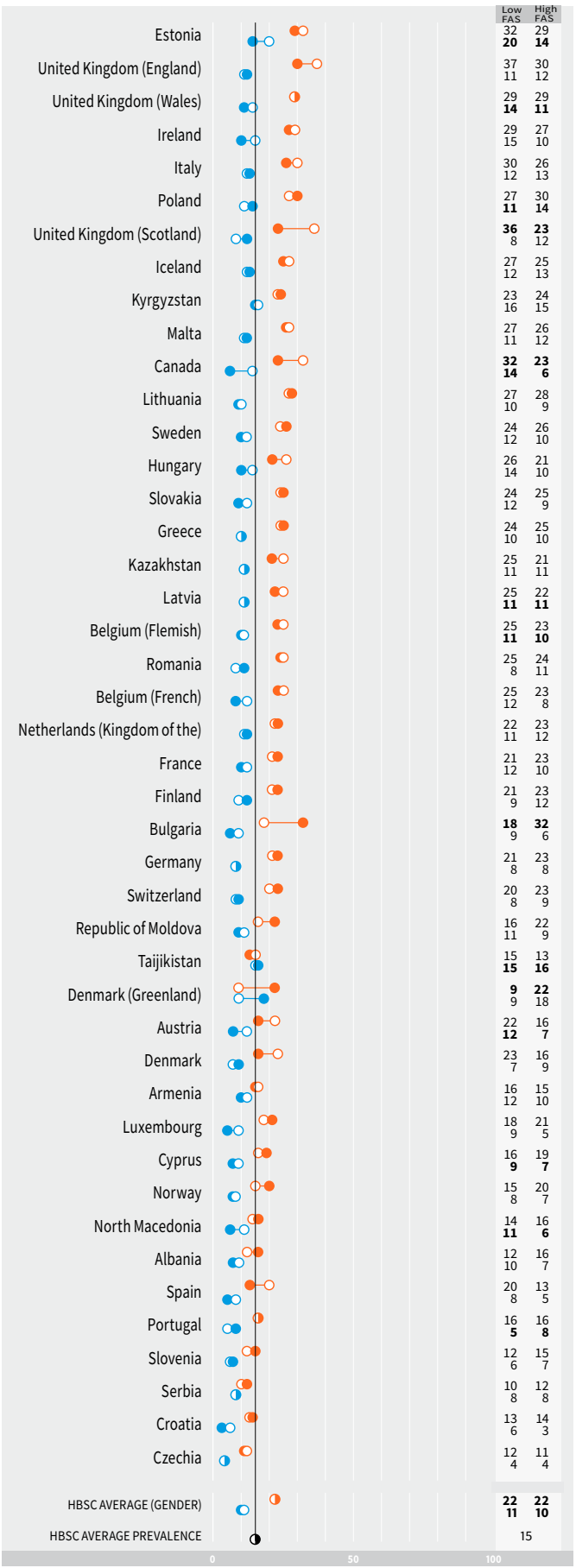
Note: country/region name in **bold** indicates a significant gender difference (at $P < 0.05$).

MEASURE: young people were asked how often they had felt dizzy in the last six months. Response options ranged from about every day to rarely or never. Findings presented here show the proportions who reported feeling dizzy more than once a week.

15-year-olds who report feeling dizzy more than once a week

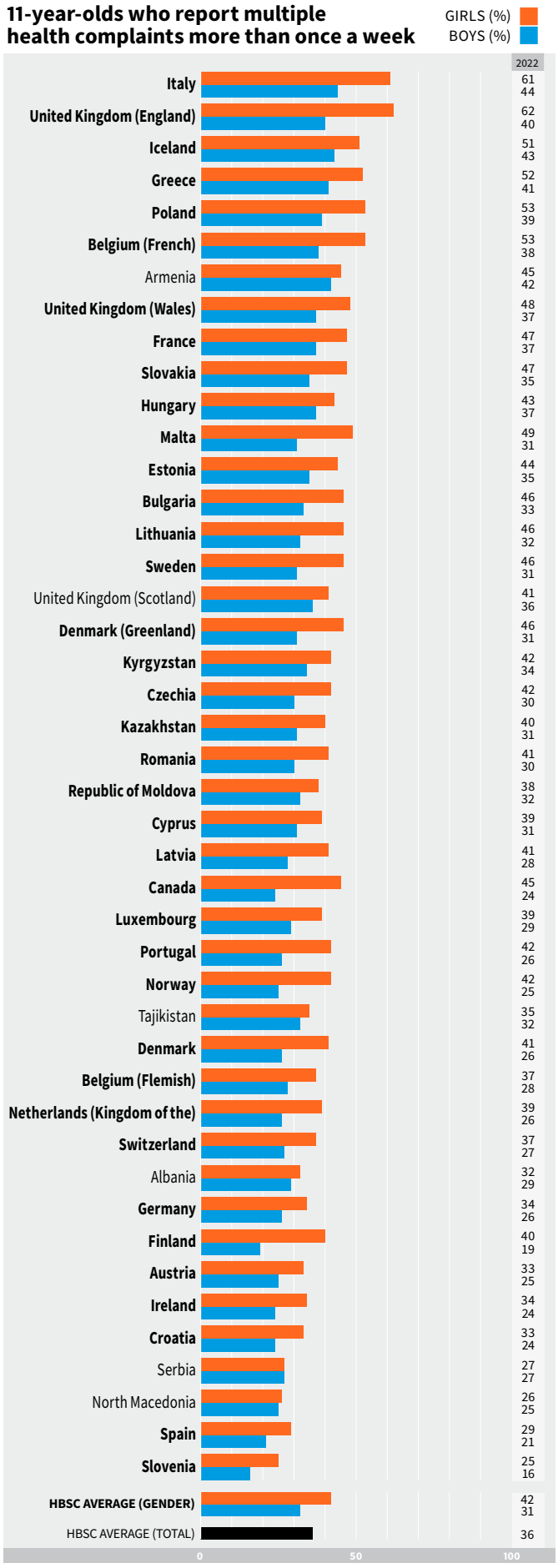


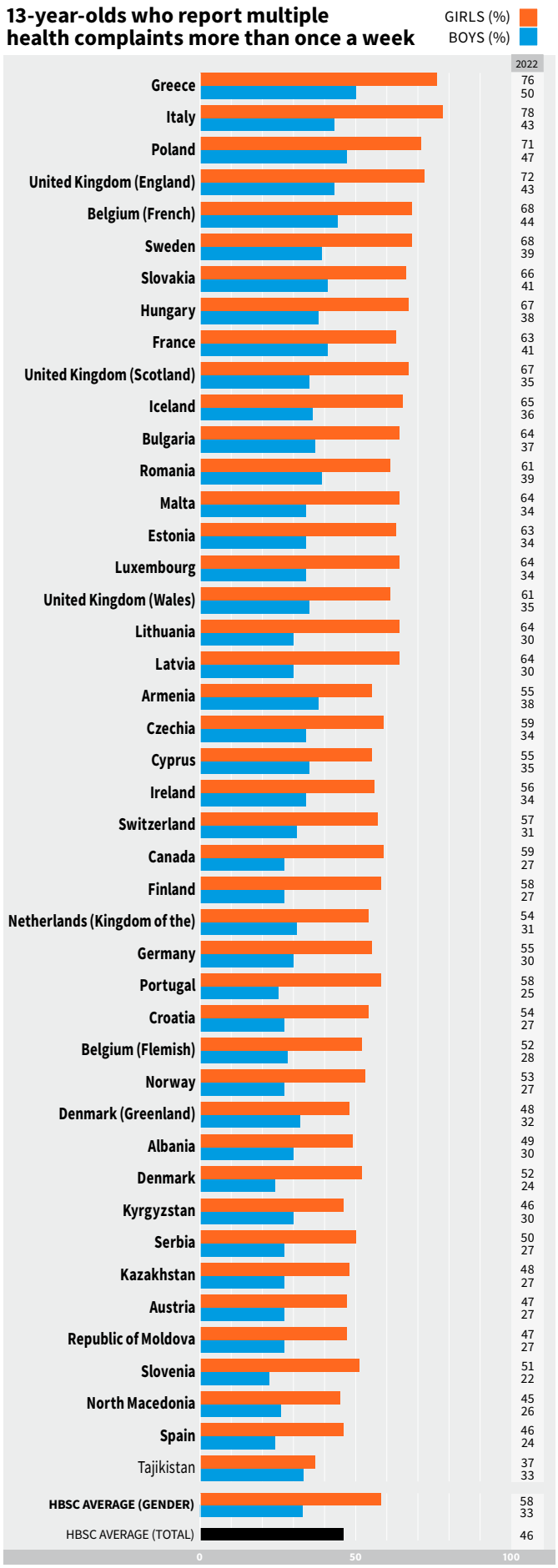
Prevalence by family affluence: feeling dizzy by country/region and gender



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. No data were received from Malta.

Multiple health complaints

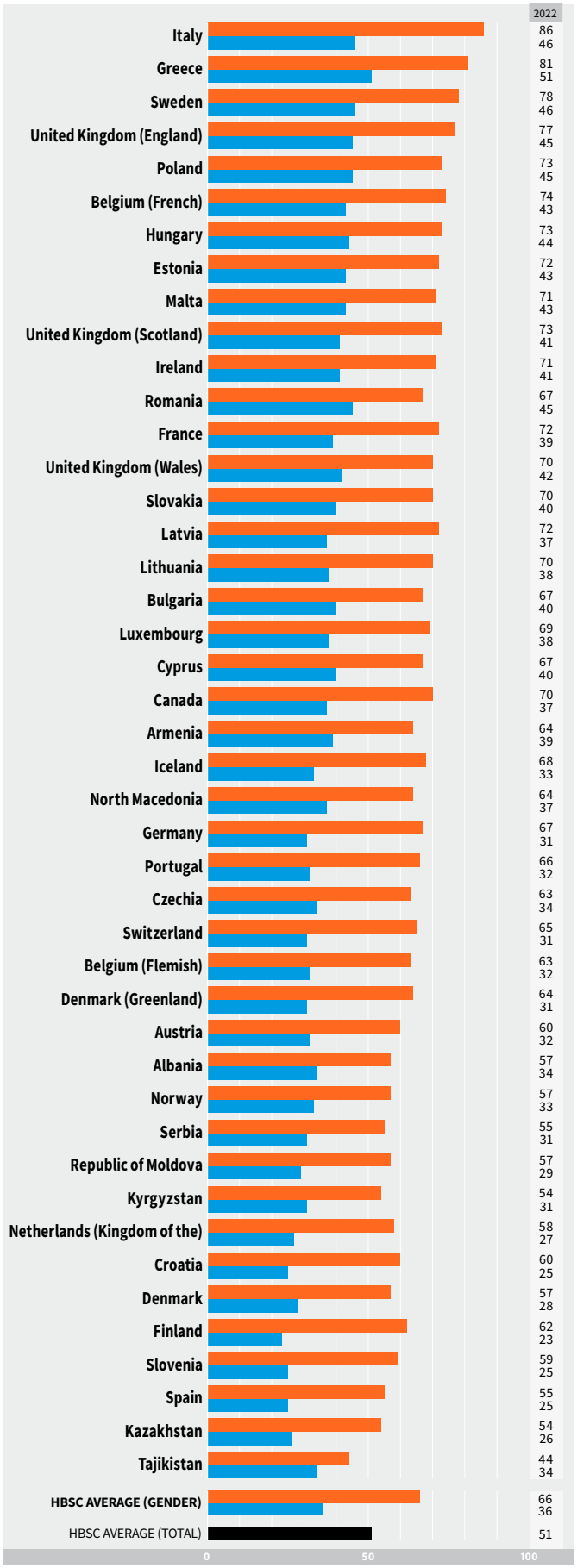




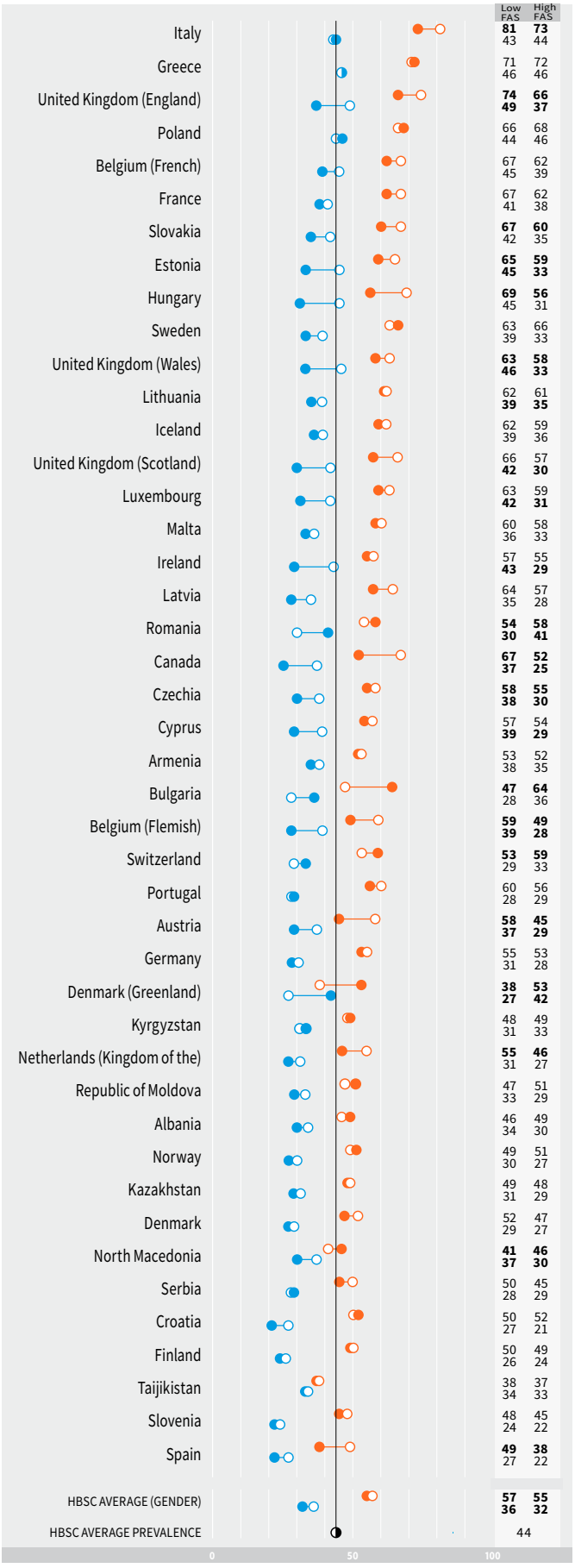
Note: country/region name in **bold** indicates a significant gender difference (at $P < 0.05$).

MEASURE: young people were asked how often they had experienced the following symptoms in the last six months: headache; stomach-ache; back-ache; feeling low; feeling irritable or bad tempered; feeling nervous; difficulties in getting to sleep; and feeling dizzy. Response options for each symptom ranged from about every day to rarely or never. Findings presented here show the proportions with multiple (two or more) health complaints more than once a week in the last six months.

15-year-olds who report multiple health complaints more than once a week

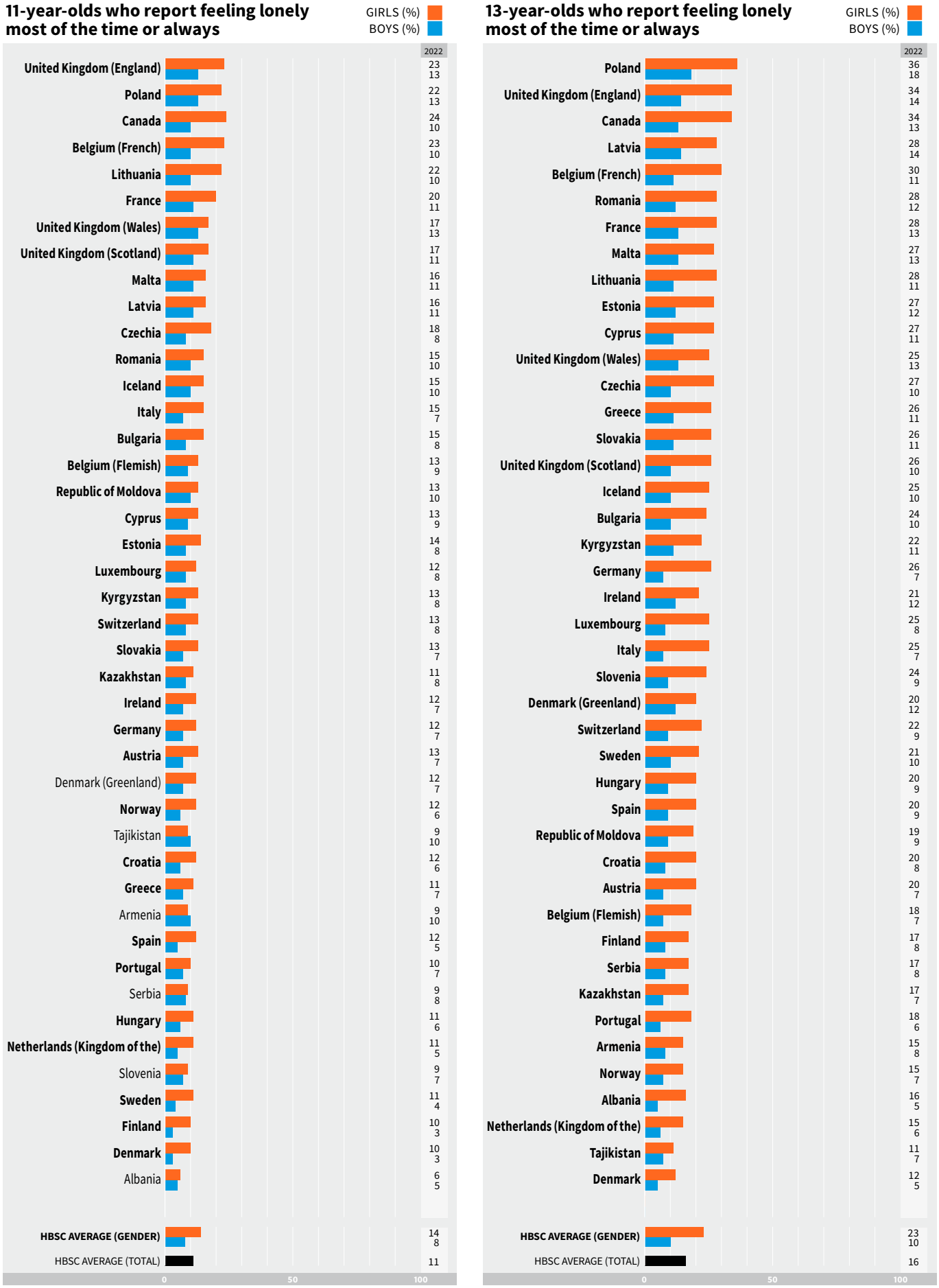


Prevalence by family affluence: multiple health complaints by country/region and gender



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.

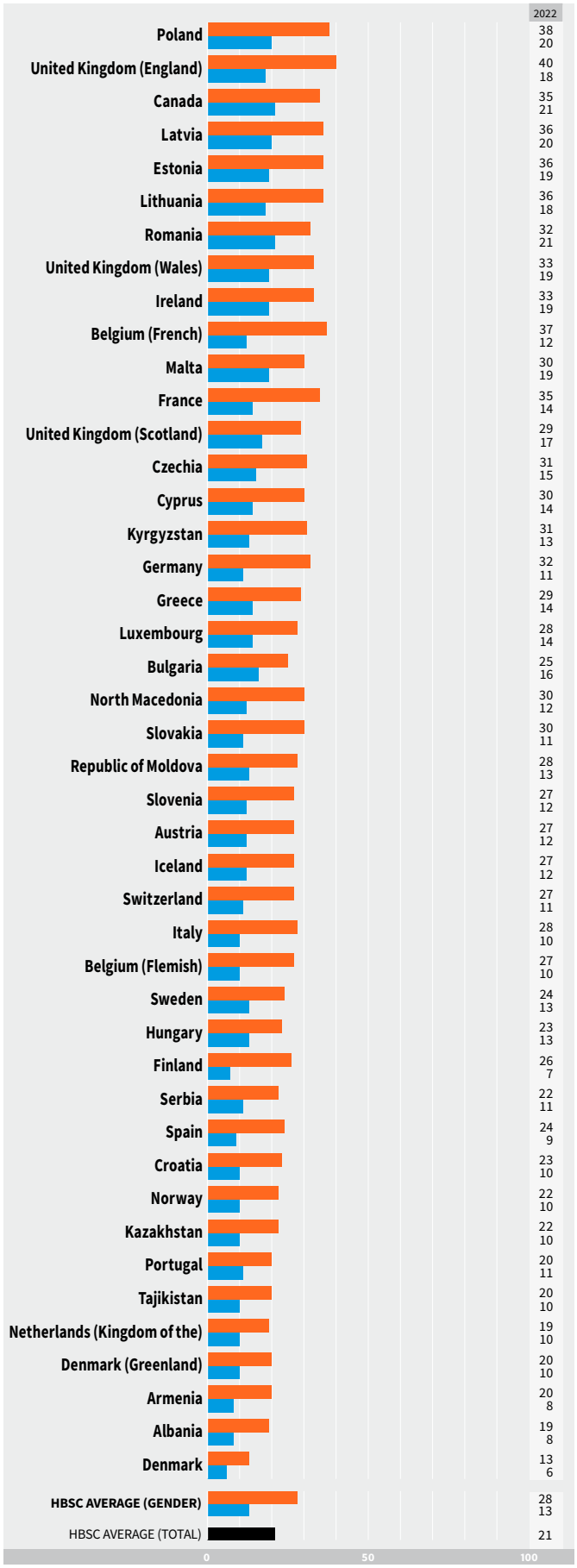
Feeling lonely



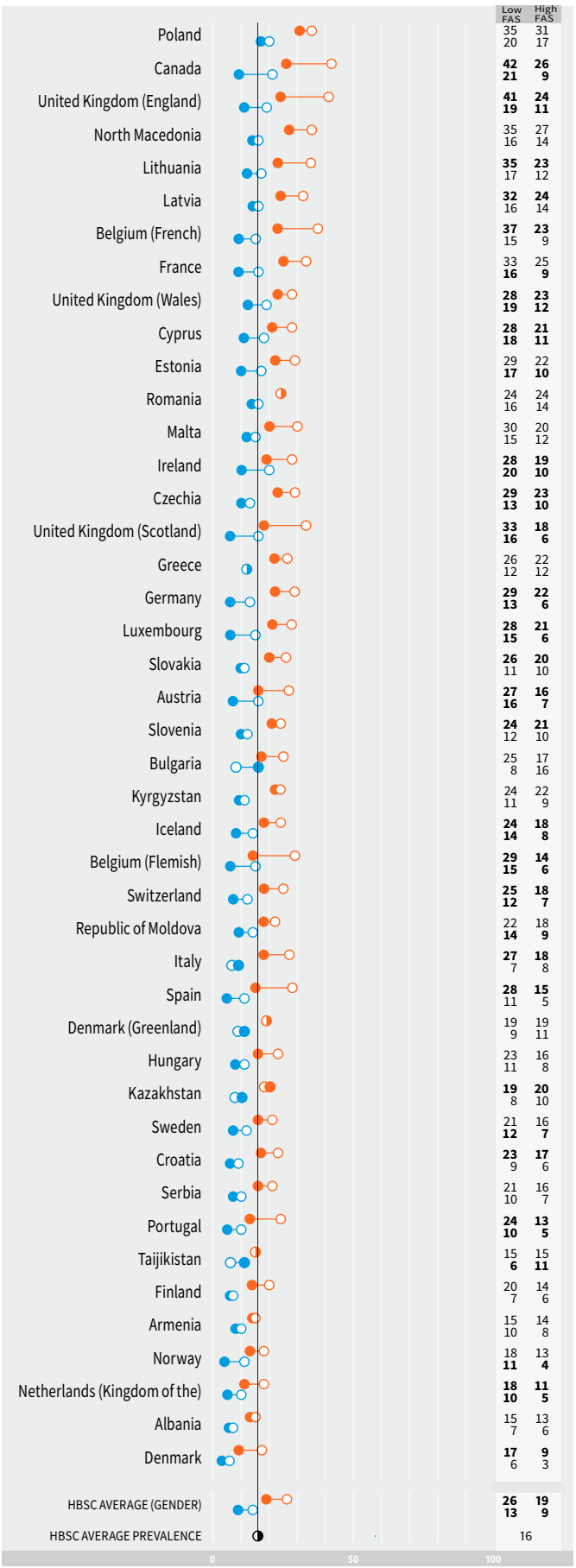
Note: country/region name in **bold** indicates a significant gender difference (at $P < 0.05$). No data were received from North Macedonia (11- and 13-year olds).

MEASURE: young people were asked how often they had felt lonely during the last year. Response options were never, rarely, sometimes, most of the time and always. Findings presented here show the proportions who reported feeling lonely most of the time or always.

15-year-olds who report feeling lonely most of the time or always



Prevalence by family affluence: feeling lonely most of the time or always 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.

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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