PART 2.
KEY DATA

CHAPTER 1.
UNDERSTANDING THIS REPORT

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The report presents findings from the 2009/2010 HBSC survey, which focus on demographic and social determinants of young people's health. Statistical analyses identified meaningful differences in the prevalence of health and social indicators by gender, age group and levels of family affluence. The aim was to provide a rigorous, systematic statistical base for describing cross-national patterns in terms of the magnitude and direction of differences between subgroups. The findings are presented in the results section of this chapter. Further details about the analyses performed are provided in the Annex.

AGE AND GENDER

Bar charts present data for boys and girls in each age group, separately for countries and regions and in descending order of prevalence (for boys and girls combined). It is important to avoid overinterpretation of the rankings. Frequently, few percentage points separate adjacent countries and regions, and variation may fall within the expected level of error associated with an estimate from a sample of the population. Percentages in the charts are rounded to the nearest whole number for ease of reading.

The HBSC average presented in the charts is based on equal weighting of each region, regardless of differences in achieved sample size or country population. Countries highlighted in bold are those in which there was a significant gender difference in prevalence.

FAMILY AFFLUENCE

The HBSC Family Affluence Scale (FAS) *(1)* measures young people's SES. It is based on a set of questions on the material conditions of the households in which they live, including car ownership, bedroom occupancy, holidays and home computers.

Family poverty affects a minority (although this varies from country to country), but all can be categorized according to family affluence. Young people are classified according to the summed score of the items, with the overall score being recoded to give values of low, middle and high family affluence. A table in the Annex provides an overview of family affluence according to FAS scores across countries. The HBSC international study protocol gives further information about FAS *(2)*.

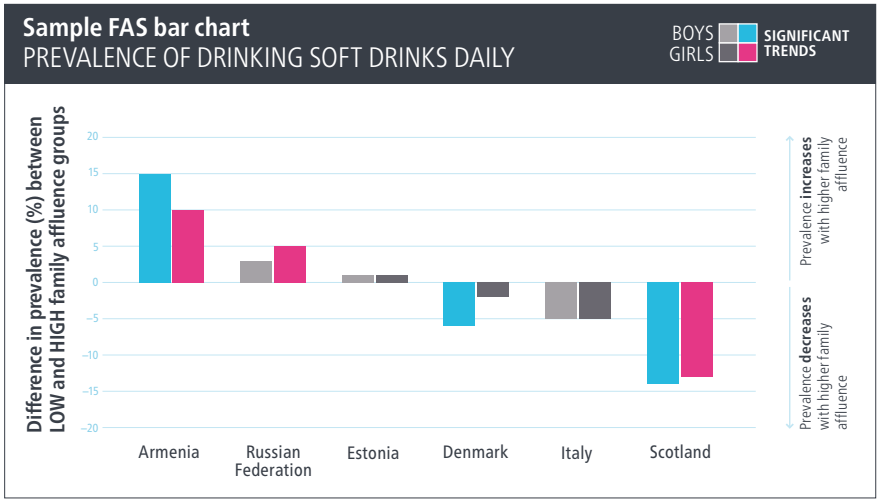
Interpretation of FAS figures

The bar charts in Chapter 3 show the relationship between family affluence and various health and social indicators. They illustrate whether the prevalence of each indicator increases or decreases with higher family affluence, the extent of any difference in prevalence corresponding to high and low family affluence, and whether there is a statistically significant difference. For simplicity, the figure gives an example with only six countries.

The proportion of young people taking soft drinks daily in Armenia is higher among those from families with higher affluence, as denoted by the bars being above the 0% line (that is, being positive). This positive trend is statistically significant in both boys and girls, as shown by the bars being shaded blue for boys and red for girls. The height of the bars shows the extent of the difference between high- and low-affluence groups. In this case, the proportion of boys taking soft drinks daily in high-affluence families is almost 15% higher.

Prevalence in the Russian Federation and Estonia is also higher among those from high-affluence families, but the differences in Estonia are small and are not statistically significant, and the increase with family affluence in the Russian Federation is only statistically significant among girls. Bars shaded grey denote that any differences in prevalence between groups with low and high family affluence are not significant: dark grey for boys and light grey for girls.

The relationship is in the opposite direction in Denmark, Italy and Scotland, where prevalence of taking soft drinks daily is lower among young people from higher-affluence families, denoted by the bars lying below the 0% line (that is, being negative). The extent of the decline in prevalence with higher affluence in Scotland is particularly strong, with a decrease of more than 10% between those from low- and high-affluence families. This difference is statistically significant (the bars are red and blue). Although Denmark and Italy show the same pattern, it is statistically significant only among Danish boys.



GEOGRAPHIC PATTERNS

Geographic maps of prevalence among 15-year-old boys and girls are presented for some health indicators. These show broad patterns of prevalence across Europe and North America and highlight any cross-national differences and patterning between genders. The cut-off points between colour bands are fixed: there may be only a few percentage points between two regions falling within different colour shades.

TYPES OF INDICATORS REPORTED

Four types of indicators are considered:

- social context, specifically relating to family, peers and school, which often serve as protective factors;
- health outcomes, with indicators that describe current levels of health and well-being;
- health behaviours, relating to indicators that are potentially health sustaining; and
- risk behaviours, relating to indicators that are potentially health damaging.

Each section includes:

- a brief overview of literature emphasizing why the topic is important and describing what is known about it;
- a short summary of descriptive data on the cross-national prevalence of the social contextual variable, health/risk behaviour or health outcome;
- bar charts and presentation of country-specific findings by age and gender;
- bar charts showing the relationships between family affluence and each of the variables;
- scientific discussion providing an interpretation of the findings based on the scientific literature;
- policy reflections outlining where and how policy-makers could take actions; and
- maps illustrating cross-national differences among 15-year-olds.

All data are drawn from the mandatory component of the HBSC survey questionnaire used in all countries.

Data from specific countries were not available for some items. For instance, some countries excluded items on sensitive topics. Turkey and the United States did not collect data on sexual health, or Turkey on substance use. Data on sexual health are not presented for some countries (although they were collected) due to differences in question format.

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MEDICALLY ATTENDED INJURIES: SCIENTIFIC DISCUSSION AND POLICY REFLECTIONS

SCIENTIFIC DISCUSSION

Around half of boys in all age groups and a third of girls report at least 1 medically attended injury in the last 12 months, suggesting that injuries are a common element in the lives of young people.

Prevalence varies substantially across countries and regions. This may reflect differing societal responses to ensuring adequate safety levels, promoting prevention initiatives and providing access to and ensuring the quality of medical care.

Boys across all countries and regions and age groups are more likely to experience injury. The same trend can be observed for injury mortality, especially among young populations *(9)*, perhaps due to boys' increased involvement in risk behaviours *(10,11)*, sport and physical activity *(12)*.

The finding that those from higher-affluence families are more likely to report injuries may be explained by their greater engagement in physical activity and easier access to medical care *(4)*.

POLICY REFLECTIONS

Unintentional injury is an important health priority in almost all countries. A clear link can be made between identification of risk factors, remediation of environmental conditions and settings, and improvement of health outcomes.

Most identified socioenvironmental risk factors are modifiable. Effective action is necessary to reduce injury incidence, particularly among boys and young people with low family affluence *(13)*.

HBSC findings do not provide information on the severity and type of injuries adolescents experience, but previous research suggests most reported injuries involve accidents on the road, at home and in a sports facility *(12)*. Intervention strategies to reduce injuries among young people include: using car seat-belts and bicycle and motorcycle helmets, reducing misuse of alcohol, installing smoke alarms in the home, and promoting pre-season conditioning, functional training, education, balance and sport-specific skills with those at high risk of sports-related injuries *(14)*.

The frequency, severity, potential for death and disability, and costs of injuries make injury prevention a key public health goal for improving young people's health. Researchers in this field, however, stress that it is important to find a balance between intervening and acknowledging that some injuries may be natural consequences of growth and development; if the cost of preventing these injuries is reduced physical activity, the deficits may outweigh the benefits *(15)*.

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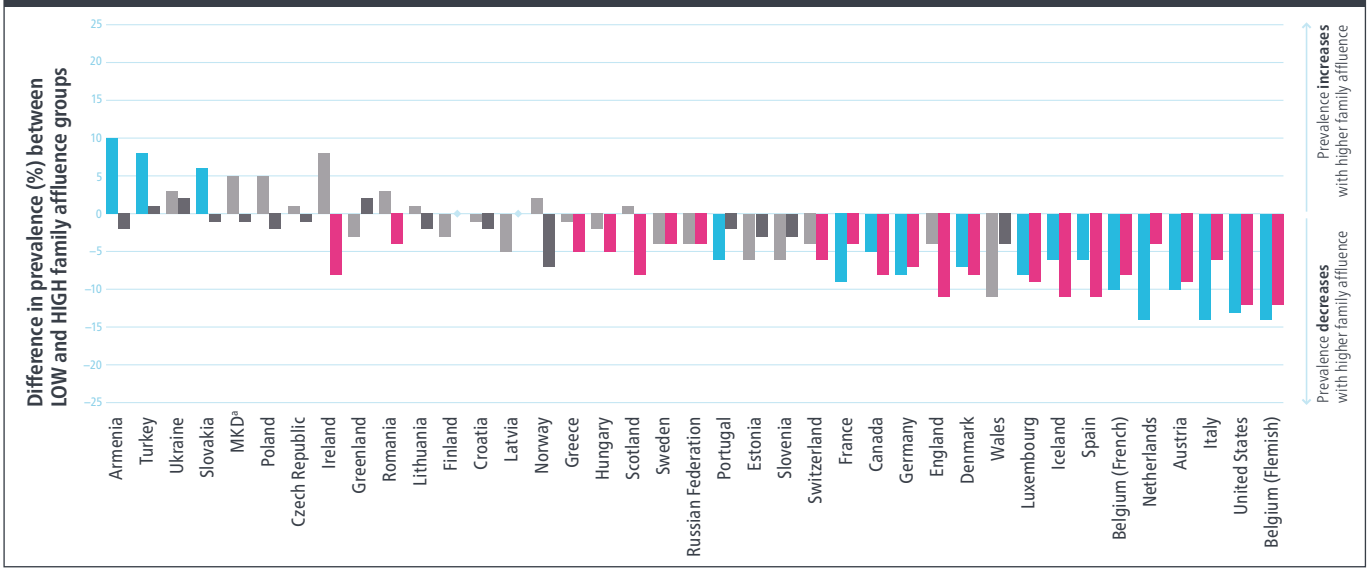
BODY WEIGHT: OVERWEIGHT AND OBESITY

Overweight and obesity remain public health problems among young people *(1–3)*. Associated health-related problems include sleep apnoea and orthopaedic problems *(1,4)*, psychosocial repercussions, such as poor self-image, stigmatization and depression *(5,6)*, and impaired quality of life *(7)*. Overweight and obesity carry serious health consequences that can last into adulthood *(8)*, including metabolic disturbances that increase the risk of cardiovascular diseases and diabetes *(1,4,9)*.

The causes are complex, involving the interplay of genetics and environmental factors that contribute to excess energy intake and/or inadequate energy expenditure. HBSC findings indicate that young people who are overweight are more likely to skip breakfast, are less physically active *(2,10)* and watch television more *(2)*.

HBSC survey 2009/2010

Associations between family affluence and indicators of health, by country/region and gender:
OVERWEIGHT AND OBESITY



[a] The former Yugoslav Republic of Macedonia. ◆ Indicates less than +/– 0.5%.

MEASURE

Young people were asked how much they weigh without clothes and how tall they are without shoes, and to record these in country appropriate units (centimetres versus inches, pounds versus kilograms). These data were (re)coded in centimetres and kilograms, respectively, to compute the body mass index (BMI) as weight (kg) divided by height $(m)^2$.

The analysis presented here uses the international BMI standards for young people *(11)* adopted by the International Obesity Taskforce (IOTF), called the IOTF BMI cut-off points. Data using the WHO child growth curve standards are presented in the Annex.

RESULTS

Age

Girls aged 15 in a minority of countries and regions were significantly more likely than 11-year-olds to report being overweight. No clear patterns between age and overweight prevalence were seen among boys.

Gender

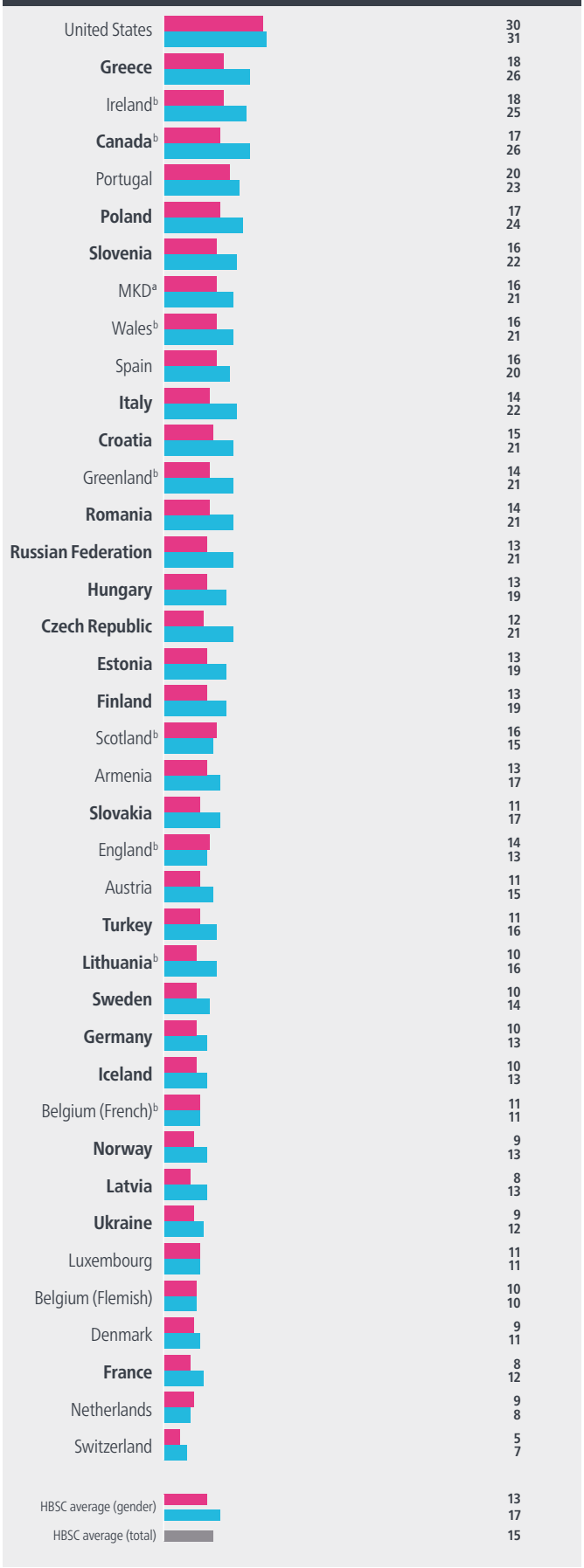
Boys tended to have significantly higher prevalence in almost all countries and regions at ages 13 and 15 and in over half at 11. The gender difference, however, exceeded 10% in only a few.

Family affluence

Increased prevalence was significantly associated with low family affluence for girls and boys in around half of countries and regions, but with higher family affluence (among boys only) in Armenia, Slovakia and Turkey.

HBSC survey 2009/2010

11-year-olds who report that they are overweight or obese according to BMI

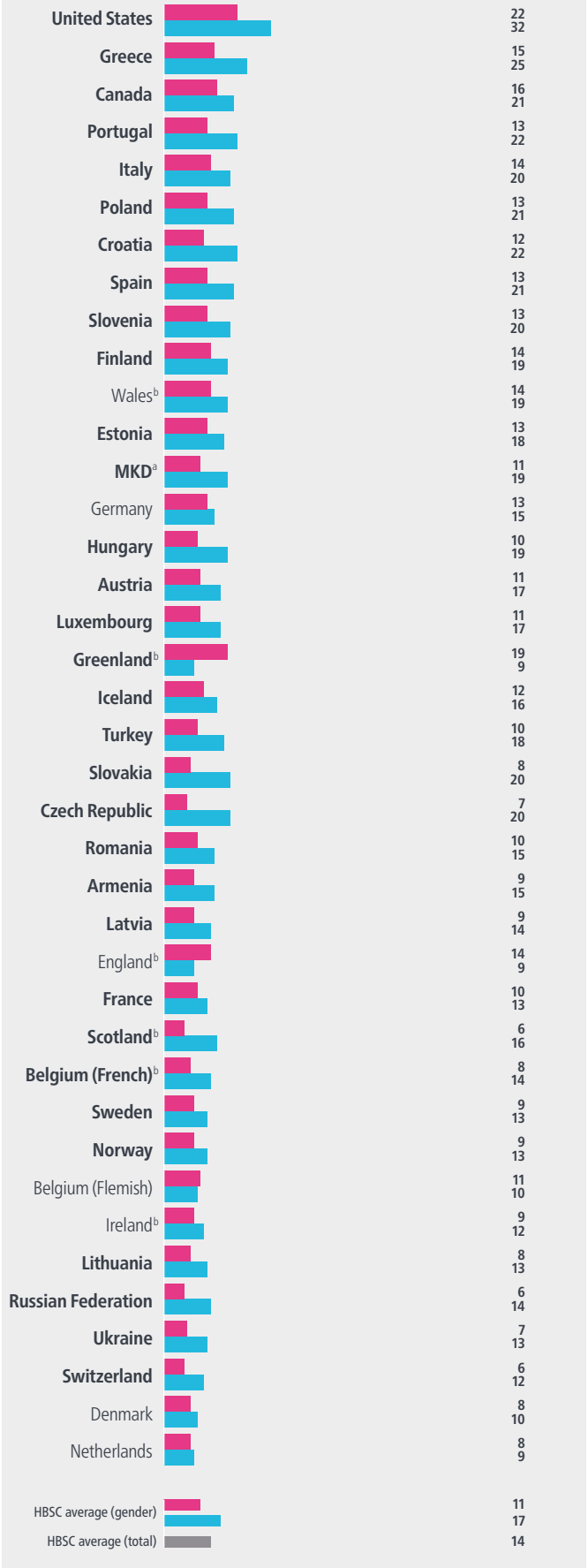


[a] The former Yugoslav Republic of Macedonia.

[b] Indicates 30% or more missing data.

HBSC survey 2009/2010

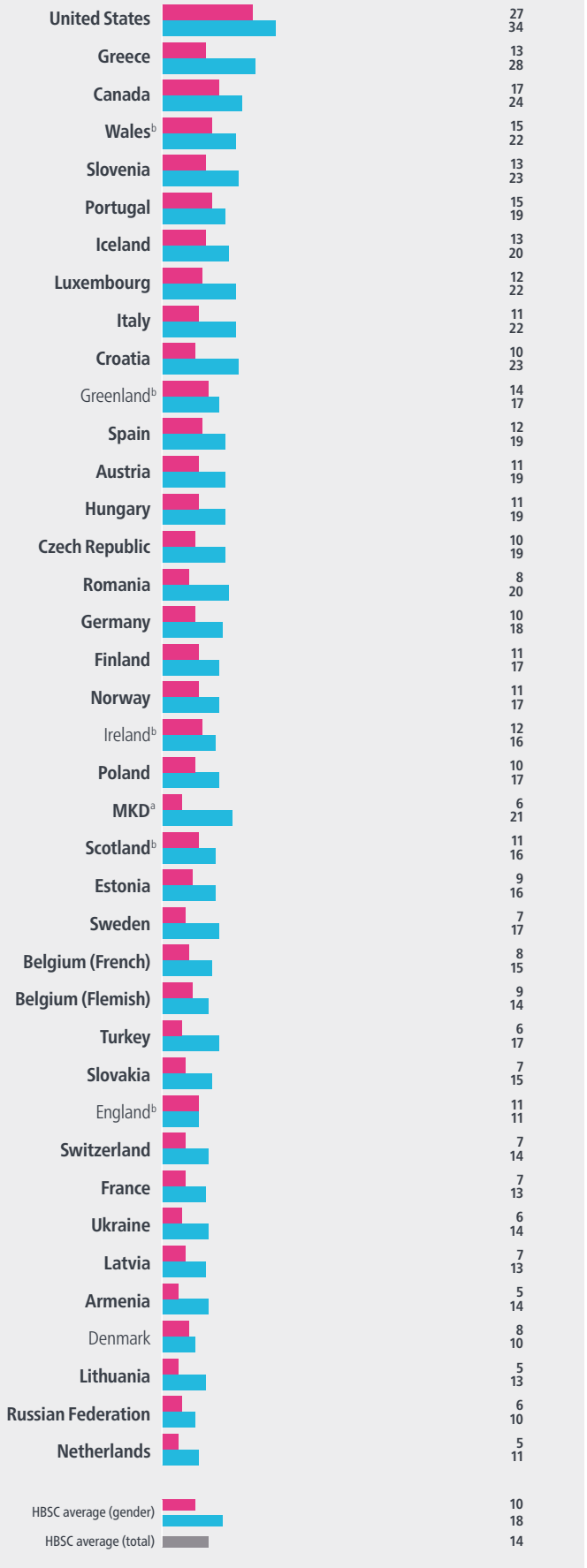
13-year-olds who report that they are overweight or obese according to BMI



[b] Indicates 30% or more missing data.

HBSC survey 2009/2010

15-year-olds who report that they are overweight or obese according to BMI

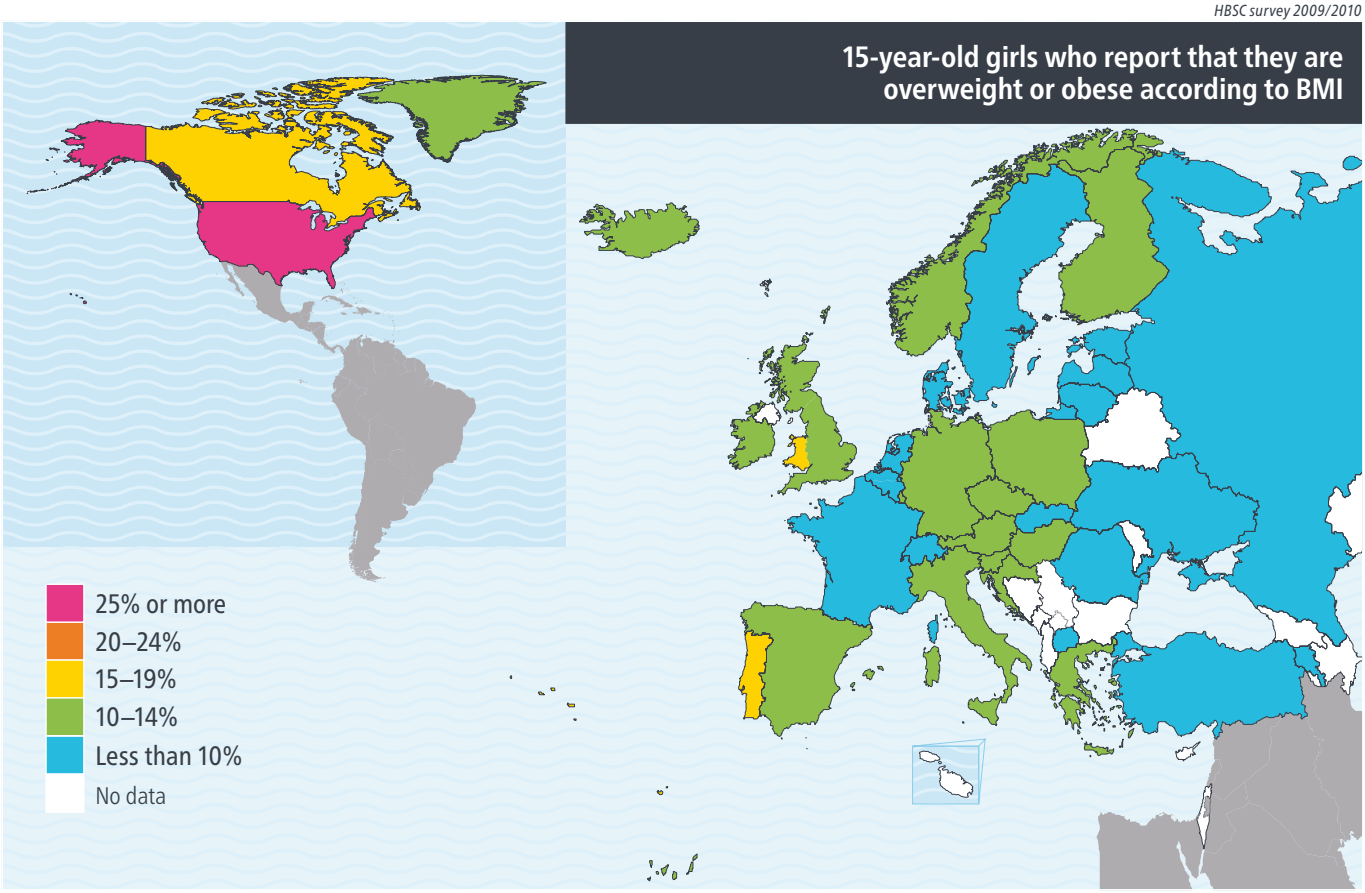


[b] Indicates 30% or more missing data.

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

HBSC survey 2009/2010

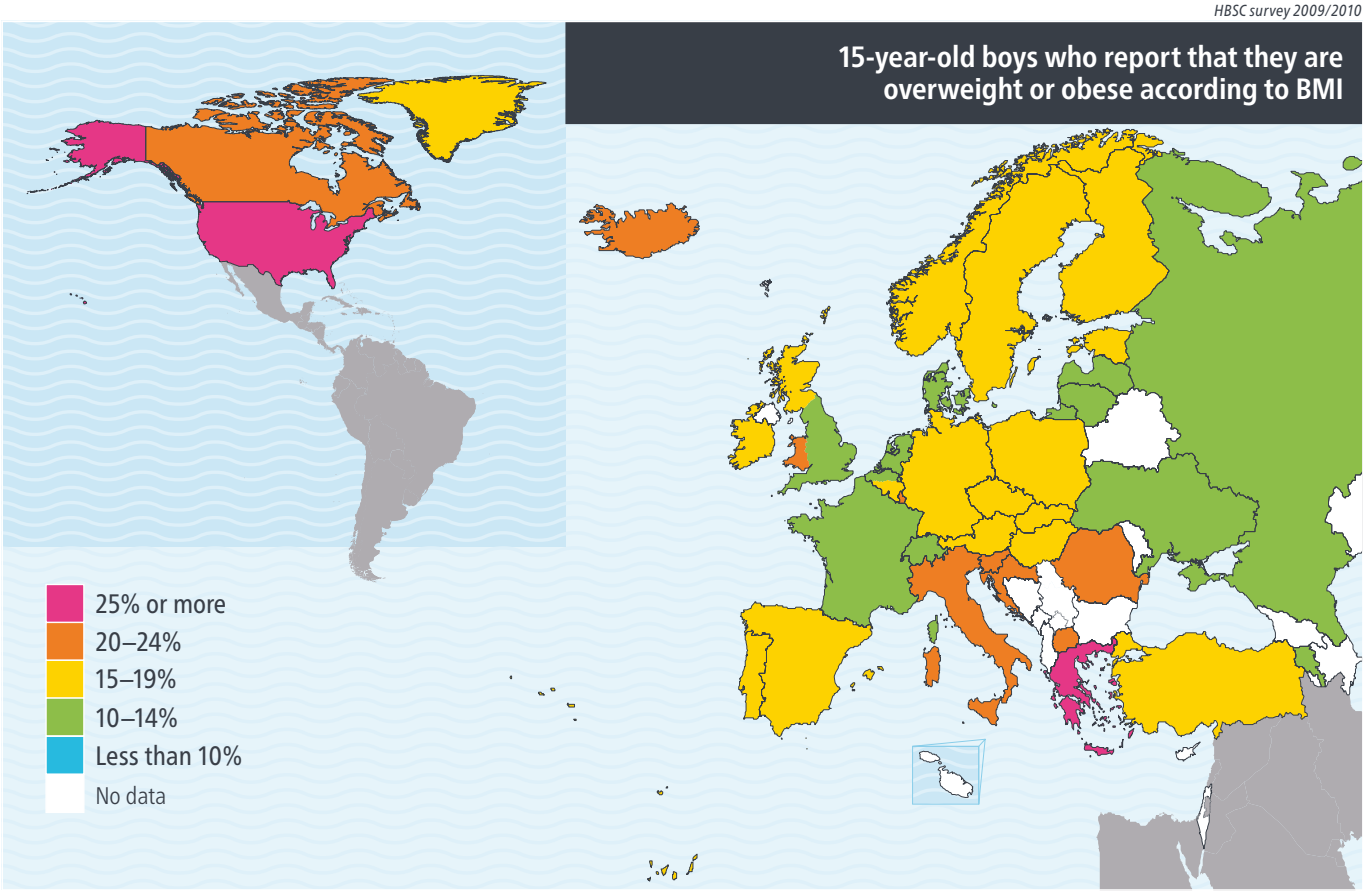
15-year-old girls who report that they are overweight or obese according to BMI



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 report that they are overweight or obese according to BMI



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