European Commission

World Health Organization
REGIONAL OFFICE FOR Europe

Adolescent obesity and related behaviours:

trends and inequalities in the WHO European Region, 2002–2014

Observations from the Health Behaviour in School-aged Children (HBSC) WHO collaborative cross-national study

hbsc

World Health Organization

REGIONAL OFFICE FOR Europe

Adolescent obesity and related behaviours:

trends and inequalities in the WHO European Region, 2002–2014

Observations from the Health Behaviour in School-aged Children (HBSC) WHO collaborative cross-national study

Edited by:
Jo Inchley, Dorothy Currie, Jo Jewell, João Breda & Vivian Barnekow

ABSTRACT
The Health Behaviour in School-aged Children (HBSC) survey is a WHO collaborative cross-national study that monitors the health behaviours, health outcomes and social environments of boys and girls aged 11, 13 and 15 years every four years. HBSC has collected international data on adolescent health, including eating behaviours, physical activity, sedentary behaviour and, more recently, overweight and obesity, for over 25 years, allowing prevalence to be compared across countries and over time. This report presents the latest trends in obesity, eating behaviours, physical activity and sedentary behaviour from the HBSC study and highlights gender and socioeconomic inequalities across the WHO European Region. Trends have previously been reported separately, but this report brings together for the first time HBSC data on obesity and obesity-related behaviours to review the latest evidence and consider the range and complexity of factors influencing childhood obesity.

Keywords

HEALTH BEHAVIOR
OBESITY – EPIDEMIOLOGY
OBESITY – PREVENTION AND CONTROL
DIET – ADVERSE EFFECTS
SEDENTARY LIFESTYLE
SOCIOECONOMIC FACTORS
EUROPE

ISBN 978 92 890 5240 5

Address requests about publications of the WHO Regional Office for Europe to:
Publications
WHO Regional Office for Europe
UN City, Marmorvej 51
DK-2100 Copenhagen Ø, Denmark
Alternatively, complete an online request form for documentation, health information, or for permission to quote or translate, on the Regional Office website (http://www.euro.who.int/pubrequest).

© World Health Organization 2017

All rights reserved. The Regional Office for Europe of the World Health Organization welcomes requests for permission to reproduce or translate its publications, in part or in full. Some rights reserved. This work is available under the CC BY-NC-SA 3.0 IGO licence.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either express or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use. The views expressed by authors, editors, or expert groups do not necessarily represent the decisions or the stated policy of the World Health Organization.

Text editing: Alex Mathieson, United Kingdom (Scotland).
Design: Damian Mullan, So it begins …, United Kingdom (Scotland).
Illustrations: Jill Calder, United Kingdom (Scotland).

CONTENTS

Contributors v
Foreword vii
Acronyms viii

Chapter 1
Introduction 1
Eating habits 2
Physical activity 3
Sedentary behaviours 3
Reversing trends 3
Health Behaviour in School-aged Children survey 4
References 4

Chapter 2
Trends in obesity by age, gender and family affluence 7
Summary 7
Introduction 8
Results 8
References 12

Chapter 3
Trends in eating behaviours by age, gender and family affluence 13
Summary 13
Introduction 14
Results 14
Reference 22

Chapter 4
Trends in physical activity by age, gender and family affluence 23
Summary 23
Introduction 24
Results 24
References 28

Chapter 5
Trends in sedentary behaviour by age, gender and family affluence 29
Summary 29
Introduction 30
Results 30
References 33

Chapter 6

Socioeconomic differences in adolescent obesity 37
Summary 37
Introduction 38
Persistent inequalities 38
Policy responses 39
References 40

Chapter 7

Conclusions 41
Obesity prevalence 42
Dietary behaviours 42
Physical activity and sedentary behaviour 44
Conclusion 46
References 46

Annex 1

Data tables of prevalence of obesity and related behaviours by age, gender, country and year 49

Annex 2

Trend charts of all variables by country 68

CONTRIBUTORS

Editorial group

Jo Inchley	Health Behaviour in School-aged Children (HBSC) International Coordinator, University of St Andrews, United Kingdom (Scotland)
Dorothy Currie	HBSC Deputy International Coordinator, University of St Andrews, United Kingdom (Scotland)
Jo Jewell	Technical Officer, Nutrition, Physical Activity and Obesity, WHO Regional Office for Europe
João Breda	Head, WHO European Office for Prevention and Control of Noncommunicable Diseases and a.i. Programme Manager, Nutrition, Physical Activity and Obesity, WHO Regional Office for Europe
Vivian Barnekow	Consultant, WHO Regional Office for Europe

Writing group

Jens Bucksch	Professor, University of Education, Heidelberg, Germany
Dorothy Currie	HBSC Deputy International Coordinator, University of St Andrews, United Kingdom (Scotland)
Frank Elgar	Associate Professor, Canada Research Chair in Social Inequalities in Child Health, Institute for Health and Social Policy, McGill University, Canada
Zdenek Hamrik	Head, Department of Recreation and Leisure Studies, Faculty of Physical Culture, Palacky University, Czechia
Jo Inchley	HBSC International Coordinator, University of St Andrews, United Kingdom (Scotland)
Eimear Keane	Post-doctoral Researcher, Health Promotion Research Centre, National University of Ireland, Galway
Colette Kelly	Lecturer in Health Promotion, Health Promotion Research Centre, National University of Ireland, Galway
Mette Rasmussen	Associate Professor, National Institute of Public Health, University of Southern Denmark

Writer contributions by chapter

Chapter	Writers
1. Introduction	Jo Inchley, Dorothy Currie, Jens Bucksch, Zdenek Hamrik, Frank Elgar
2. Overweight and obesity	Mette Rasmussen
3. Eating behaviours	Colette Kelly, Eimear Keane
4. Physical activity	Zdenek Hamrik, Jens Bucksch
5. Sedentary behaviour	Jens Bucksch, Zdenek Hamrik
6. Social inequalities	Frank Elgar
7. Conclusions	Jo Inchley, Dorothy Currie, Jens Bucksch, Frank Elgar, Zdenek Hamrik, Eimear Keane, Colette Kelly, Mette Rasmussen

Data preparation and analysis

Torbjørn Torsheim — Professor, Department of Psychosocial Science, University of Bergen, Norway

Dorothy Currie — HBSC Deputy International Coordinator, University of St Andrews, United Kingdom (Scotland)

Underlying methodology

Further details of the methods and statistics underlying this report can be found on the WHO Regional Office for Europe website.

Financial support

The WHO Regional Office for Europe would like to express gratitude to the European Commission Directorate-General for Education and Culture, and the European Commission Directorate-General for Health and Food Safety, for financial support in preparing this report.

FOREWORD

The WHO collaborative Health Behaviour in School-Aged Children (HBSC) survey has been a pioneer cross-national study and an invaluable resource for over 25 years, providing insights into young people's well-being, health behaviours and social context. Its findings have been used by WHO and many others to inform policy and practice in countries and regions across Europe, undoubtedly contributing to improvements in the lives of millions of young people.

This new collaborative report from the WHO Regional Office for Europe and the HBSC team, prepared with financial support from the European Commission Directorate-General for Education and Culture and the Directorate-General for Health and Food Safety, brings together for the first time analysis of trends in adolescent obesity and obesity-related behaviours – some of the most serious public health challenges facing the WHO European Region. Granular exploration of trends across time in prevalence of obesity, young people's diets, and their levels of physical activity and sedentary behaviour provides a more nuanced picture of the evolution of the obesity epidemic in Europe among this age group. A focus throughout on gender, and geographic and socioeconomic position enables the authors to draw out important findings relating to inequalities and discuss the implications for effective policy development.

Although the European Region has achieved great successes in improving child and adolescent health in recent years, the findings of this report show important causes for concern about obesity and obesity-related behaviours. Obesity continues to increase in all but a very few countries and regions, with disparities within and between them being marked. Trend data on dietary and physical activity behaviours are more mixed, but show some improvements for some age groups in some countries. Overall, however, the indicators show that adolescents' dietary behaviours remain far from optimal, with too many sugary products and not enough fruit and vegetables consumed. At the same time, physical activity as part of daily life has been reduced to the bare minimum: adolescents spend most of their time sedentary. This paints a rather bleak picture that requires ambitious policy action.

Targeted effort is needed to break this harmful cycle from childhood into adolescence and beyond. As discussed in the report, most young people will not outgrow obesity: about four in every five adolescents who become obese will continue to have weight problems as adults. As such, they carry forward the increased risk of ill health, stigma and discrimination.

Population-level measures are needed to ensure health-supportive environments, with individually tailored services to support adolescents to make positive changes. Priority policies include those that improve young people's access to healthy diets and reduce the appeal of foods high in fat, salt and sugar. Efforts will also be needed to improve built environments so that physical activity is re-established as an integral part of daily living. Settings in which adolescents gather are key, but changes will need to be broader in scope. Only then will children and young people be empowered to achieve WHO's vision of being healthy, happy and competent individuals who make a positive contribution to their own health and society.

Gauden Galea
Director of the Division of Noncommunicable Diseases and Life-course
WHO Regional Office for Europe

ACRONYMS

BMI	body mass index
HBSC	Health Behaviour in School-aged Children (study/survey)
HELENA	Healthy Lifestyle in Europe by Nutrition in Adolescence (study)
MVPA	moderate-to-vigorous-intensity physical activity
SEP	socioeconomic position
VPA	vigorous-intensity physical activity

CHAPTER 1

INTRODUCTION

INTRODUCTION

Childhood obesity is considered one of the most serious public health challenges of the 21st century. Globally, around one in 10 young people aged 5–17 years are overweight or obese, with levels increasing rapidly in many countries and regions in recent years.

Most overweight or obese children now live in developing countries, where the rate of increase has been much higher than that in developed countries and regions, largely because of changes in dietary practices and increasingly sedentary lifestyles *(1).* More and more young people in Europe are affected, however, with evidence suggesting that up to one in three boys and one in five girls aged 6–9 years is now obese *(2).* Prevalence is generally higher in southern European countries *(3).*

The health consequences of excess body weight are well documented. Obesity increases the risk of developing type 2 diabetes, hypertension, sleep apnoea and cardiovascular disease *(4).* Obesity also diminishes adolescents' quality of life *(5)* and is related to various emotional and behavioural problems *(6,7).* Most young people will not outgrow the condition: about four in every five adolescents who become obese will continue to have weight problems as adults *(8).*

The chronic nature of obesity can limit social mobility and perpetuates an intergenerational cycle of poverty and ill health. Many inequalities in obesity and related behaviours exist, with young people from lower socioeconomic groups generally reporting worse outcomes. Longitudinal studies have found that obesity early in life relates to less educational attainment and lower incomes in adulthood (even after differences in childhood socioeconomic position (SEP) are controlled) *(9).* Low SEP in childhood increases the risk for becoming obese in adulthood over and above the impact of adult SEP on obesity *(10,11).*

The primary causes of overweight and obesity can be traced to energy-related behaviours – physical activity, sedentary behaviour, eating behaviour and sleep – which contribute to an energy imbalance between calorie intake and energy expenditure. A recent report from the WHO Commission on Ending Childhood Obesity *(12)* identifies obesogenic environments as the key driver for low levels of physical activity and high levels of sedentary behaviour and intake of energy-dense foods. Obesogenic environments are characterized by physical and social–environmental features that encourage a sedentary lifestyle and offer ready availability of energy-dense, nutrient-poor food *(12).*

EATING HABITS

Having poor eating habits is an important contributor to overweight and obesity among children and adolescents. Young people across Europe consume high levels of fast food and sugar-sweetened beverages and spend less time eating family meals than was the case for previous generations *(13).* While several countries and regions have shown an increase in fruit and vegetable consumption in recent years, a large proportion of adolescents still do not meet the current dietary recommendation of five portions daily *(14).*

Healthy eating becomes less common as young people move through adolescence, with decreasing consumption of fruit and vegetables and higher consumption of sweets and soft drinks *(15).* Intake of free sugars, especially through sugar-sweetened beverages, is of particular concern in relation to overweight and obesity as it contributes to increased overall energy intake. Consumption of products high in free sugars may also reduce intake of healthier, less energy-dense options *(16).*

The current recommendation states that free sugars should constitute less than 10% of total energy intake. A further reduction to below 5%, or roughly 25 grams (six teaspoons), per day would provide additional health benefits *(16).* To put this recommendation in context, a single can of sugar-sweetened soda often contains up to 40 grams (around 10 teaspoons) of free sugars. Recent evidence from the United Kingdom suggests that adolescents are consuming 15% of their daily calorie intake in the form of sugars *(17).*

PHYSICAL ACTIVITY

Physical activity levels are generally very low in young people in all countries and are lower among girls. Time spent being physically active declines through adolescence.

Physical activity is a key determinant of energy expenditure, as it has a fundamental positive influence on energy balance and weight control. Regular physical activity in children and adolescents is important for obesity prevention *(18,19)* and supporting obese adolescents to manage their weight *(20).* Current global recommendations state that young people aged 5–17 years should accumulate at least 60 minutes of moderate-intensity physical activity every day and include vigorous-intensity activities at least three times a week. Physical activity includes play, games, sports, transportation, housework, recreation, physical education and structured exercise and may be undertaken in the context of family, school or community activities *(21).*

SEDENTARY BEHAVIOURS

While modern life has reduced energy expenditure through physical activity to a minimum, sedentary behaviours dominate adolescents' daily lives *(22).* Young people spend approximately 60% of their waking time sitting, which makes sedentary behaviour the most common behaviour (besides sleep) in children and adolescents *(23).*

The steepest increase in sedentary behaviour occurs around 11 to 13 years, during the onset of puberty *(15,24).* Increasing evidence from observational studies indicates that sedentary behaviour is associated with a wide range of negative physical, psychological and socioemotional health outcomes, although findings from some prospective studies are less consistent *(25,26).* The level of evidence varies with the type of sedentary behaviour, with the most consistent findings being found for screen-based activities *(25,26).*

Screen time is also associated with acute eating behaviours such as snacking, but this is not sufficient to explain the detrimental associations between screen time and cardiometabolic health and obesity *(27).* From a health perspective, it is important to recognize that sedentary behaviour and physical activity occur relatively independently of each other, and various combinations of high or low sedentary behaviour and low or high physical activity levels exist *(28,29).*

REVERSING TRENDS

It is essential to develop effective strategies to reverse recent trends. The early years and important life transitions such as adolescence provide key opportunities to reinforce healthy behaviours that will also reap dividends later in life *(30).*

Policies and interventions must be based on up-to-date evidence and focus on comprehensive multisectoral approaches that address behavioural determinants at socioenvironmental level *(31,32)*. Scientifically robust cross-national surveillance systems provide an important source of data on prevalence rates, high-risk groups and modifiable determinants to inform preventive action.

HEALTH BEHAVIOUR IN SCHOOL-AGED CHILDREN SURVEY

The Health Behaviour in School-aged Children (HBSC) survey is a WHO collaborative cross-national study that monitors the health behaviours, health outcomes and social environments of boys and girls aged 11, 13 and 15 years every four years. The most recent (2013/2014) survey was conducted in 42 countries across Europe.

HBSC has collected international data on adolescent health, including eating behaviours, physical activity, sedentary behaviour and, more recently, overweight and obesity, for over 25 years, allowing prevalence to be compared across countries and over time.

This report presents the latest trends in obesity, eating behaviours, physical activity and sedentary behaviour from the HBSC study and highlights gender and socioeconomic inequalities across the WHO European Region. Trends have previously been reported separately *(14,33–35)*, but this report brings together for the first time HBSC data on obesity and obesity-related behaviours to review the latest evidence and consider the range and complexity of factors influencing childhood obesity.

Annex 1 presents data tables showing prevalence of obesity and related behaviours by age, gender, country and year, and Annex 2 shows trend charts of all variables by country.

REFERENCES

1. Gupta N, Goel K, Shah P, Misra A. Childhood obesity in developing countries: epidemiology, determinants and prevention. Endocr Rev. 2012;33(1):48–70.
2. Wijnhoven TMA, van Raaij JMA, Spinelli A, Starc G, Hassapidou M, Spiroski I et al. WHO European Childhood Obesity Surveillance Initiative: body mass index and level of overweight among 6–9-year-old children from school year 2007/2008 to school year 2009/2010. BMC Public Health 2014;14:806.
3. Ahrens W, Pigeot I, Pohlabein H, De Henauw S, Lissner L, Molnar D et al. on behalf of the IDEFICS consortium. Prevalence of overweight and obesity in European children below the age of 10. Int J Obes. 2014;38:S99–107.
4. Biro FM, Wien M. Childhood obesity and adult morbidities. Am J Clin Nutr. 2010;91(5):1499S–505S.
5. Swallen KC, Reither EN, Haas SA, Meier AM. Overweight, obesity and health-related quality of life among adolescents: the National Longitudinal Study of Adolescent Health. Pediatrics 2005;115(2):340–7.
6. Mustillo S, Worthman C, Erkanli A, Keeler G, Angold A, Costello EJ. Obesity and psychiatric disorder: developmental trajectories. Pediatrics 2003;111(4):851–9.
7. Strauss RS. Childhood obesity and self-esteem. Pediatrics 2000;105(1):e15.
8. Freedman DS, Khan LK, Serdula MK, Dietz WH, Srinivasan SR, Berenson GS. The relation of childhood BMI to adult adiposity: the Bogalusa Heart Study. Pediatrics 2005;115(1):22–7.
9. Gortmaker SL, Must A, Perrin JM, Sobol AM, Dietz WH. Social and economic consequences of overweight in adolescence and young adulthood. N Engl J Med. 1993;329:1008–12.
10. Power C, Graham H, Due P, Hallqvist J, Joung I, Kuh D et al. The contribution of childhood and adult socioeconomic position to adult obesity and smoking behaviour: an international comparison. Int J Epidemiol. 2005;34(2):335–44.
11. Senese LC, Almeida ND, Kittler A, Brendan F, Smith T, Loucks EB. Associations between childhood socioeconomic position and adulthood obesity. Epidemiol Rev. 2009;31(1):21–51.
12. Report of the Commission on Ending Childhood Obesity. Geneva: World Health Organization; 2016 (http://www.who.int/end-childhood-obesity/news/launch-final-report/en/, accessed 27 February 2017).
13. Duffey KJ, Huybrechts I, Mouratidou T, Libuda L, Kersting M, De Vriendt T et al. Beverage consumption among European adolescents in the HELENA study. Eur J Clin Nutr. 2012;66(2):244–52.

14. Vereecken C, Pedersen TP, Ojala K, Krolner R, Dzielska A, Ahluwalia N et al. Fruit and vegetable consumption trends among adolescents from 2002 to 2010 in 33 countries. Eur J Pub Health 2015;25(Suppl. 2):S16–9.
15. Inchley J, Currie D, Young T, Samdal O, Torsheim T, Augustson L et al., editors. Growing up unequal: gender and socioeconomic differences in young people's health and well-being. Health Behaviour in School-aged Children (HBSC) study: international report from the 2013/2014 survey. Copenhagen: WHO Regional Office for Europe; 2016 (Health Policy for Children and Adolescents, No. 7; http://www.euro.who.int/en/publications/abstracts/growing-up-unequal-gender-and-socioeconomic-differences-in-young-peoples-health-and-well-being.-health-behaviour-in-school-aged-children-hbsc-study-international-report-from-the-20132014-survey, accessed 27 February 2017).
16. Guideline: sugar intake for adults and children. Geneva: World Health Organization; 2016 (http://apps.who.int/iris/bitstream/10665/149782/1/9789241549028_eng.pdf?ua=1, accessed 27 February 2017).
17. Bates B, Cox L, Nicholson S, Page P, Prentice A, Steer T et al., editors. National diet and nutrition survey. Results from years 5 and 6 (combined) of the rolling programme (2012/2013–2013/2014). London: Food Standards Agency, Public Health England; 2016 (https://www.gov.uk/government/statistics/ndns-results-from-years-5-and-6-combined, accessed 27 February 2017).
18. Janssen I, Katzmarzyk PT, Boyce WF, King MA, Pickett W. Overweight and obesity in Canadian adolescents and their associations with dietary habits and physical activity patterns. J Adolesc Health 2004;35(5):360–7.
19. Jiménez-Pavón D, Kelly J, Reilly JJ. Associations between objectively measured habitual physical activity and adiposity in children and adolescents: Systematic review. Int J Pediatr Obes. 2010;5(1):3–18.
20. Flynn MAT, McNeil DA, Maloff B, Mutasingwa D, Wu M, Ford C et al. Reducing obesity and related chronic disease risk in children and youth: a synthesis of evidence with "best practice" recommendations. Obes Rev. 2006;7(s1):7–66.
21. Global recommendations on physical activity for health. Geneva: World Health Organization; 2010 (http://www.who.int/dietphysicalactivity/publications/9789241599979/en/, accessed 27 February 2017).
22. Owen N, Healy GN, Matthews CE, Dunstan DW. Too much sitting. The population health science of sedentary behavior. Exerc Sport Sci Rev. 2010;38(3):105–13.
23. Owen N, Salmon J, Koohsari MJ, Turrell G, Giles-Corti B. Sedentary behaviour and health: mapping environmental and social contexts to underpin chronic disease prevention. Br J Sports Med. 2014;48(3):174–7.
24. Cooper A, Goodman A, Page AS, Sherar LB, Esliger DW, van Sluijs EM et al. Objectively measured physical activity and sedentary time in youth: the International Children's Accelerometry Database (ICAD). Int J Behav Nutr Phys Act. 2015;12:113.
25. Carson V, Hunter S, Kuzik N, Gray CE, Poitras VJ, Chaput JP et al. Systematic review of sedentary behaviour and health indicators in school-aged children and youth: an update. Appl Physiol Nutr Metab. 2016;41(6 Suppl. 3):S240–65.
26. van Ekris E, Altenburg TM, Singh AS, Proper KI, Heymans MW, Chinapaw MJM. An evidence-update on the prospective relationship between childhood sedentary behaviour and biomedical health indicators: a systematic review and meta-analysis. Obes Rev. 2016;17(9):833–49.
27. Fletcher E, Leech R, McNaughton SA, Dunstan DW, Lacy KE, Salmon J. Is the relationship between sedentary behaviour and cardiometabolic health in adolescents independent of dietary intake? A systematic review. Obes Rev. 2015;16(9):795–805.
28. Ferrar K, Chang C, Li M, Olds TS. Adolescent time use clusters: a systematic review. J Adolesc Health 2013;52(3):259–70.
29. Pearson N, Braithwaite RE, Biddle SJH, van Sluijs EMF, Atkin AJ. Associations between sedentary behaviour and physical activity in children and adolescents: a meta-analysis. Obes Rev. 2014;15(8):666–75.
30. The Minsk Declaration. The life-course approach in the context of Health 2020. Copenhagen: WHO Regional Office for Europe; 2015 (http://www.euro.who.int/en/media-centre/events/events/2015/10/WHO-European-Ministerial-Conference-on-the-Life-course-Approach-in-the-Context-of-Health-2020/documentation/the-minsk-declaration, accessed 27 February 2017).
31. European food and nutrition action plan 2015–2020. Copenhagen: WHO Regional Office for Europe; 2015 (http://www.euro.who.int/en/publications/abstracts/european-food-and-nutrition-action-plan-20152020, accessed 27 February 2017).
32. Physical activity strategy for the WHO European Region 2016–2025. Copenhagen: WHO Regional Office for Europe; 2016 (http://www.euro.who.int/en/publications/abstracts/physical-activity-strategy-for-the-who-european-region-20162025, accessed 27 February 2017).
33. Ahluwalia N, Dalmasso P, Rasmussen M, Lipsky L, Currie C, Haug E et al. Trends in overweight prevalence among 11-, 13- and 15-year-olds in 25 countries in Europe, Canada and USA from 2002 to 2010. Eur J Public Health 2015;25(Suppl. 2):28–32.
34. Bucksch J, Sigmundova D, Hamrik Z, Troped PJ, Melkevik O, Ahluwalia N et al. International trends in adolescent screen-time behaviours from 2002–2010. J Adol Health 2016;58(4);417–25.
35. Kalman M, Inchley J, Sigmundova D, Iannotti RJ, Tynjälä JA, Hamrik Z et al. Secular trends in moderate-to-vigorous physical activity in 32 countries from 2002 to 2010: a cross-national perspective. Eur J Public Health 2015;25(Suppl. 2):37–40.

CHAPTER 2

TRENDS IN OBESITY BY AGE, GENDER AND FAMILY AFFLUENCE

SUMMARY

- Obesity prevalence varies across countries and regions but is generally higher among boys, younger adolescents and those with lower affluence.
- While levels of obesity have stabilized in some countries and regions, prevalence has increased in over half of those involved in HBSC surveys since 2002. These increases are nevertheless inconsistent across age and gender groups.
- The most marked increases have been observed in eastern European countries, where levels of obesity were relatively low in 2002.
- Only 13-year-old boys in Norway and 11-year-old girls in Spain experienced a significant decrease in obesity prevalence.
- Inequalities in obesity have persisted in most countries and regions over time.

INTRODUCTION

Childhood obesity has become a major global public health concern, following rapid increases in recent decades in many parts of the world. Obese children are at greater risk of type 2 diabetes, asthma, sleep difficulties, musculoskeletal problems and future cardiovascular disease, as well as school absence, psychological problems and social isolation. Preventive action is therefore needed to reverse current trends.

This chapter presents data on obesity prevalence across 27 countries and regions in Europe between 2002 and 2014. The focus is on obesity: although negative health outcomes and psychosocial consequences of overweight among children and adolescents are well documented, the consequences of obesity (including severe obesity) are even more damaging, with, for example, risk of metabolic syndrome *(1,2)* and sleep disorders *(3).*

Obesity in children and adolescents aged 5–19 years is defined as body mass index (BMI) +2 standard deviations, according to WHO age- and gender-specific growth reference charts *(4).* Data are based on self-reported height and weight: this is used commonly to measure BMI in population-based surveys but may be subject to recall or social desirability bias, potentially leading to an underestimation of overall obesity *(5,6).* Nine countries were excluded from the analysis due to high levels of missing data (>30%).

RESULTS

Obesity

Prevalence

The mean prevalence of obesity across all 27 countries and regions in 2014 was 4%, with the lowest observed level among 15-year-olds girls in Ukraine (0.7%) and the highest among boys of 11 in the former Yugoslav Republic of Macedonia (14%). Prevalence among 11-year-olds was greater than 10% for boys in four countries (Croatia, Greece, Portugal and the former Yugoslav Republic of Macedonia), but only two (Greece and Italy) had a prevalence of more than 5% for girls. The lowest levels of obesity were found in the Netherlands and Norway.

In the vast majority of countries and regions and across all survey years, obesity prevalence was higher among younger than older adolescents and generally was higher in boys. These patterns reflect those observed for overweight, with higher rates among boys and younger adolescents. Average prevalence of overweight and obesity (combined) across all HBSC countries and regions was 19%, with the highest levels mainly in southern European countries.

Levels of obesity in 2014 were higher among lower-affluence adolescents in 16 countries and regions. Ten (Belgium (Flemish), Denmark, Germany, Iceland, Italy, Luxembourg, Slovenia, Spain, Sweden and Switzerland) showed patterns of social inequality among boys and girls. Inequalities in obesity were observed among boys only in Latvia, the Netherlands and Slovakia, and among girls only in Estonia, Finland and Portugal. No countries or regions showed a significantly higher prevalence of obesity among higher-affluence adolescents.

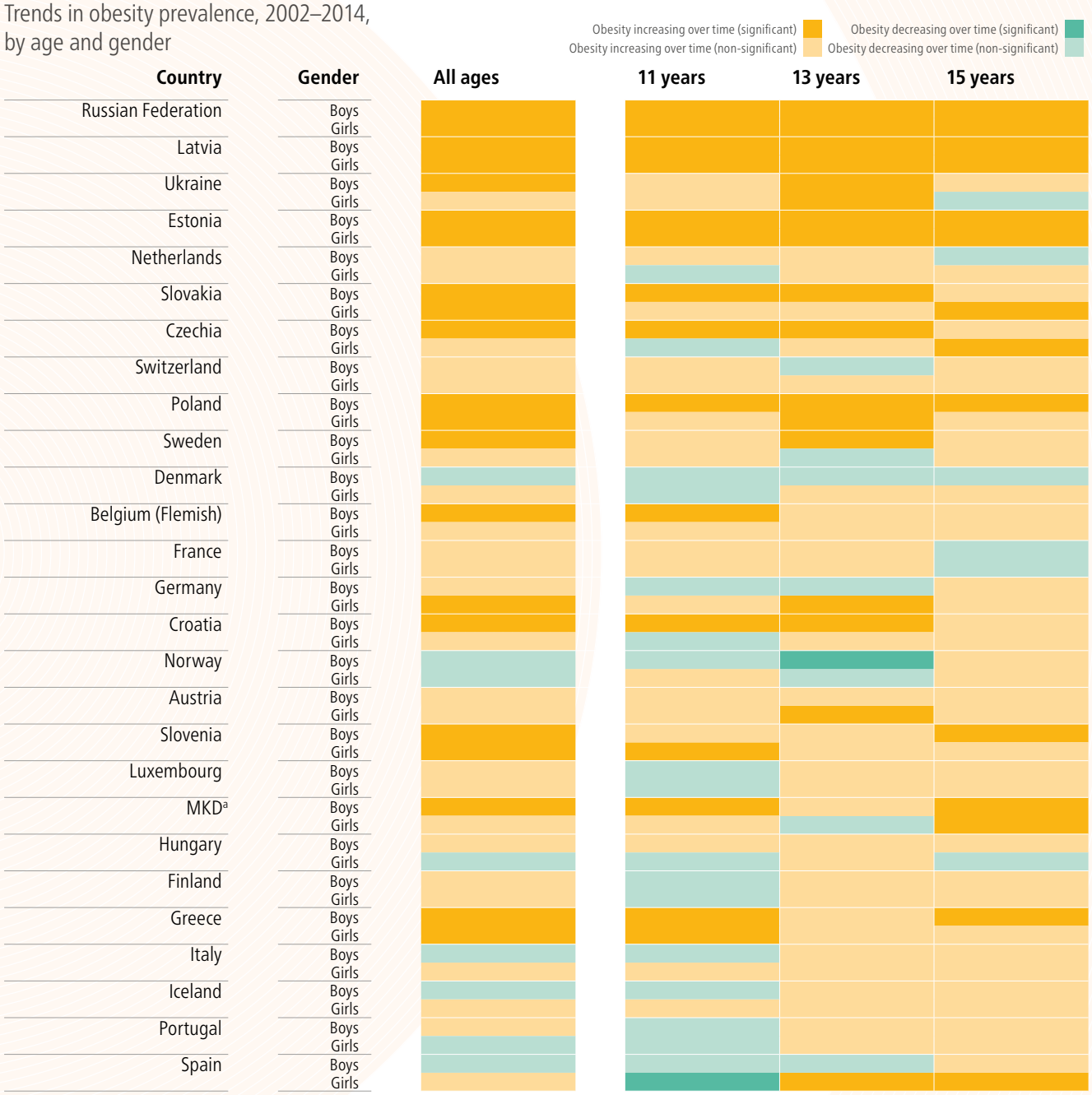
Trends over time

Prevalence of obesity increased in 16 of the 27 countries and regions between 2002 and 2014 (Fig. 2.1). While a significant increase in obesity was seen in one or more age and gender groups, only a few countries (Estonia, Latvia, Poland and the Russian Federation) showed a consistent

pattern of a significant increase in one or both genders in all three age groups. These countries had a relatively low prevalence in 2002.

Fig. 2.1.

Trends in obesity prevalence, 2002–2014, by age and gender

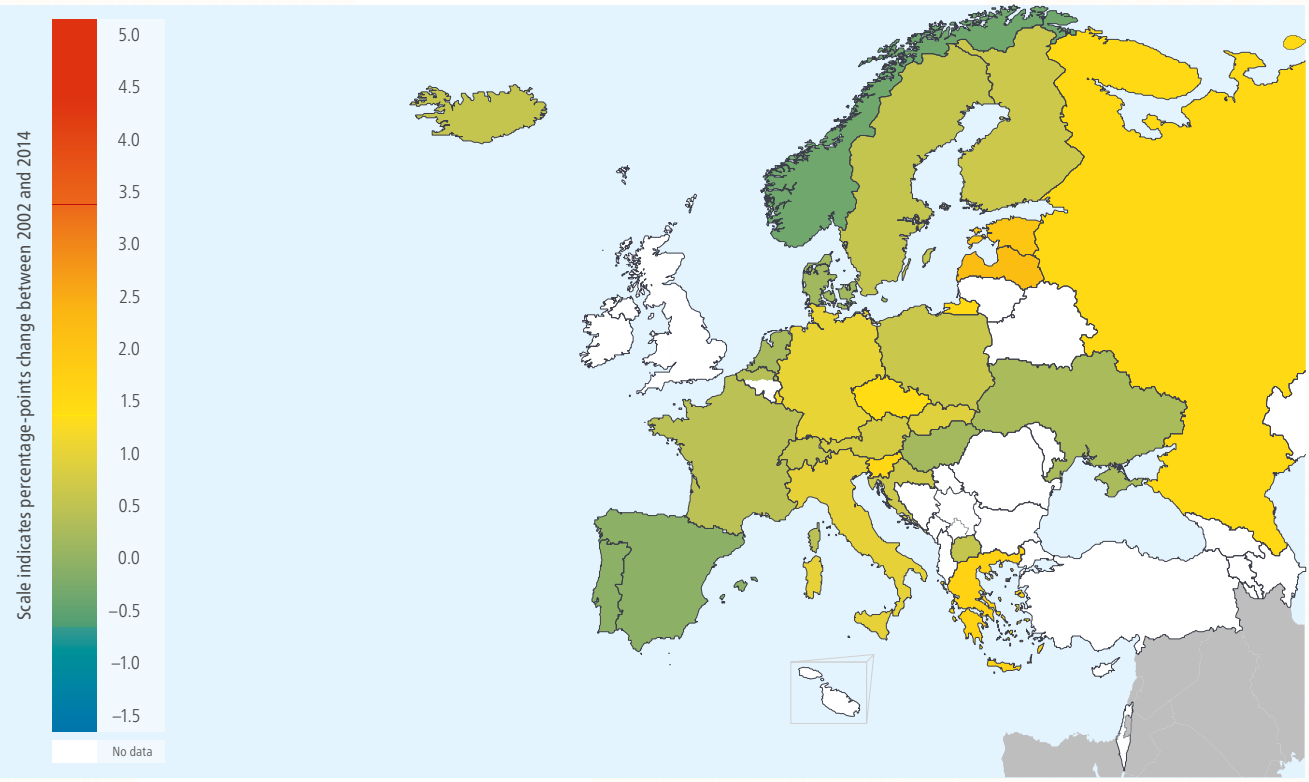


[a] The former Yugoslav Republic of Macedonia (MKD is an abbreviation of the International Organization for Standardization). *Note:* direction and significance of trend is based on relative risk (2014 versus 2002) and 95% confidence interval. Countries are ordered by decreasing prevalence of obesity in 2002. Estimates are based on modelled data and include all countries with three or more data points. Data excluded as missing values >30% for Belgium (French), Ireland, Israel, Lithuania, Malta, Romania, United Kingdom (England), United Kingdom (Scotland) and United Kingdom (Wales). No trend data were available for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey.

One country, Norway, showed a significant decrease in obesity among 13-year-old boys. Trends in Spain varied by age and gender, such that a significant increase was observed among 13- and 15-year-old girls but decreased prevalence was seen in girls aged 11; there was no change for boys. The remaining countries and regions showed relatively stable obesity prevalence between 2002 and 2014 (Fig. 2.2 and 2.3).

Fig. 2.2.

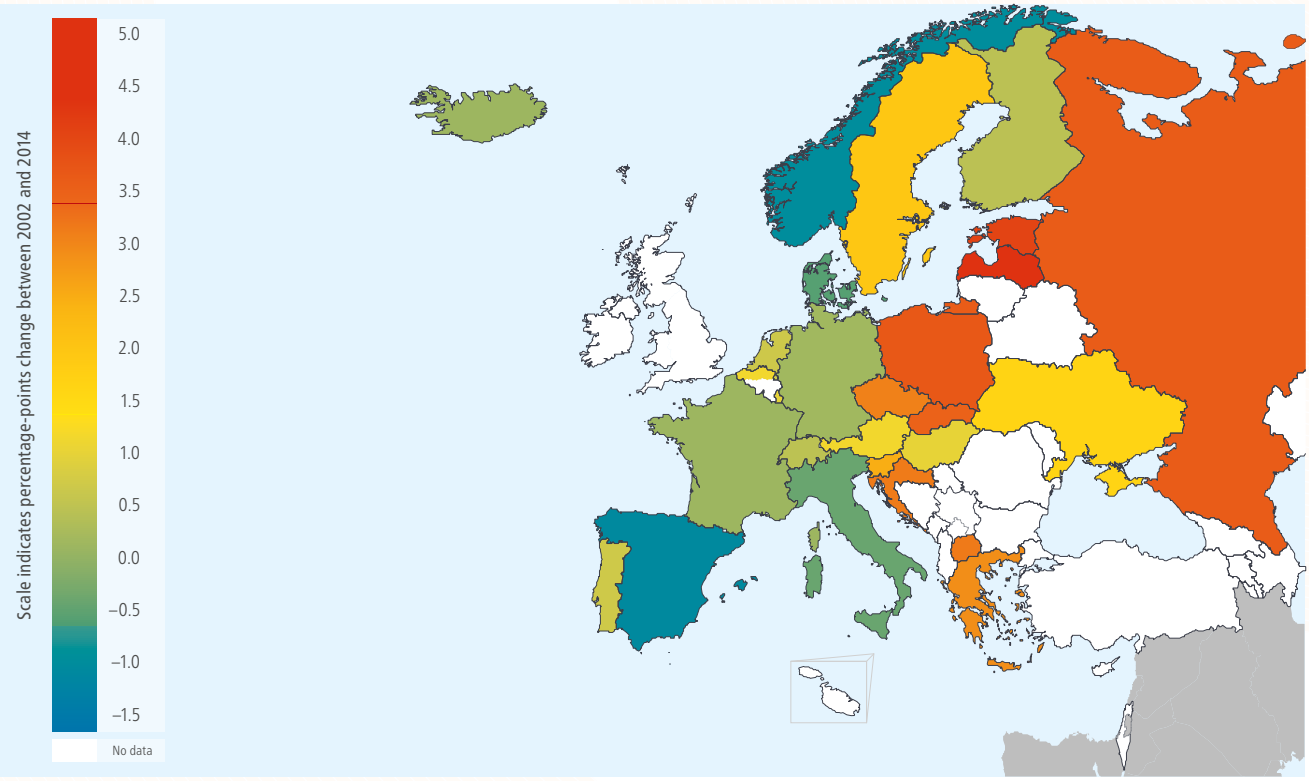
Difference in obesity prevalence between 2002 and 2014, girls



Note: data from 2006 are used as the baseline for countries with no 2002 data (Iceland, Luxembourg and Slovakia). Data excluded as missing values >30% for Belgium (French), Ireland, Israel, Lithuania, Malta, Romania, United Kingdom (England), United Kingdom (Scotland) and United Kingdom (Wales). No trend data were available for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey.

Fig. 2.3.

Difference in obesity prevalence between 2002 and 2014, boys



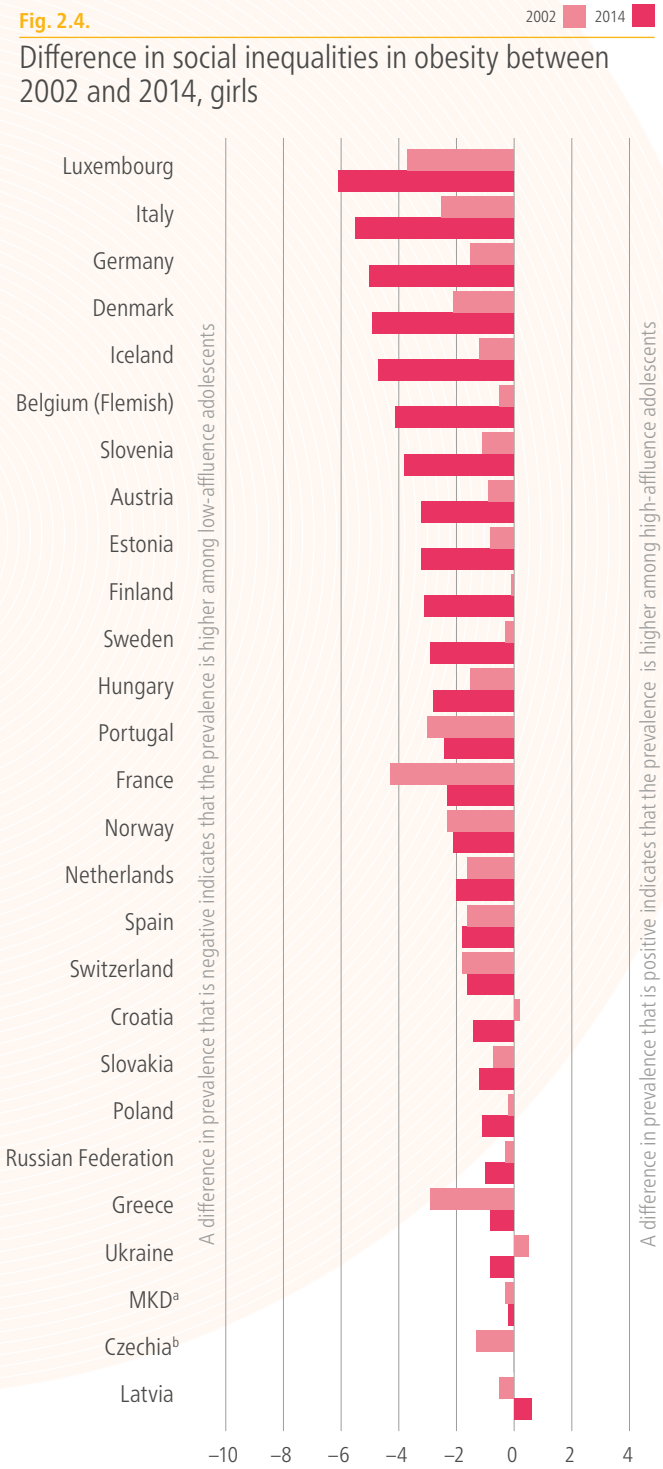
Note: data from 2006 are used as the baseline for countries with no 2002 data (Iceland, Luxembourg and Slovakia). Data excluded as missing values >30% for Belgium (French), Ireland, Israel, Lithuania, Malta, Romania, United Kingdom (England), United Kingdom (Scotland) and United Kingdom (Wales). No trend data were available for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey.

Changes in inequality over time

Three countries (Belgium (Flemish), Iceland and Ukraine) showed significant trends in social inequality from 2002 to 2014 (Fig. 2.4 and 2.5). Two of these – Belgium (Flemish) and Iceland – reported increasing inequality caused by decreasing prevalence among young people of higher affluence and increasing prevalence in those with lower affluence. Growing social inequality was observed among girls and boys in Belgium (Flemish) but only among boys in Iceland and Ukraine. Fig. 2.4 and 2.5 show the difference in prevalence between the most and least affluent in each country or region.

Fig. 2.4.

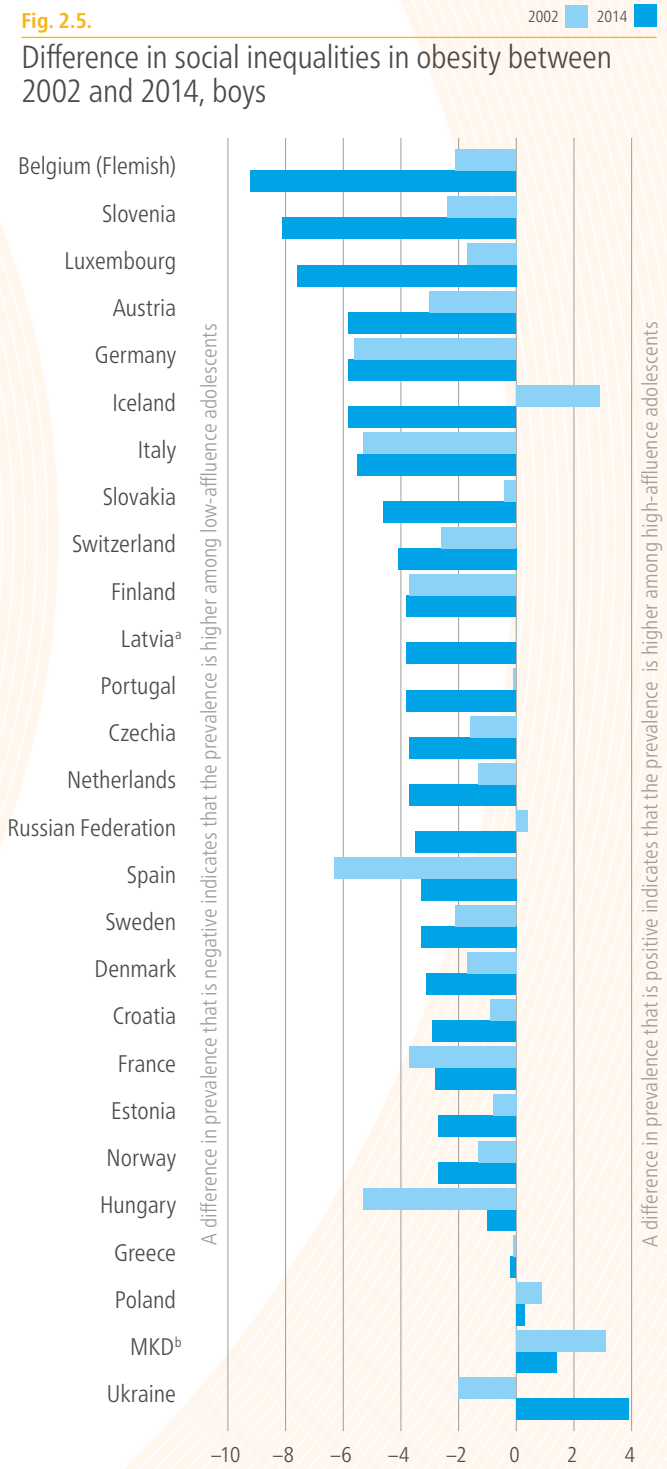
Difference in social inequalities in obesity between 2002 and 2014, girls



[a] The former Yugoslav Republic of Macedonia. [b] No difference in prevalence between those of high and low affluence. *Note*: estimates are based on modelled data and include all countries with three or more data points. Data excluded as missing values >30% for Belgium (French), Ireland, Israel, Lithuania, Malta, Romania, United Kingdom (England), United Kingdom (Scotland) and United Kingdom (Wales). No trend data were available for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey.

Fig. 2.5.

Difference in social inequalities in obesity between 2002 and 2014, boys



[a] No difference in prevalence between those of high and low affluence. [b] The former Yugoslav Republic of Macedonia. *Note*: estimates are based on modelled data and include all countries with three or more data points. Data excluded as missing values >30% for Belgium (French), Ireland, Israel, Lithuania, Malta, Romania, United Kingdom (England), United Kingdom (Scotland) and United Kingdom (Wales). No trend data were available for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey.

The opposite pattern was reported for boys in Ukraine, for whom prevalence increased with higher affluence and decreased with lower affluence. This changing socioeconomic patterning saw higher-affluence boys in Ukraine reporting higher obesity prevalence than those from lower-affluence families in the 2010 and 2014 surveys (although the difference was significant only in 2010).

REFERENCES

1. Rank M, Siegrist M, Wilks DC, Langhof H, Wolfarth B, Haller B et al. The cardio-metabolic risk of moderate and severe obesity in children and adolescents. J Pediatr. 2013;163:137–42.
2. Calcaterra V, Klersy C, Muratori T, Telli S, Caramagna C, Scaglia F et al. Prevalence of metabolic syndrome (MS) in children and adolescents with varying degrees of obesity. Clin Endocrinol. 2008;68:868–72.
3. Kohler MJ, Thormaehlen S, Kennedy JD, Pamula Y, van den Heuvel CJ, Lushington K et al. Differences in the association between obesity and obstructive sleep apnea among children and adolescents. J Clin Sleep Med. 2009;5(6):506–11.
4. de Onis M, Onyango AW, Borghi E, Siyam A, Nishida C, Siekmann J. Development of a WHO growth reference for school-aged children and adolescents. Bull World Health Organ. 2007;85(9):660–7 (http://www.who.int/growthref/growthref_who_bull.pdf, accessed 27 February 2017).
5. Elgar FJ, Stewart JM. Validity of self-report screening for overweight and obesity. Evidence from the Canadian Community Health Survey. Can J Pub Health 2008;99(5):423–7.
6. Stommel M, Schoenborn CA. Accuracy and usefulness of BMI measures based on self-reported weight and height: findings from the NHANES & NHIS 2001–2006. BMC Public Health 2009;9: 421.

CHAPTER 3

TRENDS IN EATING BEHAVIOURS BY AGE, GENDER AND FAMILY AFFLUENCE

SUMMARY

- Daily consumption of fruit and vegetables increased slightly between 2002 and 2014, but overall prevalence remains low.
- Daily consumption of sugary soft drinks and sweets decreased noticeably between 2002 and 2014, but consumption remains high: almost one in five adolescents drinks sugary soft drinks daily and one in four eats sweets every day.
- There is little evidence of a notable reduction in social inequalities for daily fruit and vegetable consumption over time. Behaviours in some countries and regions are worsening among lower-affluence adolescents.
- Decreases in social inequalities for daily soft drinks and sweets consumption over time are primarily associated with reduced intake among adolescents from higher-affluence families in countries and regions in which consumption had been higher in those with higher affluence in 2002.
- Some positive overall trends in adolescent eating behaviours are evident, but the picture across Europe remains complex, with wide variation in prevalence and differing trends across countries and regions.

INTRODUCTION

Fruit and vegetables are fundamental to a healthy diet and are associated with good health and well-being. WHO recommends that adolescents consume five portions (400 grams) of fruit and vegetables every day. Limiting sugar intake among adults and children is also a key target area for policy-makers.

Free sugars, of which sugar-sweetened beverages provide a main source for adolescents, can increase overall energy intake and displace nutrient-rich foods. They are associated with weight gain, increased risk of noncommunicable diseases and higher risk of dental caries. WHO recommends reducing the intake of free sugars to less than 10% of total energy intake, and a further reduction to below 5% (or roughly 25 grams (six teaspoons)) per day provides additional health benefits *(1).*

The HBSC study neither comprehensively measures dietary behaviours nor captures nutrient intakes. It does, however, measure important indicators of a healthy diet, such as fruit and vegetable consumption, and common elements of young people's food culture, including sweets (candy or chocolate) and sugary soft drinks (one type of sugar-sweetened beverage). This chapter presents recent trends on daily consumption of fruit, vegetables, soft drinks and sweets.

RESULTS

Daily fruit and vegetable consumption

Current consumption levels

In 2014, only around a third (38%) of adolescents aged 11, 13 and 15 years from 40 countries and regions in Europe reported consuming fruit daily, while 3% claimed to never eat fruit. Daily fruit consumption was highest in Armenia (57%), Albania (51%) and Belgium (French) (49%), and lowest in Sweden (27%), Latvia (26%) and Finland (24%). It was significantly lower in boys (34%) than girls (42%) and decreased with age (44%, 37% and 33% in 11-, 13- and 15-year-olds respectively). Daily fruit consumption in 2014 was over 10 percentage points higher among adolescents from higher-affluence families compared to those with lower affluence, a finding that was consistent across countries and regions.

Across all 40 countries and regions, 36% of adolescents aged 11, 13 and 15 years reported consuming vegetables daily, but 5% claimed never to eat vegetables. The proportion of adolescents consuming vegetables daily was highest in Belgium (French) (56%), Belgium (Flemish) (54%) and Ukraine (53%), and lowest in Spain (23%) and Estonia (24%). Daily vegetable intake among boys (32%) was lower than for girls (39%) and decreased between the ages of 11 and 15 (from 38% to 34%). A higher proportion of adolescents from higher-affluence families reported daily vegetable consumption in almost all countries and regions, with an overall difference of around 10 percentage points.

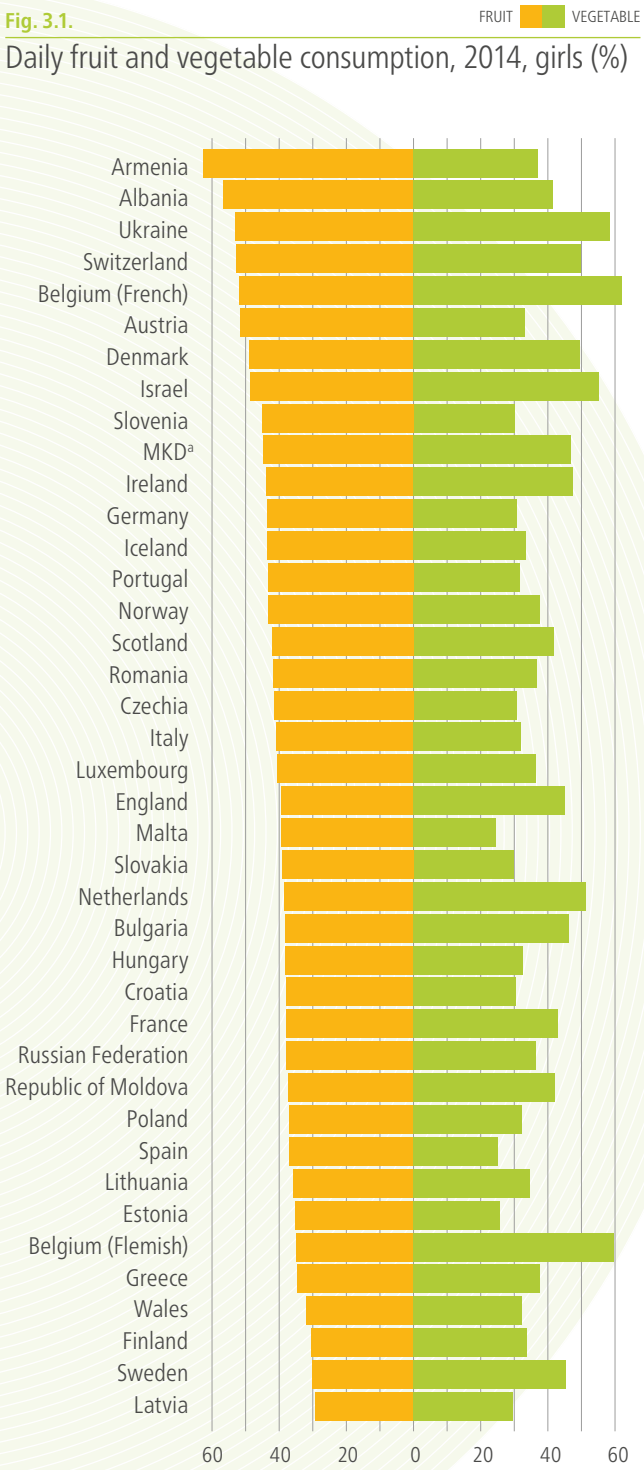
Fig. 3.1 and 3.2 show the prevalence of daily fruit and vegetable consumption for all countries and regions in 2014 for girls and boys, respectively.

Trends over time

Across Europe, a very small yet statistically significant increase in daily fruit consumption (from 34% to 37%) was seen between 2002 and 2014. Ukraine had the largest increase, from 25% to 47%,

Fig. 3.1.

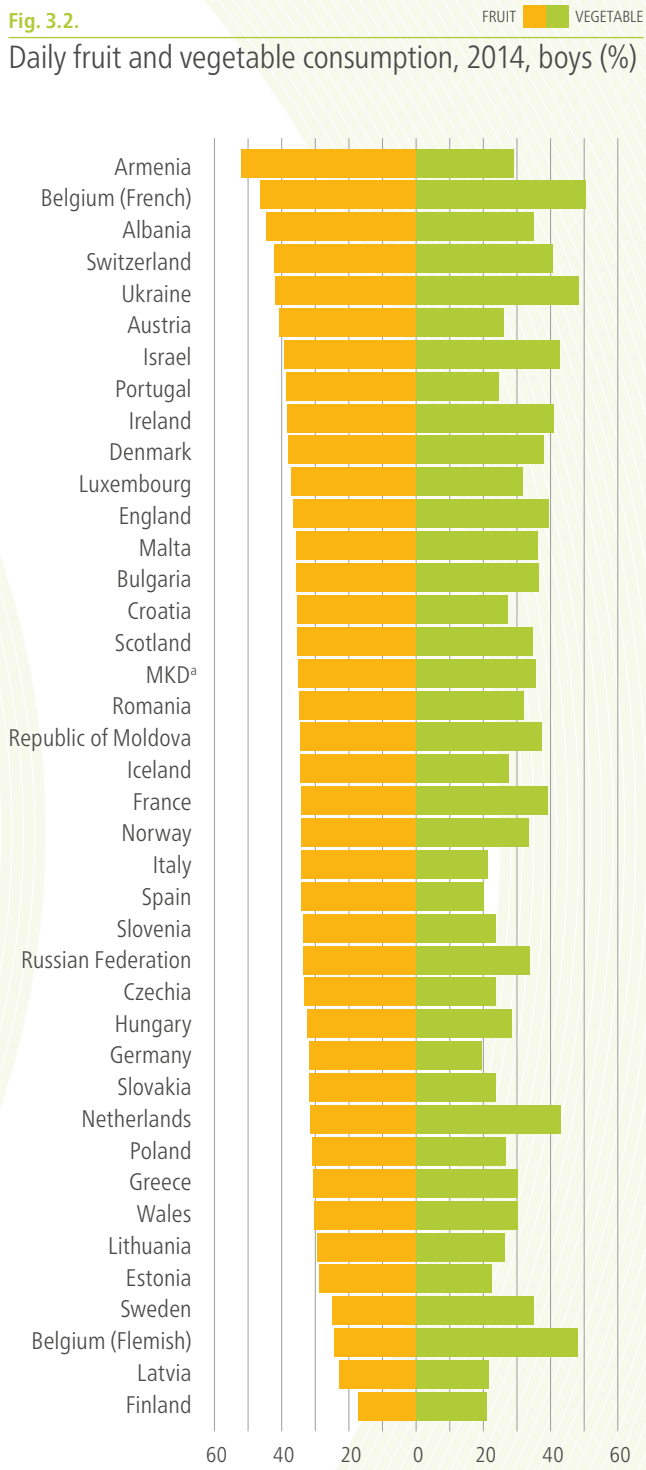
Daily fruit and vegetable consumption, 2014, girls (%)



[a] The former Yugoslav Republic of Macedonia. *Note*: no data for 2014 were received for Turkey.

Fig. 3.2.

Daily fruit and vegetable consumption, 2014, boys (%)



[a] The former Yugoslav Republic of Macedonia. *Note*: no data for 2014 were received for Turkey.

with half the change occurring since 2010. There was also a significant increase among 11-, 13- and 15-year-old boys and girls in a further seven countries and regions (Austria, Belgium (French), Denmark, Lithuania, the Russian Federation, Switzerland and United Kingdom (England)). An additional seven (Estonia, Iceland, Ireland, Latvia, the Netherlands, Norway and Slovakia) showed improvements in fruit consumption in both genders, but increases were not statistically significant within all age groups.

Daily fruit consumption remained unchanged for boys and girls in four countries (Croatia, Slovenia, Spain and Sweden) between 2002 and 2014 (Fig. 3.3). Significant decreases were observed in boys and girls in five (Greece, Israel, Malta, Poland and Portugal). Findings from the remaining countries and regions were mixed within the age and gender groups.

Overall, across 36 countries and regions in Europe there was a small but significant increase in daily vegetable intake, from 30% in 2002 to 35% in 2014. Country differences in trends over time are shown in Fig. 3.4. Adolescents in Denmark, Hungary and Malta reported the largest increases in vegetable intake over time, of around 15 percentage points. A few countries and regions (Belgium (Flemish), Czechia, France, Portugal, the Russian Federation and Slovenia) showed no change in consumption over time, and a minority a decrease over time in both genders (Germany and Poland) or in boys only (Latvia and Lithuania). Germany and Poland reported the largest decreases (of seven percentage points) in daily vegetable consumption.

Fig. 3.3.

Changes in daily fruit consumption, 2002–2014, girls

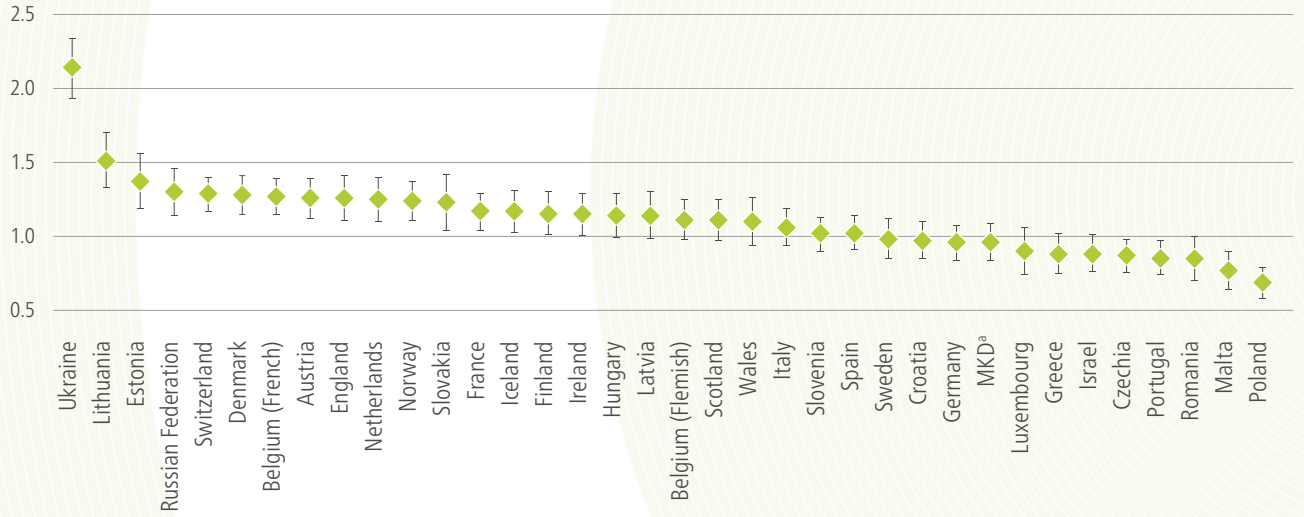
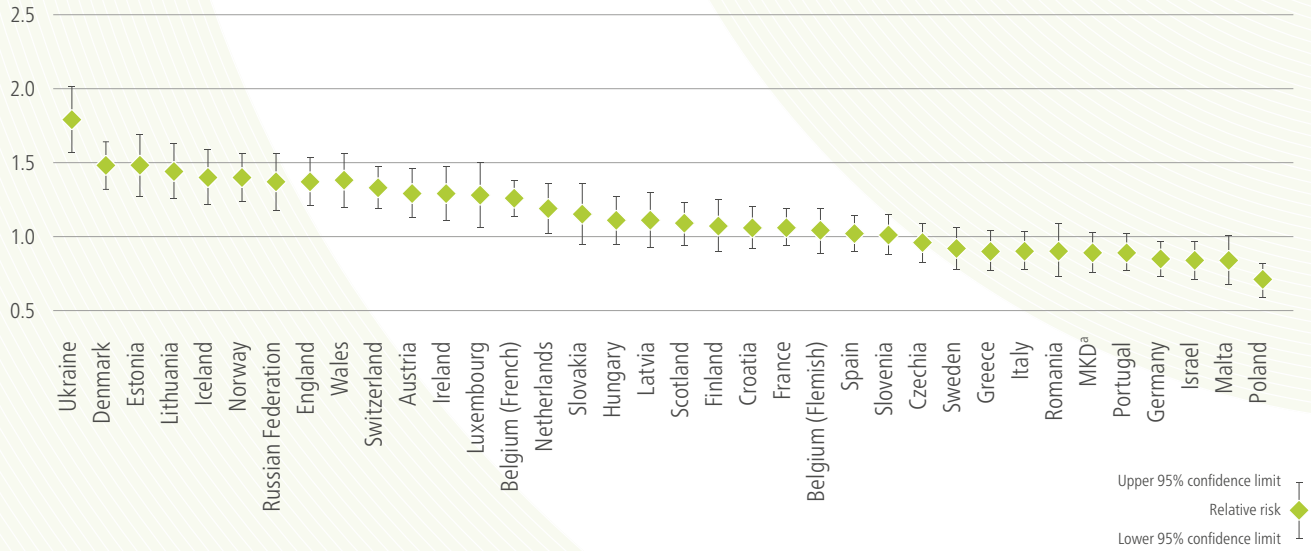


Fig. 3.4.

Changes in daily fruit consumption, 2002–2014, boys



[a] The former Yugoslav Republic of Macedonia. *Note:* data are presented as relative risk (2014 versus 2002) and 95% confidence interval. Relative risk greater than 1.0 indicates an increase in prevalence over time; relative risk less than 1.0 indicates that prevalence has decreased over time. Estimates are based on modelled data and include all countries with three or more data points. No trend data were available for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey.

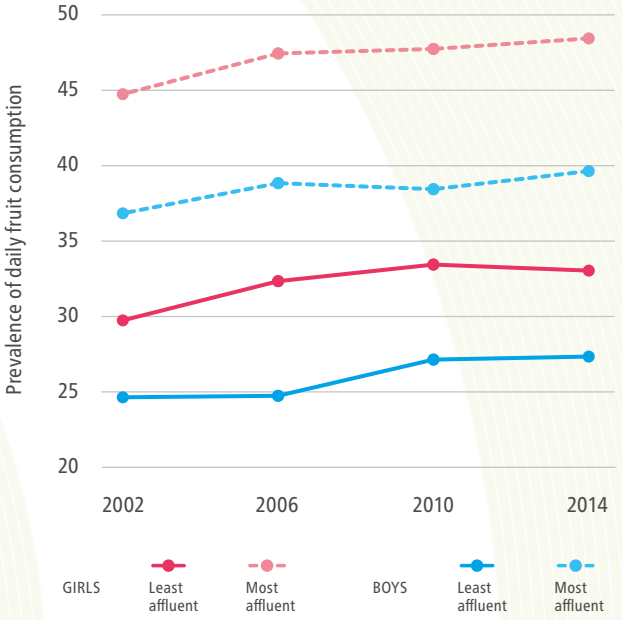
Changes in inequalities over time

Inequalities in fruit consumption remained unchanged in most countries and regions between 2002 and 2014, with boys and girls from higher-affluence families more likely to eat fruit daily than those with lower affluence (Fig. 3.5). Inequalities in fruit consumption decreased over time for boys and girls in four eastern European countries (Lithuania, Poland, Romania and the Russian Federation). A narrowing of inequality was also found among boys in Belgium (Flemish) and girls in Croatia. The decreases were associated with increased fruit consumption among those of lower affluence in all countries except Poland, where the decrease over time was among adolescents from higher-affluence families.

An increase in inequality in daily fruit consumption seen among girls in the Netherlands was significant and was associated with increased daily fruit intake among higher-affluence girls over time.

Fig. 3.5.

Trends in inequalities in daily fruit consumption, 2002–2014, all countries combined (%)



Note: no trend data were available for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey. No data for 2002 were received for Iceland, Luxembourg, Romania and Slovakia. No data for 2010 were received for Malta.

Inequalities in vegetable consumption are evident across the four survey cycles, with adolescents from higher-affluence families more likely to eat vegetables on a daily basis than those with lower affluence. The extent of inequalities remained unchanged in most countries and regions (Fig. 3.6 and 3.7). There was some evidence of narrowing inequality in vegetable-eating in a minority, with a significant decrease in inequality among adolescents in Malta (both genders), Switzerland (boys only), and Norway and Spain (girls only). These reductions in inequality were mainly due to increased vegetable consumption among lower-affluence adolescents. In contrast, increased vegetable consumption among those with higher affluence led to increasing inequalities among girls in Estonia. Fig. 3.6 and 3.7 show the difference in prevalence between the most and least affluent in each country or region.

Daily sugared soft-drink and sweets consumption

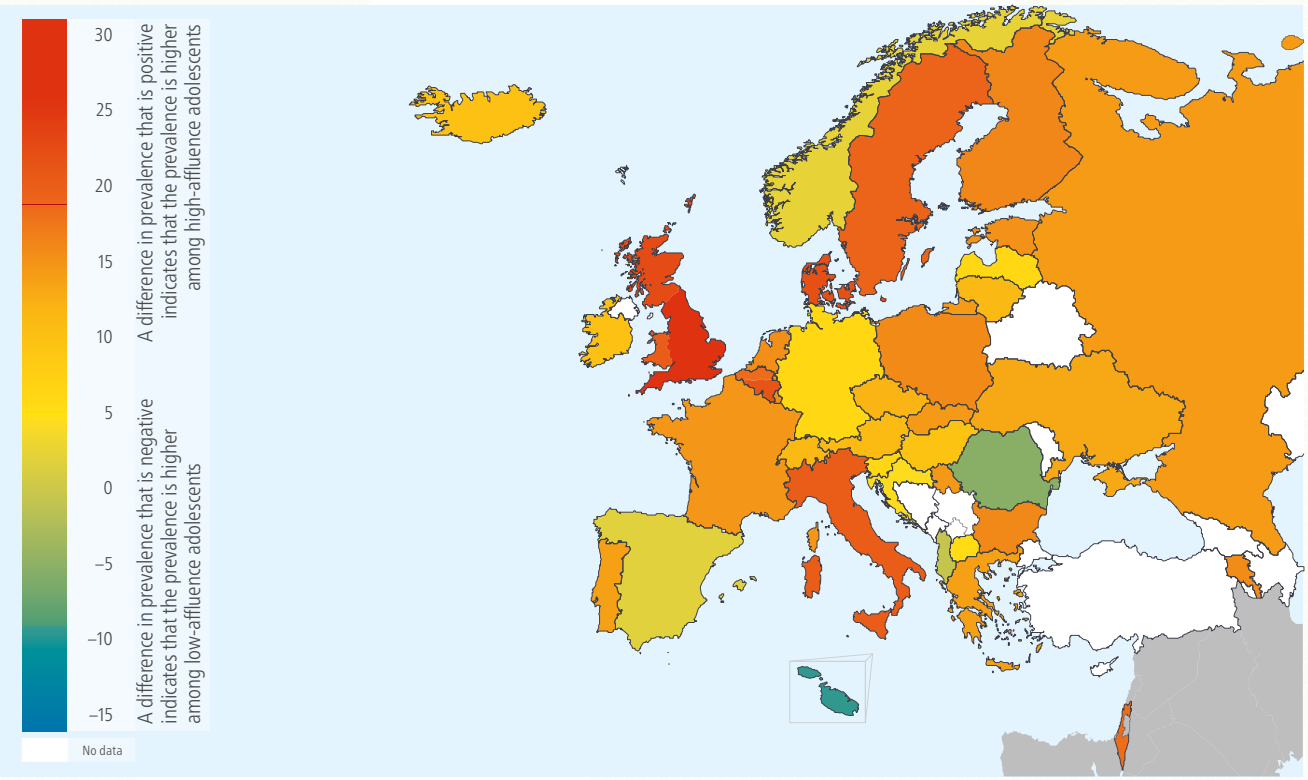
Current consumption levels

Nineteen per cent of adolescents aged 11, 13 and 15 years from 40 countries and regions in Europe reported daily consumption of sugared soft drinks in 2014, while 11% claimed never to drink them. The proportion of adolescents consuming soft drinks daily was highest in Malta (37%), Belgium (French) (36%) and Bulgaria (34%), and lowest in Finland (3%), Iceland (5%) and Greece (5%). Daily intake was marginally higher in boys (21%) than girls (17%) and in older age groups (20% of 13- and 15-year-olds, compared to 16% of 11-year-olds). Overall, young people from higher-affluence families were less likely to drink sugared soft drinks every day than those with lower affluence, but this was not consistent across all countries and regions.

Approximately one quarter (26%) of adolescents reported eating sweets (including chocolates) daily in 2014, with only 4% never eating sweets. The proportion reporting daily sweets consumption varied considerably between countries and regions and was highest in Armenia (53%), Bulgaria (44%) and Belgium (French) (40%), and lowest in Iceland (3%), Finland (3%) and Sweden (4%). Daily consumption was lower among boys (24%) than girls (27%) and slightly lower for 11-year-olds (24%) compared to those of 13 and 15 (27% and 26% respectively).

Fig. 3.6.

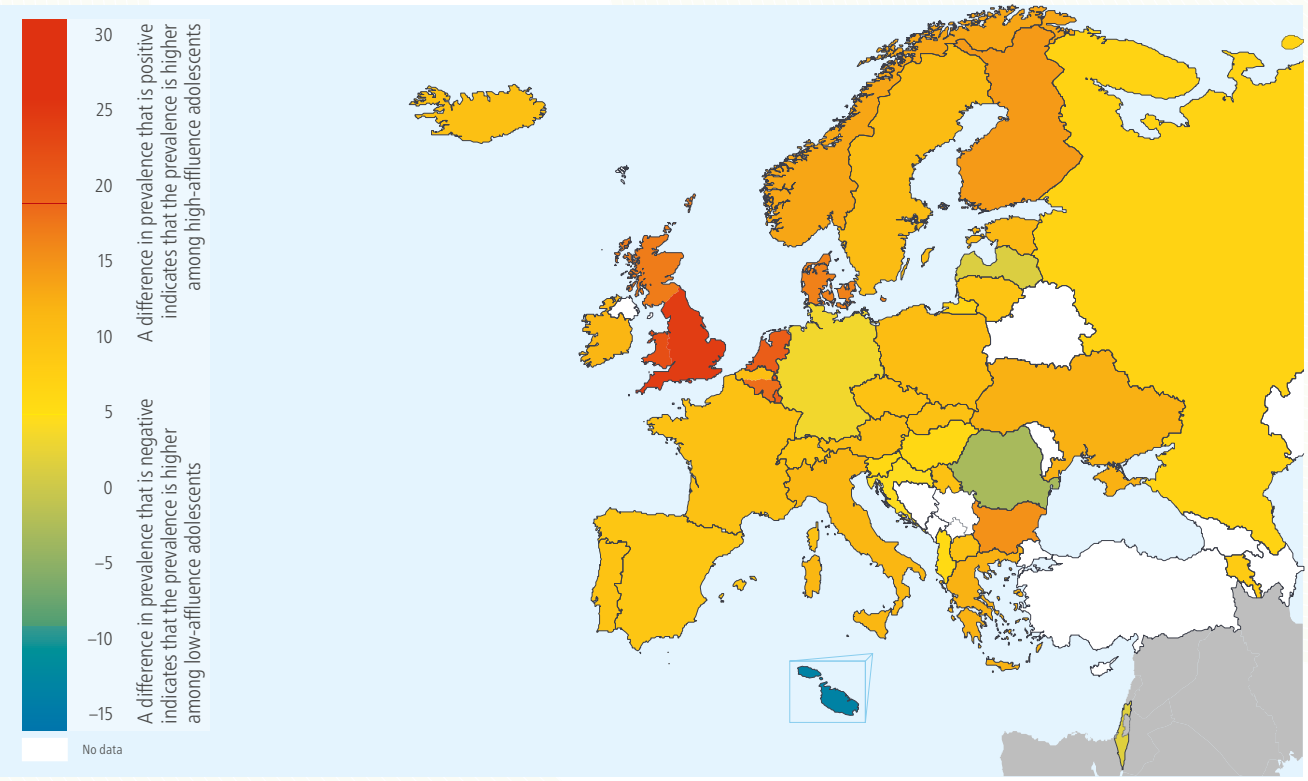
Social inequalities in daily vegetable consumption, 2014, girls (%)



Note: no data for 2014 were received for Turkey.

Fig. 3.7.

Social inequalities in daily vegetable consumption, 2014, boys (%)

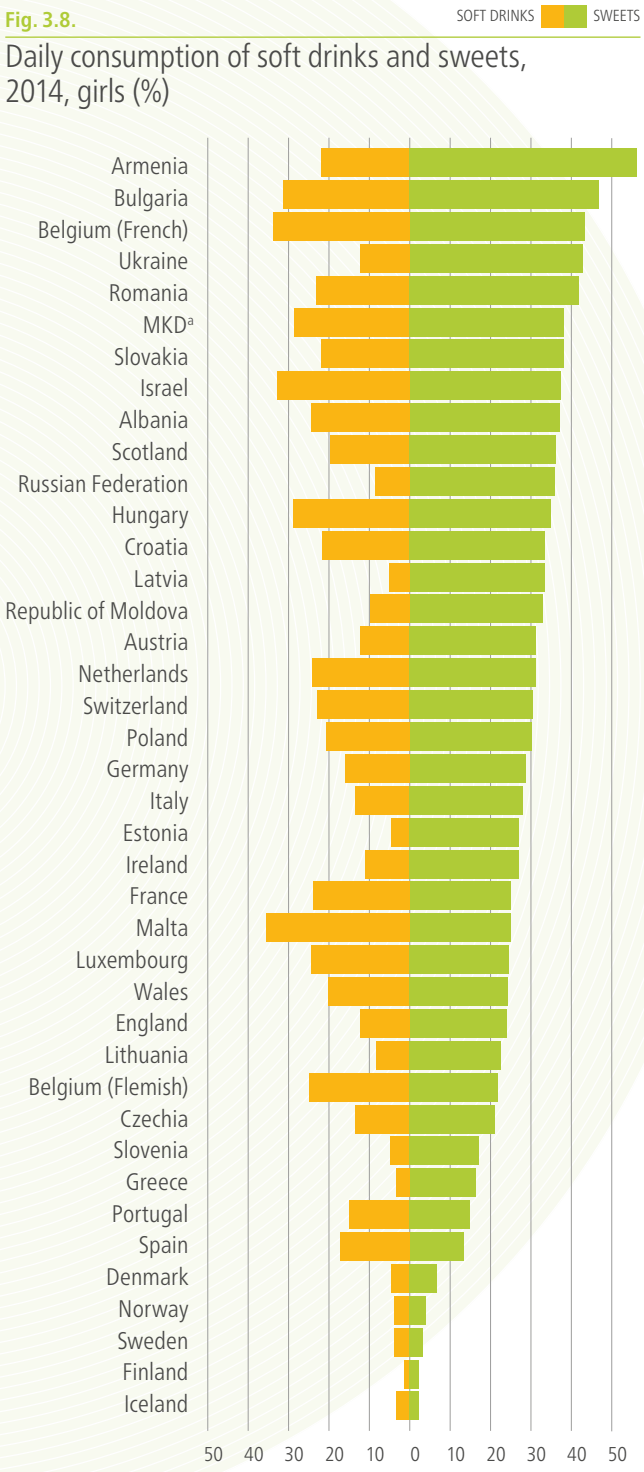


Note: no data for 2014 were received for Turkey.

Prevalence of daily consumption of soft drinks and sweets in 2014 for all countries and regions is shown in Fig. 3.8 and 3.9 for girls and boys, respectively.

Fig. 3.8.

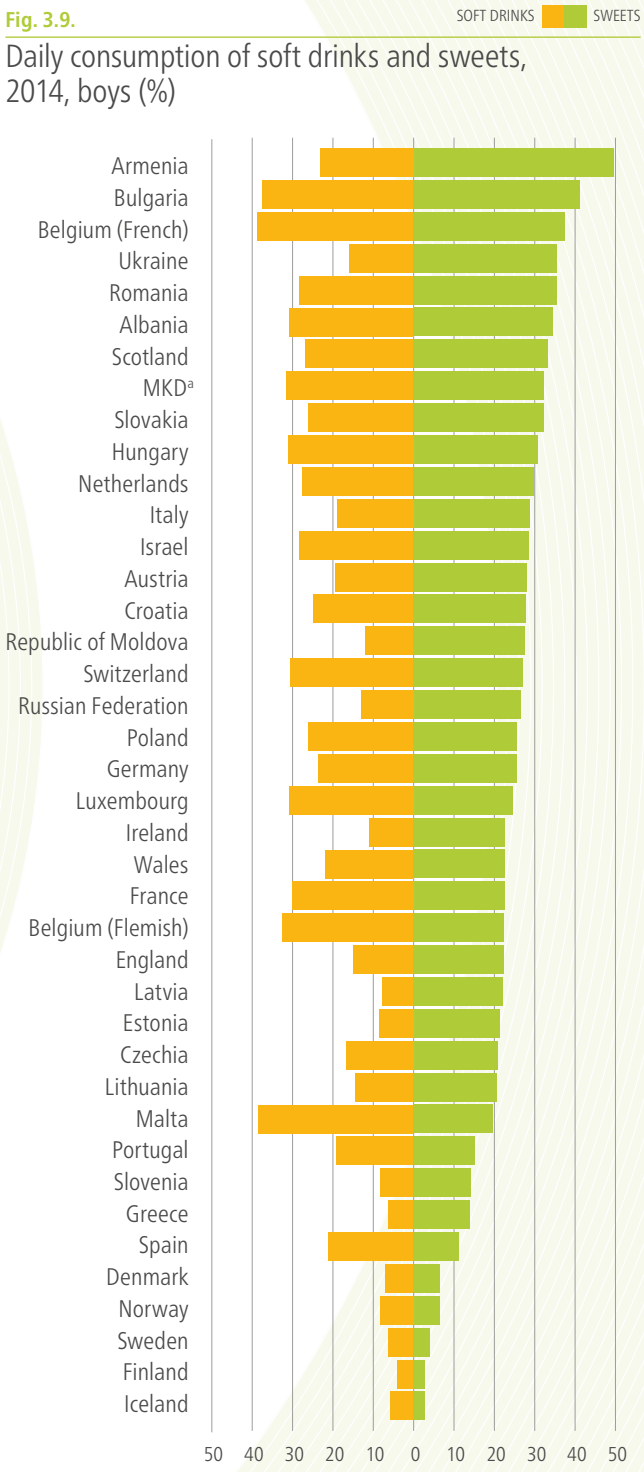
Daily consumption of soft drinks and sweets, 2014, girls (%)



[a] The former Yugoslav Republic of Macedonia. *Note*: no data for 2014 were received for Turkey.

Fig. 3.9.

Daily consumption of soft drinks and sweets, 2014, boys (%)

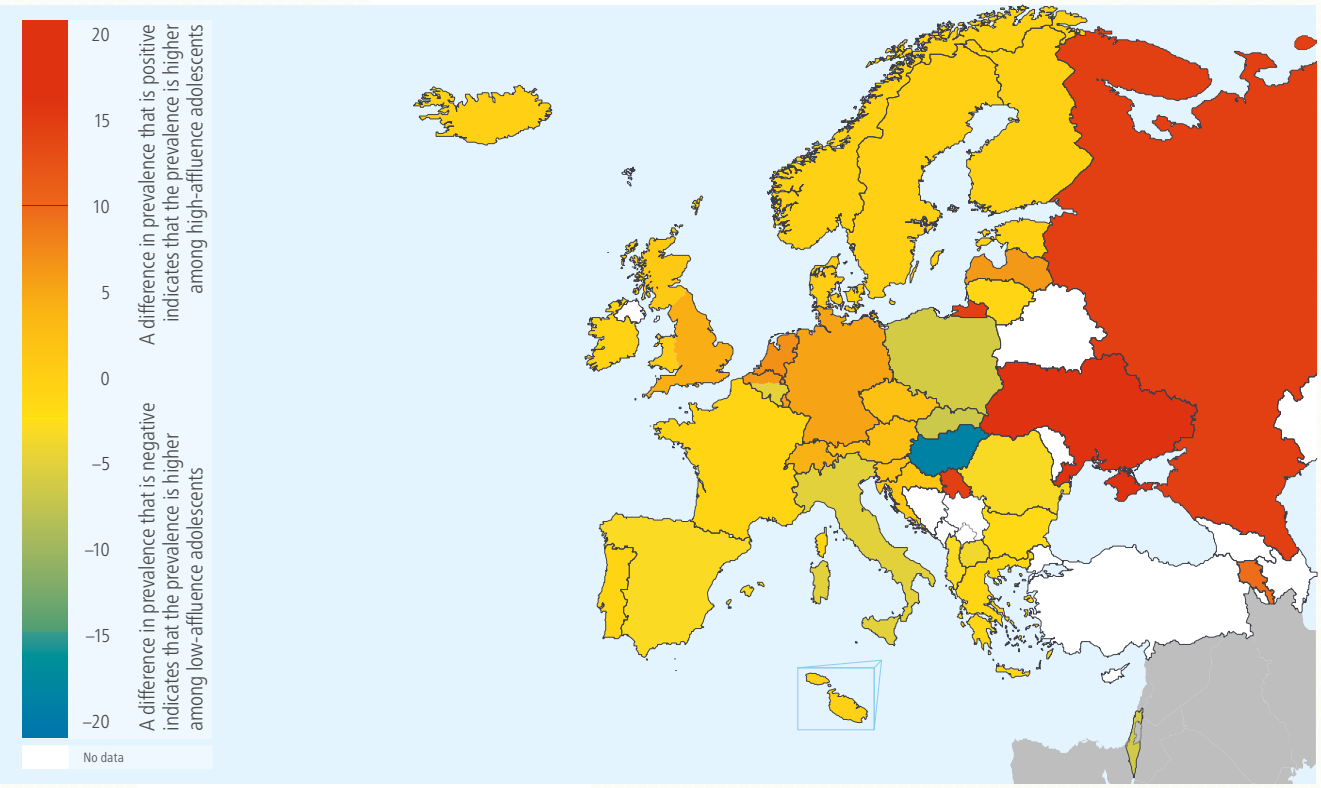


[a] The former Yugoslav Republic of Macedonia. *Note*: no data for 2014 were received for Turkey.

Adolescents from higher-affluence families were more likely than those of lower affluence to eat sweets daily in around a third of countries and regions (Fig. 3.10 and 3.11). The association was significant for boys and girls in Latvia, the Republic of Moldova, the Russian Federation and Ukraine.

Fig. 3.10.

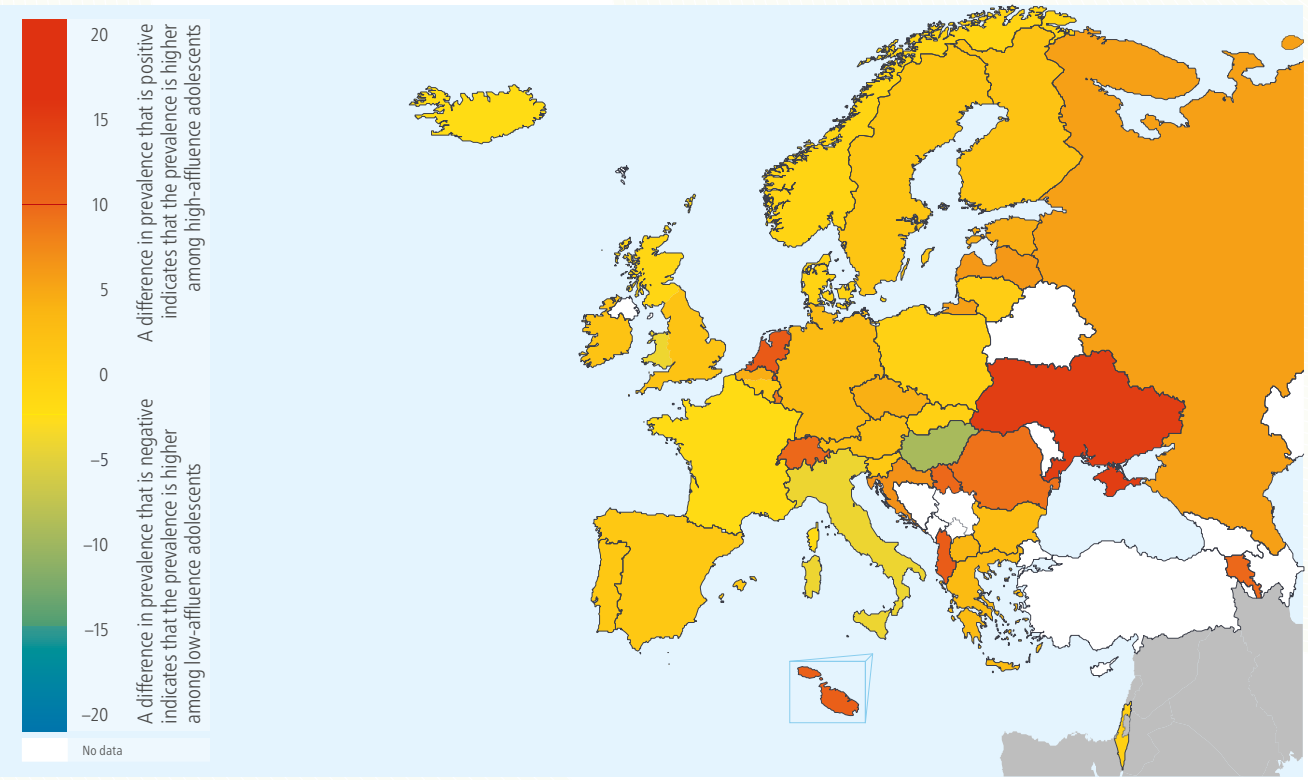
Social inequalities in daily sweets consumption, 2014, girls (%)



Note: no data for 2014 were received for Turkey.

Fig. 3.11.

Social inequalities in daily sweets consumption, 2014, boys (%)



Note: no data for 2014 were received for Turkey.

The opposite association was found in only two countries: boys and girls in Hungary and girls in Slovakia from lower-affluence families were more likely to eat sweets daily. Fig. 3.10 and 3.11 show the difference in prevalence between the most and least affluent in each country or region.

Trends over time

Overall, daily soft-drinks consumption reported by adolescents across 32 European countries and regions decreased from 29% in 2002 to 18% in 2014. A decline was observed in almost all countries and regions and among boys and girls, but no significant change in consumption over time was seen for either gender in France and Luxembourg, for girls in Belgium (French), Malta and Poland, and for boys in Hungary and Lithuania (Fig. 3.12 and 3.13). Those with the greatest overall decreases (>20 percentage points) were Ireland, Israel, Slovenia, United Kingdom (England) and United Kingdom (Scotland). No country reported a significant increase in daily soft-drinks consumption among boys and girls across all three age groups in any of the survey years.

Fig. 3.12.

Changes in daily soft-drinks consumption, 2002–2014, girls

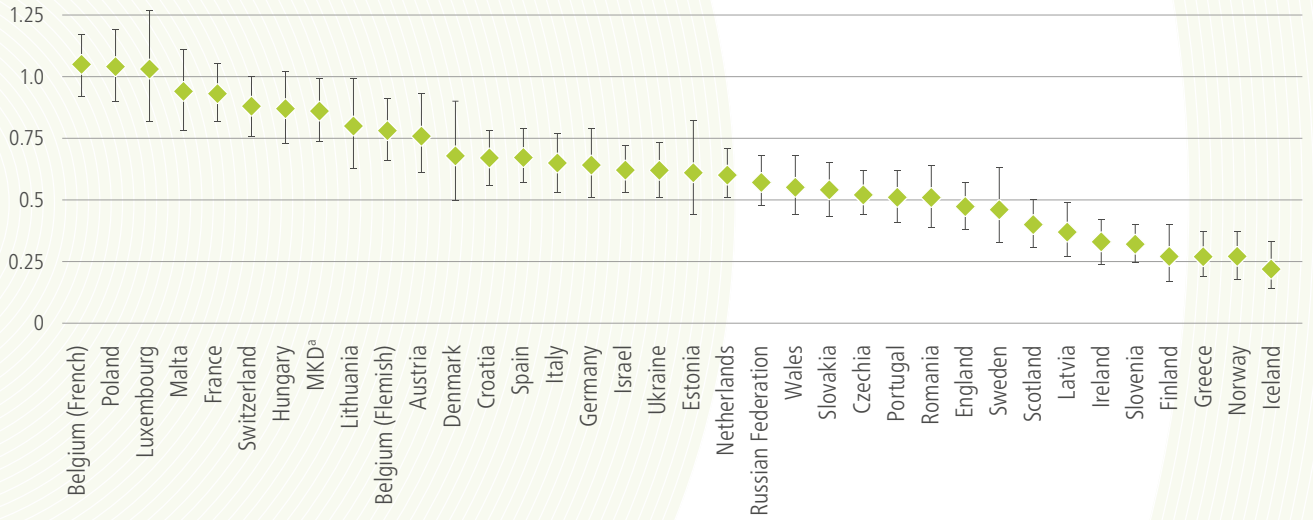
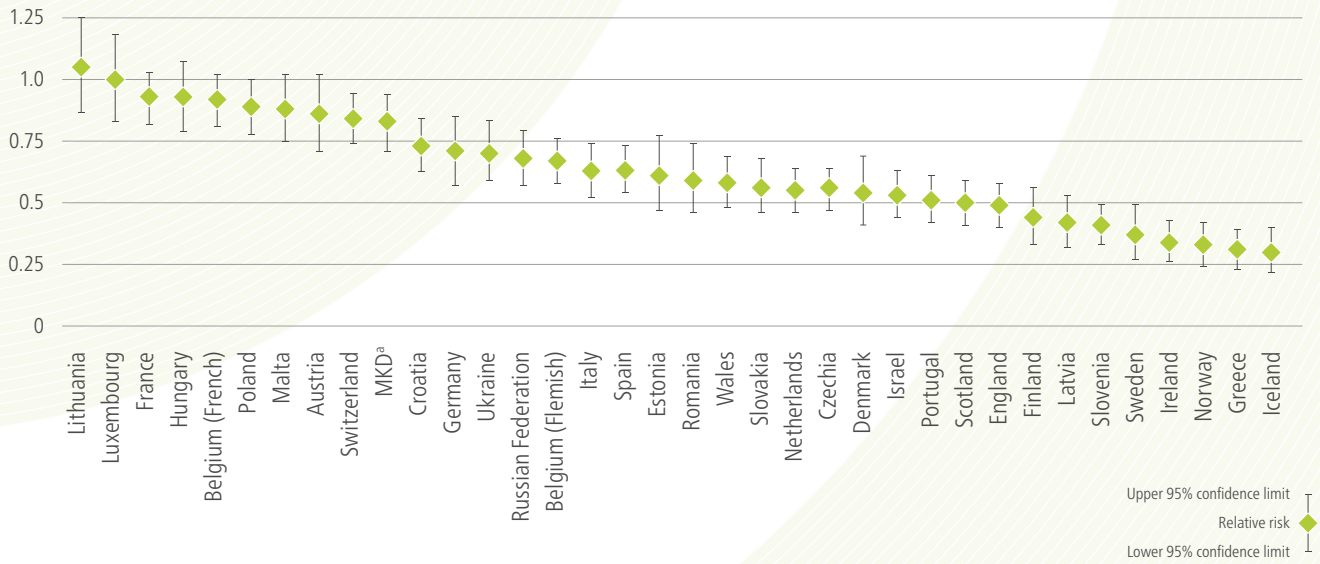


Fig. 3.13.

Changes in daily soft-drinks consumption, 2002–2014, boys



[a] The former Yugoslav Republic of Macedonia. *Note*: data are presented as relative risk (2014 versus 2002) and 95% confidence interval. Relative risk greater than 1.0 indicates an increase in prevalence over time; relative risk less than 1.0 indicates that prevalence has decreased over time. Estimates are based on modelled data and include all countries with three or more data points. No trend data were available for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey.

Overall, there was a small but significant decrease in daily consumption of sweets among European adolescents between 2002 and 2014. The proportion of adolescents who ate sweets every day decreased from 30% in 2002 to 24% in 2014.

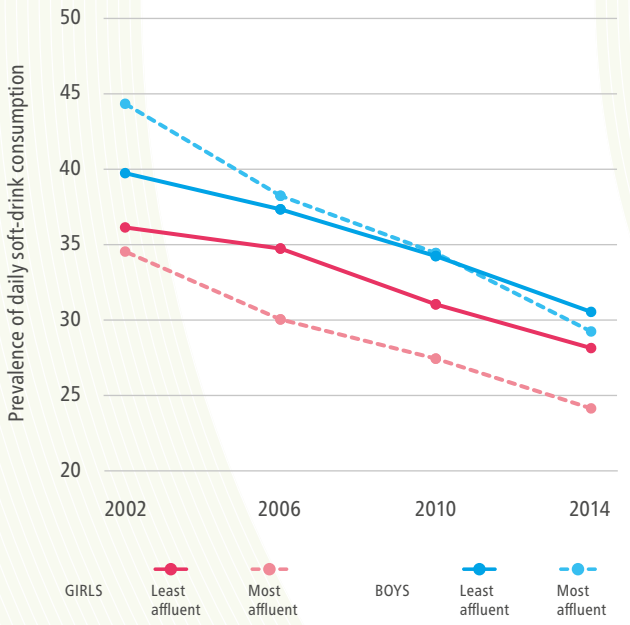
There was a significant decrease in eating sweets daily across this time period in 29 of 36 countries and regions. The decrease in most was seen in both genders, but was significant only among boys in five and girls in one. Malta (32%) and Ireland (24%) had the largest decreases (>20 percentage points). Daily sweet consumption increased among boys and girls in Austria and the Russian Federation, and for girls only in Switzerland.

Inequalities over time

Inequalities in soft-drink consumption decreased significantly over time in eight countries in which it had been higher among higher-affluence adolescents in 2002. This was mainly driven by decreases in consumption among higher-affluence adolescents and no change or an increase among those of lower affluence. The effect was observed for boys and girls in Lithuania, the Russian Federation, the former Yugoslav Republic of Macedonia and Ukraine, for girls only in Romania, and for boys only in Estonia, Poland and Portugal. Decreases in inequality were also seen among girls in Greece and Spain and boys in France, where young people from lower-affluence families were more likely to consume soft drinks in 2002 and had reduced their use over time at a faster rate than those with higher affluence. The direction of inequality among boys in Hungary and girls in Poland swapped over time from higher consumption among higher-affluence adolescents in 2002 to higher consumption in those of lower affluence in 2014. Increases in inequalities were seen in boys from Belgium (Flemish) and United Kingdom (Scotland), and girls from Belgium (French). Overall trends in inequalities in soft-drink consumption for all countries combined are shown in Fig. 3.14.

Fig. 3.14.

Trends in inequalities in daily soft-drink consumption, 2002–2014, all countries combined (%)



Note: no trend data were available for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey. No data for 2002 were received for Iceland, Luxembourg, Romania and Slovakia. No data for 2010 were received for Malta.

Between 2002 and 2014, there was a statistically significant narrowing in inequality for daily sweets consumption between adolescents from higher- and lower-affluence families among boys and girls in Lithuania and Poland, boys only in Estonia, Malta, the Russian Federation and Ukraine, and girls only in France, Israel, Romania and Spain. This was associated in most countries and regions with a decrease in daily consumption of sweets among those with higher affluence. A significant increase in inequality was seen in three: Hungary (boys and girls), Iceland (boys only) and United Kingdom (England) (girls only).

REFERENCE

1. Guideline: sugar intake for adults and children. Geneva: World Health Organization; 2016 (http://apps.who.int/iris/bitstream/10665/149782/1/9789241549028_eng.pdf?ua=1, accessed 27 February 2017).

CHAPTER 4

TRENDS IN PHYSICAL ACTIVITY BY AGE, GENDER AND FAMILY AFFLUENCE

SUMMARY

- Overall, moderate-to-vigorous-intensity physical activity (MVPA) levels are low and decline with age during the adolescent years.
- MVPA levels have not changed substantially over time.
- Participation in vigorous-intensity physical activity (VPA) is reasonably high across Europe and appears to have remained stable between 2002 and 2014, with a slight positive trend in girls.
- Girls spend significantly less time in both MVPA and VPA across all age groups.
- Children from higher-affluence families are more likely to be physically active, especially in relation to leisure-time VPA.

INTRODUCTION

Physical activity is a complex behaviour and can be subdivided into different types and levels of intensity. The context in which physical activity takes place also varies. Participation in MVPA, such as active play, walking, cycling and participation in sports, brings significant benefits for adolescents' physical and mental health *(1,2)*. Additional health benefits have been observed for VPA and aerobic-based activities *(3)*.

This chapter focuses on recent trends in MVPA (at least 60 minutes daily) and VPA (at least four times a week). MVPA provides a more comprehensive picture of total activity, with a focus on adherence to current policy guidelines. In contrast, VPA explicitly encompasses a specific subdomain of physical activity relating to young people's recreational pursuits, hobbies and sports outside of school *(4)*.

RESULTS

MVPA

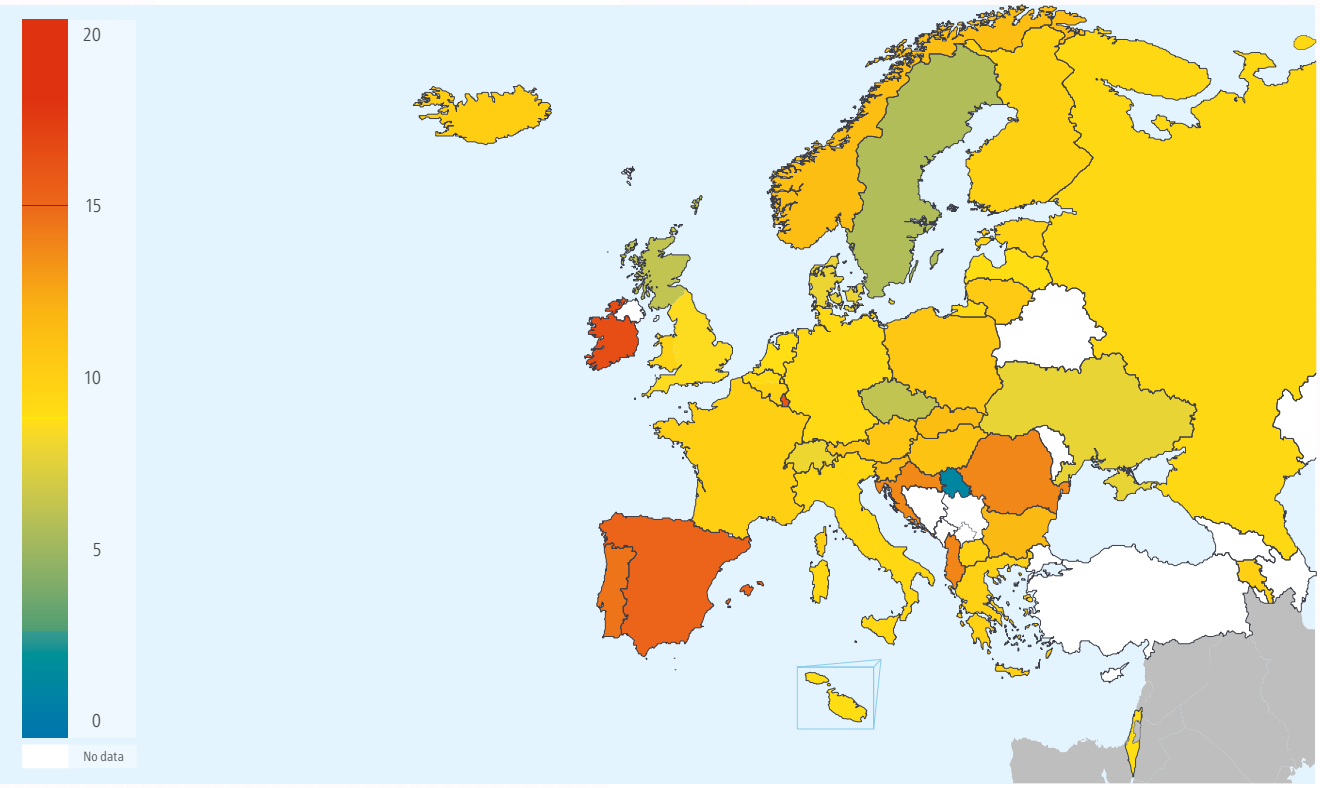
Prevalence

The proportion of young people achieving 60 minutes of MVPA daily in 2014 was low across all countries and regions in boys (25%) and girls (15%). Gender differences were greater than 10% and evident across all age categories in Croatia, Ireland, Luxembourg, Romania, Slovakia and Spain (Fig. 4.1).

MVPA significantly decreased with age across the whole sample, with the lowest levels found among 15-year-olds: on average, 16% of 15-year-olds met the current MVPA recommendation.

Fig. 4.1.

Gender differences in MVPA, 2014, all ages combined (%)



Note: no data for 2014 were received for Turkey.

The highest prevalence among boys aged 15 (25% or more) was observed in Croatia, Iceland, Ireland, Luxembourg, Poland, Slovakia, Spain, the former Yugoslav Republic of Macedonia and Ukraine, and the lowest (<15%) in France, Israel, Italy, Switzerland and United Kingdom (Scotland). Prevalence of 15% or more among 15-year-old girls was found only in Ukraine, while Austria, Israel, Italy and Portugal had prevalence of 6% or less.

Trends over time

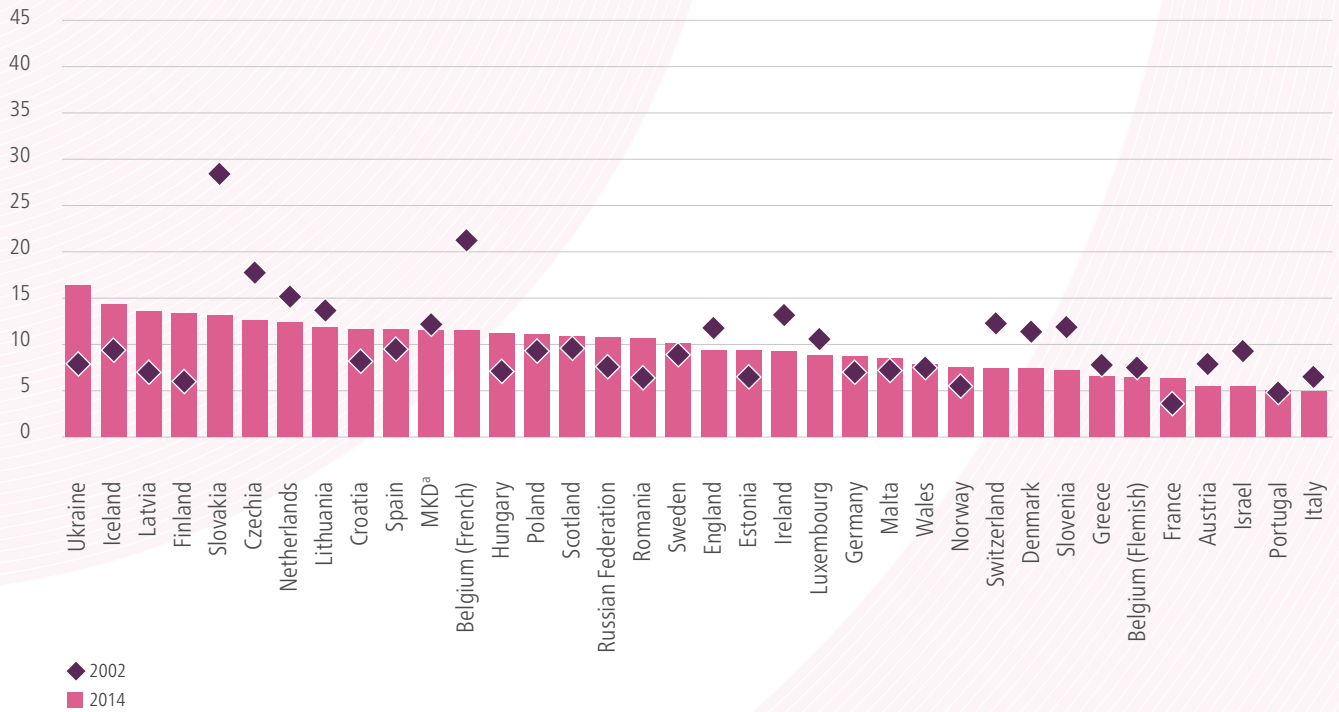
Overall, the proportion of young people meeting the current guideline of 60 minutes of MVPA daily remained relatively stable from 2002 to 2014 and was similar for 11-, 13- and 15-year-old boys and girls. Twice as many countries and regions had a significant increase than those with a significant decrease, except among 15-year-old girls, where six countries showed a decrease and six an increase. The proportion of adolescents meeting current MVPA guidelines significantly increased in Luxembourg, Norway, Poland and Ukraine, while a significant decrease was seen in Slovakia in almost all age and gender groups.

Fig. 4.2 and 4.3 show changes in prevalence of MVPA between 2002 and 2014 for 15-year-old girls and boys, respectively. The largest decrease in MVPA among 15-year-olds was observed in Slovakia, with a change over time of 15 percentage points in girls and 20 percentage points in boys since 2006 (there are no data for 2002). A significant decrease in most gender and age categories was also found in Belgium (French), Denmark and Greece.

In contrast, MVPA among 15-year-old boys increased by more than 10 percentage points in Finland, Hungary, Norway, Portugal and Ukraine between 2002 and 2014. Increases among girls were smaller, with the most obvious change (more than 5%) in Finland, Iceland, Latvia and Ukraine. These countries were also among those with the highest prevalence of active adolescents (more than 25%).

Fig. 4.2.

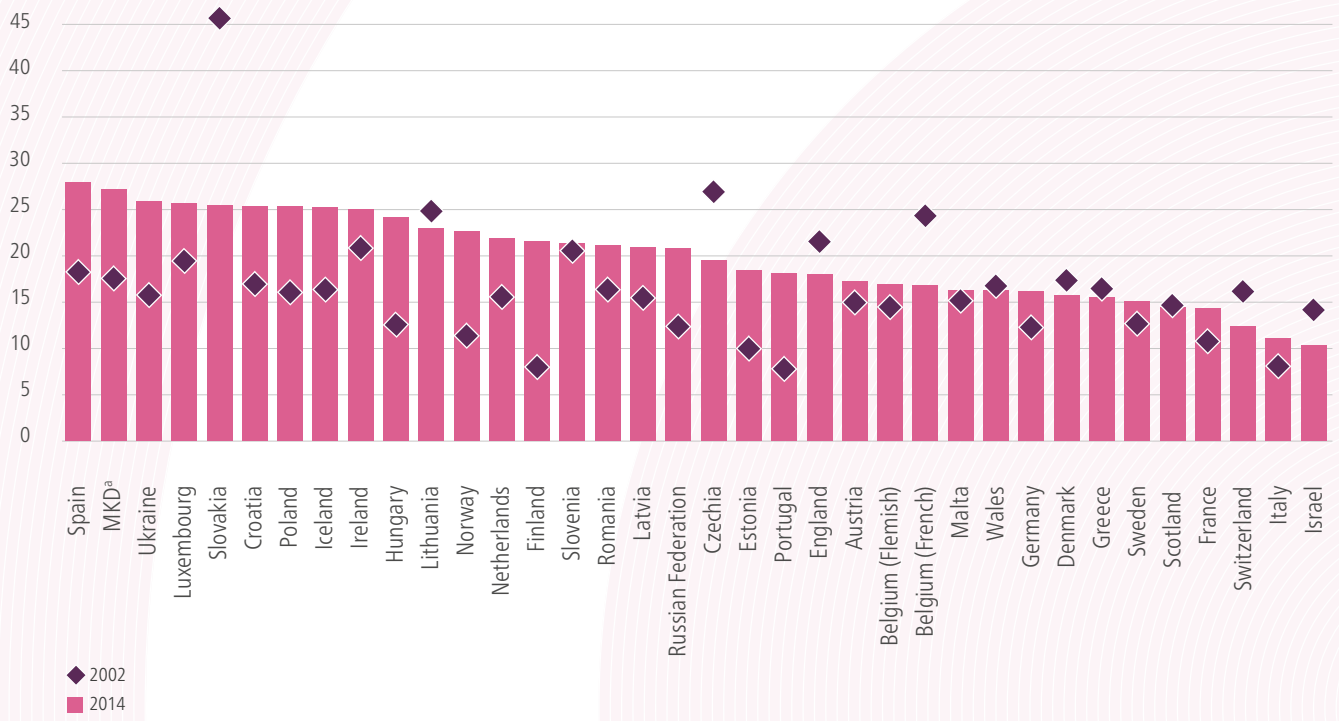
Changes in prevalence of daily MVPA, 2002 to 2014, girls (15-year-olds) (%)



[a] The former Yugoslav Republic of Macedonia. *Note*: data from 2006 are used as the baseline for countries and regions with no 2002 data (Belgium (French), Iceland, Luxembourg, Romania and Slovakia). No trend data were received for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey.

Fig. 4.3.

Changes in prevalence of daily MVPA, 2002 to 2014, boys (15-year-olds) (%)



[a] The former Yugoslav Republic of Macedonia. *Note*: data from 2006 are used as the baseline for countries and regions with no 2002 data (Belgium (French), Iceland, Luxembourg, Romania and Slovakia). No trend data were received for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey.

Changes in inequalities over time

Adolescents from higher-affluence families in most countries and regions met the MVPA guideline more often. The gap in social inequality remained relatively stable over time, with only a few significant changes (inequalities narrowed in Romania, for example). A large difference (OR>2.0) between the most and least affluent adolescents in 2014 was found in Denmark, the Russian Federation and Slovenia for boys and girls, Belgium (French), Latvia, Sweden, United Kingdom (Scotland) and United Kingdom (Wales) for boys only, and Israel, Italy, Luxembourg and Norway for girls only.

VPA

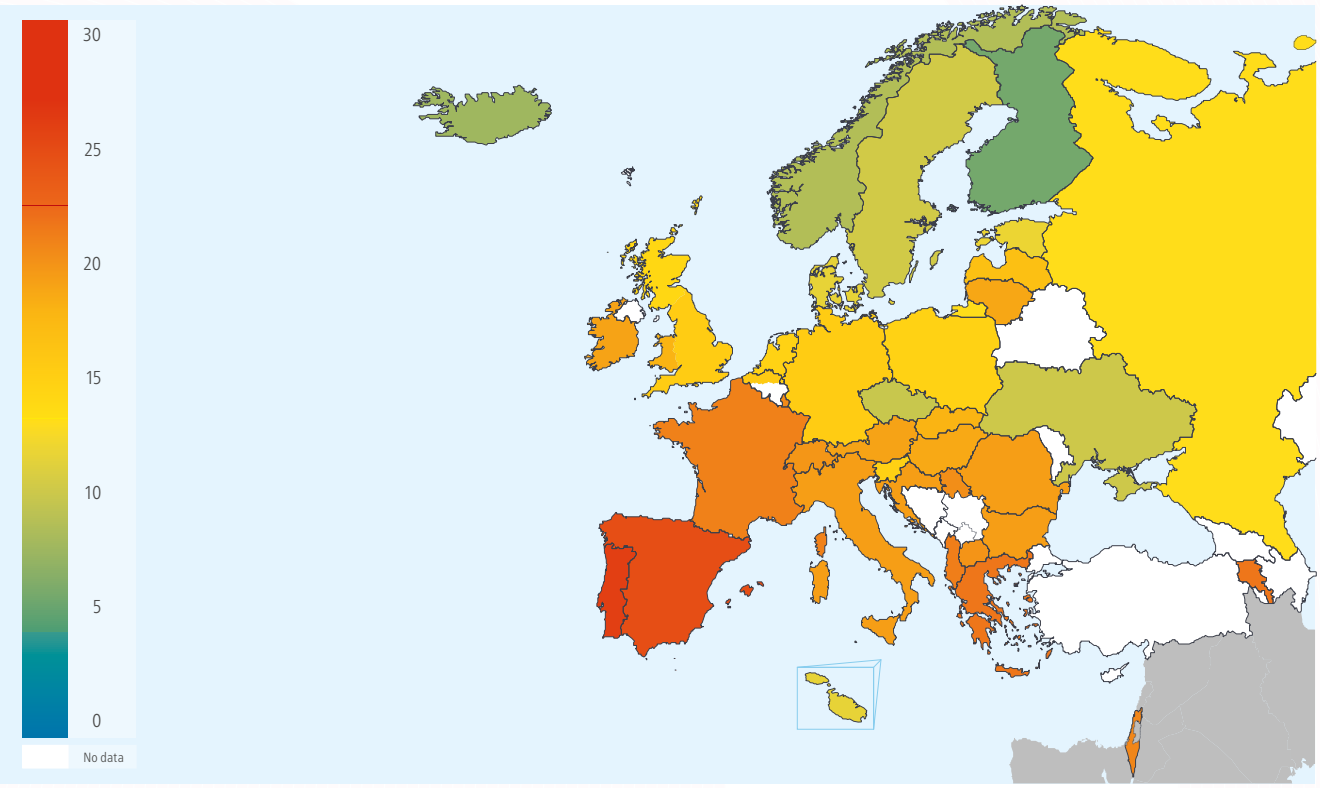
Prevalence

Approximately 60% of 15-year-old boys from Iceland, Ireland, the Republic of Moldova and Slovakia participated in VPA four times a week or more in 2014. The lowest prevalence (below 40%) was observed in Israel and Italy. The highest VPA prevalence in 15-year-old girls (about 50%) was reported in Finland and Iceland, while those from Austria, Croatia, France, Israel, Italy and Portugal reported lowest participation in VPA (less than 20%).

Frequency of VPA participation decreased consistently with age in boys and girls. Girls were less likely to take part in VPA in most countries and regions across all age groups (Fig. 4.4), with the greatest gender difference among 15-year-olds. The difference between girls and boys at age 15 was more than 25 percentage points in, for example, Albania, Austria, Greece, Portugal, Spain and the former Yugoslav Republic of Macedonia. Conversely, Finland, Iceland and Norway reported the lowest gender differences (less than 10 percentage points) in VPA among 15-year-olds.

Fig. 4.4.

Gender differences in VPA, 2014 (all ages combined) (%)



Note: no data for 2014 were received for Belgium (French) and Turkey.

Changes over time

Overall, the prevalence of VPA on four or more times a week did not substantially change between 2002 and 2014 in most countries and regions. This was observed across all age groups and in boys and girls. More countries and regions showed a significant increase than reported a decrease, except in relation to 13-year-old boys (seven countries and regions reported a decrease, six reported an increase).

Increasing trends in VPA were more evident among girls. Among 15-year-old boys, for example, eight of 35 countries and regions showed a significant increase in VPA, while one had a significant decrease; for girls, there was a significant increase in 15 of the 35 countries and regions and none with a decrease. The largest increases (more than 10 percentage points) were reported in Iceland, Latvia, Lithuania, Norway, Sweden and United Kingdom (Scotland) among 15-year-old girls, and in Iceland, Spain and the former Yugoslav Republic of Macedonia in boys. None reported an overall decrease in VPA of more than 10 percentage points over time. The largest decrease was observed in boys from Finland (7%), Switzerland (6%) and Belgium (French) (5%).

Changes in inequalities over time

Family affluence was strongly related to VPA, with adolescents from higher-affluence families more likely to participate in VPA in many countries and regions (Table 4.1). Social inequalities were relatively stable but with a tendency to widening inequality over time. The opposite was observed in Austria and Romania, where inequalities narrowed over time for boys and girls. The largest differences between young people with the highest and lowest family affluence were found in Denmark, Luxembourg, Sweden and United Kingdom (Scotland) in boys and girls.

Table 4.1.

Social inequalities in physical activity, 2014

Indicates significant social inequalities

Countries	MVPA		VPA	
	GIRLS Relative risk	BOYS Relative risk	GIRLS Relative risk	BOYS Relative risk
Albania	1.63	1.25	1.40	1.19
Armenia	1.30	1.04	1.71	1.14
Austria	0.95	1.19	1.09	1.09
Belgium (Flemish)	1.65	1.69	1.98	1.40
Belgium (French)	0.99	1.06	No data	No data
Bulgaria	1.62	1.14	1.50	1.25
Croatia	1.81	1.46	2.34	1.30
Czechia	1.72	1.48	1.57	1.21
Denmark	2.12	2.09	2.46	1.68
England	1.79	1.46	1.85	1.41
Estonia	1.54	1.59	1.90	1.32
Finland	1.34	1.43	1.42	1.38
France	0.89	1.27	1.90	1.38
Germany	1.44	1.12	1.69	1.37
Greece	1.83	1.47	1.17	1.19
Hungary	1.20	0.94	1.36	1.10
Iceland	1.86	1.59	1.56	1.36
Ireland	1.41	1.10	1.22	1.10
Israel	1.28	1.34	1.18	1.25
Italy	2.07	1.75	2.33	1.55
Latvia	1.45	2.17	1.66	1.48
Lithuania	1.47	1.63	1.69	1.36
Luxembourg	1.84	1.33	1.80	1.48
Malta	1.48	1.78	1.52	1.38
MKD[a]	1.56	1.18	1.69	1.26
Netherlands	1.14	1.50	1.49	1.44
Norway	1.64	1.37	1.49	1.36
Poland	1.63	1.63	1.60	1.24
Portugal	1.53	1.30	1.62	1.25
Republic of Moldova	0.87	0.79	1.14	1.18
Romania	1.01	1.28	1.13	1.03
Russian Federation	2.08	1.90	1.63	1.65
Scotland	1.56	2.07	1.67	1.55
Slovakia	1.81	1.48	1.72	1.23
Slovenia	2.13	1.87	1.32	1.26
Spain	1.31	1.54	1.48	1.20
Sweden	1.68	1.85	2.14	1.61
Switzerland	1.28	1.14	1.26	1.22
Ukraine	1.70	1.55	1.54	1.25
Wales	1.44	1.96	1.88	1.43

[a] The former Yugoslav Republic of Macedonia. *Note:* data are presented as relative risk (most affluent versus least affluent). No data for 2014 were received for Belgium (French) (VPA) and Turkey (MVPA and VPA).

REFERENCES

1. Hallal PC, Victora CG, Azevedo MR, Wells JC. Adolescent physical activity and health: a systematic review. Sports Med. 2006;36(12):1019–30.
2. Strong WB, Malina RM, Blimkie CJ, Daniels SR, Dishman RK, Gutin B et al. Evidence based physical activity for school-age youth. J Pediatr. 2005;146(6):732–7.
3. Janssen I, Leblanc AG. Systematic review of the health benefits of physical activity and fitness in school-aged children and youth. Int J Behav Nutr Phys Act. 2010;7(40).
4. Currie C, Inchley J, Molcho M, Lenzi M, Veselska Z, Wild F, editors. Health Behaviour in School-aged Children (HBSC) study protocol: background, methodology and mandatory items for the 2013/14 survey. St Andrews: Child and Adolescent Health Unit; 2014.

CHAPTER 5

TRENDS IN SEDENTARY BEHAVIOUR BY AGE, GENDER AND FAMILY AFFLUENCE

SUMMARY

- TV-viewing is decreasing across Europe.
- Computer use for gaming and non-gaming purposes increased sharply between 2002 and 2014 and offset the TV-viewing decrease.
- Boys report slightly more TV-viewing and computer use, but increases in computer use are more marked among girls.
- The current guideline of less than two hours per day of recreational screen time is met only by a minority of European adolescents.

INTRODUCTION

Sedentary behaviours dominate adolescents' daily lives today *(1)*. Young people spend approximately 60% of their waking time sitting *(2)*, making sedentary behaviour the most common behaviour (besides sleep) for children and adolescents *(3)*. The steepest increase is observed around 11 to 13 years, during the onset of puberty *(4,5)*.

Sedentary behaviour is complex and represents a distinct class of behaviours while sitting or lying and with a low level of energy expenditure *(6)*. Screen-time-related sitting is the most common sedentary behaviour, covering between 40% and 60% of overall sitting time *(7,8)*. This chapter presents trends in TV-viewing and computer use for gaming and non-gaming purposes for two or more hours per day on weekdays.

RESULTS

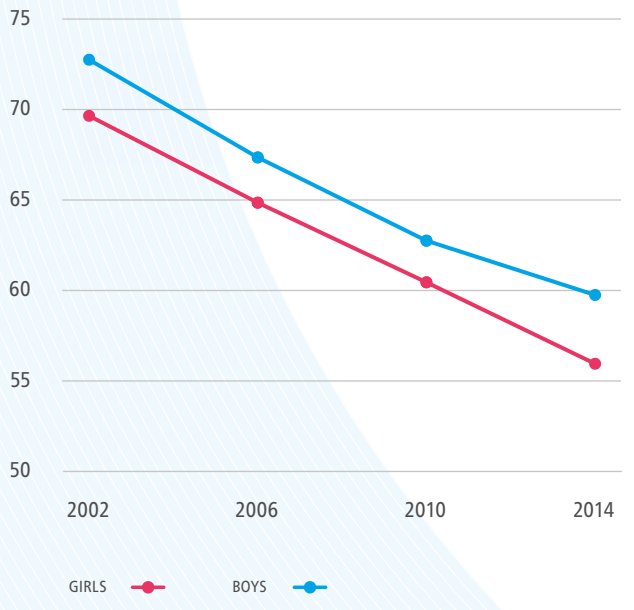
TV-viewing

Prevalence

In 2014, more than 50% of 15-year-olds reported watching TV for two hours or more per day. The difference between countries and regions was large: more than 70% of 15-year-old boys and girls from the Netherlands, Romania and United Kingdom (Wales) and boys in Denmark, Greece and United Kingdom (Scotland) watched TV for two or more hours per day, and lowest prevalence was observed in Portugal and Switzerland (both genders), Finland, Italy and Slovenia in girls, and Austria, Ireland, Lithuania and the former Yugoslav Republic of Macedonia in boys. The steepest increase in prevalence was observed between 11- and 13-year-olds for boys and girls. Boys watched TV slightly more often.

Fig. 5.1.

Trends in TV-viewing (two or more hours a day on weekdays), 2002–2014 (%)



Note: no data for 2002 were received for Austria, Iceland, Luxembourg, Romania and Slovakia. No trend data were available for Albania, Armenia, Bulgaria, Malta, Republic of Moldova and Turkey.

Trends over time

Overall, watching TV for more than two hours a day decreased from 2002 to 2014 (Fig. 5.1). This finding was consistent for all age and gender groups. Only 15-year-old boys and girls from Luxembourg reported a significant increase over time between 2006 and 2014. The decrease among 15-year-olds was statistically significant for girls in 23 of 35 countries and regions and for boys in 26. A large decrease of more than 20 percentage points in boys of 15 was observed in Estonia, Lithuania and Ukraine. The largest decrease in relative terms was observed in these countries and in Austria and Portugal. The largest differences (absolute and relative) in 15-year-old girls were observed in Estonia, Finland, Italy, Portugal and Spain.

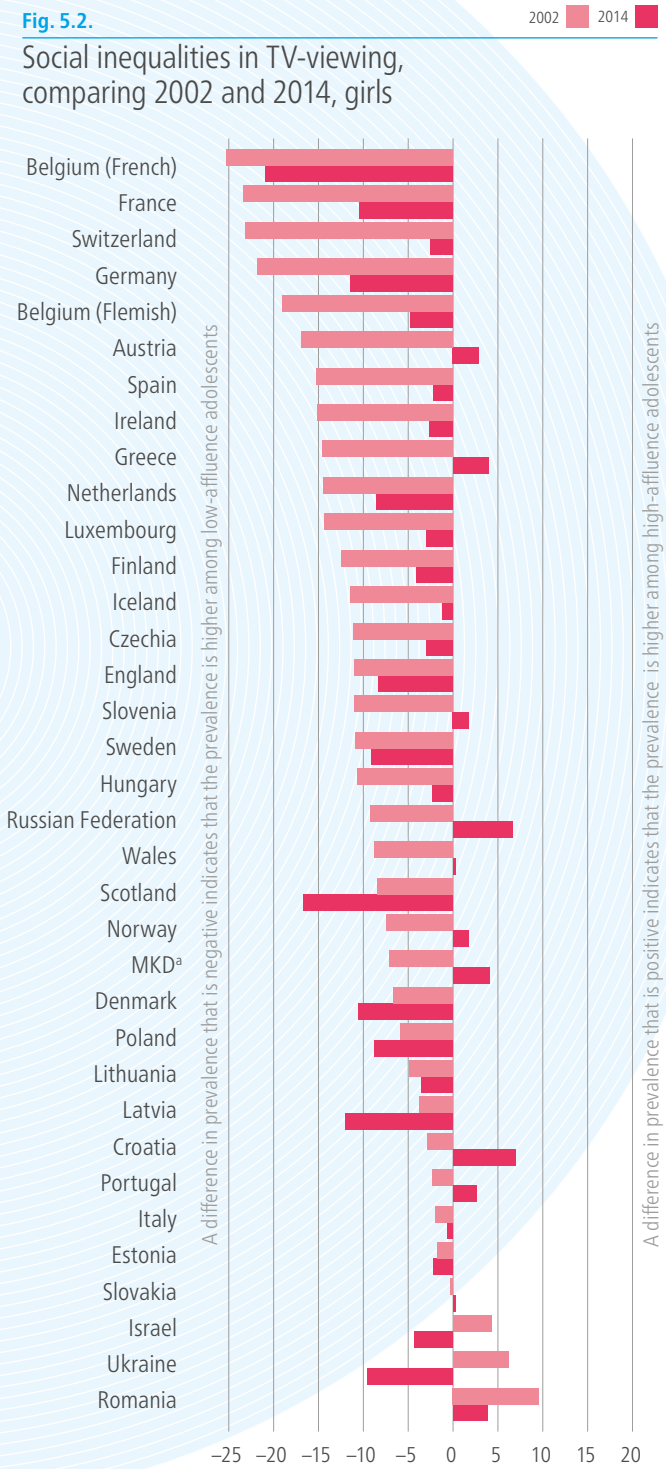
Changes in inequalities over time

TV-viewing in most countries and regions was more common among children from lower-affluence families. The gap in social inequality has become less pronounced over the last decade, with more equal distribution in TV-viewing among lower- and higher-affluence adolescents

(Fig. 5.2 and 5.3). A general tendency to show the opposite association (higher prevalence among more affluent adolescents) was seen in a few countries, such as Romania (both genders), and Croatia, Estonia, Israel and Ukraine (boys only). Fig. 5.2 and 5.3 show the difference in prevalence between the most and least affluent in each country or region.

Fig. 5.2.

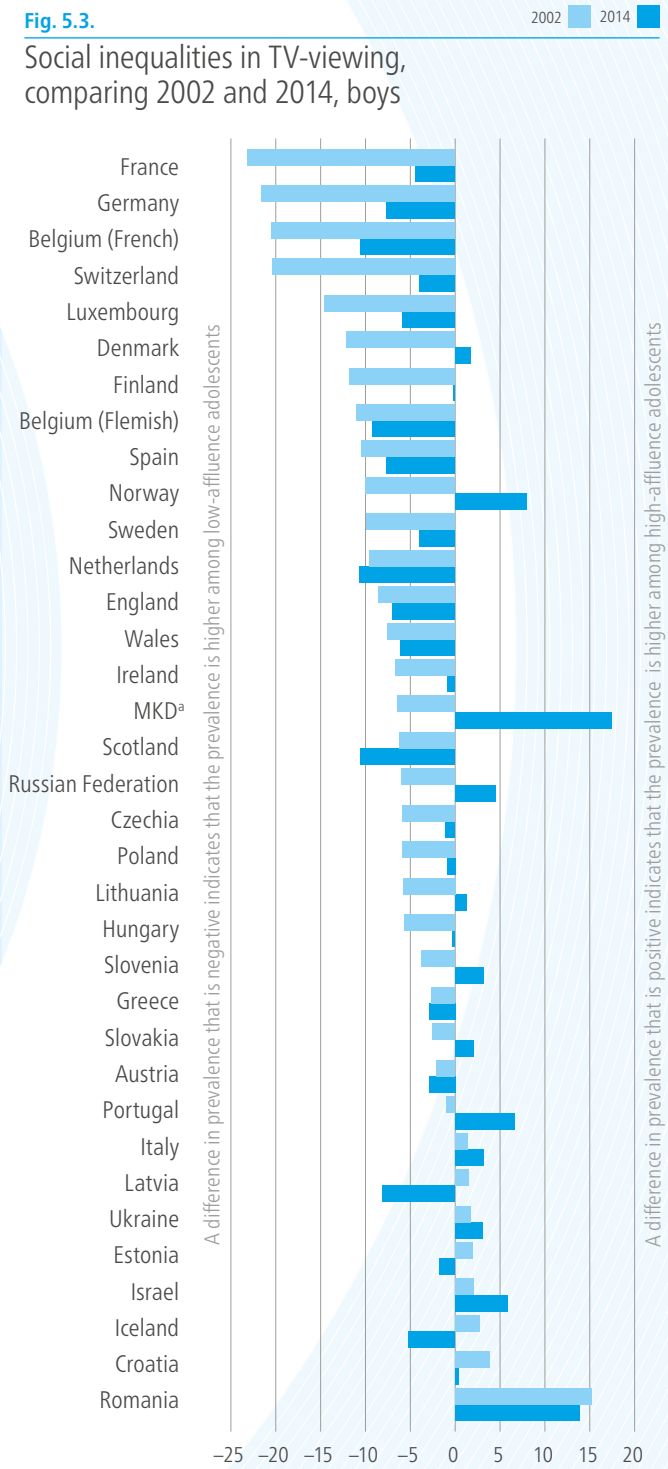
Social inequalities in TV-viewing, comparing 2002 and 2014, girls



[a] The former Yugoslav Republic of Macedonia. *Note*: estimates are based on modelled data and include all countries with three or more data points. No trend data were available for Albania, Armenia, Bulgaria, Malta, Republic of Moldova and Turkey.

Fig. 5.3.

Social inequalities in TV-viewing, comparing 2002 and 2014, boys



[a] The former Yugoslav Republic of Macedonia. *Note*: estimates are based on modelled data and include all countries with three or more data points. No trend data were available for Albania, Armenia, Bulgaria, Malta, Republic of Moldova and Turkey.

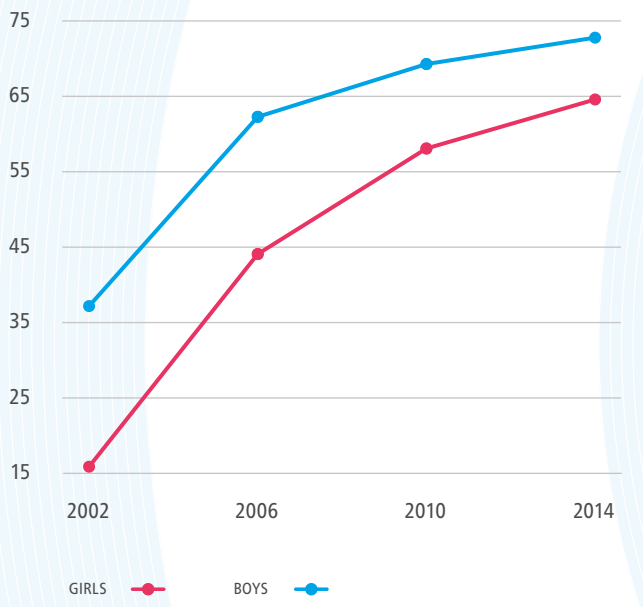
Computer use

Prevalence

Over 80% of 15-year-old boys and more than 70% of girls of 15 in many countries and regions exceeded two hours of computer use in 2014. Highest prevalence for computer use among both genders was observed in the Netherlands, Sweden and United Kingdom (Scotland), and lowest in Portugal and the former Yugoslav Republic of Macedonia. Prevalence increased with age, with the steepest difference observed between 11- and 13-year-olds for boys and girls.

Fig. 5.4.

Trends in computer use (two or more hours a day on weekdays), 2002–2014 (%)



Note: no data for 2002 were received for Austria, Iceland, Ireland, Luxembourg, Romania, Slovakia and United Kingdom (England). No data for 2014 were received for Ukraine. No trend data were available for Albania, Armenia, Bulgaria, Lithuania, Malta, Republic of Moldova and Turkey.

Trends over time

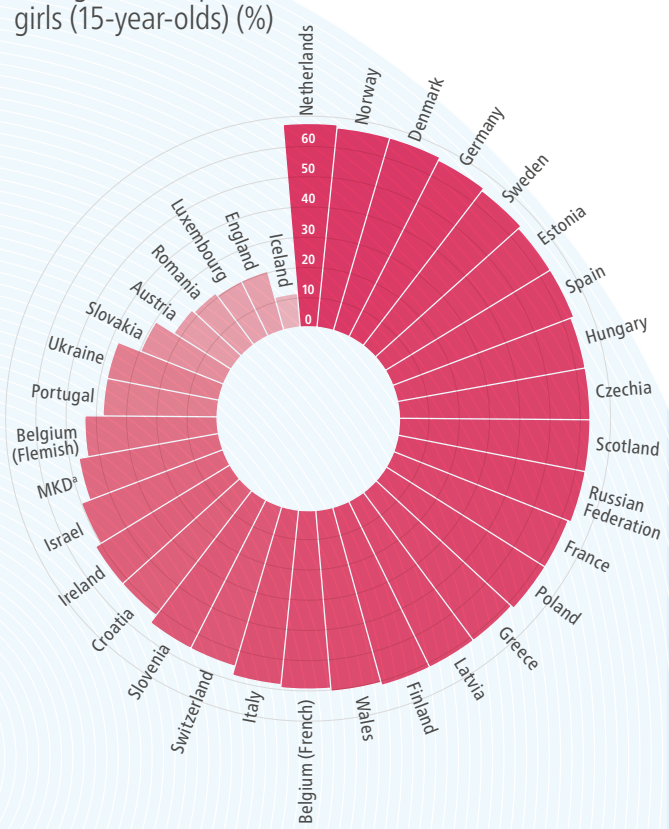
Overall, using a computer for two hours or more for non-gaming (such as surfing the Internet or doing homework) and gaming activities showed a continuous steep increase between 2002 and 2014 across all countries, regions and age groups (Fig. 5.4). Girls, however, had a much stronger increase than boys, and 15-year-old girls showed an even more pronounced rise over younger girls: the prevalence of computer use for two or more hours per day tripled for girls of 15 over this time. The increase in computer use did not generally vary between age groups in boys.

An increase in two hours of daily computer use was reported in all countries and regions (Fig. 5.5 and 5.6). The increase was statistically significant for 15-year-olds in all 34 countries and regions for girls and 33 for boys (the small increase among boys in Iceland was not statistically significant). For girls, only a few countries and regions (such as Austria, Iceland, Luxembourg, Romania, Slovakia and United Kingdom (England)) reported changes smaller than 30 percentage points between 2002 and 2014, while for boys, the same countries and regions had differences of up to 20% over time. Most countries and regions reported an increase of more than 50 percentage points for computer use among girls, with the highest values of over 66% found in Denmark, Germany, the Netherlands and Norway. Differences in computer use in boys were lower, but still substantial: most countries and regions reported a change of more than 30 percentage points between 2002 and 2014, with differences of over 45% found in Greece, Latvia and United Kingdom (Wales) and around 55% in France.

Prevalence of computer use for gaming and non-gaming activities started quite low in 2002. Fewer than 10% of 15-year-old girls in Denmark, Finland, Greece and Ukraine used computers for two hours or more a day. Boys reported higher levels in 2002, with the lowest numbers (below 30%) in Croatia, France, Switzerland and Ukraine. By 2014, prevalence was considerably higher, with over 80% of boys and 70% of girls in many countries and regions exceeding the daily two hours. The highest prevalence of almost 90% for boys and girls was found in the Netherlands, Sweden and United Kingdom (Scotland), and the lowest in Portugal (boys 71%, girls 59%) and the former Yugoslav Republic of Macedonia (boys 70%, girls 66%). The greatest change with age was seen between 11 and 13 years in both genders.

Fig. 5.5.

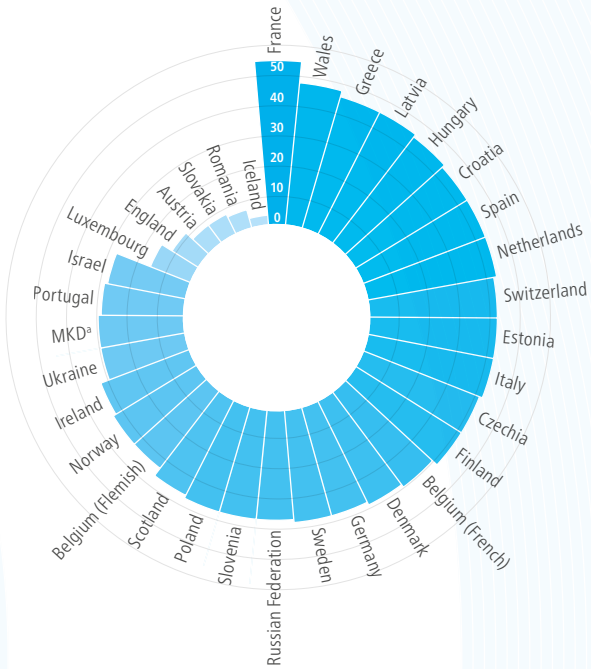
Changes in computer use, 2002–2014, girls (15-year-olds) (%)



[a]The former Yugoslav Republic of Macedonia. *Note*: data from 2006 are used as the baseline for countries and regions with no 2002 data (Austria, Iceland, Ireland, Luxembourg, Romania, Slovakia and United Kingdom (England)). Data from 2010 are used as the baseline for countries with no 2014 data (Ukraine). No trend data were available for Albania, Armenia, Bulgaria, Lithuania, Malta, Republic of Moldova and Turkey.

Fig. 5.6.

Changes in computer use, 2002–2014, boys (15-year-olds) (%)



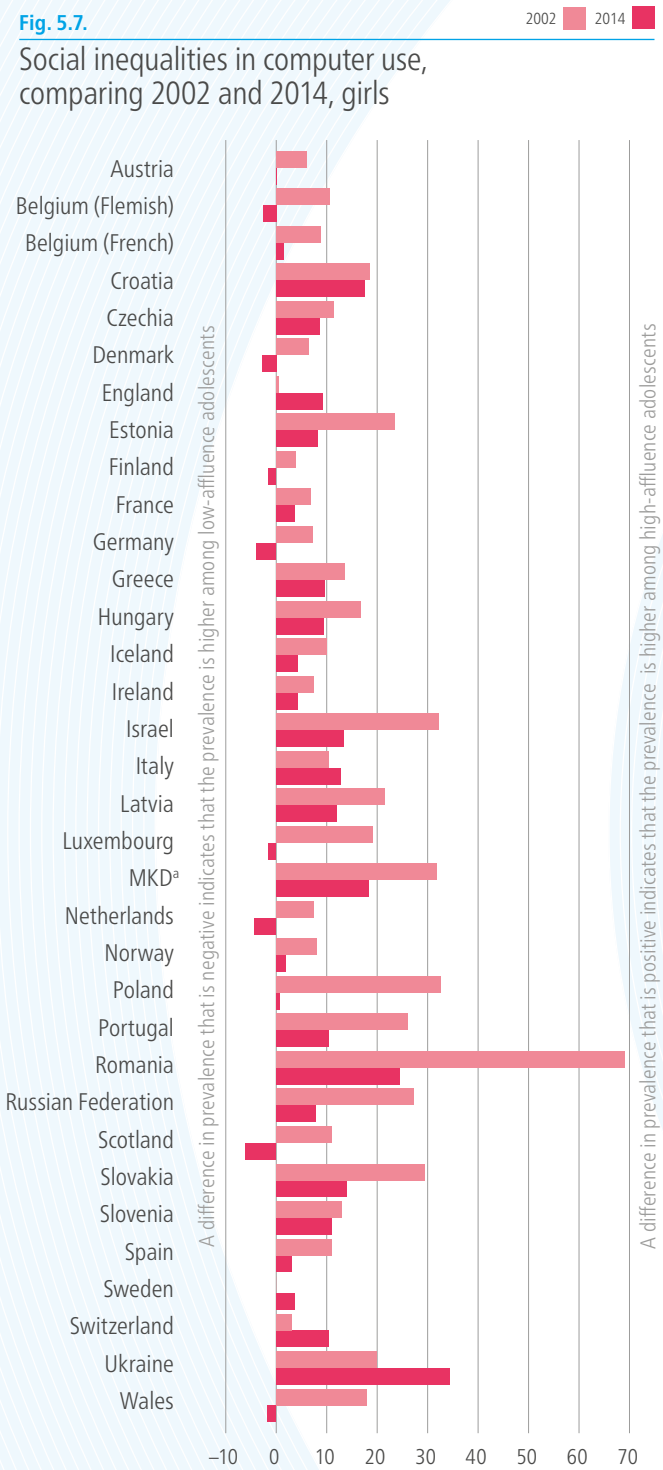
[a]The former Yugoslav Republic of Macedonia. *Note*: data from 2006 are used as the baseline for countries and regions with no 2002 data (Austria, Iceland, Ireland, Luxembourg, Romania, Slovakia and United Kingdom (England)). Data from 2010 are used as the baseline for countries with no 2014 data (Ukraine). No trend data were available for Albania, Armenia, Bulgaria, Lithuania, Malta, Republic of Moldova and Turkey.

Changes in inequalities over time

Children from higher-affluence families in most countries and regions used computers for gaming and non-gaming activities more often (Fig. 5.7 and 5.8). The difference in social inequality was very strong in 2002 and 2006 for countries such as Croatia, Estonia, Greece, Latvia, Poland, Portugal, Romania, the Russian Federation, the former Yugoslav Republic of Macedonia and Ukraine. A significant trend towards less inequality has been seen in most countries and regions over the last decade, with only small differences in the extent of computer use for gaming and non-gaming activities between young people with different family affluence. Fig. 5.7 and 5.8 show the difference in prevalence between the most and least affluent in each country or region.

Fig. 5.7.

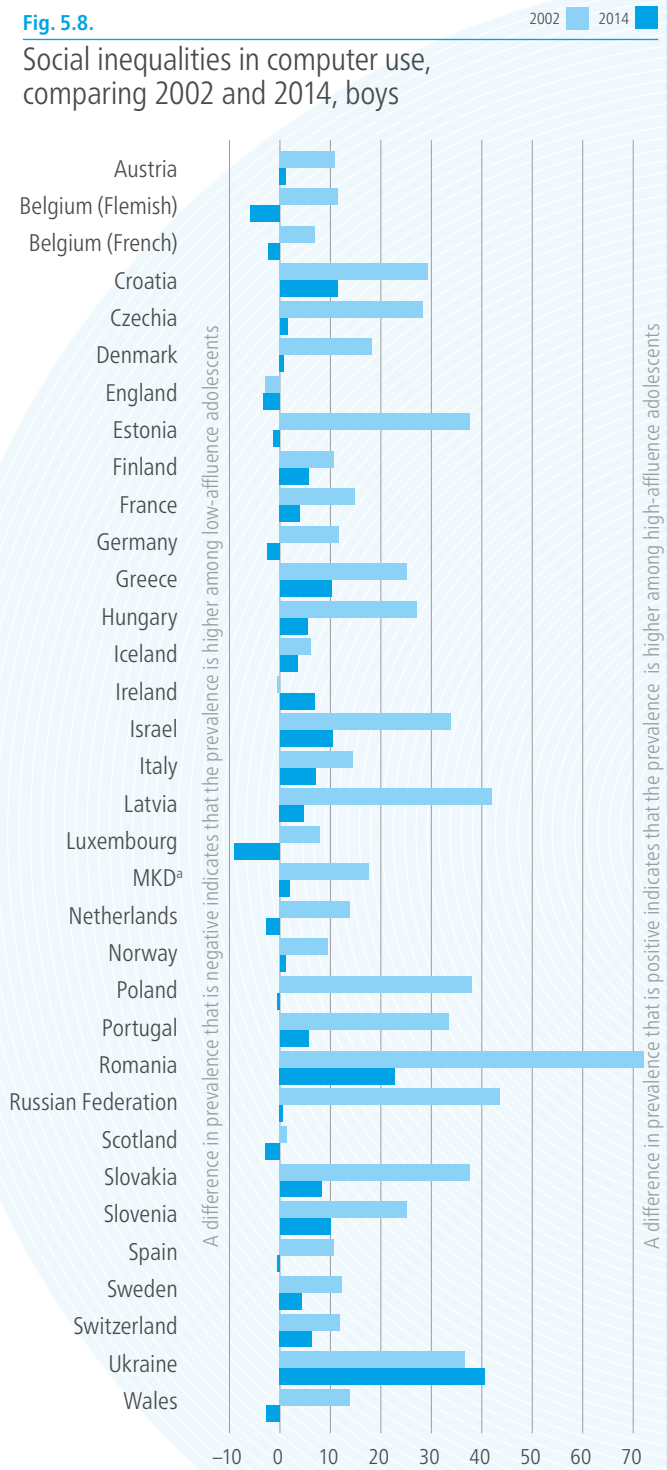
Social inequalities in computer use, comparing 2002 and 2014, girls



[a] The former Yugoslav Republic of Macedonia. *Note*: estimates are based on modelled data and include all countries with three or more data points. No trend data were available for Albania, Armenia, Bulgaria, Lithuania, Malta, Republic of Moldova and Turkey.

Fig. 5.8.

Social inequalities in computer use, comparing 2002 and 2014, boys



[a] The former Yugoslav Republic of Macedonia. *Note*: estimates are based on modelled data and include all countries with three or more data points. No trend data were available for Albania, Armenia, Bulgaria, Lithuania, Malta, Republic of Moldova and Turkey.

REFERENCES

1. Owen N, Healy GN, Matthews CE, Dunstan DW. Too much sitting. The population health science of sedentary behavior. Exerc Sport Sci Rev. 2010;38(3):105–13.
2. Owen N, Salmon J, Koohsari MJ, Turrell G, Giles-Corti B. Sedentary behaviour and health: mapping environmental and social contexts to underpin chronic disease prevention. Br J Sports Med. 2014;48(3):174–7.
3. Chaput J, Carson V, Gray CE, Tremblay MS. Importance of all movement behaviors in a 24 hour period for overall health. Int J Environ Res Public Health 2014;11(12):12575–81.
4. Inchley J, Currie D, Young T, Samdal O, Torsheim T, Augustson L et al., editors. Growing up unequal: gender and socioeconomic differences in young people's health and well-being. Health Behaviour in School-aged Children (HBSC) study: international report from the 2013/2014 survey. Copenhagen: WHO Regional Office for Europe; 2016 (Health Policy for Children and Adolescents, No. 7; http://www.euro.who.int/en/publications/abstracts/growing-up-unequal-gender-and-socioeconomic-differences-in-young-peoples-health-and-well-being.-health-behaviour-in-school-aged-children-hbsc-study-international-report-from-the-20132014-survey, accessed 27 February 2017).
5. Cooper A, Goodman A, Page AS, Sherar LB, Esliger DW, van Sluijs EM et al. Objectively measured physical activity and sedentary time in youth: the International Children's Accelerometry Database (ICAD). Int J Behav Nutr Phys Act. 2015;12:113.
6. Sedentary Behaviour Research Network. Standardized use of the terms "sedentary" and "sedentary behaviours". Appl Physiol Nutr Metab. 2012;37:540–2.
7. Olds TS, Maher CA, Ridley K, Kittel DM. Descriptive epidemiology of screen and non-screen sedentary time in adolescents: a cross sectional study. Int J Behav Nutr Phys Act. 2010;7(1):92.
8. Klitsie T, Corder K, Visscher TLS, Atkin AJ, Jones AP, van Sluijs et al. Children's sedentary behaviour: descriptive epidemiology and associations with objectively-measured sedentary time. BMC Public Health 2013;13(1):1092.

CHAPTER 6

SOCIOECONOMIC DIFFERENCES IN ADOLESCENT OBESITY

SUMMARY

- Obesity and its lifestyle risk factors are typically more common in lower socioeconomic groups.
- Soft drinks and sweets are more commonly consumed by young people from higher socioeconomic backgrounds in some eastern European countries, although the pattern has been shifting in recent years.
- Socioeconomic differences in nutrition, physical activity and sedentary behaviour have increased in some countries and regions but decreased in others.
- Socioeconomic inequalities in obesity remain mostly unchanged or have become wider since 2002.
- An estimated 27% of all adolescent obesity in Europe in 2014 was attributed to socioeconomic differences, up from 18% in 2002.

INTRODUCTION

Social inequalities in adolescent obesity track strongly into adulthood and represent a public health concern in many European countries. Many studies have reported socioeconomic differences in adolescents' physical activity, nutrition and risk of overweight or obesity *(1).*

The evidence in this area shows that young people from a relatively lower socioeconomic position tend to be less physically active, report less healthful food choices, and are more likely to be overweight or obese *(2,3).* A study in Norway, for example, found adolescents from a lower socioeconomic position consumed relatively less fruit and vegetables and more soft drinks and fast food *(4).* Adolescents from a lower socioeconomic position in Slovakia were less likely to be physically active five or more times per week *(5),* and a study in France found that children born to highly educated mothers (possessing a diploma higher than baccalaureate) were 7.2% less likely to be overweight than those whose mothers had less education *(6).* The Health Survey for England found nearly three times the rate of adolescent obesity in the most deprived compared to the least deprived neighbourhoods (21–22% versus 6–7%) *(7).* A trends analysis of health data on 11–15-year-olds in Europe and North America found that socioeconomic differences in body mass index and physical activity increased significantly between 2002 and 2010, in tandem with a similar rise in income inequality *(8).*

Despite the large number of studies on various obesity-related risk factors, previous efforts to synthesize the evidence have proved difficult due to differences in sample characteristics, health measures, and research designs and methods. A unique strength of the HBSC study is that it provides Member States of the WHO European Region with reliable benchmarks and direct comparisons of trends across many different health outcomes and health behaviours.

PERSISTENT INEQUALITIES

The previous chapters of this report describe the important gains made in some countries and regions in relation to adolescent nutrition and physical activity. In some countries and regions and for some outcomes, however, the gains appear to have disproportionately benefited lower-risk, higher-SEP groups. Few of those involved in the HBSC study have managed to reduce socioeconomic differences in obesity, physical activity and eating behaviours among both male and female adolescents.

Adolescents' daily consumption of fruit and vegetables provides an example. As Chapter 3 describes, this was found to have increased in most countries and regions, but with a few notable exceptions (such as Norway, Spain and Switzerland), socioeconomic differences in healthful food choices had not changed significantly since 2002. Socioeconomic differences in behaviour are also complex and can move in different directions. Looking at daily soft-drink consumption (also reported in Chapter 3), differences narrowed in some eastern European countries (including Poland, the Russian Federation and Ukraine) because consumption has decreased among young people with higher affluence, while the opposite was the case in a few western European countries, where the narrowing in differences occurred because less affluent young people are consuming less than they used to. Overall, socioeconomic differences in soft-drink consumption in males and females have increased in three countries and regions and decreased in 11 since 2002.

In relation to physical activity (Chapter 4), adolescents from more affluent families were more likely to meet the recommended level of daily MVPA and engage in VPA four or more times a week. Differences appear to have been stable in most countries and regions from 2002 to 2014, but a

slight narrowing of socioeconomic differences over time in some forms of sedentary behaviours, such as TV-viewing and computer use, are observed, especially in eastern Europe (Chapter 5). As Chapter 2 describes, however, socioeconomic differences in adolescent obesity remained mostly unchanged or became wider with time.

POLICY RESPONSES

An effective policy response to tackling health inequalities requires robust evidence on not only health outcomes, but also the material and psychosocial conditions that influence health. Research has found that less affluent families are more vulnerable to food insecurity *(9)* and have relatively poorer access to nutritious foods *(10).* Adolescents from lower socioeconomic backgrounds are also more likely to reside and attend schools in deprived neighbourhoods that have higher concentrations of fast-food restaurants and convenience stores, fewer sports facilities and less accessible green space *(11).* Social stratifications in these material and environmental risk factors for obesity go a long way to explaining why disadvantaged young people have less access to fruit and vegetables and poorer aerobic fitness *(12).*

The experience of growing up includes the chronic psychological strain of a low social position in society and the various stresses and anxieties of living in relative poverty *(13).* HBSC research has found that relative differences in family affluence (in relation to better-off schoolmates) are associated with skipping breakfast, less dietary restraint, less physical activity, and fewer healthful food choices (such as consuming fruit, vegetables and wholegrain breads). These differences remain even after school-level differences in affluence are accounted for *(14).* The combined effects of the built and social environment help to explain why some 20–40% of all obesity in Europe can be attributed to socioeconomic factors *(15,16).*

The HBSC survey calculated the population-attributable risk of adolescent obesity related to differences in family affluence, while adjusting for its correlation with other factors (age, gender, physical activity, food choices and country differences). In 2002, it found that 18% of obesity was attributable to socioeconomic differences: in other words, if socioeconomic differences were somehow to be eliminated (that is, if all adolescents had the highest level of affluence), there would be 18% fewer cases of obesity in Europe. This estimate rose to 27% in 2014, indicating a greater role of SEP in shaping social patterns in adolescent obesity *(8).*

Taken together, these results underscore the need for a coordinated policy response that tackles the structural and social determinants of adolescent obesity. Social engineering approaches alone (such as soft-drink bans in schools) or improving access to healthy foods, green spaces and sports facilities are only part of the solution. It is vital to also address the socioeconomic disparity that gives rise to these health inequalities. The psychological toll of relative poverty might explain, for example, why disadvantaged young people can show less dietary restraint and greater preferences for high-fat, high-caloric foods *(17).*

The need for such action is urgent. Rising income inequality throughout the WHO European Region has intensified socioeconomic differences in adolescent physical activity and obesity *(8,18)* and may have stymied important progress in the reduction of obesity in the general population *(19).* Despite a concerted effort to reduce obesity and improve adolescent health and well-being during this formative stage of the life-course, many countries and regions in Europe have shown limited progress in closing the socioeconomic divide *(20).*

REFERENCES

1. McLaren L. Socioeconomic status and obesity. Epidemiol Rev. 2007;29:29–48.
2. Barriuso L, Miqueleiz E, Albaladejo R, Villanueva R, Santos JM, Regidor E. Socioeconomic position and childhood–adolescent weight status in rich countries: a systematic review, 1990–2013. BMC Pediatr. 2015;15:129.
3. Devaux M, Sassi F. Social inequalities in obesity and overweight in 11 OECD countries. Eur J Public Health 2013;23:464–9.
4. Skårdal M, Western IM, Ask AM, Overby NC. Socioeconomic differences in selected dietary habits among Norwegian 13–14-year-olds: a cross-sectional study. Food Nutr Res. 2014;58:10.3402/fnr.v58.23590.
5. Pitel L, Madarasová Gecková A, Reijneveld SA, van Dijk JP. Socioeconomic differences in adolescent health-related behavior differ by gender. J Epidemiol. 2013;23:211–8.
6. Apouey BH, Geoffard PY. Parents' education and child body weight in France: the trajectory of the gradient in the early years. Econ Hum Biol. 2016;20:70–89.
7. Health survey for England 2013. Leeds: Health and Social Care Information Centre; 2014 (http://www.hscic.gov.uk/pubs/hse2013, accessed 27 February 2017).
8. Elgar FJ, Pföertner TK, Moor I, De Clercq B, Stevens GWJM, Currie C. Socioeconomic inequalities in adolescent health 2002–2010: a time-series analysis of 34 countries participating in the Health Behaviour in School-aged Children study. Lancet 2015;385:2088–95.
9. Sentenac M, Gariepy G, McKinnon B, Elgar FJ. Hunger and overweight in Canadian school-aged children: a propensity score matching analysis. Can J Public Health 2016;107:e447–52.
10. Conrad D, Capewell S. Associations between deprivation and rates of childhood overweight and obesity in England, 2007–2010: an ecological study. BMJ Open 2012;2(2):e000463.
11. Currie J, Della Vigna S, Moretti E, Pathania V. The effect of fast food restaurants on obesity and weight gain. Am Econ J Econ Policy 2009;2:34–68.
12. Charlton R, Gravenor MB, Rees A, Knox G, Hill R, Rahman MA et al. Factors associated with low fitness in adolescents: a mixed methods study. BMC Public Health 2014;14:764.
13. Pickett KE, Kelly S, Brunner E, Lobstein T, Wilkinson RG. Wider income gaps, wider waistbands? An ecological study of obesity and income inequality. J Epidemiol Community Health 2005;59:670–4.
14. Elgar FJ, Xie A, Pförtner TK, White J, Pickett KE. Relative deprivation and risk factors for obesity in Canadian adolescents. Soc Sci Med. 2016;152:111–8.
15. Robertson A, Lobstein T, Knai C. Obesity and socio-economic groups in Europe: evidence review and implications for action. Brussels: European Commission; 2007 (http://ec.europa.eu/health/ph_determinants/life_style/nutrition/documents/ev20081028_rep_en.pdf, accessed 27 February 2017).
16. Roskam AJR, Kunst AE. Overview of inequalities in overweight and obesity across Europe. Tackling health inequalities in Europe: an integrated approach. Eurothine final report. Rotterdam: Erasmus University Medical Centre; 2007 (http://ec.europa.eu/health/ph_projects/2003/action1/docs/2003_1_16_frep_en.pdf, accessed 27 February 2017).
17. Torres SJ, Nowson CA. Relationship between stress, eating behavior, and obesity. Nutrition 2007;23:887–94.
18. Chung A, Backholer K, Wong E, Palermo C, Keating C, Peeters A. Trends in child and adolescent obesity prevalence in economically advanced countries according to socioeconomic position: a systematic review. Obes Rev. 2016;17:276–95.
19. Frederick CB, Snellman K, Putnam RD. Increasing socioeconomic disparities in adolescent obesity. Proc Natl Acad Sci U S A. 2014;111(4):1338–42.
20. Olstad DL, Teychenne M, Minaker LM, Taber DR, Raine KD, Nykiforuk CI et al. Can policy ameliorate socioeconomic inequities in obesity and obesity-related behaviours? A systematic review of the impact of universal policies on adults and children. Obes Rev. 2016;17:1198–217.

CHAPTER 7

CONCLUSIONS

OBESITY PREVALENCE

Despite sustained efforts to tackle childhood obesity, the results from HBSC surveys presented in this report show that the number of obese adolescents is continuing to rise in many countries and regions. This is the case particularly in eastern Europe where, until recently, prevalence was lower than in other parts of Europe. Obesity levels have at best stabilized elsewhere.

While there is considerable cross-national variation, some populations are characterized by obesity prevalence of between 5% and 10%, with levels generally highest in southern European and Mediterranean countries. Based on the most recent population estimates, the HBSC figures suggest that over 1.4 million 11–15-year-olds in the countries and regions represented in this report are obese. Numbers are much higher when overweight and obesity are combined, with an average prevalence of 19% across all countries and regions in 2014 (24% for boys and 14% for girls). It should be noted that the data are based on self-reported height and weight and may therefore underestimate the true situation *(1,2).*

Children of 11 are more likely to be obese than their 15-year-old peers in almost all countries and regions. There is nevertheless some evidence of more positive trends towards decreasing overweight and obesity prevalence in this younger age group in some countries and regions, although the trends are mostly not statistically significant. Other positive findings include evidence of a more recent slow-down in observed increases in obesity prevalence in some eastern European countries, but longer-term monitoring is required to determine whether the trends will be sustained.

The high rates of obesity observed in many adolescent populations across Europe is of great public health concern, not only for the health of the present generation of young people, but also for future adult populations. Concerns are heightened because many countries and regions are continuing to experience increasing prevalence of obesity and current and future health consequences worsen with increasing BMI. Action is required at earlier stages in the life-course, as there is already a large cohort of obese children in many countries and regions by age 11.

The results also demonstrate differential risk among groups of adolescents. Variations exist across countries and regions, but generally, younger adolescents, boys and those living in families of lower socioeconomic position are more likely to be obese, with similar patterns observed for overweight. These findings indicate that ongoing health promotion and disease prevention efforts aimed at reducing childhood obesity are failing adequately to reach these groups. In addition to targeting whole populations in which large numbers are overweight and therefore at risk of becoming obese, future initiatives also need to utilize targeted strategies that are sensitive to reaching high-risk adolescents within the context of their families, schools and communities.

DIETARY BEHAVIOURS

Some improvements in dietary behaviours over time are evident from the data and can have meaningful benefits for the health of young people. The changes in relation to fruit and vegetables, however, are small. With only a third of adolescents reporting that they eat fruit or vegetables on a daily basis, much more needs to be done to enable young people to improve their dietary choices. Both fruit and vegetable consumption decrease with age, with more marked declines for fruit, suggesting that as adolescents gain greater independence in relation to their eating behaviour, they are less likely to make healthy choices.

Approximately 1.7 million (2.8%) deaths worldwide are attributable to low fruit and vegetable consumption *(3)* and the burden of disease associated with poor nutrition is one of the most important factors undermining health and well-being in the European Region *(4).* Promoting healthy eating is therefore a key public health priority, and establishing healthy dietary habits early in life can help reduce the risk of future health problems.

Recent decreases in reported consumption of sugared soft drinks and sweets are notable: public health programmes and policies to curb intake of sugar and related products may have contributed to this and must be maintained. Across Europe, however, almost one fifth of adolescents still report drinking soft drinks and/or eating sweets every day; these products are non-core foods and almost all dietary guidelines recommend that they should only rarely be consumed.

The positive downward trends in daily soft-drink consumption observed in many HBSC countries and regions may be good news for public health. There are nevertheless a few important points to consider before arriving at conclusions regarding the potential implications of these findings for nutrition and public health.

The question in the HBSC surveys asks about frequency of consumption of "soft drinks that contain sugar" and provides an example of a well-known sugared fizzy drink to aid respondents. It is important from a public health perspective, however, to monitor the total intake of all soft drinks (volume and type) as a potential vehicle for free-sugar intake. Traditionally, the soft-drinks market has been dominated by sugary fizzy drinks (or sodas), but the market in recent years has diversified significantly to also include a range of sugar-containing beverages such as juice drinks from concentrate, sweetened milk drinks, special teas or coffee-based drinks, sports and energy drinks and flavoured waters *(5).* Many of these categories are experiencing large growth in sales. Sales promotion, which is often targeted at children and adolescents, includes lifestyle imagery and messages relating to fitness and hydration *(6,7).*

HBSC does not fully capture the range of sugary beverages currently available on the market. In particular, it does not include fruit drinks (juices and smoothies), which have become increasingly popular and are often perceived as a healthier option. Although the quality of data from other dietary surveys relating to intake of sugars varies from country to country, good data (where available) indicate that sugar intake still significantly exceeds WHO guidelines. The figure among children in the United Kingdom, for example, is as high as 75–80 grams per day for added sugars *(8)* (the 5% figure recommended by WHO roughly equates to 25 grams (six teaspoons) of added sugar per day).

Where dietary sources of sugars are well reported, sugary drinks are often the main source of added sugars in children and adolescents' diets *(8–11).* Consumption of sugary drinks therefore appears to remain high in many countries and regions; indeed, data from over 2700 adolescents from eight countries participating in the Healthy Lifestyle in Europe by Nutrition in Adolescence (HELENA) study showed that sugar-sweetened beverages and fruit juices were the most commonly consumed drinks after water and, along with sweetened milk drinks, accounted for the largest percentage of per capita energy consumption *(12).*

While indications of positive trends are encouraging, some caution in interpretation nevertheless is necessary. Continued efforts will be needed to further reduce the daily intake of sugary drinks – in all their forms – across all countries and regions, particularly where prevalence of daily intake remains high.

Social inequalities in dietary behaviours are also evident. While some improvements are observed, it appears that young people from higher-affluence families are improving dietary behaviours to a greater extent than those with lower affluence, leading to widening inequalities in some cases. Consumption of fruit and vegetables is consistently lowest among young people with lower affluence: these inequalities have persisted for at least the last 12 years in most countries and regions.

As noted above, the HBSC study provides only a snapshot of adolescent dietary behaviour. Frequency of intake is reported and no estimate of portion size is collected. Cultural differences in food and food markets also add to the complexity of collecting dietary data from adolescents across Europe. The data nevertheless provide an indicator of the quality of young people's diets and adherence to international guidelines, and can be used to monitor changes in consumption behaviour. The findings reported here need to be considered in light of changes and innovations in food production, marketing and policies, and other macro-level factors that may influence young people's food culture but are not currently assessed in the HBSC study.

Policy actions

Policies to support improvements in diet and sustainable interventions within the context of schools, families, communities and food environments are needed for all young people. Educating today's young people has the potential to also improve outcomes for future generations.

Those most at risk, especially young people from lower socioeconomic groups, may require different and targeted interventions to enable improvements in dietary choices and habits and related outcomes. The report of the WHO Commission on Ending Childhood Obesity *(13)* and the European food and nutrition action plan 2015–2020 *(14)* highlight the need for a range of broader, integrated, comprehensive policy measures at national and international levels to address the wider obesogenic environment and ensure healthier options are available and affordable across all population groups. Priority policy actions include fiscal measures, such as introducing a tax on sugar-sweetened beverages, school food policies that define standards for foods available to children and adolescents, marketing restrictions and clear targets for the food industry to improve the nutritional quality of food products.

PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOUR

VPA prevalence is reasonably high in most countries and regions, but the proportion of young people meeting the current MVPA recommendation remains consistently low. Both dimensions of physical activity have remained quite stable, with no substantial changes over time. In line with previous HBSC findings *(15)* and other studies *(16),* these results imply that daily habitual physical activity (such as walking, cycling and active play) has largely disappeared from adolescents' lives in most countries and regions across Europe. At the same time, computer use for gaming and non-gaming purposes has increased sharply and offsets the substantial declines in TV-watching in terms of time use.

In the context of rapid increases in time spent in sedentary activities by adolescents over the last decade, an overall downward trend in energy-expending behaviour is observed. This is particularly evident in older age groups, where low levels of physical activity and high levels of sedentary behaviour are most visible. A call for action to promote MVPA is therefore a high priority. Strategies to maintain and enhance VPA participation and reduce sedentary time are also recommended. TV-viewing for two hours or more per day has decreased but is still very common, and computer use for two hours or more per day is exceeded by 80% of 15-year-old boys and at least 70% of 15-year-

old girls in most countries and regions. The current guideline of less than two hours of recreational screen time *(17)* is therefore being met only by a minority of European adolescents.

These trends are alarming in relation to obesity prevention. With advances in screen-based technologies and their ubiquitous availability and attractiveness, effective strategies to reduce screen-time-related behaviours as one important source of sedentary behaviour are of high priority *(18).* Despite this, previous and current intervention efforts predominately focus on physical activity and eating behaviours and neglect the importance of sedentary behaviour. An integrated approach to promote all behaviours across the movement continuum is required to find a balance between sedentary behaviours and habitual and structured physical activity throughout a 24-hour timeframe *(19).* This should include consideration of the effect of sleep quality and duration, which is itself influenced by screen use and has been shown to be associated with obesity in children and adolescents *(20,21).*

Gender and family affluence are each strongly related to physical activity and sedentary behaviour. Girls spend significantly less time in MVPA and VPA across all age categories, but are also less likely to watch TV or use computers, although increases in computer use in recent years have been more marked among girls. Children from higher-affluence families are significantly more likely to meet the current MVPA recommendation and more acute inequalities are evident for participation in vigorous exercise, which may represent greater access to sports clubs and opportunities for those with higher affluence. Similar findings have been reported in other studies *(22,23).* More gender-sensitive approaches and strategies to reach socially disadvantaged groups are therefore of high importance for future obesity-related policy actions. Public health action is needed to implement interventions to promote MVPA and invest in gender-sensitive interventions that foster physical activity in girls and boys.

Policy actions

The absence of substantial changes in the prevalence of low levels of MVPA and the stabilization of VPA levels over time in most countries and regions suggest that public health measures to increase physical activity in children and adolescents have so far had only limited success, and continued efforts are required. Lessons may be learnt from countries such as Norway, where prevalence of MVPA and VPA have increased over time, and the former Yugoslav Republic of Macedonia and Portugal, in which prevalence of TV-viewing and computer use are low and have shown smaller increases over time. Examining and understanding cross-cultural differences in obesity-related behaviours can identify specific barriers or facilitators to healthy lifestyle choices that can then inform the development of more comprehensive and effective interventions. Public health action is needed to implement interventions to promote MVPA and invest in gender-sensitive interventions that foster physical activity in girls and boys.

Physical activity is a fundamental prerequisite for healthy growth and development in children and adolescents, but focused efforts are required to reverse current trends and sustain physically active lifestyles during the adolescent years. Policies and programmes should seek to promote a supportive social and physical environment, reduce practical, social and psychological barriers to participation, promote opportunities for physical activity within the context of families, schools and communities, and ensure an enabling environment with safe and accessible public spaces and supportive infrastructures *(24).* Reintegrating physical activity as part of everyday life for European adolescents through active travel and leisure-time activities requires more ambitious action at different levels, including municipal and local government.

Sedentary behaviour, including screen time, is a highly prevalent behaviour that has emerged as an independent health risk factor in recent years. Public health action is needed to implement interventions to reduce screen-time behaviours in young people on an international scale. Policy-makers and others who are responsible for the health, education and occupation sectors should be informed about the importance of reducing sedentary behaviour. Public health action should be taken in schools to reduce the potential health risks associated with sedentary behaviour in the target groups of adolescents. Schools should be encouraged to incorporate more daily activities during lessons (in addition to physical education) and consider how they can reduce extended periods of sitting.

CONCLUSION

Childhood obesity in the European Region is a critical public health concern. Despite some small improvements in physical activity in some countries and regions, these appear to be overshadowed by rapid increases in sedentary behaviour, which has the potential not only to displace time available for physically active pursuits, but is also independently associated with a range of negative health outcomes.

Similarly, while some positive changes have been observed across several countries and regions in relation to fruit and vegetable consumption, the improvements must be seen in the context of very low overall intake, which falls way below current recommendations. Observed reductions in reported consumption of sugary drinks is encouraging, but further action is required to reduce adolescents' sugar intake, particularly in light of the wide range of sugar-sweetened drinks now available and actively marketed to children and adolescents.

Inequalities in obesity and obesity-related behaviours have generally persisted over time, with those from lower-affluence backgrounds reporting less healthy diets, lower levels of physical activity and more time spent watching TV. Even in countries and regions in which inequalities have reduced over time, improvements tend to be slower among the most disadvantaged groups. Lessons may be learnt from countries where more marked improvements are observed. Some countries that have seen recent increases in obesity, especially in eastern Europe, show more promising trends in physical activity and eating behaviours, which may have a positive impact on obesity prevalence in the longer term.

REFERENCES

1. Sherry B, Jeffers ME, Grummer-Strawn LM. Accuracy of adolescent self-report of height and weight in assessing overweight status: a literature review. Arch Ped Adol Med. 2007;161(12):1154–61.
2. Elgar FJ, Stewart JM. Validity of self-report screening for overweight and obesity. Evidence from the Canadian Community Health Survey. Can J Pub Health 2008;99(5):423–7.
3. Global status report on noncommunicable diseases 2010. Geneva: World Health Organization; 2011 (http://www.who.int/nmh/publications/ncd_report2010/en/, accessed 27 February 2017).
4. The European health report 2015. Targets and beyond – reaching new frontiers in evidence. Copenhagen: WHO Regional Office for Europe; 2015 (http://www.euro.who.int/en/data-and-evidence/european-health-report/european-health-report-2015/ehr2015, accessed 27 February 2017).
5. Soft drinks new product development: innovation in a new growth environment. Passport Eurobarometer 2016. London: Euromonitor International; 2016.
6. Feliciano J. Soft drinks in 2013: growth to continue as demand diversifies [website]. London: Euromonitor International; 2013 (http://blog.euromonitor.com/2013/01/soft-drinks-in-2013-growth-to-continue-as-demand-diversifies.html, accessed 8 March 2017).

7. Telford H. Soft drinks 2017: key insights. London: Euromonitor International; 2017.
8. Bates B, Cox L, Nicholson S, Page P, Prentice A, Steer T et al., editors. National diet and nutrition survey. Results from years 5 and 6 (combined) of the rolling programme (2012/2013–2013/2014). London: Food Standards Agency, Public Health England; 2016 (https://www.gov.uk/government/statistics/ndns-results-from-years-5-and-6-combined, accessed 27 February 2017).
9. Þorgeirsdóttir H, Valgeirsdóttir H, Gunnarsdóttir I, Gísladóttir E, Gunnarsdóttir BE, Þórsdóttir I et al. Hvað borða Íslendingar? Könnun á mataræði Íslendinga 2010–2011. Helstu niðurstöður [What do people eat? Icelandic diet survey 2010–2011. Main results]. Reykjavik: Directorate of Health, University of Iceland; 2011 (http://www.landlaeknir.is/servlet/file/store93/item14901/Hva%C3%B0%20bor%C3%B0a%20%C3%8Dslendingar_april%202012.pdf, accessed 27 February 2017) [in Icelandic].
10. Van Rossum C, Fransen H, Verkaik-Kloosterman J, Buurma-Rethans E, Ocke M. Dutch national food consumption survey 2007–2010. Part 5 macronutrients. Version 2, based on dataset DFC_2010_core_20120822 ed. Bilthoven: National Institute for Public Health and the Environment; 2011.
11. Ruiz E, Ávila JM, Valero T, Del Pozo S, Rodriguez P, Aranceta-Bartrina J et al. Macronutrient distribution and dietary sources in the Spanish population: findings from the ANIBES study. Nutrients 2016;8:177.
12. Duffey KJ, Huybrechts I, Mouratidou T, Libuda L, Kersting M, De Vriendt T et al. Beverage consumption among European adolescents in the HELENA study. Eur J Clin Nutr. 2012;66(2): 244–52.
13. Report of the Commission on Ending Childhood Obesity. Geneva: World Health Organization; 2016 (http://www.who.int/end-childhood-obesity/news/launch-final-report/en/, accessed 27 February 2017).
14. European food and nutrition action plan 2015–2020. Copenhagen: WHO Regional Office for Europe; 2015 (http://www.euro.who.int/en/publications/abstracts/european-food-and-nutrition-action-plan-20152020, accessed 27 February 2017).
15. Kalman M, Inchley J, Sigmundova D, Iannotti RJ, Tynjälä JA, Hamrik Z et al. Secular trends in moderate-to-vigorous physical activity in 32 countries from 2002 to 2010: a cross-national perspective. Eur J Public Health 2015;25(Suppl. 2):37–40.
16. Booth VM, Rowlands AV, Dollman J. Physical activity temporal trends among children and adolescents. J Sci Med Sport 2015;18(4):418–25.
17. Tremblay MS, Leblanc AG, Janssen I, Kho ME, Hicks A, Murumets K et al. Canadian sedentary behaviour guidelines for children and youth. Appl Physiol Nutr Metab. 2011;36(1):59–64.
18. Biddle SJH, Petrolini I, Pearson N. Interventions designed to reduce sedentary behaviours in young people: a review of reviews. Br J Sports Med. 2014;48(3):182–6.
19. Tremblay MS, Carson V, Chaput J, Connor Gorber S, Dinh T, Duggan M et al. Canadian 24-hour movement guidelines for children and youth: an integration of physical activity, sedentary behaviour, and sleep. Appl Physiol Nutr Metab. 2016;41(6 Suppl. 3):S311–27.
20. Miller AL, Lumeng JC, Le Bourgeois MK. Sleep patterns and obesity in childhood. Curr Opin Endocrinol Diabetes Obes. 2015;22(1):41–7.
21. Mitchell JA, Rodriguez D, Schmitz KH, Audrain-McGovern J. Sleep duration and adolescent obesity. Pediatrics 2013;131(5):e1428–34.
22. Verloigne M, Van Lippevelde W, Maes L, Yıldırım M, Chinapaw M, Manios Y et al. Levels of physical activity and sedentary time among 10- to 12-year-old boys and girls across 5 European countries using accelerometers: an observational study within the ENERGY project. Int J Behav Nutr Phys Act. 2012;9(1):1.
23. Borraccino A, Lemma P, Iannotti R, Zambon A, Dalmasso P, Lazzeri G et al. Socio-economic effects on meeting PA guidelines: comparisons among 32 countries. Med Sci Sports Exerc. 2009;41(4):749.
24. Physical activity strategy for the WHO European Region 2016–2025. Copenhagen: WHO Regional Office for Europe; 2016 (http://www.euro.who.int/en/publications/abstracts/physical-activity-strategy-for-the-who-european-region-20162025, accessed 27 February 2017).

DATA TABLES OF PREVALENCE OF OBESITY AND RELATED BEHAVIOURS BY AGE, GENDER, COUNTRY AND YEAR

INTRODUCTION

The following tables show the prevalence of obesity and each of the eight related behaviours for each country by survey year (2002 to 2014).

Prevalence is shown for each gender and age group (11-, 13- and 15-year-olds).

Only countries and regions with data for three or more survey years are included in the trend analyses presented in the main chapters of this report, and these are presented first in each table.

Countries and regions with less than three years of data for any behaviour are presented at the bottom of each table.

Obesity prevalence (%)

Gender	Girls				Boys				Boys and girls			
Survey year	2002	2006	2010	2014	2002	2006	2010	2014	2002	2006	2010	2014
Austria	**2.3**	**1.9**	**2.8**	**3.0**	**4.9**	**5.8**	**6.0**	**6.1**	**3.6**	**3.8**	**4.4**	**4.6**
11	3.2	2.4	1.8	4.1	5.6	7.6	7.0	7.5	4.4	5.0	4.4	5.8
13	2.0	1.6	3.6	3.4	4.6	4.5	5.8	5.4	3.3	3.1	4.7	4.4
15	1.5	1.6	3.0	1.3	4.5	5.3	5.1	5.5	3.0	3.4	4.1	3.4
Belgium (Flemish)	**2.4**	**2.0**	**2.5**	**2.7**	**3.2**	**2.8**	**4.6**	**4.3**	**2.8**	**2.4**	**3.6**	**3.5**
11	2.4	1.2	2.3	3.1	2.9	3.3	5.5	4.5	2.7	2.2	3.9	3.8
13	2.4	2.8	2.6	2.5	3.4	3.1	4.9	4.8	2.9	3.0	3.7	3.7
15	2.3	2.0	2.6	2.6	3.2	2.1	3.5	3.6	2.7	2.0	3.0	3.1
Croatia	**1.8**	**2.5**	**2.5**	**2.4**	**4.6**	**6.6**	**7.0**	**7.8**	**3.2**	**4.6**	**4.7**	**5.1**
11	3.7	3.3	3.8	3.3	7.8	10.7	9.4	12.0	5.8	7.0	6.6	7.6
13	0.9	2.4	1.8	2.4	3.2	5.7	6.6	7.4	2.0	4.0	4.2	4.9
15	0.9	1.9	1.9	1.5	2.7	3.4	4.9	4.0	1.8	2.7	3.4	2.8
Czechia	**1.2**	**3.8**	**1.9**	**2.5**	**3.0**	**6.4**	**5.8**	**5.9**	**2.1**	**5.1**	**3.9**	**4.2**
11	1.6	6.6	3.0	2.5	3.7	9.9	8.4	7.9	2.6	8.3	5.7	5.2
13	1.4	2.5	1.4	2.0	2.8	4.8	5.7	6.1	2.1	3.7	3.6	4.0
15	0.6	2.2	1.4	3.0	2.4	4.6	3.4	3.9	1.5	3.4	2.4	3.5
Denmark	**1.9**	**1.6**	**2.3**	**2.2**	**3.1**	**2.8**	**2.7**	**2.5**	**2.5**	**2.2**	**2.5**	**2.3**
11	2.5	2.3	3.2	1.7	4.6	3.7	3.7	3.5	3.6	3.0	3.5	2.6
13	1.6	1.5	2.0	2.1	2.4	2.7	2.3	1.7	2.0	2.1	2.2	1.9
15	1.7	0.9	1.6	2.6	2.3	2.1	2.0	2.3	2.0	1.5	1.8	2.5
Estonia	**0.9**	**1.3**	**2.7**	**2.8**	**2.6**	**4.3**	**6.6**	**6.6**	**1.7**	**2.8**	**4.7**	**4.7**
11	1.1	1.5	2.2	3.0	2.4	5.6	9.0	9.0	1.8	3.6	5.6	6.0
13	0.7	1.1	3.4	3.3	3.3	4.6	6.6	5.2	2.0	2.9	5.0	4.3
15	0.8	1.2	2.4	2.0	2.0	2.6	4.4	5.5	1.4	1.9	3.4	3.7
Finland	**2.6**	**2.9**	**3.4**	**3.2**	**5.8**	**6.1**	**6.4**	**6.3**	**4.2**	**4.5**	**4.9**	**4.8**
11	3.5	4.5	3.4	3.3	7.7	8.3	8.1	6.5	5.6	6.4	5.7	4.9
13	2.4	2.2	3.8	3.5	5.6	5.2	6.0	6.2	4.0	3.7	4.9	4.8
15	1.9	2.1	2.9	2.9	4.2	4.8	5.2	6.2	3.1	3.5	4.1	4.5
France	**2.1**	**2.2**	**2.0**	**2.4**	**3.8**	**3.5**	**3.5**	**3.9**	**2.9**	**2.8**	**2.8**	**3.2**
11	1.7	3.2	2.0	3.1	4.6	3.9	4.3	4.6	3.2	3.5	3.2	3.9
13	1.8	1.5	2.4	2.1	4.0	4.1	4.1	4.4	2.9	2.8	3.3	3.2
15	2.7	1.8	1.6	2.1	2.6	2.5	2.1	2.7	2.7	2.2	1.8	2.4
Germany	**1.7**	**2.3**	**3.4**	**2.7**	**4.6**	**4.5**	**5.1**	**4.8**	**3.1**	**3.4**	**4.2**	**3.8**
11	2.0	2.7	4.3	2.7	5.0	4.8	6.2	4.3	3.5	3.7	5.2	3.5
13	1.6	1.7	3.2	2.8	5.2	5.2	4.6	5.3	3.4	3.4	3.9	4.1
15	1.6	2.6	2.6	2.7	3.5	3.5	4.6	4.8	2.6	3.1	3.6	3.7
Greece	**2.3**	**2.8**	**3.3**	**3.9**	**6.3**	**7.2**	**9.3**	**9.1**	**4.3**	**5.0**	**6.3**	**6.5**
11	2.3	4.3	4.5	6.1	8.0	9.0	11.6	11.9	5.1	6.7	8.0	9.0
13	3.5	1.9	3.6	3.8	6.4	7.1	9.1	6.9	4.9	4.5	6.4	5.4
15	1.2	2.1	1.7	1.9	4.7	5.4	7.2	8.3	2.9	3.8	4.4	5.1
Hungary	**2.5**	**3.8**	**2.6**	**2.7**	**5.8**	**7.2**	**7.3**	**6.7**	**4.1**	**5.5**	**5.0**	**4.7**
11	2.7	5.3	3.6	3.0	7.7	10.6	9.5	9.0	5.2	8.0	6.6	6.0
13	2.4	3.3	2.0	2.9	4.3	6.4	7.2	5.2	3.4	4.9	4.6	4.1
15	2.4	2.7	2.2	2.3	5.3	4.6	5.2	6.0	3.9	3.7	3.7	4.1
Iceland	**–**	**2.5**	**3.0**	**3.1**	**–**	**6.4**	**5.7**	**6.4**	**–**	**4.5**	**4.3**	**4.8**
11	–	2.0	2.7	2.1	–	7.3	5.5	6.8	–	4.6	4.1	4.5
13	–	2.6	3.2	3.4	–	5.8	5.2	6.3	–	4.2	4.2	4.8
15	–	2.9	3.2	3.7	–	6.1	6.2	6.2	–	4.5	4.7	4.9
Italy	**2.3**	**3.1**	**3.5**	**3.2**	**6.5**	**7.7**	**7.9**	**6.2**	**4.4**	**5.4**	**5.7**	**4.7**
11	3.2	4.5	4.2	5.5	10.8	12.0	11.1	9.6	7.0	8.3	7.7	7.6
13	2.5	2.7	3.8	2.0	5.7	6.2	7.0	5.9	4.1	4.5	5.4	4.0
15	1.4	2.1	2.5	2.1	3.1	4.9	5.7	2.9	2.2	3.5	4.1	2.5
Latvia	**1.0**	**1.2**	**2.5**	**3.2**	**1.7**	**1.9**	**3.9**	**6.3**	**1.4**	**1.6**	**3.2**	**4.7**
11	1.3	1.7	3.8	3.5	2.0	2.7	5.6	9.2	1.7	2.2	4.7	6.4
13	0.9	1.6	2.1	4.1	1.6	2.5	4.0	5.6	1.3	2.0	3.1	4.8
15	0.7	0.3	1.6	1.8	1.6	0.7	2.1	4.2	1.1	0.5	1.8	3.0
Luxembourg	**–**	**2.5**	**2.9**	**3.5**	**–**	**4.9**	**5.6**	**5.6**	**–**	**3.7**	**4.3**	**4.6**
11	–	2.5	1.9	2.2	–	6.2	4.7	5.5	–	4.4	3.3	3.9
13	–	2.6	3.5	4.6	–	3.6	6.3	5.2	–	3.1	4.9	4.9
15	–	2.4	3.3	3.8	–	4.8	5.9	6.2	–	3.6	4.6	5.0
Netherlands	**1.3**	**1.9**	**1.5**	**1.5**	**2.2**	**1.8**	**2.2**	**3.0**	**1.8**	**1.9**	**1.9**	**2.3**
11	1.9	1.8	1.4	1.3	2.8	1.3	2.3	4.5	2.4	1.5	1.9	2.9
13	1.1	2.0	2.2	1.3	1.9	2.2	3.1	2.4	1.5	2.1	2.6	1.9
15	1.0	2.0	0.8	2.0	1.9	1.9	1.3	2.0	1.5	2.0	1.1	2.0
Norway	**1.9**	**1.7**	**2.2**	**1.5**	**5.0**	**3.7**	**4.1**	**4.0**	**3.4**	**2.7**	**3.2**	**2.8**
11	1.9	2.2	2.6	2.2	6.3	4.0	5.0	3.9	4.1	3.1	3.8	3.0
13	2.5	1.5	1.8	1.5	6.2	2.9	3.3	3.7	4.3	2.2	2.5	2.6
15	1.3	1.5	2.3	0.9	2.4	4.1	4.2	4.4	1.9	2.8	3.2	2.6
Poland	**1.4**	**1.9**	**3.3**	**2.0**	**2.9**	**4.4**	**8.1**	**6.6**	**2.2**	**3.2**	**5.7**	**4.3**
11	2.2	3.2	4.2	3.2	4.5	7.3	11.7	10.0	3.3	5.2	7.9	6.6
13	0.7	1.9	3.5	1.6	3.2	3.6	8.2	6.2	2.0	2.8	5.8	3.9
15	1.4	0.5	2.2	1.2	1.0	2.5	4.5	3.6	1.2	1.5	3.3	2.4
Portugal	**3.2**	**3.8**	**3.9**	**3.0**	**6.2**	**8.5**	**7.7**	**6.9**	**4.7**	**6.1**	**5.8**	**5.0**
11	5.7	6.7	5.3	4.1	10.5	15.3	10.4	10.2	8.1	11.0	7.9	7.2
13	2.9	2.6	3.2	3.0	5.5	5.1	7.5	6.5	4.2	3.8	5.3	4.7
15	1.0	2.2	3.2	2.1	2.5	5.0	5.2	3.9	1.8	3.6	4.2	3.0
Russian Federation	**0.5**	**0.9**	**1.6**	**2.0**	**1.9**	**3.7**	**4.8**	**5.4**	**1.2**	**2.3**	**3.2**	**3.7**
11	0.8	1.9	2.6	3.5	3.2	7.3	7.7	7.1	2.0	4.6	5.1	5.3
13	0.5	0.6	0.9	1.5	1.3	2.4	4.8	6.2	0.9	1.5	2.9	3.8
15	0.3	0.2	1.2	1.1	1.0	1.6	2.1	3.0	0.7	0.9	1.6	2.1
Slovakia	**–**	**1.1**	**1.7**	**2.0**	**–**	**2.9**	**6.2**	**6.3**	**–**	**2.2**	**3.9**	**4.1**
11	–	1.4	2.0	2.7	–	3.6	7.7	9.1	–	2.5	4.9	5.9
13	–	0.9	1.8	1.9	–	3.0	6.4	6.0	–	1.9	4.1	3.9
15	–		1.2	1.3	–	2.2	4.5	3.7	–	2.2	2.9	2.5

Obesity prevalence (%) contd

Gender	Girls				Boys				Boys and girls			
Survey year	2002	2006	2010	2014	2002	2006	2010	2014	2002	2006	2010	2014
Slovenia	**1.7**	**2.3**	**3.4**	**3.1**	**5.6**	**7.3**	**8.4**	**7.8**	**3.6**	**4.8**	**5.9**	**5.5**
11	1.6	2.1	4.1	4.6	7.8	9.9	10.2	10.4	4.7	6.0	7.2	7.5
13	2.1	2.4	3.9	2.9	5.1	6.6	7.5	7.2	3.6	4.5	5.7	5.1
15	1.2	2.3	2.2	1.9	3.8	5.3	7.5	5.9	2.5	3.8	4.9	3.9
Spain	**3.1**	**2.8**	**2.6**	**2.9**	**7.6**	**6.8**	**6.7**	**6.4**	**5.4**	**4.8**	**4.6**	**4.7**
11	6.8	4.4	3.1	3.3	10.8	11.9	8.3	9.4	8.8	8.1	5.7	6.3
13	1.5	2.2	2.6	3.3	7.7	5.3	6.6	5.2	4.6	3.8	4.6	4.2
15	1.0	1.7	2.1	2.3	4.5	3.2	5.2	4.7	2.7	2.5	3.7	3.5
Sweden	**1.8**	**1.7**	**1.8**	**2.3**	**2.9**	**3.8**	**4.1**	**4.7**	**2.3**	**2.7**	**2.9**	**3.5**
11	1.8	2.4	2.5	2.4	3.6	4.1	4.4	4.7	2.7	3.2	3.5	3.6
13	1.9	1.9	2.0	1.7	2.0	3.6	5.0	4.7	2.0	2.7	3.5	3.2
15	1.8	0.8	0.9	2.8	3.0	3.7	2.7	4.7	2.4	2.2	1.8	3.8
Switzerland	**1.1**	**1.2**	**1.0**	**1.8**	**3.1**	**3.0**	**3.0**	**3.5**	**2.1**	**2.1**	**2.0**	**2.6**
11	1.4	1.2	1.2	2.5	3.3	2.8	3.4	3.7	2.4	2.0	2.3	3.1
13	0.9	1.3	1.1	1.4	3.4	4.1	3.2	3.4	2.2	2.7	2.1	2.4
15	1.2	1.3	0.9	1.4	2.5	2.0	2.4	3.3	1.8	1.6	1.6	2.3
MKD[a]	**2.2**	**2.3**	**3.2**	**2.7**	**5.7**	**6.6**	**8.2**	**8.9**	**4.0**	**4.5**	**5.7**	**5.8**
11	3.2	3.8	5.4	3.7	7.6	9.5	11.5	13.9	5.4	6.6	8.4	8.8
13	2.1	2.2	2.4	1.6	6.2	6.6	7.2	7.7	4.1	4.4	4.8	4.7
15	1.3	0.9	1.7	2.8	3.4	3.7	5.9	5.0	2.4	2.3	3.8	3.9
Ukraine	**0.9**	**0.8**	**1.5**	**1.1**	**2.0**	**3.0**	**3.4**	**3.6**	**1.4**	**1.9**	**2.5**	**2.4**
11	1.4	1.2	2.0	1.3	4.1	5.1	4.8	5.8	2.8	3.2	3.4	3.5
13	0.3	0.6	2.0	1.3	1.1	2.1	3.7	3.6	0.7	1.4	2.9	2.5
15	0.8	0.4	0.5	0.7	0.9	1.9	1.8	1.5	0.9	1.2	1.2	1.1
Countries below are not included in trends analyses												
Albania	**–**	**–**	**–**	**1.0**	**–**	**–**	**–**	**4.2**	**–**	**–**	**–**	**2.6**
11	–	–	–	1.7	–	–	–	8.4	–	–	–	5.1
13	–	–	–	0.8	–	–	–	2.7	–	–	–	1.7
15	–	–	–	0.4	–	–	–	1.6	–	–	–	1.0
Armenia	**–**	**–**	**2.6**	**2.5**	**–**	**–**	**5.2**	**5.5**	**–**	**–**	**3.9**	**4.0**
11	–	–	4.4	5.1	–	–	8.5	8.7	–	–	6.5	6.9
13	–	–	2.1	1.6	–	–	4.8	5.1	–	–	3.4	3.4
15	–	–	1.2	0.8	–	–	2.4	2.6	–	–	1.8	1.7
Bulgaria	**–**	**1.2**	**–**	**3.3**	**–**	**6.1**	**–**	**8.3**	**–**	**3.7**	**–**	**5.8**
11	–	2.1	–	4.4	–	9.9	–	10.2	–	6.0	–	7.3
13	–	0.8	–	2.6	–	4.3	–	6.2	–	2.6	–	4.4
15	–	0.7	–	2.8	–	4.1	–	8.5	–	2.4	–	5.7
Republic of Moldova	**–**	**–**	**–**	**1.8**	**–**	**–**	**–**	**2.8**	**–**	**–**	**–**	**2.3**
11	–	–	–	2.4	–	–	–	3.7	–	–	–	3.0
13	–	–	–	1.9	–	–	–	2.4	–	–	–	2.1
15	–	–	–	1.3	–	–	–	2.3	–	–	–	1.8
Turkey	**–**	**1.2**	**1.8**	**–**	**–**	**3.6**	**5.1**	**–**	**–**	**2.4**	**3.5**	**–**
11	–	1.9	2.8	–	–	5.6	6.3	–	–	3.7	4.6	–
13	–	1.1	1.9	–	–	3.1	4.9	–	–	2.1	3.4	–
15	–	0.6	0.8	–	–	2.2	4.1	–	–	1.4	2.5	–

[a] The former Yugoslav Republic of Macedonia (MKD is an abbreviation of the International Organization for Standardization). *Note:* no data for 2002 were received for Iceland, Luxembourg and Slovakia. Data excluded as missing values >30% for Belgium (French), Ireland, Israel, Lithuania, Malta, Romania, United Kingdom (England), United Kingdom (Scotland) and United Kingdom (Wales). No trend data were available for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey.

Daily fruit consumption (%)

Gender	Girls				Boys				Boys and girls			
Survey year	2002	2006	2010	2014	2002	2006	2010	2014	2002	2006	2010	2014
Austria	**42.9**	**39.4**	**46.9**	**51.6**	**32.1**	**28.8**	**34.0**	**40.5**	**37.5**	**34.1**	**40.5**	**46.0**
11	52.6	48.1	55.4	58.6	40.3	38.5	43.2	51.7	46.5	43.3	49.3	55.2
13	44.2	37.8	48.7	55.9	35.2	30.1	35.8	41.2	39.7	33.9	42.3	48.6
15	31.8	32.3	36.6	40.3	20.7	17.9	23.1	28.5	26.2	25.1	29.8	34.4
Belgium (Flemish)	**30.4**	**40.7**	**33.9**	**34.9**	**22.1**	**30.2**	**24.7**	**24.1**	**26.2**	**35.5**	**29.3**	**29.5**
11	32.6	44.2	38.0	42.8	27.3	30.5	31.3	30.5	30.0	37.3	34.7	36.7
13	30.7	37.1	34.8	33.9	22.6	31.8	26.2	21.6	26.7	34.5	30.5	27.7
15	27.7	40.9	29.0	28.1	16.4	28.2	16.6	20.1	22.0	34.6	22.8	24.1
Belgium (French)	**40.0**	**47.3**	**50.2**	**51.8**	**36.4**	**42.4**	**47.3**	**46.3**	**38.2**	**44.8**	**48.7**	**49.1**
11	44.5	50.3	50.5	60.5	39.4	45.7	49.4	52.7	42.0	48.0	49.9	56.6
13	40.7	47.9	50.4	48.6	37.3	41.8	49.1	45.7	39.0	44.9	49.8	47.2
15	34.9	43.6	49.8	46.3	32.4	39.6	43.3	40.4	33.6	41.6	46.6	43.4
Croatia	**38.2**	**39.1**	**37.4**	**37.9**	**32.0**	**35.3**	**32.7**	**35.2**	**35.1**	**37.2**	**35.1**	**36.6**
11	43.5	49.4	45.6	46.3	40.9	44.3	41.3	45.3	42.2	46.9	43.5	45.8
13	39.7	36.5	37.5	38.2	32.0	35.0	32.3	35.6	35.9	35.8	34.9	36.9
15	31.3	31.3	29.1	29.2	23.1	26.5	24.4	24.9	27.2	28.9	26.8	27.0
Czechia	**48.8**	**44.7**	**47.1**	**41.4**	**35.6**	**33.0**	**36.7**	**33.1**	**42.2**	**38.9**	**41.9**	**37.2**
11	54.1	47.8	55.4	49.4	41.6	37.7	42.1	40.2	47.8	42.7	48.7	44.8
13	47.4	45.7	46.2	40.4	36.3	35.9	39.1	33.2	41.9	40.8	42.7	36.8
15	45.0	40.8	39.8	34.3	29.0	25.2	28.9	25.9	37.0	33.0	34.3	30.1
Denmark	**38.6**	**47.8**	**55.3**	**48.9**	**25.4**	**35.0**	**42.2**	**37.8**	**32.0**	**41.4**	**48.7**	**43.4**
11	43.0	50.7	60.1	51.2	33.3	39.6	50.5	43.3	38.2	45.1	55.3	47.2
13	36.9	47.1	49.8	44.9	25.1	36.1	41.9	36.2	31.0	41.6	45.8	40.6
15	35.9	45.7	56.0	50.7	17.8	29.3	34.1	33.9	26.9	37.5	45.0	42.3
England	**28.9**	**48.1**	**43.1**	**39.4**	**24.7**	**38.3**	**34.9**	**36.5**	**26.8**	**43.2**	**39.0**	**38.0**
11	30.1	50.2	46.3	42.0	28.7	41.8	34.4	42.5	29.4	46.0	40.4	42.2
13	28.3	50.5	43.3	37.3	24.3	40.3	37.1	33.9	26.3	45.4	40.2	35.6
15	28.3	43.6	39.8	38.8	21.1	32.9	33.4	33.3	24.7	38.2	36.6	36.0
Estonia	**22.9**	**33.6**	**29.1**	**35.2**	**17.2**	**26.5**	**23.7**	**28.8**	**20.1**	**30.1**	**26.4**	**32.0**
11	26.8	35.8	31.6	38.4	20.8	33.0	28.6	35.7	23.8	34.4	30.1	37.0
13	21.8	35.1	28.7	34.8	19.0	28.4	25.2	25.8	20.4	31.8	27.0	30.3
15	20.2	30.0	26.9	32.5	12.0	18.1	17.3	24.8	16.1	24.0	22.1	28.6
Finland	**26.7**	**27.6**	**29.3**	**30.5**	**16.3**	**18.6**	**20.1**	**17.1**	**21.5**	**23.1**	**24.7**	**23.8**
11	25.9	27.3	32.6	31.3	20.9	23.9	25.4	24.2	23.4	25.6	29.0	27.7
13	27.5	27.9	26.1	29.9	14.5	17.9	19.8	15.6	21.0	22.9	23.0	22.8
15	26.7	27.7	29.1	30.3	13.5	14.0	15.1	11.5	20.1	20.8	22.1	20.9
France	**34.5**	**33.2**	**41.8**	**37.8**	**34.1**	**29.3**	**37.0**	**34.1**	**34.3**	**31.3**	**39.4**	**35.9**
11	39.1	38.4	43.9	41.8	40.5	35.2	43.4	39.0	39.8	36.8	43.7	40.4
13	34.1	32.0	43.0	35.5	33.2	29.1	36.2	32.9	33.7	30.5	39.6	34.2
15	30.1	29.2	38.4	36.1	28.4	23.6	31.4	30.4	29.3	26.4	34.9	33.2
Germany	**46.9**	**41.7**	**43.9**	**43.6**	**37.9**	**30.3**	**29.6**	**31.8**	**42.4**	**36.0**	**36.8**	**37.7**
11	51.0	49.5	48.5	50.4	43.4	36.0	36.5	38.6	47.2	42.8	42.5	44.5
13	47.1	40.2	43.1	42.4	37.2	31.6	29.8	30.9	42.2	35.9	36.4	36.7
15	42.6	35.5	40.3	38.0	33.0	23.3	22.5	26.1	37.8	29.4	31.4	32.1
Greece	**41.2**	**32.0**	**35.6**	**34.7**	**35.0**	**29.6**	**32.0**	**30.4**	**38.1**	**30.8**	**33.8**	**32.6**
11	47.6	39.7	41.5	43.3	41.7	33.9	36.5	35.6	44.6	36.8	39.0	39.4
13	44.2	32.1	37.3	34.6	38.1	31.4	33.9	32.6	41.2	31.8	35.6	33.6
15	31.8	24.2	28.0	26.2	25.3	23.6	25.6	23.1	28.5	23.9	26.8	24.7
Hungary	**33.4**	**38.5**	**39.5**	**38.0**	**28.7**	**31.5**	**31.4**	**32.2**	**31.1**	**35.0**	**35.5**	**35.1**
11	38.6	46.3	50.1	49.2	36.7	37.6	36.2	40.1	37.7	42.0	43.1	44.6
13	32.5	40.0	41.0	35.4	29.2	33.6	33.0	34.1	30.9	36.8	37.0	34.8
15	29.0	29.2	27.5	29.4	20.4	23.2	25.2	22.3	24.7	26.2	26.3	25.9
Iceland	**–**	**38.4**	**39.6**	**43.5**	**–**	**26.8**	**28.6**	**34.2**	**–**	**32.6**	**34.1**	**38.9**
11	–	50.6	45.9	47.2	–	38.8	35.0	38.5	–	44.7	40.5	42.9
13	–	36.6	37.7	37.5	–	23.8	27.9	28.8	–	30.2	32.8	33.1
15	–	27.9	35.4	45.7	–	17.8	22.9	35.4	–	22.9	29.1	40.6
Ireland	**36.2**	**41.8**	**39.5**	**43.9**	**28.9**	**32.2**	**33.6**	**38.1**	**32.6**	**37.0**	**36.6**	**41.0**
11	41.3	47.9	45.9	50.8	31.5	37.7	40.6	44.0	36.4	42.8	43.2	47.4
13	33.9	38.2	37.9	41.1	29.4	30.2	31.9	35.9	31.7	34.2	34.9	38.5
15	33.3	39.3	34.8	39.7	25.9	28.8	28.3	34.3	29.6	34.0	31.5	37.0
Israel	**54.2**	**43.2**	**45.8**	**48.6**	**48.9**	**37.7**	**42.8**	**39.1**	**51.6**	**40.5**	**44.3**	**43.8**
11	57.1	50.3	51.0	50.0	52.9	45.6	49.9	50.0	55.0	47.9	50.5	50.0
13	53.3	42.5	45.3	49.9	47.3	36.1	41.7	33.7	50.3	39.3	43.5	41.8
15	52.1	36.9	41.0	45.9	46.6	31.4	36.7	33.5	49.4	34.1	38.9	39.7
Italy	**38.4**	**45.5**	**44.5**	**40.9**	**38.2**	**41.5**	**38.9**	**33.9**	**38.3**	**43.5**	**41.7**	**37.4**
11	39.9	47.5	51.1	43.0	37.6	43.5	44.0	36.9	38.8	45.5	47.5	39.9
13	35.6	42.4	43.4	38.8	35.2	43.9	39.2	32.4	35.4	43.2	41.3	35.6
15	39.5	46.6	39.1	40.9	41.9	36.9	33.4	32.4	40.7	41.7	36.2	36.6
Latvia	**25.8**	**27.2**	**31.4**	**29.1**	**21.9**	**18.6**	**22.5**	**22.7**	**23.9**	**22.9**	**27.0**	**25.9**
11	27.1	27.7	35.3	33.1	23.5	20.5	28.0	29.1	25.3	24.1	31.6	31.1
13	26.4	27.8	32.8	27.3	21.5	20.1	23.7	20.1	23.9	24.0	28.2	23.7
15	24.0	26.1	26.3	27.0	20.7	15.2	15.9	18.8	22.3	20.6	21.1	22.9
Lithuania	**24.2**	**26.0**	**30.5**	**35.7**	**20.3**	**21.0**	**21.9**	**29.2**	**22.2**	**23.5**	**26.2**	**32.5**
11	24.8	27.7	34.2	40.9	24.1	26.6	26.4	34.0	24.5	27.2	30.3	37.4
13	25.5	26.8	27.9	35.8	21.2	21.8	20.8	28.2	23.3	24.3	24.3	32.0
15	22.2	23.5	29.4	30.5	15.6	14.7	18.4	25.4	18.9	19.1	23.9	27.9
Luxembourg	**–**	**43.5**	**42.3**	**40.6**	**–**	**31.7**	**35.7**	**36.9**	**–**	**37.6**	**39.0**	**38.7**
11	–	48.6	47.2	47.1	–	38.2	40.8	42.3	–	43.4	44.0	44.7
13	–	41.2	39.9	38.4	–	29.6	33.8	35.8	–	35.4	36.8	37.1
15	–	40.7	39.9	36.2	–	27.5	32.4	32.7	–	34.1	36.2	34.5
Malta	**51.2**	**42.3**	**–**	**39.2**	**43.2**	**36.5**	**–**	**35.6**	**47.2**	**39.4**	**–**	**37.4**
11	59.2	45.7	–	41.9	47.7	41.7	–	43.9	53.4	43.7	–	42.9
13	50.1	47.2	–	39.6	44.0	32.7	–	33.6	47.1	39.9	–	36.6
15	44.1	33.9	–	36.1	38.1	35.0	–	29.3	41.1	34.5	–	32.7

Daily fruit consumption (%) contd

Gender	Girls				Boys				Boys and girls			
Survey year	2002	2006	2010	2014	2002	2006	2010	2014	2002	2006	2010	2014
Netherlands	**29.7**	**38.1**	**37.1**	**38.3**	**26.4**	**27.0**	**28.4**	**31.5**	**28.1**	**32.5**	**32.7**	**34.9**
11	32.8	44.8	45.6	48.0	31.5	32.7	38.2	41.1	32.2	38.7	41.9	44.5
13	29.4	39.0	35.2	35.6	27.6	28.3	26.9	30.4	28.5	33.7	31.1	33.0
15	26.9	30.4	30.4	31.4	20.2	20.0	20.1	22.8	23.5	25.2	25.3	27.1
Norway	**34.8**	**47.4**	**49.1**	**43.2**	**23.4**	**36.4**	**35.2**	**34.1**	**29.1**	**41.9**	**42.1**	**38.6**
11	40.6	56.6	52.8	47.4	28.0	42.6	40.2	41.6	34.3	49.6	46.5	44.5
13	34.2	44.8	45.9	39.1	23.7	34.8	36.3	33.5	29.0	39.8	41.1	36.3
15	29.6	40.8	48.6	43.1	18.5	31.7	28.9	27.1	24.0	36.3	38.7	35.1
Poland	**51.4**	**40.2**	**35.3**	**37.0**	**41.0**	**28.7**	**26.0**	**30.8**	**46.2**	**34.4**	**30.7**	**33.9**
11	55.0	44.6	45.1	45.6	43.7	31.1	33.3	37.6	49.4	37.8	39.2	41.6
13	51.5	42.4	35.6	36.2	43.2	30.7	24.6	29.3	47.4	36.5	30.1	32.8
15	47.6	33.6	25.3	29.2	35.9	24.3	20.0	25.6	41.8	29.0	22.7	27.4
Portugal	**52.0**	**46.9**	**47.4**	**43.3**	**43.4**	**41.3**	**40.5**	**38.6**	**47.7**	**44.1**	**43.9**	**40.9**
11	58.3	56.2	57.2	50.4	51.2	48.0	44.1	43.0	54.8	52.1	50.6	46.7
13	52.3	44.8	45.7	43.3	42.9	40.4	43.7	38.9	47.6	42.6	44.7	41.1
15	45.4	39.9	39.3	36.3	36.1	35.5	33.7	33.9	40.7	37.7	36.5	35.1
Romania	**–**	**46.3**	**45.4**	**41.6**	**–**	**37.2**	**36.1**	**34.6**	**–**	**41.8**	**40.8**	**38.1**
11	–	50.6	52.2	49.5	–	41.6	43.5	43.4	–	46.1	47.8	46.4
13	–	48.0	44.0	43.0	–	39.5	36.1	35.5	–	43.8	40.0	39.2
15	–	40.3	40.0	32.3	–	30.5	28.9	24.9	–	35.4	34.5	28.6
Russian Federation	**29.1**	**32.0**	**34.9**	**37.8**	**24.8**	**26.8**	**31.7**	**33.5**	**27.0**	**29.4**	**33.3**	**35.6**
11	31.1	33.3	40.9	41.0	30.5	27.3	34.7	37.0	30.8	30.3	37.8	39.0
13	31.5	33.1	33.7	38.7	25.6	25.9	33.4	35.3	28.5	29.5	33.6	37.0
15	24.9	29.6	30.0	33.6	18.4	27.2	27.0	28.0	21.6	28.4	28.5	30.8
Scotland	**35.9**	**43.0**	**39.5**	**42.1**	**31.0**	**36.1**	**33.3**	**35.1**	**33.4**	**39.5**	**36.4**	**38.6**
11	45.3	54.6	50.2	51.2	37.1	46.3	42.4	41.1	41.2	50.5	46.3	46.1
13	32.9	40.0	34.8	38.7	30.7	33.3	30.9	34.8	31.8	36.6	32.9	36.7
15	29.3	34.5	33.5	36.5	25.1	28.6	26.5	29.4	27.2	31.5	30.0	32.9
Slovakia	**–**	**33.6**	**38.2**	**39.0**	**–**	**27.9**	**34.8**	**31.7**	**–**	**30.8**	**36.5**	**35.3**
11	–	34.8	46.5	47.1	–	30.4	44.6	39.7	–	32.6	45.5	43.4
13	–	32.9	37.7	36.4	–	31.5	32.9	31.7	–	32.2	35.3	34.1
15	–	33.2	30.5	33.3	–	21.8	26.9	23.6	–	27.5	28.7	28.4
Slovenia	**44.5**	**46.9**	**46.9**	**45.1**	**32.8**	**34.0**	**33.3**	**33.5**	**38.6**	**40.5**	**40.1**	**39.3**
11	51.0	54.9	56.6	52.7	39.4	40.9	42.5	44.0	45.2	47.9	49.6	48.4
13	42.7	46.2	45.8	44.7	32.1	35.4	32.2	32.2	37.4	40.8	39.0	38.4
15	39.7	39.7	38.1	38.0	26.8	25.9	25.1	24.2	33.2	32.8	31.6	31.1
Spain	**37.6**	**34.9**	**40.2**	**37.0**	**35.7**	**30.9**	**36.8**	**33.9**	**36.6**	**32.9**	**38.5**	**35.4**
11	42.2	43.4	46.2	44.8	42.2	38.5	42.5	39.1	42.2	41.0	44.4	42.0
13	35.6	34.6	39.3	34.4	33.5	29.6	36.3	34.0	34.5	32.1	37.8	34.2
15	34.9	26.8	35.1	31.7	31.4	24.4	31.5	28.5	33.1	25.6	33.3	30.1
Sweden	**28.0**	**35.7**	**31.5**	**30.0**	**25.6**	**28.6**	**25.3**	**24.7**	**26.8**	**32.2**	**28.4**	**27.4**
11	36.7	44.3	41.5	39.5	34.7	37.3	31.0	32.8	35.7	40.8	36.2	36.1
13	24.5	29.3	26.6	26.3	20.4	26.4	22.6	22.8	22.5	27.8	24.6	24.5
15	22.7	33.7	26.5	24.2	21.5	22.0	22.2	18.5	22.1	27.8	24.3	21.4
Switzerland	**40.2**	**46.8**	**47.7**	**52.7**	**31.2**	**35.9**	**38.1**	**42.1**	**35.7**	**41.3**	**42.9**	**47.4**
11	44.0	54.4	53.6	56.3	36.1	42.3	46.3	48.8	40.0	48.3	50.0	52.6
13	37.0	43.9	48.1	50.5	31.9	37.3	37.8	43.6	34.5	40.6	43.0	47.0
15	39.7	42.1	41.2	51.2	25.6	28.0	30.3	33.9	32.7	35.0	35.8	42.5
MKD[a]	**46.9**	**47.0**	**47.8**	**44.8**	**40.0**	**37.5**	**39.1**	**34.9**	**43.5**	**42.2**	**43.5**	**39.8**
11	48.3	51.5	51.9	51.0	45.4	41.6	45.4	37.5	46.9	46.6	48.6	44.3
13	43.8	48.8	47.6	42.6	39.4	38.6	42.6	34.5	41.6	43.7	45.1	38.6
15	48.7	40.6	43.9	40.7	35.1	32.2	29.3	32.6	41.9	36.4	36.6	36.6
Ukraine	**25.7**	**30.4**	**38.1**	**52.9**	**23.4**	**27.1**	**30.4**	**41.8**	**24.5**	**28.7**	**34.2**	**47.3**
11	28.6	32.4	43.9	56.2	27.2	30.2	35.9	47.5	27.9	31.3	39.9	51.8
13	27.8	31.0	41.0	57.4	26.6	27.3	31.6	43.8	27.2	29.2	36.3	50.6
15	20.6	27.7	29.2	45.2	16.4	23.7	23.6	34.1	18.5	25.7	26.4	39.6
Wales	**26.1**	**38.2**	**34.4**	**31.9**	**20.0**	**30.8**	**30.2**	**30.2**	**23.1**	**34.5**	**32.3**	**31.1**
11	30.6	41.8	39.1	38.5	22.7	34.0	35.6	34.5	26.7	37.9	37.3	36.5
13	23.8	37.0	34.0	30.5	18.2	29.2	29.8	31.0	21.0	33.1	31.9	30.7
15	23.8	35.9	30.2	26.7	19.1	29.2	25.2	25.3	21.5	32.5	27.7	26.0
Countries below are not included in trends analyses												
Albania	**–**	**–**	**–**	**56.6**	**–**	**–**	**–**	**44.4**	**–**	**–**	**–**	**50.5**
11	–	–	–	57.4	–	–	–	46.4	–	–	–	51.9
13	–	–	–	57.4	–	–	–	47.4	–	–	–	52.4
15	–	–	–	55.2	–	–	–	39.5	–	–	–	47.3
Armenia	**–**	**–**	**51.4**	**62.4**	**–**	**–**	**45.7**	**51.8**	**–**	**–**	**48.5**	**57.1**
11	–	–	49.3	61.3	–	–	44.4	50.6	–	–	46.9	56.0
13	–	–	53.9	61.2	–	–	43.8	52.9	–	–	48.8	57.0
15	–	–	51.0	64.6	–	–	48.8	52.0	–	–	49.9	58.3
Bulgaria	**–**	**37.0**	**–**	**38.2**	**–**	**35.1**	**–**	**35.4**	**–**	**36.1**	**–**	**36.8**
11	–	51.1	–	46.9	–	44.1	–	41.8	–	47.6	–	44.3
13	–	33.4	–	36.6	–	36.5	–	35.5	–	34.9	–	36.1
15	–	26.6	–	31.1	–	24.7	–	29.0	–	25.6	–	30.1
Republic of Moldova	**–**	**–**	**–**	**37.3**	**–**	**–**	**–**	**34.3**	**–**	**–**	**–**	**35.8**
11	–	–	–	43.0	–	–	–	38.3	–	–	–	40.7
13	–	–	–	37.0	–	–	–	32.1	–	–	–	34.5
15	–	–	–	31.8	–	–	–	32.5	–	–	–	32.1
Turkey	**–**	**43.8**	**40.9**	**–**	**–**	**29.8**	**31.5**	**–**	**–**	**36.8**	**36.2**	**–**
11	–	44.8	46.2	–	–	34.5	38.9	–	–	39.6	42.5	–
13	–	44.4	39.7	–	–	29.5	32.3	–	–	37.0	36.0	–
15	–	42.1	36.8	–	–	25.5	23.2	–	–	33.8	30.0	–

[a] The former Yugoslav Republic of Macedonia. *Note:* no data for 2002 were received for Iceland, Luxembourg and Slovakia. No data for 2010 were received for Malta. No trend data were available for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey.

Daily vegetable consumption (%)

Gender	Girls				Boys				Boys and girls			
Survey year	2002	2006	2010	2014	2002	2006	2010	2014	2002	2006	2010	2014
Austria	**17.1**	**18.8**	**28.9**	**33.2**	**15.4**	**13.5**	**18.9**	**26.1**	**16.2**	**16.2**	**23.9**	**29.7**
11	21.6	21.0	33.1	37.1	18.1	16.5	24.7	31.2	19.9	18.7	28.9	34.2
13	15.9	19.0	30.2	32.7	17.6	14.2	20.4	24.9	16.7	16.6	25.3	28.8
15	13.7	16.5	23.4	29.7	10.5	9.8	11.7	22.3	12.1	13.2	17.5	26.0
Belgium (Flemish)	**57.8**	**64.6**	**60.6**	**59.5**	**46.9**	**51.5**	**49.0**	**48.1**	**52.3**	**58.0**	**54.8**	**53.8**
11	55.6	67.8	55.7	61.7	47.4	51.5	50.3	49.6	51.5	59.6	53.0	55.6
13	57.4	61.0	64.8	58.9	47.2	53.2	51.3	45.5	52.3	57.1	58.1	52.2
15	60.4	65.0	61.2	57.9	46.1	49.8	45.5	49.3	53.2	57.4	53.4	53.6
Belgium (French)	**48.5**	**54.5**	**52.4**	**62.0**	**41.5**	**41.9**	**45.5**	**50.4**	**45.0**	**48.2**	**49.0**	**56.2**
11	44.2	54.1	45.0	60.5	40.3	39.6	45.4	49.1	42.3	46.9	45.2	54.8
13	50.7	53.1	53.0	60.3	41.1	44.4	44.8	49.6	45.9	48.7	48.9	55.0
15	50.5	56.3	59.2	65.1	42.9	41.8	46.4	52.5	46.7	49.1	52.8	58.8
Croatia	**25.6**	**29.3**	**25.8**	**30.4**	**25.5**	**24.5**	**22.4**	**27.1**	**25.5**	**26.9**	**24.1**	**28.8**
11	34.3	36.1	31.3	33.6	32.1	28.6	26.9	34.0	33.2	32.3	29.1	33.8
13	22.6	26.9	23.4	29.8	24.6	21.7	21.5	25.8	23.6	24.3	22.4	27.8
15	19.9	24.9	22.7	27.9	19.7	23.3	18.8	21.6	19.8	24.1	20.7	24.7
Czechia	**31.6**	**31.7**	**37.5**	**30.6**	**23.8**	**24.0**	**26.1**	**23.7**	**27.7**	**27.9**	**31.8**	**27.1**
11	35.1	33.7	42.7	33.3	28.4	26.4	29.9	27.4	31.8	30.0	36.3	30.3
13	30.2	32.7	34.2	29.9	22.4	26.1	27.0	23.8	26.3	29.4	30.6	26.9
15	29.6	28.7	35.5	28.8	20.4	19.6	21.3	19.7	25.0	24.1	28.4	24.3
Denmark	**31.5**	**41.0**	**47.6**	**49.5**	**25.5**	**32.4**	**37.0**	**37.9**	**28.5**	**36.7**	**42.3**	**43.7**
11	34.7	43.2	52.4	52.8	30.7	34.8	40.8	42.5	32.7	39.0	46.6	47.7
13	31.5	38.7	41.3	48.0	24.8	32.8	37.5	37.1	28.1	35.7	39.4	42.5
15	28.3	41.1	49.1	47.7	21.0	29.5	32.8	34.2	24.6	35.3	41.0	41.0
England	**31.1**	**45.8**	**43.5**	**45.0**	**26.1**	**38.6**	**35.4**	**39.3**	**28.6**	**42.2**	**39.4**	**42.1**
11	29.4	44.9	45.3	45.7	25.8	38.7	35.0	42.1	27.6	41.8	40.2	43.9
13	31.5	47.2	44.0	45.2	26.7	41.8	37.1	39.8	29.1	44.5	40.5	42.5
15	32.4	45.2	41.1	44.1	25.7	35.4	34.1	36.0	29.0	40.3	37.6	40.0
Estonia	**16.4**	**23.1**	**21.3**	**25.7**	**14.2**	**19.3**	**18.6**	**22.3**	**15.3**	**21.2**	**19.9**	**24.0**
11	20.6	26.7	24.0	29.9	18.4	23.6	19.9	26.4	19.5	25.1	22.0	28.1
13	16.8	23.0	19.2	22.5	14.7	18.9	19.6	20.6	15.7	20.9	19.4	21.5
15	11.9	19.6	20.6	24.9	9.7	15.3	16.2	19.8	10.8	17.5	18.4	22.4
Finland	**27.2**	**30.0**	**30.4**	**33.8**	**16.4**	**20.6**	**19.7**	**20.9**	**21.8**	**25.3**	**25.1**	**27.3**
11	27.4	29.4	30.2	32.9	21.0	25.1	26.2	29.1	24.2	27.2	28.2	31.0
13	25.7	29.6	26.0	32.4	13.7	18.5	18.8	18.4	19.7	24.0	22.4	25.4
15	28.6	31.1	35.1	35.9	14.3	18.3	14.2	15.1	21.5	24.7	24.7	25.5
France	**45.8**	**44.9**	**48.6**	**43.0**	**40.9**	**38.9**	**42.0**	**39.0**	**43.4**	**41.9**	**45.3**	**41.0**
11	51.8	49.8	51.9	49.3	45.8	45.5	46.5	43.8	48.8	47.6	49.2	46.5
13	45.3	44.8	46.6	41.0	41.2	38.6	41.8	36.3	43.3	41.7	44.2	38.7
15	40.5	40.0	47.2	38.6	35.8	32.5	37.8	36.8	38.1	36.3	42.5	37.7
Germany	**37.8**	**29.4**	**31.9**	**30.8**	**26.2**	**18.7**	**19.0**	**19.6**	**32.0**	**24.1**	**25.4**	**25.2**
11	40.2	31.5	32.0	32.5	28.0	20.5	21.4	23.3	34.1	26.0	26.7	27.9
13	37.1	30.0	30.9	28.6	26.3	20.4	18.2	19.1	31.7	25.2	24.6	23.9
15	36.2	26.8	32.7	31.3	24.2	15.2	17.2	16.4	30.2	21.0	25.0	23.8
Greece	**23.4**	**36.0**	**35.6**	**37.7**	**19.5**	**27.6**	**28.8**	**30.3**	**21.4**	**31.8**	**32.2**	**34.0**
11	25.6	41.0	37.3	41.9	21.8	30.3	32.9	31.8	23.7	35.6	35.1	36.9
13	22.2	34.2	36.3	36.3	23.3	28.0	28.0	32.7	22.8	31.1	32.1	34.5
15	22.3	32.7	33.1	34.9	13.3	24.6	25.4	26.2	17.8	28.6	29.2	30.6
Hungary	**16.0**	**23.9**	**27.9**	**32.5**	**13.8**	**18.6**	**23.4**	**28.5**	**14.9**	**21.3**	**25.7**	**30.5**
11	19.0	27.7	33.2	37.4	16.4	20.6	25.6	32.8	17.7	24.2	29.4	35.1
13	15.6	24.6	28.8	31.4	14.1	19.0	24.3	30.6	14.9	21.8	26.5	31.0
15	13.3	19.3	21.7	28.6	10.9	16.3	20.4	22.1	12.1	17.8	21.0	25.4
Iceland	**–**	**29.8**	**30.3**	**33.5**	**–**	**21.8**	**21.5**	**27.4**	**–**	**25.8**	**25.9**	**30.5**
11	–	37.0	35.7	32.6	–	30.6	24.7	31.0	–	33.8	30.2	31.8
13	–	26.4	28.6	28.5	–	19.7	21.2	22.5	–	23.1	24.9	25.5
15	–	26.0	26.5	39.4	–	15.1	18.5	28.7	–	20.5	22.5	34.1
Ireland	**42.2**	**46.1**	**44.8**	**47.4**	**36.2**	**36.6**	**38.4**	**40.8**	**39.2**	**41.4**	**41.6**	**44.1**
11	42.7	46.5	48.4	49.8	35.4	35.5	39.4	44.0	39.0	41.0	43.9	46.9
13	40.0	45.4	43.9	47.3	34.7	38.3	37.4	37.0	37.4	41.9	40.6	42.1
15	43.8	46.4	42.1	45.0	38.7	36.1	38.6	41.5	41.2	41.3	40.3	43.2
Israel	**51.6**	**46.3**	**52.7**	**55.2**	**46.0**	**37.8**	**47.8**	**42.7**	**48.8**	**42.1**	**50.3**	**49.0**
11	53.1	47.1	54.2	55.9	47.2	41.7	52.5	48.5	50.1	44.4	53.4	52.2
13	50.3	46.0	50.9	57.5	46.8	36.0	45.9	41.7	48.6	41.0	48.4	49.6
15	51.4	45.9	53.0	52.3	44.0	35.6	45.0	38.1	47.7	40.7	49.0	45.2
Italy	**25.8**	**29.7**	**26.3**	**31.9**	**17.5**	**23.3**	**20.6**	**21.3**	**21.7**	**26.5**	**23.5**	**26.6**
11	22.7	26.3	26.5	27.7	18.0	22.7	20.2	23.0	20.3	24.5	23.4	25.4
13	25.2	26.5	26.7	31.3	15.6	23.4	22.0	19.6	20.4	24.9	24.4	25.5
15	29.6	36.4	25.7	36.7	18.9	24.0	19.5	21.3	24.3	30.2	22.6	29.0
Latvia	**30.8**	**27.5**	**27.7**	**29.6**	**26.5**	**19.0**	**21.5**	**21.5**	**28.6**	**23.3**	**24.6**	**25.5**
11	35.7	25.5	31.4	31.3	26.9	17.4	26.9	24.7	31.3	21.5	29.2	28.0
13	30.5	28.6	26.8	27.5	27.7	22.3	21.3	19.4	29.1	25.5	24.1	23.4
15	26.1	28.5	24.7	30.0	24.9	17.3	16.4	20.3	25.5	22.9	20.6	25.2
Lithuania	**31.0**	**26.8**	**30.8**	**34.6**	**29.2**	**22.4**	**22.8**	**26.3**	**30.1**	**24.6**	**26.8**	**30.5**
11	34.7	31.0	38.8	37.2	33.5	25.6	27.7	29.6	34.1	28.3	33.2	33.4
13	30.7	25.9	26.0	34.4	31.2	21.9	21.0	23.7	30.9	23.9	23.5	29.1
15	27.7	23.6	27.7	32.1	23.1	19.7	19.5	25.8	25.4	21.7	23.6	28.9
Luxembourg	**–**	**32.9**	**34.9**	**36.3**	**–**	**25.2**	**29.4**	**31.7**	**–**	**29.1**	**32.2**	**34.0**
11	–	36.2	39.9	43.7	–	28.7	35.8	37.8	–	32.4	37.8	40.7
13	–	31.7	32.8	32.7	–	23.1	28.1	28.5	–	27.4	30.4	30.6
15	–	30.9	32.0	32.3	–	23.9	24.4	28.8	–	27.4	28.2	30.6
Malta	**17.9**	**15.7**	**–**	**24.6**	**13.7**	**9.0**	**–**	**36.0**	**15.8**	**12.4**	**–**	**30.3**
11	23.9	18.5	–	18.0	18.4	11.7	–	35.2	21.1	15.1	–	26.6
13	14.5	14.3	–	23.3	10.4	7.1	–	34.8	12.4	10.7	–	29.1
15	15.5	14.3	–	32.4	12.3	8.2	–	38.1	13.9	11.2	–	35.2

Daily vegetable consumption (%) contd

Gender	Girls				Boys				Boys and girls			
Survey year	2002	2006	2010	2014	2002	2006	2010	2014	2002	2006	2010	2014
Netherlands	**43.6**	**46.8**	**46.5**	**51.2**	**37.6**	**36.8**	**38.4**	**42.9**	**40.6**	**41.8**	**42.4**	**47.1**
11	42.9	50.4	51.5	54.7	39.9	38.8	41.4	45.9	41.4	44.6	46.5	50.3
13	43.2	48.0	45.5	50.4	38.8	37.7	39.2	44.9	41.0	42.8	42.4	47.6
15	44.7	42.2	42.4	48.7	34.0	33.9	34.6	37.8	39.3	38.0	38.5	43.3
Norway	**24.7**	**33.4**	**32.8**	**37.5**	**19.3**	**26.9**	**27.3**	**33.5**	**22.0**	**30.2**	**30.0**	**35.5**
11	30.0	39.8	36.9	42.1	21.9	30.8	31.2	39.5	26.0	35.3	34.0	40.8
13	24.3	30.5	28.4	35.1	19.6	27.4	27.1	33.5	22.0	28.9	27.8	34.3
15	19.8	29.7	33.1	35.2	16.6	22.6	23.5	27.5	18.2	26.2	28.3	31.4
Poland	**40.4**	**32.4**	**31.1**	**32.3**	**32.3**	**26.3**	**23.4**	**26.5**	**36.3**	**29.4**	**27.2**	**29.4**
11	46.3	36.4	35.4	38.8	34.4	29.2	26.0	29.2	40.4	32.8	30.7	34.0
13	38.3	32.0	27.7	30.0	32.9	24.9	22.8	24.6	35.6	28.4	25.2	27.3
15	36.6	28.9	30.2	28.2	29.5	24.9	21.3	25.6	33.1	26.9	25.8	26.9
Portugal	**29.5**	**28.5**	**31.0**	**31.5**	**22.6**	**22.8**	**24.4**	**24.4**	**26.0**	**25.6**	**27.7**	**28.0**
11	36.4	32.1	35.5	37.7	27.4	26.1	30.2	26.1	31.9	29.1	32.9	31.9
13	28.7	27.9	29.3	31.5	22.2	22.9	23.9	25.8	25.5	25.4	26.6	28.7
15	23.3	25.5	28.1	25.3	18.2	19.4	19.1	21.4	20.7	22.5	23.6	23.3
Romania	**–**	**30.9**	**37.4**	**36.8**	**–**	**24.9**	**28.1**	**31.9**	**–**	**27.9**	**32.7**	**34.3**
11	–	35.7	43.8	41.6	–	28.8	35.3	37.8	–	32.2	39.5	39.7
13	–	30.8	36.4	38.3	–	25.6	27.6	33.1	–	28.2	32.0	35.7
15	–	26.3	31.9	30.4	–	20.3	21.5	24.9	–	23.3	26.7	27.7
Russian Federation	**38.0**	**30.4**	**31.3**	**36.5**	**33.7**	**28.3**	**31.4**	**33.7**	**35.8**	**29.4**	**31.4**	**35.1**
11	40.1	32.0	35.3	36.3	34.4	27.2	32.7	34.8	37.2	29.6	34.0	35.6
13	37.1	29.3	30.0	39.4	35.9	25.3	33.1	33.0	36.5	27.3	31.6	36.2
15	36.8	30.0	28.6	33.8	30.8	32.4	28.4	33.1	33.8	31.2	28.5	33.4
Scotland	**35.9**	**43.5**	**39.4**	**41.6**	**30.4**	**33.2**	**33.1**	**34.7**	**33.1**	**38.3**	**36.3**	**38.1**
11	39.4	43.2	43.1	44.2	29.0	34.6	35.2	36.8	34.2	38.9	39.1	40.5
13	37.8	45.9	37.9	42.2	32.9	33.4	32.9	35.3	35.3	39.7	35.4	38.8
15	30.4	41.3	37.3	38.3	29.5	31.5	31.2	31.9	29.9	36.4	34.2	35.1
Slovakia	**–**	**25.1**	**29.4**	**29.7**	**–**	**22.3**	**25.3**	**23.7**	**–**	**23.7**	**27.4**	**26.7**
11	–	27.1	34.2	30.5	–	24.8	30.8	27.2	–	26.0	32.5	28.8
13	–	22.5	28.5	29.8	–	22.4	24.8	24.6	–	22.4	26.7	27.2
15	–	25.8	25.5	28.8	–	19.7	20.4	19.4	–	22.7	22.9	24.1
Slovenia	**29.6**	**26.5**	**28.8**	**30.0**	**21.8**	**20.7**	**21.3**	**23.5**	**25.7**	**23.6**	**25.1**	**26.8**
11	30.8	29.9	32.1	33.9	24.6	25.4	26.6	31.9	27.7	27.6	29.4	32.9
13	29.7	25.2	28.3	27.1	20.4	19.1	19.9	19.7	25.1	22.2	24.1	23.4
15	28.3	24.4	26.1	29.0	20.3	17.5	17.4	18.9	24.3	20.9	21.7	24.0
Spain	**11.3**	**23.0**	**24.3**	**25.0**	**10.3**	**16.7**	**18.7**	**20.2**	**10.8**	**19.8**	**21.5**	**22.6**
11	13.4	27.0	25.1	28.3	14.1	18.6	23.4	23.9	13.8	22.8	24.2	26.1
13	10.1	21.1	23.6	24.3	9.4	17.3	18.1	19.8	9.8	19.2	20.8	22.0
15	10.3	20.7	24.2	22.3	7.4	14.2	14.6	16.9	8.9	17.5	19.4	19.6
Sweden	**32.1**	**40.9**	**40.6**	**45.3**	**27.9**	**31.6**	**32.0**	**35.0**	**30.0**	**36.2**	**36.3**	**40.2**
11	35.6	47.4	47.2	49.7	33.1	39.3	35.7	40.1	34.3	43.3	41.5	44.9
13	29.0	34.0	35.9	42.2	22.9	28.7	30.1	32.1	26.0	31.4	33.0	37.1
15	31.7	41.4	38.6	44.0	27.8	26.6	30.3	32.9	29.7	34.0	34.5	38.5
Switzerland	**37.6**	**44.7**	**47.1**	**49.7**	**30.4**	**34.9**	**37.9**	**40.7**	**34.0**	**39.8**	**42.5**	**45.2**
11	39.9	43.3	50.1	49.8	32.8	34.5	42.3	44.7	36.4	38.9	46.2	47.3
13	35.9	45.2	45.7	47.0	31.2	37.7	37.9	39.9	33.5	41.4	41.8	43.5
15	36.8	45.6	45.5	52.3	27.1	32.5	33.6	37.4	32.0	39.1	39.5	44.8
MKD[a]	**35.7**	**41.2**	**41.3**	**46.7**	**30.2**	**31.5**	**31.8**	**35.4**	**32.9**	**36.4**	**36.6**	**41.1**
11	37.0	42.3	44.1	49.9	35.6	35.0	38.4	36.0	36.3	38.6	41.2	42.9
13	35.4	42.5	41.4	47.4	26.9	31.0	29.7	39.2	31.1	36.8	35.6	43.3
15	34.8	38.7	38.5	42.9	28.1	28.6	27.3	30.9	31.4	33.7	32.9	36.9
Ukraine	**48.7**	**49.6**	**49.8**	**58.3**	**43.7**	**42.8**	**41.3**	**48.3**	**46.2**	**46.2**	**45.6**	**53.3**
11	51.5	51.4	54.8	61.4	48.0	45.1	46.5	51.8	49.8	48.2	50.7	56.6
13	49.8	49.3	50.2	59.0	42.7	44.0	40.4	49.0	46.2	46.6	45.3	54.0
15	44.8	48.2	44.3	54.4	40.3	39.3	37.1	44.1	42.5	43.8	40.7	49.3
Wales	**23.1**	**33.3**	**34.2**	**32.3**	**19.5**	**29.0**	**29.9**	**30.2**	**21.3**	**31.2**	**32.0**	**31.2**
11	21.7	33.3	33.3	34.0	18.7	27.2	29.3	29.6	20.2	30.3	31.3	31.8
13	21.2	31.9	35.6	34.8	18.2	28.3	30.3	33.1	19.7	30.1	33.0	33.9
15	26.3	34.8	33.6	28.0	21.5	31.5	30.0	27.7	23.9	33.1	31.8	27.8
Countries below are not included in trends analyses												
Albania	**–**	**–**	**–**	**41.4**	**–**	**–**	**–**	**34.9**	**–**	**–**	**–**	**38.1**
11	–	–	–	42.3	–	–	–	36.7	–	–	–	39.5
13	–	–	–	41.0	–	–	–	35.7	–	–	–	38.4
15	–	–	–	40.9	–	–	–	32.2	–	–	–	36.6
Armenia	**–**	**–**	**33.9**	**37.1**	**–**	**–**	**28.9**	**29.0**	**–**	**–**	**31.4**	**33.0**
11	–	–	31.4	36.2	–	–	27.0	29.0	–	–	29.2	32.6
13	–	–	33.4	36.7	–	–	26.3	28.5	–	–	29.9	32.6
15	–	–	36.9	38.3	–	–	33.3	29.4	–	–	35.1	33.8
Bulgaria	**–**	**38.5**	**–**	**46.3**	**–**	**33.3**	**–**	**36.4**	**–**	**35.9**	**–**	**41.4**
11	–	47.3	–	52.2	–	38.0	–	40.6	–	42.6	–	46.4
13	–	36.6	–	43.5	–	36.5	–	36.4	–	36.5	–	40.0
15	–	31.7	–	43.2	–	25.3	–	32.3	–	28.5	–	37.7
Republic of Moldova	**–**	**–**	**–**	**42.1**	**–**	**–**	**–**	**37.4**	**–**	**–**	**–**	**39.7**
11	–	–	–	45.6	–	–	–	39.2	–	–	–	42.4
13	–	–	–	40.3	–	–	–	35.7	–	–	–	38.0
15	–	–	–	40.4	–	–	–	37.2	–	–	–	38.8
Turkey	**–**	**29.4**	**34.3**	**–**	**–**	**23.1**	**24.6**	**–**	**–**	**26.2**	**29.5**	**–**
11	–	31.8	36.2	–	–	26.0	26.1	–	–	28.9	31.1	–
13	–	31.8	35.9	–	–	23.8	27.2	–	–	27.8	31.5	–
15	–	24.6	30.8	–	–	19.3	20.7	–	–	22.0	25.7	–

[a] The former Yugoslav Republic of Macedonia. *Note:* no data for 2002 were received for Iceland, Luxembourg and Slovakia. No data for 2010 were received for Malta. No trend data were available for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey.

Daily sweets consumption (%)

Gender	Girls				Boys				Boys and girls			
Survey year	2002	2006	2010	2014	2002	2006	2010	2014	2002	2006	2010	2014
Austria	**22.7**	**24.6**	**30.4**	**31.3**	**20.1**	**22.5**	**25.8**	**28.1**	**21.4**	**23.6**	**28.1**	**29.7**
11	22.3	21.6	28.3	28.5	21.1	18.6	24.7	27.5	21.7	20.1	26.5	28.0
13	25.3	27.0	33.9	35.7	18.9	26.2	27.6	28.3	22.1	26.6	30.7	32.0
15	20.4	25.1	28.9	29.7	20.3	22.8	25.1	28.4	20.4	24.0	27.0	29.1
Belgium (Flemish)	**25.4**	**31.1**	**27.6**	**21.8**	**32.2**	**32.4**	**27.3**	**22.4**	**28.8**	**31.8**	**27.4**	**22.1**
11	24.9	26.8	24.1	22.1	30.8	27.6	24.7	20.6	27.9	27.2	24.4	21.3
13	24.3	30.7	27.1	21.2	32.8	30.1	27.1	21.6	28.6	30.4	27.1	21.4
15	27.0	35.9	31.4	22.0	33.0	39.4	30.2	25.1	30.0	37.7	30.8	23.6
Belgium (French)	**42.8**	**33.7**	**34.7**	**43.3**	**42.9**	**30.8**	**30.7**	**37.5**	**42.8**	**32.3**	**32.7**	**40.4**
11	41.6	28.4	29.7	40.9	41.7	27.5	29.0	33.6	41.7	27.9	29.4	37.3
13	42.1	34.2	34.8	43.5	38.9	32.7	29.5	37.1	40.5	33.4	32.1	40.3
15	44.7	38.6	39.5	45.5	48.1	32.2	33.7	41.8	46.4	35.4	36.6	43.7
Croatia	**35.6**	**38.4**	**37.5**	**33.5**	**32.6**	**34.5**	**32.6**	**27.9**	**34.1**	**36.5**	**35.0**	**30.7**
11	32.8	32.5	31.0	27.4	33.3	33.4	31.7	25.8	33.0	32.9	31.3	26.6
13	39.1	42.1	39.4	35.5	35.5	36.9	35.6	31.7	37.3	39.5	37.5	33.6
15	35.0	40.6	42.0	37.6	28.9	33.2	30.5	26.3	31.9	36.9	36.3	32.0
Czechia	**24.9**	**30.1**	**28.2**	**21.1**	**25.6**	**30.2**	**26.7**	**20.8**	**25.2**	**30.2**	**27.5**	**20.9**
11	27.2	24.9	21.7	18.8	22.0	31.1	22.5	21.5	24.6	28.0	22.1	20.2
13	23.4	33.3	32.8	23.3	27.8	28.8	27.6	21.6	25.6	31.1	30.2	22.5
15	23.9	32.1	30.1	21.0	27.1	30.9	29.9	19.1	25.5	31.5	30.0	20.1
Denmark	**11.3**	**10.1**	**7.2**	**6.7**	**11.7**	**12.0**	**7.8**	**6.5**	**11.5**	**11.1**	**7.5**	**6.6**
11	8.7	6.9	4.6	4.6	11.6	8.7	4.9	4.4	10.1	7.8	4.7	4.5
13	14.0	10.2	8.4	8.7	11.9	12.4	7.3	6.8	13.0	11.3	7.8	7.7
15	11.0	13.3	8.7	6.8	11.6	14.9	11.4	8.4	11.3	14.1	10.0	7.6
England	**31.4**	**23.2**	**23.2**	**24.0**	**31.6**	**25.4**	**25.9**	**22.3**	**31.5**	**24.3**	**24.6**	**23.1**
11	30.5	19.8	21.5	19.5	29.7	23.0	24.7	20.5	30.1	21.4	23.1	20.0
13	31.3	23.3	23.6	28.6	32.2	25.7	30.1	22.0	31.7	24.5	26.8	25.3
15	32.5	26.6	24.5	23.8	32.9	27.5	22.9	24.2	32.7	27.0	23.7	24.0
Estonia	**30.0**	**33.0**	**26.2**	**27.0**	**26.4**	**29.2**	**21.8**	**21.3**	**28.2**	**31.1**	**24.0**	**24.2**
11	29.4	28.6	24.3	29.0	26.9	30.0	20.1	20.8	28.1	29.3	22.2	24.9
13	34.1	37.1	28.7	27.7	31.3	31.2	25.8	23.1	32.7	34.2	27.3	25.4
15	26.5	33.2	25.6	24.4	21.0	26.5	19.7	20.1	23.8	29.8	22.7	22.3
Finland	**8.7**	**5.3**	**3.1**	**2.3**	**9.1**	**5.1**	**3.7**	**2.8**	**8.9**	**5.2**	**3.4**	**2.6**
11	6.9	4.6	1.6	1.3	7.0	3.1	2.4	2.0	6.9	3.8	2.0	1.6
13	10.2	6.1	3.9	3.2	11.2	5.0	4.8	3.2	10.7	5.6	4.3	3.2
15	9.0	5.2	3.9	2.6	9.2	7.1	4.0	3.4	9.1	6.1	3.9	3.0
France	**26.7**	**26.9**	**24.7**	**25.0**	**30.2**	**27.6**	**24.1**	**22.5**	**28.5**	**27.3**	**24.4**	**23.7**
11	25.4	19.5	18.2	18.7	26.5	23.1	21.3	20.7	26.0	21.3	19.8	19.7
13	28.8	30.1	29.1	27.2	32.0	28.7	24.9	23.1	30.4	29.4	27.0	25.2
15	26.0	31.2	26.7	29.1	32.1	30.9	26.3	23.6	29.0	31.1	26.5	26.4
Germany	**28.4**	**27.1**	**29.7**	**28.7**	**26.6**	**25.8**	**23.1**	**25.6**	**27.5**	**26.4**	**26.4**	**27.1**
11	25.6	22.5	26.6	30.3	25.5	21.5	20.5	28.2	25.5	22.0	23.5	29.2
13	28.6	28.2	29.8	29.1	25.9	27.7	26.1	24.2	27.3	28.0	27.9	26.7
15	30.9	30.5	32.7	26.7	28.6	28.1	22.7	24.3	29.7	29.3	27.7	25.5
Greece	**15.4**	**22.8**	**16.2**	**16.3**	**15.5**	**18.5**	**14.5**	**14.0**	**15.5**	**20.6**	**15.3**	**15.2**
11	9.6	15.5	9.2	9.8	12.2	13.5	10.8	10.0	10.9	14.5	10.0	9.9
13	18.1	27.0	16.9	18.7	17.4	19.4	16.1	16.5	17.7	23.2	16.5	17.6
15	18.6	25.9	22.6	20.4	17.0	22.7	16.5	15.6	17.8	24.3	19.6	18.0
Hungary	**36.1**	**33.9**	**32.8**	**35.0**	**31.2**	**31.8**	**30.3**	**30.7**	**33.7**	**32.9**	**31.6**	**32.9**
11	34.2	29.9	31.5	31.3	31.6	31.8	27.7	30.4	32.9	30.8	29.6	30.8
13	39.7	36.9	35.0	40.2	33.5	32.3	32.9	32.1	36.6	34.6	34.0	36.1
15	34.3	35.1	32.0	33.5	28.6	31.3	30.4	29.6	31.5	33.2	31.2	31.6
Iceland	**–**	**5.5**	**3.4**	**2.3**	**–**	**7.0**	**4.9**	**2.8**	**–**	**6.2**	**4.2**	**2.5**
11	–	2.8	2.9	2.1	–	4.5	4.0	2.5	–	3.6	3.4	2.3
13	–	6.1	3.2	2.2	–	6.8	4.9	2.5	–	6.4	4.0	2.4
15	–	7.5	4.3	2.4	–	9.9	5.9	3.3	–	8.7	5.1	2.9
Ireland	**49.4**	**37.5**	**34.9**	**27.0**	**48.1**	**32.8**	**31.4**	**22.6**	**48.7**	**35.2**	**33.2**	**24.8**
11	42.3	31.4	30.8	21.2	44.4	27.2	24.7	18.2	43.4	29.3	27.8	19.7
13	49.6	40.3	35.0	27.9	47.8	32.6	30.6	23.0	48.7	36.5	32.8	25.4
15	56.3	40.9	38.9	31.8	52.0	38.6	39.0	26.7	54.2	39.7	39.0	29.2
Israel	**41.8**	**37.5**	**42.8**	**37.4**	**39.6**	**31.8**	**39.1**	**28.6**	**40.7**	**34.7**	**40.9**	**33.0**
11	43.5	39.5	44.9	34.5	41.7	34.6	40.9	31.2	42.6	37.0	42.9	32.9
13	40.2	38.1	43.2	42.5	37.1	32.6	39.2	27.5	38.6	35.3	41.2	35.0
15	41.8	34.9	40.2	35.3	40.0	28.3	37.0	27.0	40.9	31.6	38.6	31.1
Italy	**38.5**	**37.0**	**32.5**	**28.1**	**37.8**	**35.5**	**29.2**	**28.7**	**38.2**	**36.2**	**30.8**	**28.4**
11	37.5	38.0	29.6	27.4	36.8	35.0	28.4	27.2	37.2	36.5	29.0	27.3
13	37.4	39.9	34.9	30.6	36.5	37.6	28.9	30.6	36.9	38.7	31.9	30.6
15	40.6	33.0	32.9	26.4	40.2	33.8	30.1	28.4	40.4	33.4	31.5	27.4
Latvia	**29.2**	**45.3**	**37.5**	**33.4**	**25.9**	**33.7**	**28.8**	**22.2**	**27.5**	**39.5**	**33.2**	**27.8**
11	26.2	41.0	30.7	27.3	25.7	31.0	24.6	19.6	25.9	36.0	27.6	23.5
13	30.5	49.7	42.4	36.4	27.8	38.7	30.9	22.7	29.2	44.2	36.7	29.5
15	30.8	45.3	39.5	36.5	24.3	31.5	30.8	24.2	27.5	38.4	35.2	30.3
Lithuania	**20.7**	**29.8**	**23.6**	**22.7**	**17.2**	**22.1**	**18.7**	**20.6**	**18.9**	**26.0**	**21.2**	**21.6**
11	19.1	23.7	19.3	23.2	19.5	22.8	18.6	21.9	19.3	23.2	19.0	22.6
13	24.7	33.9	27.6	24.0	19.2	24.4	17.9	21.6	21.9	29.2	22.7	22.8
15	18.2	32.0	24.0	20.8	13.0	19.1	19.7	18.3	15.6	25.6	21.8	19.6
Luxembourg	**–**	**30.7**	**24.3**	**24.6**	**–**	**24.8**	**24.3**	**24.5**	**–**	**27.8**	**24.3**	**24.6**
11	–	24.3	20.8	23.8	–	19.2	23.7	27.3	–	21.8	22.3	25.5
13	–	33.3	25.7	24.4	–	23.5	23.9	23.5	–	28.4	24.8	23.9
15	–	34.6	26.2	25.7	–	31.7	25.3	22.7	–	33.2	25.8	24.2
Malta	**54.8**	**51.0**	**–**	**25.0**	**52.7**	**50.6**	**–**	**19.6**	**54.0**	**50.8**	**–**	**22.3**
11	56.0	46.0	–	24.8	46.9	47.6	–	25.2	51.5	46.8	–	25.0
13	55.7	49.8	–	23.8	58.5	51.4	–	18.6	57.1	50.6	–	21.2
15	52.7	57.1	–	26.3		53.0	–	15.1	52.7	55.1	–	20.7

Daily sweets consumption (%) contd

Gender	Girls				Boys				Boys and girls			
Survey year	2002	2006	2010	2014	2002	2006	2010	2014	2002	2006	2010	2014
Netherlands	**41.3**	**36.7**	**30.9**	**31.3**	**44.7**	**36.0**	**35.2**	**29.8**	**43.0**	**36.4**	**33.1**	**30.5**
11	47.9	39.1	29.4	31.8	49.1	33.1	32.1	29.9	48.5	36.1	30.7	30.8
13	40.3	36.3	32.7	30.9	42.9	38.0	37.7	31.9	41.6	37.2	35.2	31.4
15	35.6	34.8	30.7	31.3	42.2	37.0	35.8	27.5	38.9	35.9	33.3	29.4
Norway	**15.3**	**9.5**	**6.6**	**4.0**	**16.2**	**8.8**	**7.2**	**6.4**	**15.8**	**9.1**	**6.9**	**5.2**
11	11.6	5.7	5.8	2.3	11.0	4.3	5.4	4.2	11.3	5.0	5.6	3.2
13	16.4	9.6	6.0	5.1	17.8	9.2	6.3	6.0	17.1	9.4	6.2	5.5
15	17.9	13.2	8.0	4.7	19.9	12.9	9.9	9.0	18.9	13.0	9.0	6.9
Poland	**37.0**	**33.5**	**32.4**	**30.2**	**35.8**	**31.3**	**29.0**	**25.6**	**36.4**	**32.4**	**30.7**	**27.9**
11	36.1	30.8	27.3	25.9	37.3	29.3	26.2	23.3	36.7	30.1	26.8	24.6
13	39.7	36.4	33.5	33.7	36.8	31.5	31.4	28.3	38.3	34.0	32.4	31.0
15	35.1	33.2	36.3	30.9	33.3	33.0	29.3	25.3	34.2	33.1	32.8	28.1
Portugal	**21.4**	**22.6**	**16.4**	**15.0**	**24.0**	**22.2**	**17.6**	**15.2**	**22.7**	**22.4**	**17.0**	**15.1**
11	20.0	19.1	12.9	10.1	21.1	26.3	16.4	13.5	20.6	22.7	14.6	11.8
13	22.2	26.6	19.2	15.6	27.8	20.4	19.0	15.5	25.0	23.5	19.1	15.6
15	21.9	22.2	17.0	19.4	23.0	20.1	17.4	16.6	22.4	21.1	17.2	18.0
Romania	**–**	**49.0**	**41.8**	**41.9**	**–**	**43.8**	**37.5**	**35.5**	**–**	**46.4**	**39.6**	**38.7**
11	–	46.0	37.4	35.1	–	43.2	36.2	32.0	–	44.6	36.8	33.6
13	–	48.8	46.0	48.6	–	48.9	41.0	38.0	–	48.8	43.5	43.3
15	–	52.3	41.9	42.0	–	39.5	35.2	36.5	–	45.9	38.6	39.3
Russian Federation	**26.6**	**35.7**	**37.0**	**35.9**	**23.1**	**28.7**	**28.1**	**26.5**	**24.9**	**32.2**	**32.5**	**31.2**
11	26.6	35.0	37.9	34.9	24.9	28.0	29.2	25.8	25.7	31.5	33.6	30.3
13	28.7	37.1	36.8	36.0	26.4	27.8	30.0	30.3	27.6	32.5	33.4	33.1
15	24.7	34.9	36.2	36.9	18.1	30.3	25.0	23.5	21.4	32.6	30.6	30.2
Scotland	**43.0**	**33.9**	**29.4**	**36.3**	**46.8**	**34.2**	**29.5**	**33.3**	**44.9**	**34.1**	**29.4**	**34.8**
11	41.6	30.5	30.6	38.7	45.8	29.5	27.8	32.9	43.7	30.0	29.2	35.8
13	48.5	34.2	28.9	34.7	48.9	36.0	30.2	33.2	48.7	35.1	29.5	33.9
15	38.8	37.0	28.8	35.5	45.7	37.0	30.4	33.8	42.3	37.0	29.6	34.6
Slovakia	**–**	**45.3**	**43.5**	**38.3**	**–**	**43.4**	**40.8**	**32.3**	**–**	**44.3**	**42.1**	**35.3**
11	–	46.3	38.3	35.7	–	40.9	41.1	32.9	–	43.6	39.7	34.3
13	–	44.9	46.9	39.8	–	48.0	39.6	33.6	–	46.4	43.2	36.7
15	–	44.7	45.2	39.3	–	41.2	41.8	30.3	–	43.0	43.5	34.8
Slovenia	**27.1**	**27.8**	**27.8**	**17.2**	**25.7**	**23.1**	**22.2**	**14.3**	**26.4**	**25.5**	**25.0**	**15.8**
11	25.4	24.5	24.8	13.9	26.0	23.3	20.6	13.7	25.7	23.9	22.7	13.8
13	28.6	28.9	27.9	19.5	25.1	24.6	23.6	15.2	26.8	26.8	25.8	17.3
15	27.3	30.0	30.8	18.3	26.1	21.6	22.5	14.1	26.7	25.8	26.7	16.2
Spain	**23.2**	**18.2**	**15.5**	**13.3**	**23.4**	**15.3**	**14.0**	**11.3**	**23.3**	**16.8**	**14.8**	**12.3**
11	21.9	13.8	11.2	10.3	24.4	13.1	11.6	8.3	23.1	13.4	11.4	9.3
13	22.5	19.8	17.1	14.6	24.6	16.2	14.4	12.5	23.5	18.0	15.7	13.6
15	25.3	21.1	18.2	14.9	21.2	16.7	16.0	13.1	23.3	18.9	17.1	14.0
Sweden	**12.1**	**6.1**	**4.7**	**3.3**	**14.9**	**7.2**	**6.5**	**4.1**	**13.5**	**6.6**	**5.6**	**3.7**
11	6.1	2.9	1.2	1.5	12.2	3.2	3.3	2.6	9.1	3.0	2.2	2.1
13	16.4	6.1	5.0	3.9	16.1	8.3	6.2	4.8	16.2	7.2	5.6	4.4
15	14.0	9.2	7.9	4.4	16.5	9.9	10.0	5.0	15.2	9.6	9.0	4.7
Switzerland	**26.9**	**26.8**	**31.7**	**30.6**	**27.5**	**26.4**	**28.9**	**27.1**	**27.2**	**26.6**	**30.3**	**28.8**
11	22.3	21.7	28.1	27.6	26.4	22.0	24.7	25.1	24.4	21.9	26.4	26.4
13	26.7	27.4	32.9	31.6	28.3	25.5	30.1	28.6	27.5	26.4	31.5	30.1
15	31.7	31.2	34.0	32.6	27.7	31.7	32.1	27.5	29.7	31.5	33.0	30.0
MKD[a]	**44.2**	**49.2**	**42.6**	**38.3**	**40.0**	**41.9**	**35.4**	**32.3**	**42.1**	**45.6**	**39.0**	**35.3**
11	36.5	41.6	30.1	25.4	37.3	39.4	29.8	24.7	36.9	40.5	29.9	25.1
13	43.8	50.5	42.1	41.6	40.8	43.6	36.9	32.0	42.3	47.1	39.5	36.8
15	52.2	55.5	55.5	48.0	41.8	42.8	39.4	40.4	47.0	49.2	47.5	44.2
Ukraine	**38.0**	**45.8**	**39.0**	**42.8**	**32.7**	**39.7**	**28.8**	**35.5**	**35.3**	**42.8**	**33.9**	**39.2**
11	37.0	45.3	36.4	38.6	32.6	40.8	29.3	35.8	34.8	43.0	32.9	37.2
13	41.3	45.9	39.9	44.9	33.3	41.2	31.2	36.5	37.3	43.5	35.6	40.7
15	35.6	46.3	40.6	45.0	32.3	37.1	25.8	34.3	33.9	41.7	33.2	39.6
Wales	**27.4**	**27.1**	**23.2**	**24.4**	**26.3**	**26.9**	**24.8**	**22.6**	**26.8**	**27.0**	**24.0**	**23.5**
11	24.5	26.7	22.4	22.5	23.5	24.7	21.9	20.5	24.0	25.7	22.1	21.5
13	28.3	27.5	24.1	28.3	26.8	30.6	25.9	24.2	27.6	29.1	25.0	26.3
15	29.3	27.0	23.1	22.4	28.6	25.4	26.7	22.9	29.0	26.2	24.9	22.7
Countries below are not included in trends analyses												
Albania	**–**	**–**	**–**	**37.1**	**–**	**–**	**–**	**34.5**	**–**	**–**	**–**	**35.8**
11	–	–	–	31.2	–	–	–	29.9	–	–	–	30.6
13	–	–	–	37.7	–	–	–	37.5	–	–	–	37.6
15	–	–	–	42.5	–	–	–	36.0	–	–	–	39.3
Armenia	**–**	**–**	**60.3**	**56.3**	**–**	**–**	**54.0**	**49.5**	**–**	**–**	**57.1**	**52.9**
11	–	–	49.6	47.6	–	–	52.3	47.0	–	–	51.0	47.3
13	–	–	63.0	58.2	–	–	51.1	49.7	–	–	57.0	54.0
15	–	–	68.2	63.3	–	–	58.7	51.7	–	–	63.4	57.5
Bulgaria	**–**	**65.0**	**–**	**46.9**	**–**	**57.2**	**–**	**41.3**	**–**	**61.1**	**–**	**44.1**
11	–	64.4	–	42.7	–	56.6	–	44.5	–	60.5	–	43.6
13	–	66.8	–	50.5	–	61.6	–	42.1	–	64.2	–	46.3
15	–	63.8	–	47.5	–	53.5	–	37.3	–	58.7	–	42.4
Republic of Moldova	**–**			**32.9**	**–**	**–**	**–**	**27.6**	**–**	**–**	**–**	**30.2**
11	–			30.5	–	–	–	26.5	–	–	–	28.5
13	–			33.2	–	–	–	26.1	–	–	–	29.6
15	–			35.1	–	–	–	30.2	–	–	–	32.6
Turkey	**–**	**32.1**	**24.4**	**–**	**–**	**23.1**	**19.4**	**–**	**–**	**27.6**	**21.9**	**–**
11	–	25.1	16.3	–	–	22.5	18.3	–	–	23.8	17.3	–
13	–	34.6	28.2	–	–	24.3	20.0	–	–	29.4	24.1	–
15	–	36.7	28.7	–	–	22.3	20.0	–	–	29.5	24.3	–

[a] The former Yugoslav Republic of Macedonia. *Note:* no data for 2002 were received for Iceland, Luxembourg, Romania and Slovakia. No data for 2010 were received for Malta. No trend data were available for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey.

Daily soft-drinks consumption (%)

Gender	Girls				Boys				Boys and girls			
Survey year	2002	2006	2010	2014	2002	2006	2010	2014	2002	2006	2010	2014
Austria	**17.3**	**17.5**	**17.3**	**12.3**	**24.5**	**24.3**	**25.1**	**19.5**	**20.9**	**20.9**	**21.2**	**15.9**
11	12.7	10.6	12.3	10.4	18.2	17.3	19.5	14.0	15.5	14.0	15.9	12.2
13	17.5	20.3	18.4	11.0	22.8	25.9	24.4	20.7	20.2	23.1	21.4	15.9
15	21.8	21.6	21.2	15.5	32.3	29.8	31.4	23.9	27.1	25.7	26.3	19.7
Belgium (Flemish)	**31.9**	**35.2**	**28.6**	**24.9**	**47.7**	**44.8**	**37.0**	**32.5**	**39.8**	**40.0**	**32.8**	**28.7**
11	27.1	32.4	21.9	20.5	38.0	37.0	29.0	25.6	32.5	34.7	25.5	23.0
13	32.4	36.3	30.3	26.2	49.8	46.0	35.9	34.9	41.1	41.1	33.1	30.5
15	36.2	36.8	33.6	28.0	55.2	51.5	46.2	37.0	45.7	44.2	39.9	32.5
Belgium (French)	**33.4**	**26.7**	**27.1**	**33.9**	**42.5**	**34.9**	**29.9**	**38.7**	**38.0**	**30.8**	**28.5**	**36.3**
11	32.0	24.0	26.1	30.9	37.8	27.5	24.5	35.0	34.9	25.8	25.3	32.9
13	35.6	27.4	27.2	36.5	40.0	35.8	29.6	40.3	37.8	31.6	28.4	38.4
15	32.6	28.6	28.0	34.3	49.8	41.2	35.7	40.9	41.2	34.9	31.9	37.6
Croatia	**31.2**	**27.9**	**22.1**	**21.6**	**33.5**	**34.7**	**29.7**	**25.0**	**32.4**	**31.3**	**25.9**	**23.3**
11	31.0	24.8	19.3	17.4	32.9	31.8	26.9	21.4	31.9	28.3	23.1	19.4
13	30.4	26.1	22.1	23.3	33.9	37.0	30.2	27.8	32.1	31.6	26.2	25.5
15	32.4	32.8	25.0	24.2	33.7	35.3	31.9	26.0	33.0	34.1	28.4	25.1
Czechia	**26.4**	**27.1**	**19.9**	**13.5**	**31.0**	**34.0**	**24.6**	**16.7**	**28.7**	**30.6**	**22.2**	**15.1**
11	23.3	25.7	15.9	12.8	27.1	34.6	18.8	15.9	25.2	30.2	17.4	14.3
13	28.8	31.2	23.4	14.1	31.3	33.7	27.0	17.5	30.0	32.5	25.2	15.8
15	27.2	24.5	20.3	13.7	34.7	33.7	27.9	16.8	30.9	29.1	24.1	15.2
Denmark	**6.8**	**6.4**	**5.6**	**4.6**	**13.1**	**12.4**	**9.5**	**7.1**	**9.9**	**9.4**	**7.5**	**5.9**
11	5.6	4.6	4.2	3.8	8.9	5.6	4.6	5.4	7.2	5.1	4.4	4.6
13	8.2	5.3	6.2	5.0	14.5	13.1	8.1	8.1	11.3	9.2	7.1	6.5
15	6.5	9.4	6.4	5.2	15.9	18.6	15.8	7.7	11.2	14.0	11.1	6.4
England	**36.4**	**18.9**	**36.4**	**12.3**	**40.5**	**24.7**	**41.4**	**15.1**	**38.4**	**21.8**	**38.9**	**13.7**
11	37.5	17.8	31.6	8.9	36.0	20.2	38.2	11.5	36.8	19.0	34.9	10.2
13	35.4	18.2	39.1	15.2	40.1	25.6	42.7	15.7	37.7	21.9	40.9	15.4
15	36.2	20.6	38.5	12.8	45.4	28.4	43.3	18.0	40.8	24.5	40.9	15.4
Estonia	**6.9**	**6.9**	**4.6**	**4.6**	**12.6**	**13.0**	**8.2**	**8.5**	**9.8**	**9.9**	**6.4**	**6.5**
11	7.8	7.0	6.0	5.8	13.1	12.5	9.3	9.5	10.4	9.8	7.7	7.6
13	6.9	8.3	4.9	4.9	14.7	14.9	8.5	8.6	10.8	11.6	6.7	6.8
15	6.0	5.5	2.8	3.0	10.0	11.4	6.8	7.4	8.0	8.5	4.8	5.2
Finland	**5.2**	**3.5**	**2.5**	**1.3**	**10.0**	**7.0**	**6.2**	**4.1**	**7.6**	**5.3**	**4.4**	**2.7**
11	4.6	2.4	2.1	1.1	7.3	4.8	5.0	3.1	5.9	3.6	3.6	2.1
13	5.9	4.5	2.2	1.5	11.2	7.5	6.9	3.8	8.6	6.0	4.5	2.7
15	5.1	3.6	3.3	1.2	11.5	8.8	6.8	5.3	8.3	6.2	5.1	3.3
France	**25.5**	**22.8**	**23.3**	**24.0**	**32.4**	**30.6**	**30.1**	**30.2**	**29.0**	**26.7**	**26.7**	**27.1**
11	24.9	18.5	17.0	17.5	30.4	25.7	24.1	25.0	27.6	22.1	20.6	21.3
13	26.8	24.8	26.6	26.9	32.7	31.5	32.3	30.9	29.8	28.1	29.4	28.9
15	25.0	25.0	26.3	27.6	34.1	34.7	33.7	34.6	29.5	29.8	30.0	31.1
Germany	**25.4**	**16.1**	**16.8**	**16.0**	**34.9**	**21.9**	**23.8**	**23.7**	**30.1**	**19.0**	**20.3**	**19.8**
11	22.6	9.8	12.9	13.6	30.7	16.5	17.2	19.1	26.6	13.2	15.1	16.4
13	27.4	18.6	18.2	18.5	36.3	23.0	26.6	25.6	31.8	20.8	22.4	22.0
15	26.1	19.9	19.3	15.9	37.7	26.1	27.7	26.3	31.9	23.0	23.5	21.1
Greece	**13.7**	**11.5**	**6.8**	**3.3**	**23.1**	**18.9**	**12.7**	**6.2**	**18.4**	**15.2**	**9.7**	**4.8**
11	11.5	10.7	3.7	2.2	18.4	11.6	7.7	3.0	14.9	11.1	5.7	2.6
13	15.8	11.6	7.2	3.4	26.3	20.9	13.5	7.2	21.1	16.2	10.3	5.3
15	13.8	12.3	9.5	4.3	24.6	24.2	16.8	8.5	19.2	18.3	13.2	6.4
Hungary	**31.7**	**28.9**	**25.8**	**28.9**	**33.3**	**33.6**	**31.5**	**31.1**	**32.5**	**31.2**	**28.7**	**30.0**
11	28.4	24.1	23.2	22.7	33.1	30.4	24.3	28.9	30.8	27.2	23.8	25.8
13	33.2	30.7	26.6	31.7	32.6	32.6	34.4	34.2	32.9	31.7	30.5	33.0
15	33.5	31.9	27.7	32.1	34.3	37.7	35.7	30.4	33.9	34.8	31.7	31.2
Iceland	**–**	**9.4**	**5.4**	**3.4**	**–**	**13.9**	**11.4**	**5.8**	**–**	**11.6**	**8.4**	**4.6**
11	–	5.6	4.4	3.5	–	9.4	6.5	4.5	–	7.5	5.5	4.0
13	–	10.1	5.7	3.3	–	13.7	12.2	5.3	–	11.9	8.9	4.3
15	–	12.5	6.2	3.5	–	18.6	15.5	7.5	–	15.6	10.8	5.5
Ireland	**34.4**	**21.4**	**17.1**	**11.1**	**40.3**	**25.4**	**22.6**	**11.1**	**37.3**	**23.4**	**19.8**	**11.1**
11	27.9	16.9	15.4	9.7	31.5	18.5	14.8	5.4	29.7	17.7	15.1	7.6
13	34.1	23.4	16.9	10.6	40.8	26.0	23.9	13.6	37.5	24.7	20.4	12.1
15	41.0	23.8	19.0	13.1	48.7	31.8	29.0	14.5	44.9	27.8	24.0	13.8
Israel	**51.2**	**40.5**	**36.3**	**32.7**	**56.6**	**42.8**	**40.0**	**28.3**	**53.9**	**41.6**	**38.1**	**30.5**
11	49.9	41.5	36.3	32.4	55.4	40.7	41.5	27.9	52.7	41.1	38.9	30.1
13	49.4	38.7	36.3	34.3	55.5	42.8	42.0	23.8	52.5	40.8	39.2	29.0
15	54.3	41.4	36.3	31.3	58.8	44.7	36.3	33.1	56.6	43.1	36.3	32.2
Italy	**20.4**	**23.1**	**16.5**	**13.6**	**28.5**	**33.6**	**22.2**	**18.9**	**24.4**	**28.4**	**19.3**	**16.2**
11	19.8	23.3	14.9	15.3	27.2	31.6	18.5	19.8	23.5	27.4	16.7	17.6
13	21.7	26.9	16.8	13.2	29.5	38.1	22.5	21.2	25.6	32.5	19.6	17.2
15	19.5	19.2	17.8	12.2	28.7	31.2	25.6	15.6	24.1	25.2	21.7	13.9
Latvia	**13.3**	**11.9**	**7.0**	**5.1**	**18.4**	**13.5**	**9.7**	**7.8**	**15.8**	**12.7**	**8.4**	**6.5**
11	9.3	10.5	7.1	4.9	14.2	11.8	7.9	7.0	11.7	11.1	7.5	5.9
13	16.2	14.5	8.3	5.8	19.3	16.0	10.7	8.4	17.8	15.2	9.5	7.1
15	14.3	10.8	5.6	4.7	21.8	12.6	10.5	8.0	18.1	11.7	8.1	6.4
Lithuania	**8.2**	**13.0**	**5.9**	**8.2**	**12.1**	**16.4**	**10.6**	**14.6**	**10.1**	**14.7**	**8.2**	**11.4**
11	7.4	13.0	5.4	8.9	12.8	17.9	9.7	16.2	10.1	15.5	7.5	12.6
13	9.1	14.9	6.1	8.5	11.7	16.5	9.9	14.9	10.4	15.7	8.0	11.7
15	7.9	11.1	6.0	7.2	11.8	14.9	12.2	12.8	9.9	13.0	9.1	10.0
Luxembourg	**–**	**23.9**	**25.3**	**24.3**	**–**	**31.0**	**33.9**	**30.8**	**–**	**27.4**	**29.6**	**27.5**
11	–	18.9	15.8	19.0	–	18.3	20.4	21.9	–	18.6	18.1	20.5
13	–	24.5	26.1	26.7	–	32.4	34.7	30.6	–	28.4	30.4	28.7
15	–	28.2	33.9	27.1	–	42.2	46.7	39.8	–	35.2	40.3	33.4
Malta	**38.0**	**35.4**	**–**	**35.5**	**42.6**	**46.8**	**–**	**38.4**	**40.3**	**41.1**	**–**	**37.0**
11	39.1	33.8	–	33.9	37.3	44.0	–	38.6	38.2	38.9	–	36.3
13	39.3	37.2	–	33.4	45.6	47.3	–	39.5	42.4	42.3	–	36.5
15	35.5	35.1	–	39.1	44.8	49.2	–	37.2	40.2	42.1	–	38.2

Daily soft-drinks consumption (%) contd

Gender	Girls				Boys				Boys and girls			
Survey year	2002	2006	2010	2014	2002	2006	2010	2014	2002	2006	2010	2014
Netherlands	**38.3**	**32.3**	**26.2**	**24.2**	**49.3**	**40.1**	**34.2**	**27.7**	**43.8**	**36.2**	**30.2**	**26.0**
11	32.9	26.1	17.2	16.5	40.9	28.2	21.6	16.1	36.9	27.1	19.4	16.3
13	41.3	33.9	30.3	26.9	49.2	42.1	36.3	27.4	45.2	38.0	33.3	27.2
15	40.6	37.1	31.1	29.3	57.8	50.1	44.7	39.4	49.2	43.6	37.9	34.3
Norway	**16.3**	**10.1**	**7.9**	**3.8**	**24.7**	**14.7**	**12.4**	**8.3**	**20.5**	**12.4**	**10.1**	**6.0**
11	10.9	5.7	4.8	2.5	16.1	9.1	8.3	5.4	13.5	7.4	6.5	4.0
13	15.6	11.0	7.7	3.9	26.1	13.8	10.5	6.8	20.8	12.4	9.1	5.4
15	22.3	13.7	11.1	4.9	32.0	21.2	18.4	12.5	27.2	17.5	14.7	8.7
Poland	**20.2**	**23.4**	**23.2**	**20.6**	**30.6**	**30.0**	**31.6**	**26.1**	**25.4**	**26.7**	**27.4**	**23.4**
11	20.5	21.2	21.5	18.2	29.9	26.7	28.2	24.4	25.2	23.9	24.8	21.3
13	22.2	27.3	25.0	23.2	32.2	30.6	35.3	26.9	27.2	29.0	30.2	25.1
15	17.8	21.6	23.2	20.4	29.7	32.7	31.2	27.0	23.7	27.2	27.2	23.7
Portugal	**29.6**	**22.5**	**19.8**	**14.9**	**36.8**	**29.5**	**23.8**	**19.3**	**33.2**	**26.0**	**21.8**	**17.1**
11	32.2	20.9	13.8	11.5	39.3	29.7	21.4	16.2	35.8	25.3	17.6	13.8
13	31.1	25.2	24.6	15.5	39.9	26.6	25.4	19.6	35.5	25.9	25.0	17.5
15	25.4	21.5	20.9	17.8	31.3	32.1	24.5	22.2	28.3	26.8	22.7	20.0
Romania	**–**	**36.9**	**28.4**	**23.1**	**–**	**40.8**	**33.4**	**28.4**	**–**	**38.8**	**30.9**	**25.7**
11	–	32.8	26.7	17.2	–	37.1	32.0	23.7	–	34.9	29.4	20.5
13	–	39.9	29.2	27.9	–	41.7	35.1	31.3	–	40.8	32.2	29.6
15	–	38.0	29.3	24.3	–	43.5	33.0	30.0	–	40.8	31.2	27.2
Russian Federation	**19.6**	**24.7**	**19.8**	**8.6**	**24.1**	**27.8**	**25.9**	**12.9**	**21.9**	**26.3**	**22.9**	**10.7**
11	17.6	24.3	22.1	9.6	25.7	28.4	25.7	14.7	21.6	26.3	23.9	12.1
13	22.7	26.9	21.7	9.1	25.4	26.4	28.5	13.8	24.0	26.7	25.1	11.4
15	18.5	23.0	15.7	7.3	21.3	28.6	23.6	10.0	19.9	25.8	19.6	8.7
Scotland	**43.5**	**25.1**	**18.0**	**19.6**	**50.8**	**31.7**	**25.1**	**26.8**	**47.2**	**28.4**	**21.5**	**23.2**
11	40.4	20.8	14.9	15.4	47.2	26.5	18.0	19.5	43.8	23.6	16.4	17.5
13	45.0	25.9	18.0	19.7	51.4	34.3	25.1	29.2	48.2	30.1	21.6	24.5
15	45.2	28.6	21.1	23.7	53.9	34.1	32.1	31.6	49.5	31.3	26.6	27.6
Slovakia	**–**	**34.4**	**34.5**	**21.9**	**–**	**38.8**	**37.7**	**26.1**	**–**	**36.6**	**36.1**	**24.0**
11	–	32.5	30.0	16.7	–	34.1	32.1	22.6	–	33.3	31.1	19.7
13	–	34.6	37.1	23.8	–	39.7	38.0	26.7	–	37.1	37.6	25.2
15	–	36.0	36.4	25.1	–	42.5	42.9	29.2	–	39.3	39.6	27.1
Slovenia	**37.3**	**21.6**	**32.6**	**4.8**	**42.7**	**29.0**	**42.0**	**8.4**	**40.0**	**25.3**	**37.3**	**6.6**
11	33.7	19.1	27.2	4.4	38.8	26.6	35.9	7.2	36.2	22.8	31.5	5.8
13	36.3	20.6	31.4	4.6	42.6	28.0	41.3	9.9	39.5	24.3	36.3	7.2
15	41.8	25.0	39.2	5.5	46.8	32.5	48.8	8.1	44.3	28.8	44.0	6.8
Spain	**25.8**	**23.0**	**19.9**	**17.3**	**34.3**	**27.3**	**23.0**	**21.3**	**30.1**	**25.1**	**21.5**	**19.3**
11	22.5	18.8	14.8	13.0	30.6	20.6	18.7	16.7	26.6	19.7	16.8	14.8
13	28.9	22.5	20.4	21.0	34.2	27.5	21.8	24.6	31.5	25.0	21.1	22.8
15	26.1	27.7	24.5	18.0	38.1	33.8	28.5	22.7	32.1	30.8	26.5	20.3
Sweden	**8.6**	**4.8**	**4.2**	**3.9**	**17.3**	**8.1**	**8.3**	**6.2**	**12.9**	**6.5**	**6.3**	**5.0**
11	5.9	3.5	2.1	3.1	11.8	3.9	4.7	4.8	8.9	3.7	3.4	4.0
13	12.0	4.5	4.8	3.7	19.1	7.5	8.3	6.3	15.5	6.0	6.5	5.0
15	7.7	6.4	5.8	4.8	21.1	13.0	12.1	7.4	14.4	9.7	8.9	6.1
Switzerland	**27.1**	**22.1**	**23.8**	**22.9**	**37.9**	**28.3**	**29.9**	**30.6**	**32.5**	**25.2**	**26.9**	**26.7**
11	24.9	18.6	19.3	21.8	32.1	20.9	23.2	24.5	28.5	19.7	21.2	23.1
13	27.7	23.6	25.1	23.9	38.6	29.8	29.9	31.3	33.1	26.7	27.5	27.6
15	28.6	24.2	27.0	23.1	43.0	34.2	36.6	35.9	35.8	29.2	31.8	29.5
MKD[a]	**31.5**	**36.0**	**29.4**	**28.6**	**37.4**	**36.5**	**31.6**	**31.7**	**34.4**	**36.3**	**30.5**	**30.1**
11	30.8	32.5	21.8	23.1	33.4	34.2	23.3	22.0	32.1	33.4	22.6	22.5
13	29.7	34.5	30.0	27.7	37.2	37.1	35.1	33.4	33.5	35.8	32.5	30.6
15	33.8	40.9	36.3	35.0	41.6	38.4	36.4	39.6	37.7	39.7	36.4	37.3
Ukraine	**15.3**	**31.4**	**15.6**	**12.2**	**18.9**	**31.3**	**17.7**	**16.1**	**17.1**	**31.3**	**16.7**	**14.2**
11	16.1	31.5	15.0	12.5	18.1	29.4	17.5	14.2	17.1	30.4	16.2	13.3
13	15.9	29.9	14.3	12.2	20.7	34.0	18.4	17.3	18.3	32.0	16.4	14.7
15	13.9	32.8	17.5	11.8	17.9	30.5	17.3	16.9	15.9	31.6	17.4	14.4
Wales	**35.4**	**26.4**	**21.6**	**20.1**	**37.7**	**31.0**	**26.0**	**22.0**	**36.5**	**28.7**	**23.8**	**21.0**
11	32.4	22.9	18.7	17.0	32.9	25.4	21.1	19.4	32.6	24.2	19.9	18.2
13	38.5	30.5	23.8	25.1	38.7	33.6	28.3	23.9	38.6	32.1	26.1	24.5
15	35.2	25.9	22.3	18.2	41.4	34.0	28.5	22.7	38.3	30.0	25.4	20.4
Countries below are not included in trends analyses												
Albania	**–**	**–**	**–**	**24.5**	**–**	**–**	**–**	**30.9**	**–**	**–**	**–**	**27.7**
11	–	–	–	20.3	–	–	–	26.0	–	–	–	23.1
13	–	–	–	27.7	–	–	–	31.5	–	–	–	29.6
15	–	–	–	25.6	–	–	–	35.1	–	–	–	30.3
Armenia	**–**	**–**	**26.2**	**21.9**	**–**	**–**	**28.9**	**23.2**	**–**	**–**	**27.6**	**22.5**
11	–	–	19.0	22.6	–	–	27.2	24.0	–	–	23.1	23.3
13	–	–	27.7	22.2	–	–	27.6	20.8	–	–	27.7	21.5
15	–	–	31.8	20.8	–	–	32.0	24.6	–	–	31.9	22.7
Bulgaria	**–**	**48.8**	**–**	**31.4**	**–**	**51.4**	**–**	**37.5**	**–**	**50.1**	**–**	**34.4**
11	–	49.6	–	29.7	–	49.4	–	36.8	–	49.5	–	33.3
13	–	48.7	–	34.1	–	53.3	–	41.2	–	51.0	–	37.6
15	–	48.2	–	30.3	–	51.3	–	34.4	–	49.8	–	32.4
Republic of Moldova	**–**	**–**	**–**	**9.7**	**–**	**–**	**–**	**11.9**	**–**	**–**	**–**	**10.8**
11	–	–	–	10.6	–	–	–	11.3	–	–	–	11.0
13	–	–	–	8.4	–	–	–	12.0	–	–	–	10.2
15	–	–	–	10.2	–	–	–	12.4	–	–	–	11.3
Turkey	**–**	**18.1**	**16.7**	**–**	**–**	**21.6**	**20.7**	**–**	**–**	**19.9**	**18.7**	**–**
11	–	14.8	12.4	–	–	17.5	17.5	–	–	16.1	15.0	–
13	–	18.5	19.2	–	–	20.9	23.3	–	–	19.7	21.3	–
15	–	21.1	18.4	–	–	26.4	21.2	–	–	23.8	19.8	–

[a] The former Yugoslav Republic of Macedonia. *Note:* no data for 2002 were received for Iceland, Luxembourg, Romania and Slovakia. No data for 2010 were received for Malta. No trend data were available for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey.

Moderate-to-vigorous-intensity physical activity of 60 minutes or more daily (%)

Gender	Girls				Boys				Boys and girls			
Survey year	2002	2006	2010	2014	2002	2006	2010	2014	2002	2006	2010	2014
Austria	**15.3**	**15.6**	**18.3**	**15.4**	**26.5**	**22.6**	**31.2**	**26.1**	**20.9**	**19.1**	**24.7**	**20.7**
11	22.7	23.0	29.6	25.7	35.9	28.8	40.0	32.7	29.3	25.9	34.8	29.2
13	15.2	13.8	16.9	14.9	28.6	26.6	33.7	28.3	21.9	20.2	25.3	21.6
15	7.9	10.2	8.5	5.5	15.0	12.5	19.8	17.3	11.5	11.3	14.2	11.4
Belgium (Flemish)	**7.5**	**11.9**	**11.7**	**11.1**	**14.8**	**19.4**	**20.3**	**18.8**	**11.2**	**15.7**	**16.0**	**15.0**
11	8.3	15.3	14.6	13.9	14.9	20.5	25.4	20.9	11.6	17.9	20.0	17.4
13	6.7	9.6	11.1	13.0	15.1	21.1	18.3	18.7	10.9	15.4	14.7	15.9
15	7.5	10.8	9.5	6.5	14.5	16.7	17.1	17.0	11.0	13.7	13.3	11.7
Belgium (French)	**–**	**21.6**	**12.8**	**13.5**	**–**	**27.2**	**21.6**	**22.3**	**–**	**24.4**	**17.2**	**17.9**
11	–	23.0	17.6	16.3	–	30.7	29.7	29.0	–	26.8	23.7	22.6
13	–	20.3	11.6	12.8	–	26.6	19.9	21.0	–	23.4	15.8	16.9
15	–	21.3	9.0	11.5	–	24.4	15.2	16.8	–	22.8	12.1	14.2
Croatia	**14.9**	**17.0**	**14.1**	**19.0**	**24.3**	**29.0**	**28.1**	**32.5**	**19.6**	**23.0**	**21.1**	**25.8**
11	22.4	26.3	19.1	26.1	30.1	36.0	31.1	39.0	26.2	31.1	25.1	32.6
13	14.0	15.0	14.8	19.2	25.9	31.1	30.9	33.1	20.0	23.0	22.9	26.1
15	8.2	9.8	8.3	11.7	17.0	20.0	22.3	25.4	12.6	14.9	15.3	18.6
Czechia	**22.3**	**17.1**	**18.9**	**18.6**	**31.1**	**26.6**	**27.4**	**25.0**	**26.7**	**21.8**	**23.1**	**21.8**
11	27.3	18.7	23.3	23.2	34.3	24.6	28.0	28.6	30.8	21.6	25.7	25.9
13	21.8	16.9	19.0	20.1	32.1	27.9	29.5	26.9	26.9	22.4	24.2	23.5
15	17.8	15.6	14.3	12.6	27.0	27.2	24.8	19.6	22.4	21.4	19.5	16.1
Denmark	**14.7**	**19.8**	**9.2**	**9.8**	**19.2**	**24.9**	**14.3**	**17.1**	**17.0**	**22.3**	**11.7**	**13.4**
11	19.4	25.7	10.2	11.1	21.1	31.4	16.4	18.7	20.2	28.5	13.3	14.9
13	13.4	17.5	9.8	10.8	19.1	22.9	12.1	16.7	16.2	20.2	10.9	13.8
15	11.4	16.1	7.7	7.4	17.4	20.3	14.4	15.8	14.4	18.2	11.0	11.6
England	**15.5**	**13.6**	**15.5**	**14.3**	**28.4**	**22.6**	**28.2**	**21.9**	**21.9**	**18.1**	**21.9**	**18.1**
11	18.6	17.7	19.7	19.8	32.7	26.5	32.5	24.6	25.6	22.1	26.1	22.2
13	16.1	14.1	14.7	13.6	30.7	23.1	27.3	23.0	23.4	18.6	21.0	18.3
15	11.8	8.9	12.2	9.4	21.6	18.3	24.9	18.0	16.7	13.6	18.6	13.7
Estonia	**9.6**	**14.5**	**12.2**	**12.0**	**13.5**	**21.6**	**16.6**	**20.7**	**11.6**	**18.1**	**14.4**	**16.4**
11	13.2	21.4	16.4	14.8	19.0	24.3	18.9	21.4	16.1	22.9	17.7	18.1
13	9.1	13.0	10.8	11.9	11.5	22.4	17.4	22.1	10.3	17.7	14.1	17.0
15	6.5	9.2	9.3	9.4	10.0	18.0	13.4	18.5	8.2	13.6	11.4	13.9
Finland	**11.7**	**20.3**	**17.4**	**23.4**	**17.6**	**29.0**	**29.2**	**32.4**	**14.6**	**24.7**	**23.3**	**27.9**
11	20.8	36.6	24.6	34.0	29.1	48.1	38.2	46.5	24.9	42.4	31.4	40.3
13	8.4	15.0	17.3	22.8	15.6	24.2	32.2	29.2	12.0	19.6	24.8	26.0
15	6.0	9.4	10.3	13.4	8.0	14.6	17.2	21.6	7.0	12.0	13.8	17.5
France	**4.5**	**7.5**	**6.8**	**8.7**	**13.2**	**19.3**	**17.3**	**18.4**	**8.9**	**13.4**	**12.1**	**13.6**
11	5.3	12.3	8.8	10.9	14.8	24.0	21.4	24.9	10.1	18.1	15.1	17.9
13	4.6	5.4	6.3	9.0	14.1	19.8	16.7	15.8	9.3	12.6	11.5	12.4
15	3.6	4.9	5.3	6.3	10.8	14.1	13.8	14.4	7.2	9.5	9.6	10.3
Germany	**8.4**	**14.3**	**14.2**	**12.2**	**15.0**	**20.1**	**19.6**	**19.4**	**11.7**	**17.2**	**16.9**	**15.8**
11	10.8	20.2	19.9	15.9	18.4	25.1	24.8	24.6	14.6	22.7	22.4	20.2
13	7.5	13.1	14.1	12.1	14.2	18.8	20.7	17.4	10.9	16.0	17.4	14.7
15	7.0	9.5	8.6	8.7	12.3	16.2	13.4	16.2	9.7	12.9	11.0	12.4
Greece	**13.0**	**11.6**	**8.2**	**8.7**	**23.7**	**20.8**	**19.9**	**18.1**	**18.3**	**16.2**	**14.1**	**13.4**
11	18.2	15.9	11.9	11.3	27.6	25.3	20.5	20.1	22.9	20.6	16.2	15.7
13	13.1	12.4	7.5	8.3	26.9	20.8	21.1	18.8	20.0	16.6	14.3	13.5
15	7.8	6.6	5.2	6.6	16.5	16.2	18.3	15.5	12.1	11.4	11.7	11.0
Hungary	**11.3**	**14.2**	**13.9**	**16.7**	**21.2**	**25.5**	**25.5**	**27.8**	**16.3**	**19.8**	**19.7**	**22.3**
11	18.0	19.4	22.4	24.4	30.5	27.7	30.0	33.9	24.2	23.5	26.2	29.2
13	8.9	12.7	10.7	14.5	20.7	29.3	25.4	25.3	14.8	21.0	18.1	19.9
15	7.1	10.5	8.6	11.2	12.6	19.5	21.0	24.2	9.8	15.0	14.8	17.7
Iceland	**–**	**15.6**	**12.3**	**17.7**	**–**	**22.9**	**19.9**	**27.3**	**–**	**19.3**	**16.1**	**22.5**
11	–	23.1	16.5	21.6	–	28.8	24.9	30.7	–	26.0	20.7	26.2
13	–	14.5	11.4	17.0	–	23.5	19.5	26.0	–	19.0	15.5	21.5
15	–	9.4	9.1	14.4	–	16.4	15.2	25.3	–	12.9	12.1	19.8
Ireland	**22.1**	**24.3**	**21.0**	**18.7**	**34.0**	**39.0**	**35.5**	**35.2**	**28.0**	**31.6**	**28.2**	**26.9**
11	30.9	37.6	31.3	30.8	41.4	50.5	42.7	44.6	36.1	44.0	37.0	37.7
13	22.2	22.6	20.0	16.0	39.7	39.2	35.7	35.9	31.0	30.9	27.9	25.9
15	13.2	12.6	11.6	9.3	20.9	27.2	28.1	25.1	17.1	19.9	19.8	17.2
Israel	**10.0**	**10.9**	**10.8**	**9.1**	**20.5**	**22.1**	**23.2**	**16.2**	**15.3**	**16.5**	**17.0**	**12.6**
11	11.6	15.4	17.3	13.0	27.0	29.9	33.2	23.4	19.3	22.6	25.3	18.2
13	9.1	11.8	7.9	8.8	20.4	23.8	22.8	14.6	14.8	17.8	15.3	11.7
15	9.3	5.7	7.1	5.5	14.2	12.6	13.7	10.4	11.7	9.1	10.4	7.9
Italy	**8.3**	**9.9**	**5.4**	**6.4**	**12.5**	**20.6**	**10.7**	**14.1**	**10.4**	**15.3**	**8.1**	**10.3**
11	10.7	13.5	6.6	8.0	16.0	22.7	10.3	16.9	13.4	18.1	8.4	12.4
13	7.8	9.3	4.8	6.3	13.4	23.2	10.3	14.4	10.6	16.2	7.6	10.4
15	6.5	7.1	4.9	4.9	8.1	15.8	11.5	11.1	7.3	11.4	8.2	8.0
Latvia	**10.8**	**18.7**	**16.0**	**15.3**	**18.8**	**27.6**	**24.4**	**21.9**	**14.8**	**23.1**	**20.2**	**18.6**
11	15.0	23.0	17.5	18.4	22.7	30.2	26.2	25.0	18.9	26.6	21.9	21.7
13	10.3	17.1	17.8	14.0	18.1	26.7	24.7	19.9	14.2	21.9	21.2	17.0
15	7.0	15.8	12.6	13.6	15.5	25.8	22.2	21.0	11.3	20.8	17.4	17.3
Lithuania	**20.5**	**15.7**	**13.3**	**15.2**	**30.9**	**22.7**	**19.7**	**25.9**	**25.7**	**19.2**	**16.5**	**20.5**
11	27.1	20.0	16.8	20.4	37.7	26.6	22.6	26.9	32.4	23.3	19.7	23.6
13	20.6	13.5	12.1	13.2	29.9	22.4	18.4	27.8	25.3	17.9	15.2	20.5
15	13.7	13.5	10.9	11.9	24.9	19.2	18.1	23.0	19.3	16.4	14.5	17.4
Luxembourg	**–**	**11.7**	**15.7**	**15.6**	**–**	**18.7**	**29.5**	**31.6**	**–**	**15.2**	**22.6**	**23.6**
11	–	13.3	17.8	21.4	–	17.5	32.0	33.9	–	15.4	24.9	27.6
13	–	11.3	16.3	16.6	–	19.0	32.2	35.2	–	15.1	24.3	25.9
15	–	10.6	13.0	8.8	–	19.5	24.4	25.7	–	15.0	18.7	17.3
Malta	**14.3**	**15.0**	**–**	**13.5**	**26.9**	**21.9**	**–**	**21.2**	**20.6**	**18.4**	**–**	**17.4**
11	22.7	18.2	–	20.7	33.2	26.9	–	27.8	28.0	22.5	–	24.3
13	12.8	13.6	–	11.4	32.2	19.5	–	19.6	22.5	16.6	–	15.5
15	7.2	13.3	–	8.5	15.2	19.2	–	16.3	11.2	16.3	–	12.4

Moderate-to-vigorous-intensity physical activity of 60 minutes or more daily (%) contd

Gender	Girls				Boys				Boys and girls			
Survey year	2002	2006	2010	2014	2002	2006	2010	2014	2002	2006	2010	2014
Netherlands	**15.8**	**18.3**	**15.7**	**14.6**	**18.5**	**24.0**	**22.1**	**22.2**	**17.1**	**21.2**	**18.9**	**18.4**
11	17.2	20.4	18.9	14.8	20.8	30.2	23.9	23.9	19.0	25.3	21.4	19.4
13	14.9	19.6	14.8	16.6	19.1	23.7	23.6	20.7	17.0	21.6	19.2	18.6
15	15.2	15.0	13.4	12.4	15.6	18.3	18.7	21.9	15.4	16.6	16.0	17.1
Norway	**8.7**	**12.4**	**10.6**	**12.8**	**14.1**	**18.3**	**19.1**	**24.1**	**11.4**	**15.4**	**14.9**	**18.5**
11	13.4	16.8	17.1	19.2	18.5	26.9	26.7	31.7	15.9	21.8	21.9	25.4
13	7.1	13.5	6.2	11.7	12.5	15.4	18.3	18.1	9.8	14.4	12.2	14.9
15	5.5	7.1	8.6	7.5	11.4	12.6	12.4	22.7	8.5	9.8	10.5	15.1
Poland	**13.3**	**13.6**	**15.4**	**18.9**	**20.7**	**22.3**	**25.3**	**29.7**	**17.0**	**17.9**	**20.3**	**24.3**
11	17.8	18.8	22.7	26.8	26.2	24.2	31.2	34.2	22.0	21.5	27.0	30.5
13	12.9	12.3	13.7	18.6	19.7	21.4	21.6	29.4	16.3	16.9	17.7	24.0
15	9.3	9.6	9.9	11.1	16.1	21.4	23.0	25.4	12.7	15.5	16.4	18.2
Portugal	**7.9**	**8.5**	**8.9**	**8.9**	**15.1**	**22.0**	**18.7**	**22.9**	**11.5**	**15.3**	**13.8**	**15.9**
11	13.4	12.3	13.6	15.8	22.1	29.8	23.2	25.8	17.8	21.1	18.4	20.8
13	5.6	8.5	7.3	6.0	15.3	20.9	19.4	24.9	10.5	14.7	13.4	15.4
15	4.8	4.8	5.9	5.0	7.8	15.2	13.6	18.1	6.3	10.0	9.7	11.6
Romania	**–**	**11.3**	**13.5**	**16.5**	**–**	**23.2**	**25.6**	**29.4**	**–**	**17.3**	**19.5**	**23.0**
11	–	16.2	19.9	22.7	–	29.1	32.2	39.2	–	22.7	26.1	31.0
13	–	11.4	13.4	16.2	–	24.0	28.3	27.8	–	17.7	20.9	22.0
15	–	6.4	7.2	10.7	–	16.4	16.2	21.2	–	11.4	11.7	15.9
Russian Federation	**11.4**	**9.7**	**9.0**	**14.6**	**18.0**	**16.5**	**16.2**	**22.4**	**14.7**	**13.1**	**12.6**	**18.5**
11	15.2	12.0	11.3	18.3	22.4	19.8	17.4	25.6	18.8	15.9	14.3	21.9
13	11.4	10.0	9.1	14.7	19.3	17.5	18.0	20.6	15.4	13.8	13.6	17.7
15	7.6	7.2	6.6	10.8	12.4	12.0	13.3	20.9	10.0	9.6	9.9	15.9
Scotland	**13.2**	**16.4**	**11.3**	**14.7**	**23.8**	**29.5**	**18.6**	**21.0**	**18.5**	**22.9**	**14.9**	**17.9**
11	19.9	25.4	16.2	20.6	31.4	39.7	23.8	29.4	25.7	32.5	20.0	25.0
13	10.0	14.7	10.0	12.6	25.2	28.0	18.6	19.3	17.6	21.3	14.3	15.9
15	9.6	9.1	7.6	10.9	14.7	20.9	13.3	14.5	12.1	15.0	10.5	12.7
Slovakia	**–**	**35.4**	**16.3**	**19.5**		**49.3**	**28.7**	**31.1**	**–**	**42.4**	**22.5**	**25.3**
11	–	42.6	21.8	26.2		50.8	29.9	37.1	–	46.7	25.8	31.6
13	–	35.0	15.2	19.2		51.4	29.5	30.7	–	43.2	22.4	24.9
15	–	28.5	12.0	13.2		45.8	26.8	25.5	–	37.2	19.4	19.3
Slovenia	**16.0**	**13.3**	**14.9**	**12.7**	**28.3**	**21.8**	**25.5**	**24.5**	**22.1**	**17.6**	**20.2**	**18.6**
11	22.9	21.4	19.5	17.6	37.5	24.9	31.3	27.4	30.2	23.1	25.4	22.5
13	13.2	9.8	14.9	13.4	26.7	21.6	24.9	24.7	20.0	15.7	19.9	19.0
15	11.9	8.8	10.4	7.2	20.6	19.1	20.4	21.4	16.2	13.9	15.4	14.3
Spain	**11.6**	**16.7**	**16.5**	**19.3**	**22.1**	**24.2**	**31.0**	**34.3**	**16.9**	**20.4**	**23.8**	**26.8**
11	13.3	24.5	25.8	28.3	25.7	31.8	40.5	38.6	19.5	28.1	33.2	33.5
13	12.1	13.9	15.4	17.9	22.2	21.4	27.4	36.4	17.2	17.7	21.4	27.1
15	9.5	11.7	8.3	11.6	18.3	19.3	25.2	28.0	13.9	15.5	16.8	19.8
Sweden	**9.6**	**14.8**	**12.2**	**11.2**	**15.5**	**18.4**	**15.6**	**16.9**	**12.5**	**16.6**	**13.9**	**14.0**
11	12.4	19.9	17.1	13.1	22.0	22.9	19.1	21.2	17.2	21.4	18.1	17.1
13	7.6	14.2	10.6	10.3	11.6	21.0	14.3	14.2	9.6	17.6	12.5	12.3
15	8.9	10.4	8.9	10.1	12.7	11.1	13.2	15.1	10.8	10.8	11.1	12.6
Switzerland	**12.2**	**10.1**	**8.6**	**11.3**	**17.9**	**16.1**	**15.7**	**18.6**	**15.0**	**13.1**	**12.2**	**14.9**
11	12.3	10.7	11.2	16.7	20.9	19.4	19.5	25.5	16.6	15.1	15.4	21.1
13	12.1	9.8	8.4	9.7	16.5	15.6	15.7	17.8	14.3	12.7	12.1	13.7
15	12.3	9.8	6.3	7.4	16.2	13.3	11.9	12.4	14.2	11.5	9.1	9.9
MKD[a]	**14.4**	**18.6**	**18.8**	**22.2**	**20.3**	**26.9**	**27.4**	**31.9**	**17.3**	**22.8**	**23.1**	**27.0**
11	16.7	26.4	28.1	30.1	23.0	29.3	32.4	36.3	19.9	27.9	30.3	33.2
13	14.3	18.0	15.4	24.8	20.1	30.2	27.6	32.2	17.2	24.1	21.5	28.5
15	12.2	11.3	13.0	11.5	17.6	21.4	22.1	27.3	14.9	16.3	17.5	19.4
Ukraine	**13.3**	**16.5**	**16.6**	**23.1**	**21.8**	**28.7**	**29.1**	**30.4**	**17.5**	**22.6**	**22.9**	**26.8**
11	19.9	21.7	24.8	28.1	29.0	33.1	34.2	32.7	24.5	27.4	29.5	30.4
13	12.1	16.3	16.6	24.8	20.6	31.7	28.7	32.6	16.3	24.0	22.7	28.7
15	7.9	11.4	8.5	16.4	15.8	21.4	24.4	25.9	11.8	16.4	16.4	21.2
Wales	**11.7**	**14.0**	**13.5**	**11.7**	**21.6**	**27.8**	**24.2**	**20.9**	**16.6**	**20.9**	**18.8**	**16.3**
11	15.1	21.2	19.0	14.6	24.8	35.1	29.1	26.3	20.0	28.2	24.0	20.5
13	12.5	11.8	12.8	12.4	23.0	27.4	23.1	20.1	17.8	19.6	17.9	16.3
15	7.5	9.0	8.5	7.9	16.8	20.9	20.5	16.3	12.1	14.9	14.5	12.1
Countries below are not included in trends analyses												
Albania	**–**	**–**	**–**	**21.7**	**–**	**–**	**–**	**34.9**	**–**	**–**	**–**	**28.3**
11	–	–	–	30.6	–	–	–	37.9	–	–	–	34.3
13	–	–	–	20.3	–	–	–	37.9	–	–	–	29.1
15	–	–	–	14.2	–	–	–	28.7	–	–	–	21.5
Armenia	**–**	**–**	**17.1**	**17.9**	**–**	**–**	**30.1**	**27.7**	**–**	**–**	**23.6**	**22.8**
11	–	–	20.6	19.9	–	–	34.3	28.5	–	–	27.5	24.2
13	–	–	16.7	19.7	–	–	27.4	29.7	–	–	22.1	24.7
15	–	–	13.9	14.0	–	–	28.6	24.9	–	–	21.2	19.4
Bulgaria	**–**	**20.6**	**–**	**22.4**	**–**	**31.5**	**–**	**34.2**	**–**	**26.0**	**–**	**28.3**
11	–	26.5	–	30.0	–	39.0	–	42.3	–	32.7	–	36.2
13	–	19.0	–	19.7	–	31.5	–	35.0	–	25.2	–	27.4
15	–	16.3	–	17.6	–	23.9	–	25.4	–	20.1	–	21.5
Republic of Moldova	**–**	**–**	**–**	**25.2**	**–**	**–**	**–**	**26.9**	**–**	**–**	**–**	**26.1**
11	–	–	–	29.3	–	–	–	35.5	–	–	–	32.4
13	–	–	–	24.6	–	–	–	20.2	–	–	–	22.4
15	–	–	–	21.8	–	–	–	25.0	–	–	–	23.4
Turkey	**–**	**16.8**	**13.2**	**–**	**–**	**22.3**	**22.3**	**–**	**–**	**19.6**	**17.7**	**–**
11	–	21.4	18.6	–	–	29.1	26.7	–	–	25.3	22.6	–
13	–	16.8	12.2	–	–	22.3	22.7	–	–	19.6	17.5	–
15	–	12.1	8.8	–	–	15.7	17.5	–	–	13.9	13.1	–

[a] The former Yugoslav Republic of Macedonia. *Note:* no data for 2002 were received for Belgium (French), Iceland, Luxembourg, Romania and Slovakia. No data for 2010 were received for Malta. No trend data were available for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey.

Vigorous-intensity physical activity four or more times a week (%)

Gender	Girls				Boys				Boys and girls			
Survey year	2002	2006	2010	2014	2002	2006	2010	2014	2002	2006	2010	2014
Austria	**–**	**33.7**	**35.3**	**34.1**	**–**	**49.5**	**55.5**	**52.0**	**–**	**41.6**	**45.4**	**43.1**
11	–	42.8	51.1	46.2	–	54.2	63.9	58.5	–	48.5	57.5	52.3
13	–	38.0	35.0	36.9	–	54.3	58.8	53.1	–	46.2	46.9	45.0
15	–	20.2	19.7	19.3	–	40.1	43.6	44.5	–	30.1	31.7	31.9
Belgium (Flemish)	**–**	**26.5**	**27.6**	**31.0**	**–**	**44.1**	**43.8**	**46.4**	**–**	**35.3**	**35.7**	**38.7**
11	–	34.0	31.9	35.2	–	47.6	47.0	48.7	–	40.8	39.5	42.0
13	–	23.3	27.3	31.9	–	44.9	43.6	48.7	–	34.1	35.4	40.3
15	–	22.2	23.7	25.9	–	40.0	40.7	41.6	–	31.1	32.2	33.8
Belgium (French)	**22.0**	**25.4**	**23.2**	**–**	**45.6**	**50.3**	**45.3**	**–**	**33.8**	**37.8**	**34.2**	**–**
11	23.0	29.7	25.6	–	48.3	55.9	55.4	–	35.7	42.8	40.5	–
13	23.2	27.0	24.2	–	45.8	50.1	42.8	–	34.5	38.5	33.5	–
15	19.8	19.5	19.7	–	42.7	44.9	37.7	–	31.2	32.2	28.7	–
Croatia	**–**	**23.5**	**20.7**	**26.0**	**–**	**45.2**	**44.3**	**44.7**	**–**	**34.3**	**32.5**	**35.3**
11	–	31.6	26.6	30.4	–	47.7	47.1	46.7	–	39.7	36.9	38.6
13	–	21.6	21.8	28.9	–	46.7	46.5	47.0	–	34.2	34.1	38.0
15	–	17.2	13.7	18.5	–	41.3	39.3	40.4	–	29.2	26.5	29.4
Czechia	**–**	**25.4**	**31.0**	**34.9**	**–**	**46.8**	**46.2**	**44.5**	**–**	**36.1**	**38.6**	**39.7**
11	–	31.8	38.6	36.8	–	47.1	47.3	42.2	–	39.4	43.0	39.5
13	–	23.4	30.7	37.2	–	47.8	47.5	46.3	–	35.6	39.1	41.8
15	–	21.0	23.7	30.7	–	45.5	43.8	44.9	–	33.2	33.8	37.8
Denmark	**–**	**34.4**	**28.4**	**34.2**	**–**	**47.7**	**41.2**	**45.6**	**–**	**41.0**	**34.8**	**39.9**
11	–	43.5	31.7	31.9	–	53.4	42.2	42.3	–	48.4	37.0	37.1
13	–	34.5	28.8	37.3	–	47.4	41.3	48.2	–	40.9	35.1	42.7
15	–	25.2	24.6	33.3	–	42.2	39.9	46.3	–	33.7	32.3	39.8
England	**–**	**33.3**	**33.1**	**27.6**	**–**	**52.4**	**50.4**	**42.7**	**–**	**42.8**	**41.7**	**35.1**
11	–	47.5	43.6	36.5	–	61.7	54.4	46.1	–	54.6	49.0	41.3
13	–	30.4	31.9	24.7	–	51.7	50.8	41.0	–	41.1	41.4	32.9
15	–	21.9	23.7	21.4	–	43.6	46.1	41.0	–	32.8	34.9	31.2
Estonia	**–**	**32.6**	**22.8**	**32.5**	**–**	**49.4**	**36.9**	**44.4**	**–**	**41.0**	**29.8**	**38.4**
11	–	41.5	28.6	37.1	–	52.8	39.8	47.2	–	47.2	34.2	42.2
13	–	30.4	21.8	35.8	–	50.9	36.5	42.9	–	40.6	29.1	39.3
15	–	25.9	18.1	24.6	–	44.6	34.4	43.0	–	35.2	26.2	33.8
Finland	**42.1**	**46.3**	**39.0**	**54.2**	**56.0**	**58.2**	**52.6**	**60.0**	**49.1**	**52.2**	**45.8**	**58.6**
11	52.6	58.8	48.0	57.8	61.7	71.0	64.7	69.0	57.2	64.9	56.3	63.4
13	40.2	43.1	38.2	56.9	58.7	58.5	52.8	61.1	49.4	50.8	45.5	59.0
15	33.6	37.0	30.9	48.0	47.6	45.0	40.4	50.0	40.6	41.0	35.7	48.0
France	**–**	**17.5**	**17.8**	**22.6**	**–**	**43.1**	**42.9**	**43.8**	**–**	**30.3**	**30.3**	**33.2**
11	–	23.9	24.4	27.2	–	48.4	48.1	47.9	–	36.1	36.3	37.6
13	–	16.8	15.9	23.0	–	44.1	42.2	43.2	–	30.5	29.1	33.1
15	–	11.9	13.0	17.7	–	36.7	38.3	40.3	–	24.3	25.6	29.0
Germany	**–**	**36.3**	**36.6**	**37.9**	**–**	**52.3**	**52.0**	**53.1**	**–**	**44.3**	**44.3**	**45.5**
11	–	43.7	46.6	48.0	–	55.9	60.5	60.1	–	49.8	53.5	54.0
13	–	36.9	36.7	39.0	–	53.8	50.0	54.2	–	45.4	43.3	46.6
15	–	28.5	26.3	26.8	–	47.3	45.4	45.1	–	37.9	35.9	35.9
Greece	**–**	**32.6**	**28.8**	**32.5**	**–**	**54.9**	**51.4**	**54.2**	**–**	**43.8**	**40.1**	**43.3**
11	–	40.9	38.3	40.8	–	61.8	55.0	59.0	–	51.3	46.7	49.9
13	–	35.8	27.8	31.9	–	56.3	53.8	53.8	–	46.1	40.8	42.8
15	–	21.2	20.3	24.8	–	46.7	45.4	49.8	–	33.9	32.8	37.3
Hungary	**–**	**31.4**	**30.7**	**33.9**	**–**	**52.2**	**50.8**	**52.0**	**–**	**41.8**	**40.7**	**43.0**
11	–	42.3	46.0	43.7	–	60.6	60.4	60.6	–	51.5	53.2	52.1
13	–	29.8	26.9	31.8	–	54.8	48.8	48.9	–	42.3	37.8	40.4
15	–	22.0	19.1	26.3	–	41.2	43.3	46.6	–	31.6	31.2	36.5
Iceland	**–**	**47.9**	**47.0**	**48.3**	**–**	**56.6**	**56.5**	**55.1**	**–**	**52.3**	**51.7**	**51.7**
11	–	53.2	48.3	48.5	–	59.8	58.1	52.9	–	56.5	53.2	50.7
13	–	49.3	47.3	43.2	–	58.1	55.0	50.2	–	53.7	51.2	46.7
15	–	41.3	45.3	53.2	–	51.9	56.4	62.2	–	46.6	50.8	57.7
Ireland	**–**	**47.5**	**46.4**	**45.9**	**–**	**66.0**	**63.9**	**63.8**	**–**	**56.8**	**55.1**	**54.8**
11	–	58.3	60.9	57.0	–	70.1	70.3	66.2	–	64.2	65.6	61.6
13	–	50.3	42.4	45.6	–	68.0	63.7	65.8	–	59.1	53.0	55.7
15	–	34.0	36.0	35.0	–	60.0	57.6	59.4	–	47.0	46.8	47.2
Israel	**–**	**23.8**	**23.2**	**25.8**	**–**	**44.9**	**42.5**	**46.3**	**–**	**34.3**	**32.8**	**36.0**
11	–	29.4	31.0	32.0	–	53.5	51.2	53.5	–	41.4	41.1	42.7
13	–	24.2	21.0	25.9	–	44.6	45.9	46.9	–	34.4	33.5	36.4
15	–	17.8	17.7	19.4	–	36.7	30.4	38.5	–	27.2	24.0	29.0
Italy	**–**	**22.8**	**17.3**	**20.3**	**–**	**45.3**	**35.3**	**38.9**	**–**	**34.1**	**26.3**	**29.6**
11	–	32.9	21.9	23.6	–	51.3	37.7	40.7	–	42.1	29.8	32.1
13	–	19.4	17.5	20.9	–	47.2	35.3	39.1	–	33.3	26.4	30.0
15	–	16.1	12.7	16.6	–	37.3	32.8	37.0	–	26.7	22.7	26.8
Latvia	**22.6**	**29.5**	**33.9**	**37.8**	**46.6**	**53.6**	**54.5**	**54.2**	**34.6**	**41.5**	**44.2**	**46.0**
11	26.6	39.8	40.3	42.9	47.9	59.9	56.1	56.7	37.3	49.8	48.2	49.8
13	22.2	27.2	35.6	36.2	44.9	53.6	55.8	53.5	33.6	40.4	45.7	44.8
15	19.0	21.4	25.7	34.3	47.0	47.3	51.6	52.4	33.0	34.3	38.6	43.4
Lithuania	**19.8**	**22.0**	**21.9**	**35.7**	**47.8**	**48.0**	**43.9**	**54.1**	**33.8**	**35.0**	**32.9**	**44.9**
11	21.6	27.1	29.0	41.1	49.4	48.2	44.8	54.5	35.5	37.6	36.9	47.8
13	20.5	21.1	18.9	35.3	46.5	44.2	42.7	53.4	33.5	32.6	30.8	44.4
15	17.3	17.8	17.7	30.8	47.7	51.6	44.3	54.5	32.5	34.7	31.0	42.7
Luxembourg	**–**	**31.7**	**34.1**	**37.5**	**–**	**52.8**	**62.1**	**58.1**	**–**	**42.2**	**48.1**	**47.8**
11	–	36.9	45.2	44.1	–	55.2	66.7	64.3	–	46.0	56.0	54.2
13	–	32.8	32.5	39.5	–	53.2	65.2	57.8	–	43.0	48.8	48.7
15	–	25.4	24.6	28.9	–	50.1	54.4	52.0	–	37.7	39.5	40.5
Netherlands	**–**	**47.7**	**48.3**	**44.7**	**–**	**62.9**	**60.8**	**59.1**	**–**	**55.3**	**54.5**	**51.9**
11	–	63.4	65.2	58.2	–	75.0	72.2	68.0	–	69.2	68.7	63.1
13	–	48.6	45.2	43.5	–	62.7	59.6	59.7	–	55.7	52.4	51.6
15	–	31.1	34.5	32.3	–	50.9	50.7	49.7	–	41.0	42.6	41.0

Vigorous-intensity physical activity four or more times a week (%) contd

Gender	Girls				Boys				Boys and girls			
Survey year	2002	2006	2010	2014	2002	2006	2010	2014	2002	2006	2010	2014
Norway	**27.9**	**34.8**	**35.0**	**42.9**	**41.0**	**48.8**	**47.8**	**51.0**	**34.4**	**41.8**	**41.4**	**46.9**
11	26.7	37.1	37.3	43.3	37.9	49.1	52.8	54.1	32.3	43.1	45.0	48.7
13	30.0	36.4	36.4	43.1	43.9	51.6	48.0	48.1	36.9	44.0	42.2	45.6
15	26.9	30.8	31.3	42.3	41.1	45.7	42.7	50.7	34.0	38.2	37.0	46.5
Poland	**–**	**28.1**	**25.8**	**33.2**	**–**	**46.0**	**41.3**	**47.3**	**–**	**37.1**	**33.5**	**40.3**
11	–	34.1	36.7	46.5	–	48.1	43.7	52.1	–	41.1	40.2	49.3
13	–	28.2	24.5	31.4	–	45.7	36.7	49.3	–	36.9	30.6	40.4
15	–	22.1	16.1	21.7	–	44.2	43.4	40.6	–	33.2	29.8	31.1
Portugal	**25.2**	**23.9**	**23.2**	**22.5**	**47.5**	**49.3**	**48.8**	**48.5**	**36.3**	**36.6**	**36.0**	**35.5**
11	33.4	33.0	31.2	33.5	56.0	56.0	54.4	52.5	44.7	44.5	42.8	43.0
13	24.6	22.9	21.2	18.5	49.9	51.4	50.8	51.6	37.2	37.1	36.0	35.0
15	17.7	15.7	17.1	15.5	36.5	40.5	41.2	41.5	27.1	28.1	29.2	28.5
Romania	**–**	**40.7**	**38.2**	**37.7**	**–**	**57.6**	**55.3**	**56.4**	**–**	**49.2**	**46.7**	**47.0**
11	–	53.3	51.6	45.8	–	62.6	60.0	61.3	–	58.0	55.8	53.6
13	–	40.8	35.8	38.4	–	61.7	59.1	56.2	–	51.2	47.5	47.3
15	–	28.1	27.0	28.7	–	48.5	46.7	51.8	–	38.3	36.9	40.3
Russian Federation	**–**	**29.4**	**31.7**	**32.7**	**–**	**44.0**	**51.3**	**45.1**	**–**	**36.7**	**41.5**	**38.9**
11	–	36.0	36.2	38.4	–	48.7	54.1	48.1	–	42.3	45.1	43.2
13	–	29.6	33.2	32.7	–	47.0	53.5	46.1	–	38.3	43.4	39.4
15	–	22.7	25.7	26.9	–	36.4	46.4	41.2	–	29.5	36.1	34.1
Scotland	**27.7**	**35.9**	**36.6**	**42.1**	**45.8**	**51.2**	**50.9**	**55.8**	**36.8**	**43.6**	**43.8**	**49.0**
11	38.8	51.2	51.7	56.4	49.8	59.5	58.0	65.5	44.3	55.4	54.8	60.9
13	25.9	34.7	32.7	38.1	47.3	52.7	51.7	56.2	36.6	43.7	42.2	47.1
15	18.5	21.8	25.5	31.8	40.3	41.4	43.1	45.9	29.4	31.6	34.3	38.9
Slovakia	**–**	**45.6**	**35.6**	**44.8**	**–**	**69.1**	**58.8**	**61.5**	**–**	**57.4**	**47.2**	**53.2**
11	–	59.9	46.8	50.2	–	73.3	59.9	64.8	–	66.6	53.3	57.5
13	–	43.8	32.5	46.8	–	70.6	58.9	60.9	–	57.2	45.7	53.9
15	–	33.2	27.6	37.5	–	63.4	57.6	58.9	–	48.3	42.6	48.2
Slovenia	**–**	**26.5**	**29.0**	**37.4**	**–**	**40.8**	**46.4**	**52.1**	**–**	**33.7**	**37.7**	**44.8**
11	–	36.8	35.7	47.8	–	44.4	50.3	57.2	–	40.6	43.0	52.5
13	–	21.4	30.2	38.4	–	39.7	48.6	53.2	–	30.6	39.4	45.8
15	–	21.4	21.1	26.2	–	38.3	40.3	46.1	–	29.9	30.7	36.1
Spain	**–**	**19.9**	**21.2**	**28.2**	**–**	**43.6**	**44.1**	**52.6**	**–**	**31.8**	**32.7**	**40.4**
11	–	24.8	26.3	34.9	–	47.3	49.2	51.2	–	36.1	37.7	43.1
13	–	19.8	20.8	25.4	–	41.4	44.8	53.7	–	30.6	32.8	39.5
15	–	15.1	16.5	24.3	–	42.1	38.3	52.9	–	28.6	27.4	38.6
Sweden	**25.1**	**25.0**	**25.5**	**37.2**	**41.5**	**37.3**	**38.8**	**47.5**	**33.3**	**31.1**	**32.1**	**42.4**
11	25.4	27.3	27.1	37.4	42.5	38.4	40.0	46.6	34.0	32.9	33.5	42.0
13	27.2	26.2	26.0	35.9	42.1	39.8	36.1	46.5	34.7	33.0	31.0	41.2
15	22.7	21.4	23.5	38.2	39.7	33.7	40.3	49.5	31.2	27.5	31.9	43.9
Switzerland	**30.3**	**26.1**	**24.4**	**28.4**	**54.1**	**49.2**	**45.0**	**47.5**	**42.2**	**37.6**	**34.7**	**38.0**
11	37.2	31.8	30.5	34.7	59.9	53.1	53.0	51.4	48.5	42.5	41.7	43.1
13	29.8	24.3	24.1	28.4	55.8	51.6	45.3	50.6	42.8	38.0	34.7	39.5
15	23.8	22.3	18.6	22.2	46.5	42.7	36.7	40.6	35.2	32.5	27.7	31.4
MKD[a]	**–**	**26.4**	**22.2**	**33.5**	**–**	**46.4**	**38.8**	**53.3**	**–**	**36.4**	**30.5**	**43.4**
11	–	32.7	27.7	37.0	–	53.2	38.0	54.4	–	42.9	32.9	45.7
13	–	28.3	21.9	38.6	–	46.9	38.9	54.8	–	37.6	30.4	46.7
15	–	18.3	16.9	24.9	–	39.1	39.6	50.7	–	28.7	28.2	37.8
Ukraine	**–**	**37.4**	**40.2**	**47.5**	**–**	**55.6**	**61.2**	**57.4**	**–**	**46.5**	**50.7**	**52.5**
11	–	44.3	49.5	49.4	–	58.0	64.5	58.1	–	51.2	57.0	53.8
13	–	36.0	41.2	52.4	–	56.8	60.9	57.6	–	46.4	51.1	55.0
15	–	31.8	29.8	40.6	–	52.0	58.3	56.6	–	41.9	44.0	48.6
Wales	**26.1**	**33.5**	**30.4**	**30.9**	**48.6**	**55.9**	**49.3**	**47.7**	**37.3**	**44.7**	**39.8**	**39.3**
11	34.7	46.6	41.6	39.5	51.3	61.6	56.1	49.6	43.0	54.1	48.8	44.6
13	28.0	31.7	30.3	29.7	49.0	57.9	48.3	47.6	38.5	44.8	39.3	38.6
15	15.6	22.2	19.3	23.5	45.4	48.2	43.3	45.9	30.5	35.2	31.3	34.7
Countries below are not included in trends analyses												
Albania	**–**	**–**	**–**	**35.8**	**–**	**–**	**–**	**57.1**	**–**	**–**	**–**	**46.5**
11	–	–	–	40.6	–	–	–	55.5	–	–	–	48.0
13	–	–	–	39.3	–	–	–	59.4	–	–	–	49.4
15	–	–	–	27.5	–	–	–	56.4	–	–	–	41.9
Armenia	**–**	**–**	**28.3**	**26.8**	**–**	**–**	**51.6**	**48.3**	**–**	**–**	**39.9**	**37.5**
11	–	–	32.0	30.9	–	–	55.6	50.8	–	–	43.8	40.8
13	–	–	31.5	28.6	–	–	52.8	48.6	–	–	42.1	38.6
15	–	–	21.5	20.9	–	–	46.3	45.4	–	–	33.9	33.2
Bulgaria	**–**	**31.2**	**–**	**37.3**	**–**	**52.7**	**–**	**55.9**	**–**	**41.9**	**–**	**46.6**
11	–	37.4	–	43.4	–	57.0	–	57.5	–	47.2	–	50.5
13	–	29.2	–	37.6	–	52.4	–	55.0	–	40.8	–	46.3
15	–	27.0	–	30.7	–	48.7	–	55.1	–	37.8	–	42.9
Malta	**–**	**26**	**–**	**34**	**–**	**39**	**–**	**46**	**–**	**33**	**–**	**40**
11	–	32	–	40	–	47	–	49	–	40	–	45
13	–	25	–	36	–	38	–	45	–	32	–	40
15	–	22	–	26	–	31	–	43	–	27	–	35
Republic of Moldova	**–**	**–**	**–**	**41.7**	**–**	**–**	**–**	**61.7**	**–**	**–**	**–**	**51.7**
11	–	–	–	45.8	–	–	–	63.1	–	–	–	54.4
13	–	–	–	40.9	–	–	–	61.0	–	–	–	51.0
15	–	–	–	38.4	–	–	–	61.1	–	–	–	49.8
Turkey	**–**	**20.2**	**19.3**	**–**	**–**	**36.6**	**36.8**	**–**	**–**	**28.4**	**28.1**	**–**
11	–	27.8	28.8	–	–	45.4	42.4	–	–	36.6	35.6	–
13	–	19.7	17.7	–	–	35.0	39.1	–	–	27.3	28.4	–
15	–	13.1	11.4	–	–	29.3	29.0	–	–	21.2	20.2	–

[a] The former Yugoslav Republic of Macedonia. *Note:* no data for 2002 were received for Austria, Belgium (Flemish), Croatia, Czechia, Denmark, Estonia, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Luxembourg, Netherlands, Poland, Romania, Russian Federation, Slovakia, Slovenia, Spain, the former Yugoslav Republic of Macedonia, Ukraine and United Kingdom (England). No data for 2014 were received for Belgium (French). No trend data were available for Albania, Armenia, Bulgaria, Malta, Republic of Moldova and Turkey.

TV-viewing two hours or more on weekdays (%)

Gender	Girls				Boys				Boys and girls			
Survey year	2002	2006	2010	2014	2002	2006	2010	2014	2002	2006	2010	2014
Austria	**–**	**56.4**	**50.9**	**50.2**	**–**	**63.5**	**56.7**	**55.5**	**–**	**59.9**	**53.8**	**52.8**
11	–	42.4	37.2	40.4	–	55.5	45.9	49.9	–	48.9	41.6	45.1
13	–	64.9	55.3	52.9	–	65.1	60.8	62.6	–	65.0	58.0	57.7
15	–	61.9	60.3	57.2	–	69.8	63.4	54.1	–	65.8	61.9	55.6
Belgium (Flemish)	**65.5**	**66.3**	**61.3**	**58.5**	**72.8**	**67.2**	**61.4**	**58.5**	**69.1**	**66.8**	**61.3**	**58.5**
11	65.3	62.1	55.1	53.8	72.0	63.6	58.0	55.2	68.7	62.9	56.5	54.5
13	66.4	70.0	63.8	62.7	75.1	68.6	61.3	59.2	70.8	69.3	62.5	61.0
15	64.8	66.9	65.1	59.1	71.2	69.3	64.8	60.9	68.0	68.1	64.9	60.0
Belgium (French)	**56.2**	**48.9**	**47.7**	**51.9**	**59.5**	**56.4**	**51.6**	**57.3**	**57.8**	**52.7**	**49.7**	**54.6**
11	47.8	42.2	40.1	42.8	54.6	49.4	42.5	48.1	51.2	45.8	41.3	45.4
13	59.5	53.8	48.9	57.6	59.7	60.2	54.8	59.9	59.6	57.0	51.9	58.7
15	61.2	50.7	54.1	55.2	64.1	59.6	57.6	64.0	62.6	55.2	55.8	59.6
Croatia	**75.3**	**74.2**	**70.9**	**57.2**	**78.7**	**76.6**	**71.9**	**59.9**	**77.0**	**75.4**	**71.4**	**58.5**
11	66.9	69.8	69.1	47.1	73.6	74.0	68.9	49.0	70.2	71.9	69.0	48.0
13	84.2	82.6	76.6	65.8	83.1	80.2	75.6	64.5	83.7	81.4	76.1	65.1
15	74.6	70.2	67.0	58.9	79.4	75.7	71.0	66.0	77.0	73.0	69.0	62.5
Czechia	**71.0**	**67.4**	**61.5**	**55.0**	**76.3**	**72.1**	**65.4**	**62.9**	**73.6**	**69.8**	**63.5**	**59.0**
11	63.8	64.7	56.2	48.0	70.1	69.8	61.1	62.0	67.0	67.2	58.7	55.0
13	77.3	70.8	69.2	57.6	79.2	75.8	72.3	61.9	78.3	73.3	70.7	59.8
15	71.9	66.8	59.1	59.4	79.4	70.8	62.8	64.8	75.7	68.8	61.0	62.1
Denmark	**71.5**	**65.4**	**64.5**	**60.9**	**73.0**	**68.8**	**65.9**	**65.3**	**72.3**	**67.1**	**65.2**	**63.1**
11	64.5	56.7	58.3	48.5	68.4	64.4	63.6	60.1	66.5	60.6	61.0	54.3
13	77.4	70.2	68.4	66.5	76.1	73.0	64.9	64.8	76.8	71.6	66.7	65.6
15	72.5	69.3	66.8	67.7	74.6	69.0	69.1	71.1	73.6	69.1	68.0	69.4
England	**75.4**	**56.2**	**63.9**	**61.8**	**75.7**	**62.2**	**69.8**	**61.3**	**75.6**	**59.2**	**66.9**	**61.5**
11	72.9	51.0	59.5	50.9	71.7	57.6	63.9	51.0	72.3	54.3	61.7	51.0
13	78.5	57.0	68.4	67.9	78.8	65.7	74.3	66.0	78.7	61.3	71.4	67.0
15	75.0	60.7	63.8	66.5	76.5	63.4	71.3	66.8	75.8	62.0	67.6	66.6
Estonia	**81.8**	**75.3**	**68.7**	**58.4**	**87.0**	**75.2**	**69.8**	**60.5**	**84.4**	**75.3**	**69.3**	**59.5**
11	81.7	74.9	68.3	56.0	84.3	74.1	69.3	60.6	83.0	74.5	68.8	58.3
13	87.9	78.9	74.5	61.8	90.3	80.4	74.0	61.9	89.1	79.7	74.2	61.9
15	75.9	72.3	63.4	57.4	86.4	71.1	66.1	59.1	81.2	71.7	64.8	58.2
Finland	**68.6**	**56.7**	**58.7**	**55.3**	**70.3**	**59.4**	**58.6**	**61.2**	**69.5**	**58.0**	**58.6**	**58.3**
11	69.2	54.6	58.1	55.1	67.1	54.9	60.7	57.9	68.2	54.7	59.4	56.5
13	68.3	58.0	59.3	59.0	71.7	61.8	59.9	65.0	70.0	59.9	59.6	62.0
15	68.4	57.4		51.9	72.1	61.5	55.1	60.7	70.2	59.5	55.1	56.3
France	**55.4**	**55.3**	**48.1**	**53.1**	**58.2**	**58.9**	**53.8**	**58.1**	**56.8**	**57.1**	**51.0**	**55.6**
11	46.1	50.2	41.5	39.3	50.8	52.5	48.9	50.3	48.5	51.4	45.2	44.8
13	59.6	58.3	55.3	61.8	61.6	63.3	58.9	61.8	60.6	60.8	57.1	61.8
15	60.3	57.3	47.6	58.1	62.2	60.9	53.7	62.3	61.3	59.1	50.7	60.2
Germany	**63.5**	**58.1**	**55.2**	**51.5**	**68.8**	**61.2**	**58.8**	**58.1**	**66.1**	**59.6**	**57.0**	**54.8**
11	49.4	42.5	42.7	35.6	58.2	50.4	43.9	44.8	53.8	46.4	43.3	40.2
13	69.4	64.0	58.7	58.4	73.1	66.0	64.9	64.0	71.2	65.0	61.8	61.2
15	71.5	67.8	64.1	60.5	75.0	67.1	67.6	65.5	73.3	67.4	65.9	63.0
Greece	**59.8**	**76.4**	**69.4**	**58.5**	**70.0**	**73.5**	**71.0**	**63.1**	**64.9**	**75.0**	**70.2**	**60.8**
11	52.5	69.6	64.2	44.8	64.0	67.7	68.5	53.0	58.2	68.7	66.3	48.9
13	65.8	82.3	74.3	65.7	73.7	77.3	73.3	65.6	69.8	79.8	73.8	65.7
15	61.1	77.5	69.7	65.1	72.2	75.4	71.1	70.7	66.6	76.5	70.4	67.9
Hungary	**59.8**	**58.7**	**56.5**	**51.0**	**66.6**	**62.8**	**59.5**	**55.1**	**63.2**	**60.7**	**58.0**	**53.1**
11	52.6	49.8	48.2	39.8	60.5	56.7	50.4	46.9	56.6	53.3	49.3	43.4
13	67.2	67.0	64.6	55.6	70.1	68.0	63.9	56.8	68.6	67.5	64.3	56.2
15	59.4	59.3	56.5	57.8	69.2	63.5	64.3	61.6	64.3	61.4	60.4	59.7
Iceland	**–**	**58.2**	**46.3**	**44.3**	**–**	**65.4**	**53.7**	**51.8**	**–**	**61.8**	**50.0**	**48.0**
11	–	50.2	40.9	29.8	–	62.4	48.9	40.3	–	56.3	44.9	35.0
13	–	63.7	52.4	48.9	–	71.7	60.0	57.3	–	67.7	56.2	53.1
15	–	60.7	45.5	54.3	–	62.2	52.2	57.7	–	61.5	48.9	56.0
Ireland	**64.0**	**60.3**	**51.6**	**49.2**	**68.0**	**64.7**	**57.0**	**51.6**	**66.0**	**62.5**	**54.3**	**50.4**
11	62.6	56.5	47.8	42.3	67.4	63.1	54.5	46.5	65.0	59.8	51.2	44.4
13	64.2	63.0	51.5	51.7	67.7	66.2	56.4	52.8	66.0	64.6	53.9	52.3
15	65.3	61.3	55.5	53.5	68.9	64.9	60.0	55.5	67.1	63.1	57.8	54.5
Israel	**85.4**	**79.0**	**74.0**	**70.2**	**84.4**	**75.3**	**72.6**	**66.8**	**84.9**	**77.2**	**73.3**	**68.5**
11	88.9	78.3	73.6	68.9	88.4	72.5	72.0	69.3	88.7	75.4	72.8	69.1
13	88.7	84.8	73.6	75.2	87.9	75.4	75.0	64.4	88.3	80.1	74.3	69.8
15	78.7	74.0	74.9	66.5	76.9	78.0	70.8	66.7	77.8	76.0	72.8	66.6
Italy	**70.0**	**61.0**	**54.0**	**46.6**	**65.2**	**63.8**	**56.3**	**54.2**	**67.6**	**62.4**	**55.2**	**50.4**
11	56.8	51.8	41.7	39.9	56.9	56.1	48.3	46.5	56.9	54.0	45.0	43.2
13	78.3	65.6	59.5	47.8	67.6	66.1	58.7	57.0	72.9	65.8	59.1	52.4
15	74.9	65.4	60.8	52.1	71.1	69.3	61.8	59.0	73.0	67.4	61.3	55.6
Latvia	**78.6**	**74.0**	**68.7**	**62.3**	**87.1**	**77.7**	**70.6**	**66.4**	**82.9**	**75.8**	**69.7**	**64.4**
11	76.3	73.4	65.4	53.5	86.1	76.8	69.5	62.7	81.2	75.1	67.4	58.1
13	83.6	78.3	73.2	66.9	88.4	81.7	73.8	69.1	86.0	80.0	73.5	68.0
15	76.1	70.3	67.7	66.5	86.8	74.5	68.4	67.5	81.4	72.4	68.0	67.0
Lithuania	**74.5**	**79.8**	**71.1**	**58.3**	**80.5**	**77.9**	**71.0**	**59.8**	**77.5**	**78.8**	**71.0**	**59.0**
11	75.5	78.7	68.7	53.7	78.0	74.9	68.8	59.5	76.8	76.8	68.8	56.6
13	76.8	82.8	74.9	63.2	82.3	82.2	72.4	62.2	79.5	82.5	73.7	62.7
15	71.1	78.0	69.6	57.9	81.3	76.5	71.8	57.6	76.2	77.3	70.7	57.8
Luxembourg	**–**	**46.8**	**49.6**	**50.1**	**–**	**52.9**	**53.7**	**57.0**	**–**	**49.8**	**51.6**	**53.5**
11	–	36.9	39.7	36.6	–	44.9	42.1	44.0	–	40.9	40.9	40.3
13	–	50.4	51.5	52.9	–	54.5	55.8	60.9	–	52.5	53.6	56.9
15	–	53.0	57.5	60.7	–	59.2	63.1	65.9	–	56.1	60.3	63.3
Netherlands	**69.8**	**69.6**	**67.3**	**69.0**	**75.3**	**73.4**	**70.2**	**68.1**	**72.5**	**71.5**	**68.8**	**68.6**
11	64.8	62.6	64.2	61.1	70.5	65.2	69.3	61.4	67.7	63.9	66.8	61.3
13	72.7	69.8	68.8	71.2	78.2	75.9	71.0	70.0	75.4	72.9	69.9	70.6
15	72.0	76.3	68.9	74.8	77.1	79.0	70.5	72.9	74.5	77.6	69.7	73.8

TV-viewing two hours or more on weekdays (%) contd

Gender	Girls				Boys				Boys and girls			
Survey year	2002	2006	2010	2014	2002	2006	2010	2014	2002	2006	2010	2014
Norway	**73.1**	**62.8**	**56.2**	**52.4**	**72.7**	**58.3**	**56.5**	**58.7**	**72.9**	**60.6**	**56.3**	**55.5**
11	67.6	48.0	41.9	39.0	65.9	49.9	46.6	46.1	66.8	49.0	44.3	42.5
13	77.6	68.8	61.3	57.3	76.9	59.2	59.3	63.6	77.2	64.0	60.3	60.4
15	74.3	71.6	65.5	61.0	75.3	65.8	63.5	66.3	74.8	68.7	64.5	63.6
Poland	**73.8**	**66.6**	**64.3**	**59.3**	**79.0**	**69.7**	**66.2**	**59.7**	**76.4**	**68.2**	**65.2**	**59.5**
11	72.3	63.3	61.1	49.0	77.4	66.0	63.9	56.5	74.9	64.6	62.5	52.7
13	77.8	72.9	67.2	65.3	81.1	74.5	68.1	60.4	79.4	73.7	67.6	62.8
15	71.3	63.7	64.6	63.6	78.5	68.6	66.7	62.2	74.9	66.2	65.6	62.9
Portugal	**75.4**	**75.9**	**66.4**	**52.9**	**73.4**	**73.8**	**66.5**	**56.3**	**74.4**	**74.8**	**66.4**	**54.6**
11	67.3	67.3	59.9	45.1	67.9	68.2	60.9	52.2	67.6	67.7	60.4	48.7
13	86.2	81.9	75.1	62.0	77.8	76.2	72.1	61.2	82.0	79.0	73.6	61.6
15	72.7	78.4	64.1	51.4	74.6	77.1	66.5	55.5	73.6	77.7	65.3	53.5
Romania	**–**	**75.3**	**68.9**	**66.1**	**–**	**80.7**	**70.2**	**69.0**	**–**	**78.0**	**69.6**	**67.5**
11	–	72.6	64.2	56.0	–	79.1	65.3	66.7	–	75.8	64.8	61.3
13	–	79.6	74.8	67.6	–	80.7	76.9	67.2	–	80.1	75.8	67.4
15	–	73.6	67.8	74.7	–	82.3	68.5	72.9	–	78.0	68.1	73.8
Russian Federation	**74.8**	**73.8**	**68.2**	**58.2**	**78.4**	**71.9**	**65.8**	**61.9**	**76.6**	**72.9**	**67.0**	**60.1**
11	72.5	72.7	68.5	52.2	76.8	70.7	67.4	57.1	74.6	71.7	67.9	54.7
13	79.8	75.7	70.7	62.5	81.0	73.6	66.7	65.8	80.4	74.7	68.7	64.1
15	72.1	73.1	65.3	60.0	77.5	71.4	63.4	62.7	74.8	72.3	64.4	61.4
Scotland	**74.1**	**67.6**	**64.0**	**60.1**	**75.6**	**72.0**	**65.6**	**67.8**	**74.9**	**69.8**	**64.8**	**64.0**
11	70.6	64.1	57.5	50.8	72.7	68.9	61.4	60.4	71.6	66.5	59.5	55.6
13	78.2	69.5	66.7	65.1	76.5	73.3	66.4	71.0	77.4	71.4	66.5	68.0
15	73.6	69.2	67.9	64.5	77.7	73.9	69.0	72.0	75.7	71.5	68.4	68.2
Slovakia	**–**	**79.8**	**71.8**	**64.3**	**–**	**81.5**	**73.2**	**66.0**	**–**	**80.7**	**72.5**	**65.1**
11	–	74.2	66.2	53.9	–	75.7	71.2	59.2	–	74.9	68.7	56.5
13	–	82.4	77.7	69.6	–	83.9	75.1	69.0	–	83.2	76.4	69.3
15	–	82.9	71.6	69.3	–	85.1	73.3	69.9	–	84.0	72.4	69.6
Slovenia	**66.0**	**59.9**	**54.9**	**48.9**	**71.2**	**65.9**	**61.2**	**56.3**	**68.6**	**62.9**	**58.0**	**52.6**
11	67.3	63.0	55.0	40.4	70.4	65.0	63.2	49.3	68.8	64.0	59.1	44.8
13	71.6	68.4	63.6	56.6	75.7	70.1	66.8	60.9	73.6	69.2	65.2	58.8
15	59.1	48.5	46.2	49.8	67.5	62.6	53.5	58.8	63.3	55.6	49.8	54.3
Spain	**68.0**	**59.0**	**54.0**	**47.9**	**68.6**	**61.2**	**57.8**	**52.5**	**68.3**	**60.1**	**55.9**	**50.2**
11	52.8	45.4	44.6	30.3	58.6	52.9	48.2	42.7	55.7	49.2	46.4	36.5
13	71.5	62.3	54.1	54.6	70.6	64.2	60.2	51.4	71.0	63.2	57.1	53.0
15	79.7	69.3	63.4	58.9	76.7	66.6	65.0	63.4	78.2	68.0	64.2	61.1
Sweden	**64.5**	**57.5**	**61.3**	**62.1**	**67.0**	**61.0**	**62.8**	**64.8**	**65.8**	**59.3**	**62.1**	**63.5**
11	57.6	48.2	56.4	51.3	59.9	54.6	59.7	58.2	58.8	51.4	58.0	54.8
13	69.8	65.6	67.4	67.9	70.8	67.1	65.9	66.5	70.3	66.3	66.6	67.2
15	66.1	58.8	60.2	67.0	70.3	61.3	62.8	69.8	68.2	60.1	61.5	68.4
Switzerland	**43.4**	**36.6**	**31.9**	**40.1**	**48.5**	**40.3**	**36.2**	**44.9**	**45.9**	**38.5**	**34.1**	**42.5**
11	32.3	29.2	24.1	29.4	38.9	31.1	29.3	31.5	35.6	30.2	26.7	30.5
13	45.5	38.3	34.1	40.1	49.6	39.2	34.5	45.3	47.5	38.8	34.3	42.7
15	52.5	42.3	37.6	51.0	56.9	50.6	45.0	57.8	54.7	46.4	41.3	54.4
MKD[a]	**68.8**	**62.4**	**60.8**	**52.0**	**71.5**	**62.4**	**58.5**	**53.1**	**70.2**	**62.4**	**59.6**	**52.6**
11	57.5	51.4	47.2	42.8	63.8	55.1	51.5	45.8	60.7	53.2	49.3	44.3
13	77.6	69.9	69.8	57.0	75.8	66.6	63.3	56.8	76.7	68.3	66.5	56.9
15	71.2	66.0	65.4	56.2	75.0	65.5	60.7	56.8	73.1	65.8	63.1	56.5
Ukraine	**82.9**	**79.7**	**72.0**	**57.6**	**87.2**	**79.4**	**71.2**	**59.5**	**85.0**	**79.5**	**71.6**	**58.5**
11	82.8	77.2	70.5	45.8	88.6	77.3	69.0	51.9	85.7	77.3	69.7	48.8
13	85.2	82.7	76.3	62.8	87.0	83.4	75.6	65.4	86.1	83.0	75.9	64.1
15	80.7	79.1	69.1	64.2	86.0	77.5	69.1	61.2	83.3	78.3	69.1	62.7
Wales	**78.8**	**69.9**	**63.9**	**64.6**	**74.8**	**71.2**	**68.5**	**69.1**	**76.8**	**70.5**	**66.2**	**66.9**
11	74.3	65.5	56.2	53.2	73.0	62.3	62.4	62.3	73.7	63.9	59.3	57.8
13	81.3	72.0	69.0	67.9	74.8	76.1	70.5	72.6	78.1	74.1	69.7	70.2
15	80.9	72.1	66.5	72.7	76.5	75.2	72.5	72.4	78.7	73.7	69.5	72.6
Countries below are not included in trends analyses												
Albania	**–**	**–**	**–**	**63.8**	**–**	**–**	**–**	**63.2**	**–**	**–**	**–**	**63.5**
11	–	–	–	46.6	–	–	–	51.3	–	–	–	48.9
13	–	–	–	69.4	–	–	–	65.4	–	–	–	67.4
15	–	–	–	75.3	–	–	–	73.0	–	–	–	74.1
Armenia	**–**	**–**	**72.9**	**56.8**	**–**	**–**	**73.3**	**61.1**	**–**	**–**	**73.1**	**58.9**
11	–	–	61.1	46.6	–	–	66.4	48.3	–	–	63.8	47.4
13	–	–	75.0	57.7	–	–	74.2	62.3	–	–	74.6	60.0
15	–	–	82.4	66.0	–	–	79.3	72.7	–	–	80.9	69.4
Bulgaria	**–**	**84.0**	**–**	**72.4**	**–**	**80.1**	**–**	**68.8**	**–**	**82.1**	**–**	**70.6**
11	–	81.5	–	65.5	–	80.2	–	63.9	–	80.8	–	64.7
13	–	86.1	–	79.5	–	82.3	–	72.6	–	84.2	–	76.1
15	–	84.4	–	72.1	–	77.8	–	69.9	–	81.1	–	71.0
Malta	**51.7**	**–**	**–**	**49.8**	**58.7**	**–**	**–**	**58.6**	**55.2**	**–**	**–**	**54.2**
11	48.3	–	–	40.6	52.6	–	–	52.7	50.4	–	–	46.6
13	61.0	–	–	54.4	66.6	–	–	58.3	63.8	–	–	56.4
15	45.8	–	–	54.5	57.0	–	–	64.9	51.4	–	–	59.7
Republic of Moldova	**–**	**–**	**–**	**66.7**	**–**	**–**	**–**	**65.0**	**–**	**–**	**–**	**65.9**
11	–	–	–	52.9	–	–	–	54.5	–	–	–	53.7
13	–	–	–	70.7	–	–	–	67.8	–	–	–	69.2
15	–	–	–	76.5	–	–	–	72.7	–	–	–	74.6
Turkey	**–**	**63.3**	**61.5**	**–**	**–**	**65.1**	**65.1**	**–**	**–**	**64.2**	**63.3**	**–**
11	–	59.2	52.5	–	–	62.8	60.1	–	–	61.0	56.3	–
13	–	62.3	65.1	–	–	63.0	67.1	–	–	62.6	66.1	–
15	–	68.5	66.9	–	–	69.5	68.0	–	–	69.0	67.4	–

[a] The former Yugoslav Republic of Macedonia. *Note:* no data for 2002 were received for Austria, Iceland, Luxembourg, Romania and Slovakia. No trend data were available for Albania, Armenia, Bulgaria, Malta, Republic of Moldova and Turkey.

Computer use of two hours or more on weekdays (%)

Gender	Girls				Boys				Boys and girls			
Survey year	2002	2006	2010	2014	2002	2006	2010	2014	2002	2006	2010	2014
Austria	**–**	**43.7**	**48.9**	**56.3**	**–**	**59.6**	**60.7**	**68.6**	**–**	**51.6**	**54.8**	**62.4**
11	–	36.1	31.6	39.7	–	51.2	46.1	56.6	–	43.7	38.8	48.2
13	–	48.4	49.6	59.6	–	61.2	61.4	75.0	–	54.8	55.5	67.3
15	–	46.6	65.4	69.6	–	66.2	74.7	74.1	–	56.4	70.1	71.9
Belgium (Flemish)	**19.0**	**51.4**	**52.3**	**61.5**	**33.3**	**61.0**	**62.9**	**66.7**	**26.1**	**56.2**	**57.6**	**64.1**
11	12.2	39.8	44.7	49.4	26.0	52.3	53.9	56.4	19.1	46.1	49.3	52.9
13	18.4	55.4	53.0	64.4	33.4	64.3	62.9	70.0	25.9	59.9	58.0	67.2
15	26.4	59.1	59.1	70.5	40.5	66.4	71.8	73.9	33.4	62.8	65.5	72.2
Belgium (French)	**12.8**	**44.4**	**48.0**	**62.6**	**32.9**	**55.6**	**51.7**	**66.4**	**22.8**	**50.0**	**49.8**	**64.5**
11	10.2	32.1	37.0	44.7	27.5	44.2	41.0	53.6	18.9	38.1	39.0	49.1
13	12.1	48.4	51.3	68.3	33.1	58.2	52.8	67.8	22.6	53.3	52.1	68.1
15	16.1	52.7	55.6	74.8	38.0	64.3	61.3	77.8	27.0	58.5	58.5	76.3
Croatia	**11.7**	**32.5**	**57.6**	**51.7**	**28.3**	**53.8**	**68.1**	**65.7**	**20.0**	**43.1**	**62.9**	**58.7**
11	7.7	26.6	43.2	34.5	24.6	50.8	62.6	54.5	16.1	38.7	52.9	44.5
13	15.5	39.2	61.0	57.0	30.9	55.6	69.4	69.0	23.2	47.4	65.2	63.0
15	11.8	31.7	68.7	63.6	29.5	55.0	72.4	73.7	20.6	43.3	70.6	68.7
Czechia	**13.1**	**38.9**	**63.3**	**61.4**	**40.1**	**64.2**	**75.2**	**78.9**	**26.6**	**51.5**	**69.2**	**70.2**
11	13.6	30.5	47.7	46.0	34.6	56.0	63.0	72.5	24.1	43.3	55.4	59.3
13	14.4	41.1	67.6	63.7	41.4	67.2	77.2	78.5	27.9	54.2	72.4	71.1
15	11.4	44.9	74.5	74.5	44.1	69.3	85.3	85.8	27.8	57.1	79.9	80.2
Denmark	**12.8**	**47.8**	**62.3**	**69.9**	**46.7**	**71.9**	**81.0**	**86.0**	**29.7**	**59.8**	**71.6**	**78.0**
11	14.1	40.6	48.6	60.1	37.7	64.3	70.4	79.9	25.9	52.4	59.5	70.0
13	14.4	51.8	65.4	73.2	51.3	74.6	82.9	88.0	32.8	63.2	74.1	80.6
15	9.9	50.9	72.7	76.5	51.1	76.9	89.9	90.2	30.5	63.9	81.3	83.4
England	**–**	**53.2**	**67.5**	**74.6**	**–**	**66.7**	**76.6**	**76.5**	**–**	**59.9**	**72.1**	**75.5**
11	–	41.6	51.9	59.6	–	55.8	67.7	62.8	–	48.7	59.8	61.2
13	–	56.1	72.1	81.2	–	70.6	78.7	82.2	–	63.3	75.4	81.7
15	–	61.7	78.5	82.9	–	73.6	83.6	84.4	–	67.7	81.0	83.6
Estonia	**19.0**	**62.0**	**72.0**	**70.4**	**45.9**	**79.3**	**82.6**	**82.3**	**32.4**	**70.7**	**77.3**	**76.4**
11	19.0	56.8	57.4	55.2	40.9	75.2	75.8	73.5	29.9	66.0	66.6	64.4
13	21.1	66.0	77.6	74.9	51.4	80.7	83.9	85.1	36.2	73.4	80.7	80.0
15	16.8	63.3	81.2	81.1	45.4	82.1	88.2	88.2	31.1	72.7	84.7	84.7
Finland	**9.5**	**45.5**	**60.6**	**62.0**	**36.2**	**66.9**	**73.0**	**73.7**	**22.8**	**56.2**	**66.8**	**67.9**
11	10.3	38.5	55.4	46.6	33.3	57.7	63.8	63.5	21.8	48.1	59.6	55.0
13	8.6	47.4	61.7	69.1	37.8	69.2	74.2	78.6	23.2	58.3	67.9	73.8
15	9.5	50.6	64.5	70.4	37.5	73.9	80.9	79.1	23.5	62.3	72.7	74.7
France	**10.1**	**39.3**	**51.2**	**61.6**	**22.2**	**53.5**	**61.9**	**69.7**	**16.1**	**46.4**	**56.6**	**65.7**
11	6.9	34.3	38.5	44.0	18.2	48.5	52.1	56.0	12.6	41.4	45.3	50.0
13	11.2	41.7	56.5	66.4	24.1	58.6	66.8	74.1	17.6	50.2	61.6	70.2
15	12.1	41.7	58.5	74.5	24.3	53.4	66.9	79.1	18.2	47.6	62.7	76.8
Germany	**13.5**	**42.9**	**53.2**	**61.1**	**37.4**	**61.7**	**62.9**	**69.4**	**25.4**	**52.3**	**58.1**	**65.3**
11	10.1	27.3	30.9	34.5	24.1	44.5	41.1	50.6	17.1	35.9	36.0	42.5
13	16.4	47.2	59.5	68.4	42.3	64.7	67.8	73.8	29.3	56.0	63.6	71.1
15	13.9	54.1	69.2	80.4	45.7	75.8	79.8	83.9	29.8	65.0	74.5	82.1
Greece	**9.8**	**20.8**	**47.9**	**57.1**	**30.2**	**54.3**	**65.7**	**68.7**	**20.0**	**37.5**	**56.8**	**62.9**
11	10.4	22.1	36.1	37.9	26.5	49.4	57.2	54.2	18.5	35.8	46.7	46.1
13	10.8	21.7	52.5	64.5	33.4	58.7	67.5	74.9	22.1	40.2	60.0	69.7
15	8.1	18.6	55.1	69.0	30.7	54.8	72.4	76.9	19.4	36.7	63.7	73.0
Hungary	**13.9**	**38.1**	**55.6**	**62.1**	**33.9**	**59.2**	**66.7**	**69.0**	**23.9**	**48.6**	**61.1**	**65.5**
11	14.7	29.9	44.5	46.8	32.8	52.0	56.1	60.0	23.8	41.0	50.3	53.4
13	13.6	43.3	60.3	62.7	35.4	60.3	70.4	68.5	24.5	51.8	65.3	65.6
15	13.5	41.0	61.9	76.8	33.5	65.3	73.6	78.4	23.5	53.1	67.8	77.6
Iceland	**–**	**51.7**	**58.3**	**62.1**	**–**	**72.6**	**74.4**	**76.6**	**–**	**62.2**	**66.4**	**69.4**
11	–	36.8	37.1	44.3	–	61.5	57.1	65.8	–	49.1	47.1	55.1
13	–	56.8	60.5	68.7	–	76.8	78.7	80.8	–	66.8	69.6	74.7
15	–	61.5	77.5	73.3	–	79.7	87.4	83.3	–	70.6	82.4	78.3
Ireland	**–**	**21.8**	**36.0**	**63.0**	**–**	**40.9**	**48.6**	**64.6**	**–**	**31.3**	**42.3**	**63.8**
11	–	18.6	27.9	47.1	–	43.1	43.3	55.1	–	30.8	35.6	51.1
13	–	24.3	40.9	67.8	–	40.4	52.5	67.7	–	32.3	46.7	67.8
15	–	22.5	39.3	74.1	–	39.3	49.8	70.9	–	30.9	44.5	72.5
Israel	**36.2**	**71.8**	**76.7**	**76.3**	**60.7**	**78.9**	**82.0**	**78.8**	**48.4**	**75.4**	**79.3**	**77.6**
11	41.3	72.5	72.6	71.2	63.4	76.8	78.5	75.6	52.4	74.7	75.6	73.4
13	40.8	74.2	77.4	81.1	62.4	79.6	85.3	77.9	51.6	76.9	81.3	79.5
15	26.4	68.9	80.0	76.6	56.2	80.3	82.1	83.0	41.3	74.6	81.0	79.8
Italy	**12.9**	**27.8**	**52.7**	**60.5**	**27.0**	**48.1**	**61.8**	**67.1**	**19.9**	**38.0**	**57.2**	**63.8**
11	11.5	22.9	34.6	42.4	19.9	43.5	48.5	52.3	15.7	33.2	41.5	47.4
13	13.4	31.9	59.7	67.2	29.0	51.2	63.0	74.2	21.2	41.5	61.3	70.7
15	13.8	28.5	63.9	72.0	32.1	49.7	73.8	74.8	22.9	39.1	68.8	73.4
Latvia	**17.2**	**50.3**	**63.0**	**68.9**	**37.5**	**67.7**	**75.6**	**79.9**	**27.4**	**59.0**	**69.3**	**74.4**
11	12.6	44.4	52.4	56.4	33.7	62.1	68.1	72.4	23.2	53.3	60.2	64.4
13	21.4	54.9	66.6	71.9	40.1	71.1	77.0	82.9	30.7	63.0	71.8	77.4
15	17.6	51.6	69.9	78.5	38.7	70.0	81.8	84.6	28.2	60.8	75.9	81.5
Luxembourg	**–**	**42.9**	**50.5**	**59.2**	**–**	**54.8**	**58.4**	**68.4**	**–**	**48.9**	**54.4**	**63.8**
11	–	28.9	32.4	41.2	–	38.7	37.3	53.1	–	33.8	34.8	47.1
13	–	46.0	57.0	61.1	–	56.8	64.6	68.5	–	51.4	60.8	64.8
15	–	53.7	62.0	75.1	–	69.1	73.2	83.6	–	61.4	67.6	79.4
Netherlands	**19.7**	**64.2**	**67.7**	**79.7**	**42.6**	**78.5**	**76.8**	**82.6**	**31.1**	**71.3**	**72.3**	**81.2**
11	15.5	54.7	52.3	64.8	39.8	69.0	65.3	72.1	27.7	61.8	58.8	68.4
13	20.6	67.1	71.5	83.1	42.8	80.1	80.6	86.4	31.7	73.6	76.1	84.8
15	22.9	70.8	79.3	91.2	45.3	86.3	84.6	89.4	34.1	78.6	81.9	90.3
Norway	**14.6**	**52.2**	**72.7**	**70.7**	**46.8**	**62.8**	**80.7**	**77.1**	**30.7**	**57.5**	**76.7**	**73.9**
11	12.6	37.1		49.2	33.3	47.4		63.8	22.9	42.2		56.5
13	15.9	57.4	62.6	80.9	51.0	63.7	73.5	78.7	33.4	60.6	68.0	79.8
15	15.2	62.1	82.9	81.9	56.1	77.3	88.0	88.9	35.7	69.7	85.4	85.4

Computer use of two hours or more on weekdays (%) contd

Gender	Girls				Boys				Boys and girls			
Survey year	2002	2006	2010	2014	2002	2006	2010	2014	2002	2006	2010	2014
Poland	**20.8**	**46.7**	**67.2**	**67.8**	**42.8**	**70.5**	**80.9**	**72.4**	**31.8**	**58.6**	**74.0**	**70.1**
11	21.8	41.9	62.0	49.6	42.5	63.9	76.2	62.1	32.1	52.9	69.1	55.8
13	23.3	48.9	66.6	75.0	41.3	71.2	80.8	73.9	32.3	60.0	73.7	74.4
15	17.2	49.2	73.0	78.9	44.6	76.3	85.5	81.1	30.9	62.8	79.3	80.0
Portugal	**15.7**	**49.1**	**57.1**	**50.5**	**37.2**	**67.9**	**70.7**	**61.4**	**26.5**	**58.5**	**63.9**	**56.0**
11	10.5	39.5	47.8	37.1	29.9	60.9	58.6	51.5	20.2	50.2	53.2	44.3
13	16.4	53.0	65.2	55.9	38.8	68.2	74.6	61.9	27.6	60.6	69.9	58.9
15	20.1	54.8	58.4	58.5	43.0	74.6	78.8	70.8	31.6	64.7	68.6	64.6
Romania	**–**	**49.2**	**61.9**	**67.3**	**–**	**69.9**	**73.6**	**75.7**	**–**	**59.6**	**67.7**	**71.5**
11	–	43.5	53.6	56.1	–	62.6	65.3	67.8	–	53.0	59.5	61.9
13	–	52.1	62.1	71.8	–	72.1	76.8	76.7	–	62.1	69.4	74.2
15	–	52.0	69.9	74.0	–	75.0	78.7	82.5	–	63.5	74.3	78.3
Russian Federation	**17.9**	**39.4**	**66.7**	**73.6**	**42.8**	**58.2**	**75.9**	**78.1**	**30.3**	**48.8**	**71.3**	**75.8**
11	13.5	36.9	59.4	59.9	38.3	52.8	72.8	73.1	25.9	44.8	66.1	66.5
13	19.7	39.4	66.2	77.8	45.7	59.5	73.2	79.5	32.7	49.4	69.7	78.6
15	20.5	41.8	74.4	83.1	44.4	62.5	81.7	81.8	32.5	52.2	78.1	82.5
Scotland	**26.6**	**55.9**	**66.2**	**79.9**	**50.8**	**74.1**	**80.2**	**83.6**	**38.7**	**65.0**	**73.2**	**81.7**
11	25.3	50.5	55.2	66.6	46.8	71.5	73.1	74.7	36.1	61.0	64.1	70.6
13	29.1	61.3	70.4	85.0	52.7	74.6	81.9	87.6	40.9	67.9	76.1	86.3
15	25.4	55.9	73.0	88.1	52.9	76.2	85.6	88.5	39.1	66.1	79.3	88.3
Slovakia	**–**	**44.7**	**67.2**	**70.3**	**–**	**69.7**	**78.9**	**80.0**	**–**	**57.2**	**73.0**	**75.2**
11	–	39.2	55.3	58.0	–	62.0	71.4	74.5	–	50.6	63.3	66.2
13	–	43.8	71.2	72.2	–	69.6	81.4	80.4	–	56.7	76.3	76.3
15	–	50.9	75.0	80.8	–	77.5	84.0	85.3	–	64.2	79.5	83.0
Slovenia	**11.6**	**39.4**	**53.2**	**50.8**	**33.9**	**60.7**	**66.1**	**65.9**	**22.7**	**50.1**	**59.7**	**58.3**
11	12.1	31.7	41.0	31.3	32.5	54.4	56.1	55.2	22.3	43.1	48.5	43.3
13	10.2	43.8	57.6	54.0	32.4	62.4	68.3	69.2	21.3	53.1	62.9	61.6
15	12.4	42.8	61.2	66.9	36.8	65.3	73.9	73.5	24.6	54.0	67.5	70.2
Spain	**14.8**	**33.7**	**55.8**	**59.3**	**26.7**	**49.3**	**61.0**	**62.1**	**20.8**	**41.5**	**58.4**	**60.7**
11	10.8	25.4	42.0	32.2	19.6	40.3	51.0	47.7	15.2	32.8	46.5	39.9
13	16.3	34.1	57.5	64.6	27.1	52.1	60.9	61.1	21.7	43.1	59.2	62.9
15	17.3	41.6	67.9	81.1	33.4	55.6	71.0	77.5	25.4	48.6	69.5	79.3
Sweden	**18.0**	**51.0**	**66.7**	**74.8**	**46.5**	**71.9**	**78.6**	**83.3**	**32.3**	**61.4**	**72.6**	**79.1**
11	14.1	38.4	51.4	56.9	36.7	62.2	66.5	75.4	25.4	50.3	59.0	66.1
13	20.2	55.1	71.9	82.8	52.3	74.5	81.0	86.0	36.3	64.8	76.5	84.4
15	19.7	59.7	76.6	84.7	50.6	79.0	88.2	88.6	35.1	69.3	82.4	86.6
Switzerland	**8.7**	**27.7**	**36.8**	**49.9**	**22.7**	**41.5**	**43.3**	**55.4**	**15.7**	**34.6**	**40.0**	**52.6**
11	5.5	15.5	19.5	30.3	16.8	26.5	27.3	38.2	11.1	21.0	23.4	34.3
13	9.0	29.6	40.1	52.5	23.6	42.3	44.4	56.7	16.3	36.0	42.2	54.6
15	11.6	37.9	50.7	66.8	27.7	55.8	58.1	71.2	19.6	46.9	54.4	69.0
MKD[a]	**17.7**	**42.0**	**59.2**	**61.3**	**34.5**	**54.5**	**69.6**	**67.6**	**26.1**	**48.2**	**64.4**	**64.4**
11	16.1	40.4	44.8	50.9	30.8	52.0	59.9	60.9	23.5	46.2	52.3	55.9
13	17.8	45.1	62.5	66.8	32.2	57.3	71.6	72.3	25.0	51.2	67.1	69.6
15	19.3	40.7	70.3	66.1	40.4	54.1	77.4	69.6	29.9	47.4	73.8	67.9
Ukraine	**9.1**	**24.3**	**42.0**	**–**	**25.6**	**52.5**	**56.1**	**–**	**17.4**	**38.4**	**49.1**	**–**
11	10.3	27.1	38.5	–	22.0	50.1	53.1	–	16.1	38.6	45.8	–
13	7.9	23.3	40.8	–	27.9	51.8	59.0	–	17.9	37.6	49.9	–
15	9.3	22.6	46.8	–	26.8	55.5	56.3	–	18.0	39.0	51.5	–
Wales	**24.3**	**57.5**	**69.8**	**76.4**	**40.8**	**70.6**	**78.1**	**84.6**	**32.5**	**64.0**	**73.9**	**80.5**
11	21.0	53.2	59.5	65.6	38.4	62.2	70.5	77.2	29.7	57.7	65.0	71.4
13	27.7	60.2	76.5	79.8	42.2	74.4	80.6	86.9	35.0	67.3	78.5	83.3
15	24.1	59.1	73.5	83.7	41.8	75.2	83.1	89.7	33.0	67.1	78.3	86.7
Countries below are not included in trends analyses												
Albania	**–**	**–**	**–**	**49.3**	**–**	**–**	**–**	**69.0**	**–**	**–**	**–**	**59.1**
11	–	–	–	33.0	–	–	–	57.0	–	–	–	45.0
13	–	–	–	53.7	–	–	–	73.6	–	–	–	63.6
15	–	–	–	61.1	–	–	–	76.3	–	–	–	68.7
Armenia	**–**	**–**	**42.4**	**45.5**	**–**	**–**	**59.7**	**65.5**	**–**	**–**	**51.0**	**53.5**
11	–	–	35.3	32.1	–	–	51.8		–	–	43.6	32.1
13	–	–	42.1	48.6	–	–	59.7	61.4	–	–	50.9	55.0
15	–	–	49.7	55.7	–	–	67.6	69.6	–	–	58.7	62.7
Bulgaria	**–**	**49.1**	**–**	**78.7**	**–**	**71.2**	**–**	**83.2**	**–**	**60.2**	**–**	**80.9**
11	–	45.7	–	70.6	–	70.0	–	77.8	–	57.8	–	74.2
13	–	49.0	–	83.8	–	74.0	–	87.4	–	61.5	–	85.6
15	–	52.7	–	81.6	–	69.6	–	84.3	–	61.2	–	82.9
Lithuania	**13.8**	**33.2**	**–**	**–**	**32.5**	**60.5**	**–**	**–**	**23.1**	**46.9**	**–**	**–**
11	12.3	29.2	–	–	28.3	57.3	–	–	20.3	43.2	–	–
13	14.0	33.5	–	–	31.0	60.6	–	–	22.5	47.1	–	–
15	15.0	37.0	–	–	38.0	63.5	–	–	26.5	50.3	–	–
Malta	**19.3**	**–**	**–**	**71.6**	**35.1**	**–**	**–**	**75.8**	**27.2**	**–**	**–**	**73.7**
11	15.8	–	–	52.8	27.4	–	–	66.5	21.6	–	–	59.7
13	26.2	–	–	77.0	39.4	–	–	76.8	32.8	–	–	76.9
15	16.0	–	–	84.9	38.4	–	–	84.2	27.2	–	–	84.6
Republic of Moldova	**–**	**–**	**–**	**63.1**	**–**	**–**	**–**	**71.4**	**–**	**–**	**–**	**67.2**
11	–	–	–	47.6	–	–	–	60.9	–	–	–	54.2
13	–	–	–	65.8	–	–	–	70.7	–	–	–	68.2
15	–	–	–	76.0	–	–	–	82.5	–	–	–	79.3
Turkey	**–**	**35.7**	**44.1**	**–**	**–**	**52.5**	**58.6**	**–**	**–**	**44.1**	**51.3**	**–**
11	–	34.0	40.1	–	–	46.8	52.9	–	–	40.4	46.5	–
13	–	30.0	47.0	–	–	45.2	58.3	–	–	37.6	52.7	–
15	–	43.1	45.2	–	–	65.3	64.5	–	–	54.2	54.8	–

[a] The former Yugoslav Republic of Macedonia. *Note:* no data for 2002 were received for Austria, Iceland, Ireland, Luxembourg, Romania, Slovakia and United Kingdom (England). No data for 2014 were received for Ukraine. No trend data were available for Albania, Armenia, Bulgaria, Lithuania, Malta, Republic of Moldova and Turkey.

INTRODUCTION

The following figures present trends in obesity and related behaviours across survey years (2002 to 2014) for each gender and age group (11-, 13- and 15-year-olds).

These figures are a visual representation of the prevalence data provided in Annex 1 for countries and regions with three or more years of data.

The figures are intended to aid comparison of patterns in trends between countries.

Data from Annex 1 should be consulted for exact prevalence for any particular figure.

For each behaviour, a list is provided below of countries and regions for which no trend data were available, or where data were not available for a particular year.

Obesity: no data for 2002 were received for Iceland, Luxembourg and Slovakia. Data excluded as missing values >30% for Belgium (French), Ireland, Israel, Lithuania, Malta, Romania, United Kingdom (England), United Kingdom (Scotland) and United Kingdom (Wales). No trend data were available for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey.

Daily fruit consumption: no data for 2002 were received for Iceland, Luxembourg, Romania and Slovakia. No data for 2010 were received for Malta. No trend data were available for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey.

Daily vegetable consumption: no data for 2002 were received for Iceland, Luxembourg, Romania and Slovakia. No data for 2010 were received for Malta. No trend data were available for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey.

TREND CHARTS OF ALL VARIABLES BY COUNTRY

Daily sweets consumption: no data for 2002 were received for Iceland, Luxembourg, Romania and Slovakia. No data for 2010 were received for Malta. No trend data were available for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey.

Daily soft-drinks consumption: no data for 2002 were received for Iceland, Luxembourg, Romania and Slovakia. No data for 2010 were received for Malta. No trend data were available for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey.

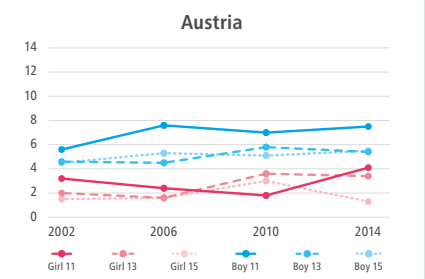
Moderate-to-vigorous-intensity physical activity of 60 minutes or more daily: no data for 2002 were received for Belgium (French), Iceland, Luxembourg, Romania and Slovakia. No data for 2010 were received for Malta. No trend data were available for Albania, Armenia, Bulgaria, Republic of Moldova and Turkey.

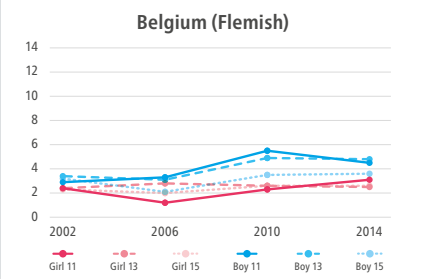
Vigorous-intensity physical activity four or more times a week: no data for 2002 were received for Austria, Belgium (Flemish), Croatia, Czechia, Denmark, Estonia, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Luxembourg, Netherlands, Poland, Romania, Russian Federation, Slovakia, Slovenia, Spain, the former Yugoslav Republic of Macedonia, Ukraine and United Kingdom (England). No data for 2014 were received for Belgium (French). No trend data were available for Albania, Armenia, Bulgaria, Malta, Republic of Moldova and Turkey.

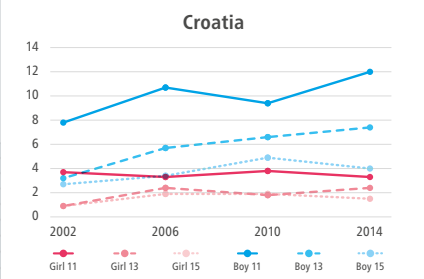
TV-viewing two hours or more on weekdays: no data for 2002 were received for Austria, Iceland, Luxembourg, Romania and Slovakia. No trend data were available for Albania, Armenia, Bulgaria, Malta, Republic of Moldova and Turkey.

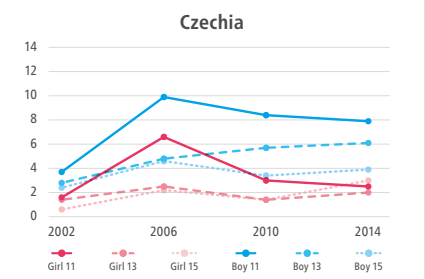
Computer use of two hours or more on weekdays: no data for 2002 were received for Austria, Iceland, Ireland, Luxembourg, Romania, Slovakia and United Kingdom (England). No trend data were available for Albania, Armenia, Bulgaria, Lithuania, Malta, Republic of Moldova and Turkey.

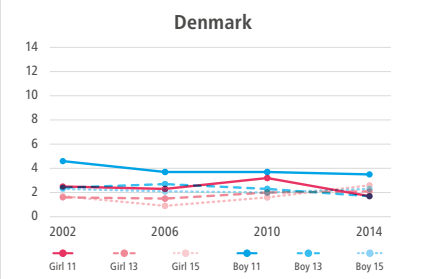
Obesity prevalence (%)

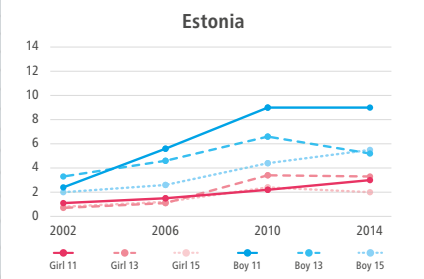


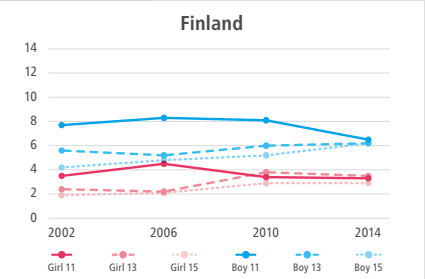


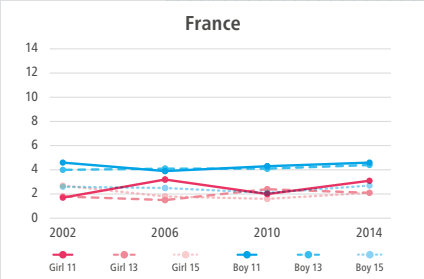


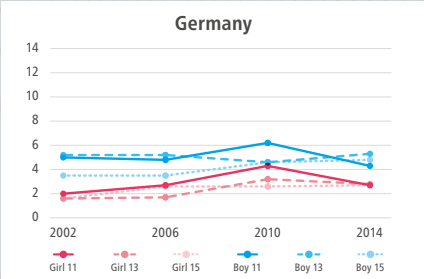


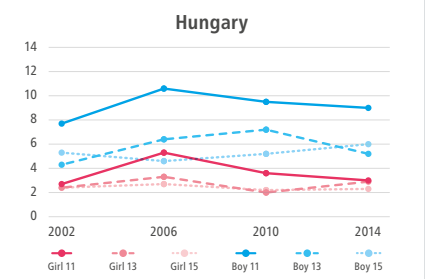


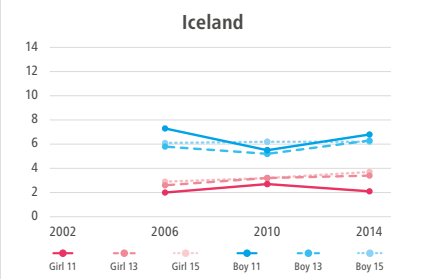


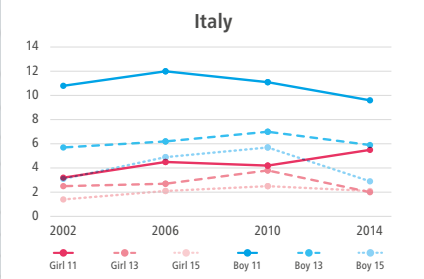


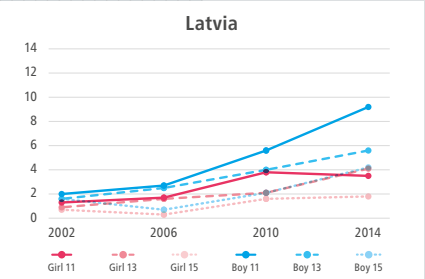


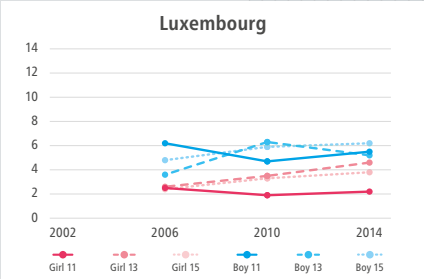


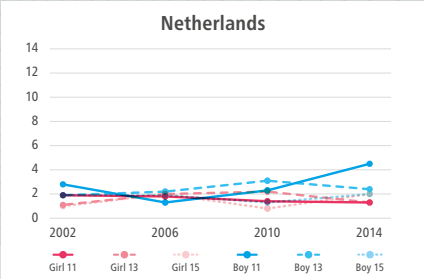


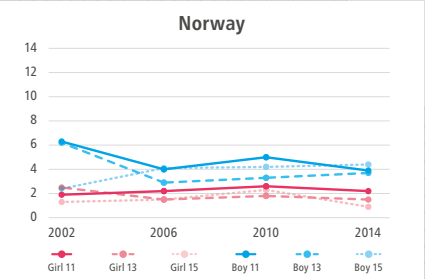


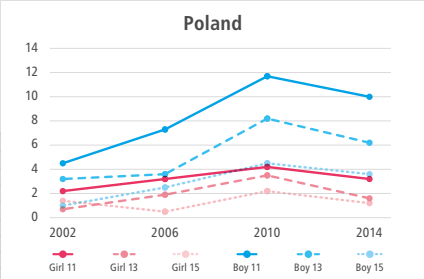


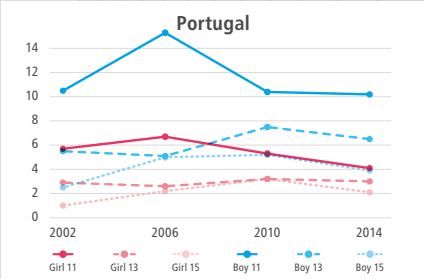




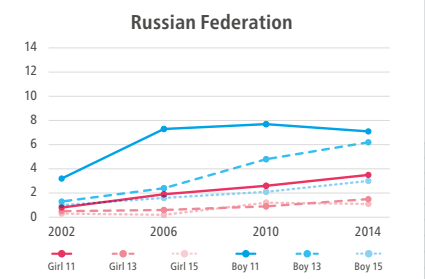


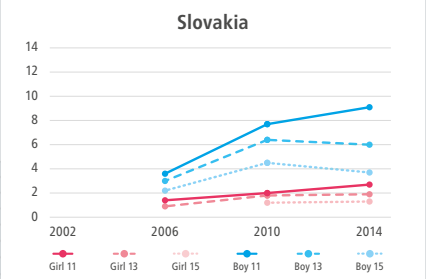


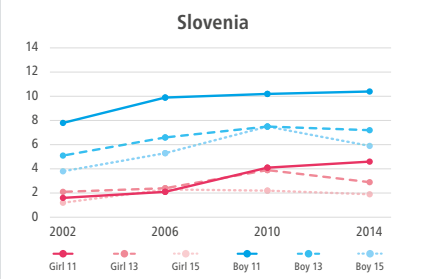


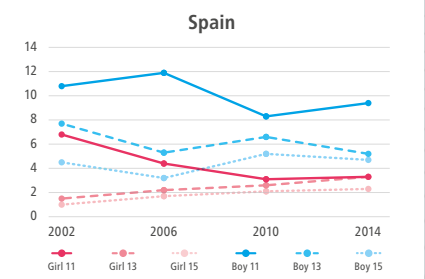


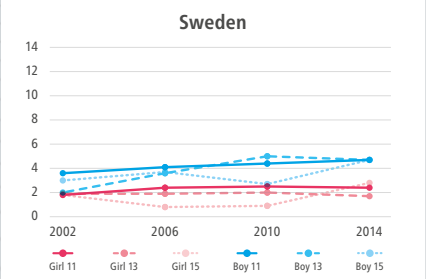
Obesity prevalence (%) contd

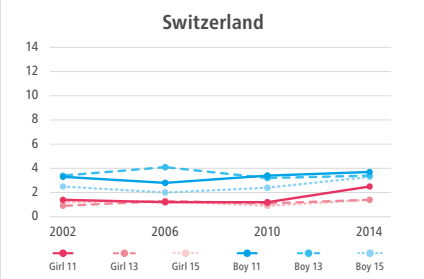


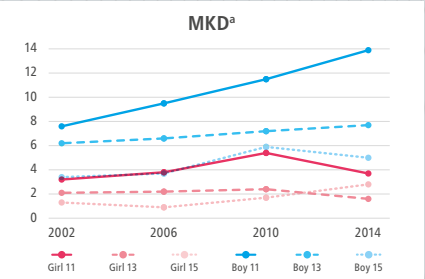


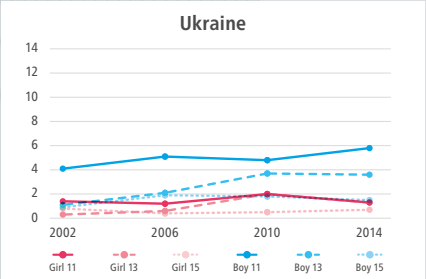






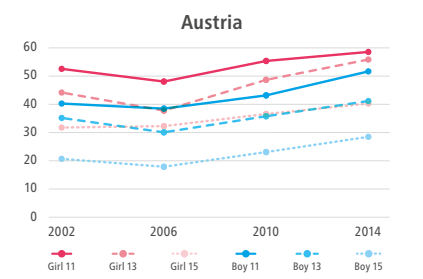


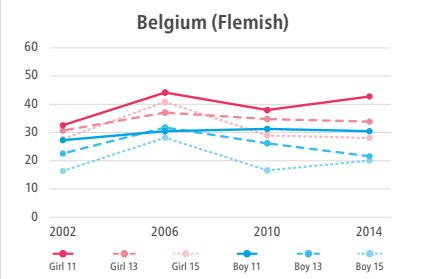


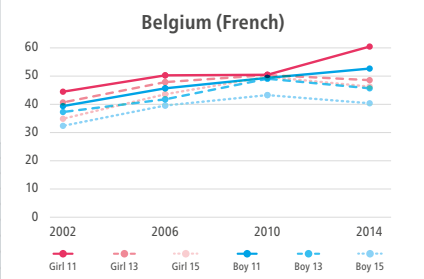


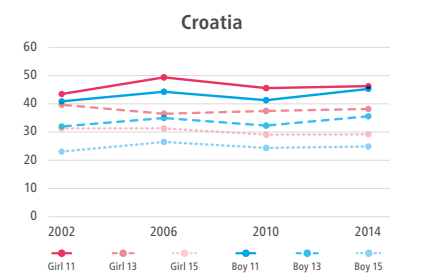
[a] The former Yugoslav Republic of Macedonia (MKD is an abbreviation of the International Organization for Standardization).

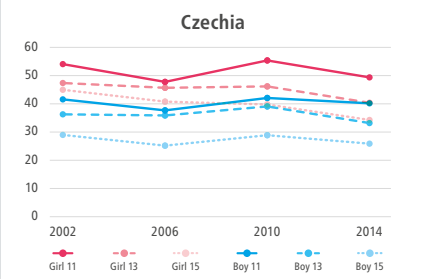
Daily fruit consumption (%)

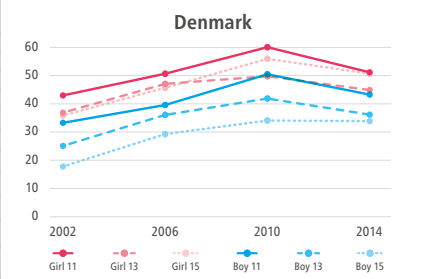


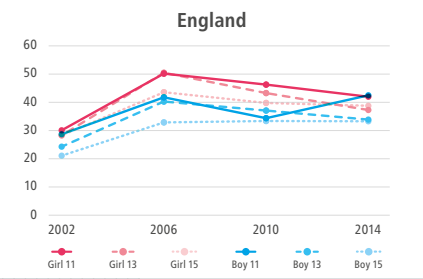


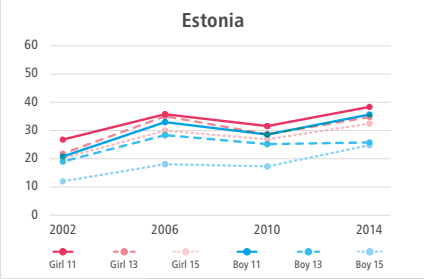


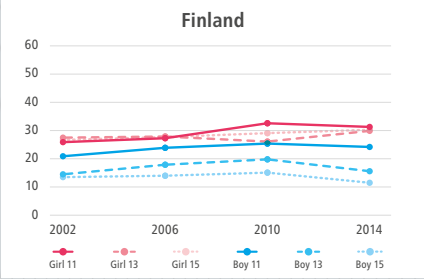


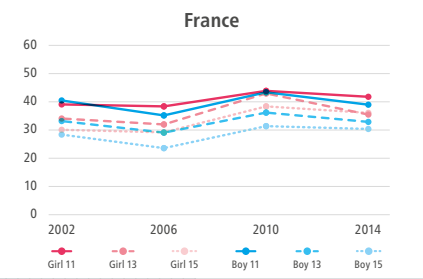


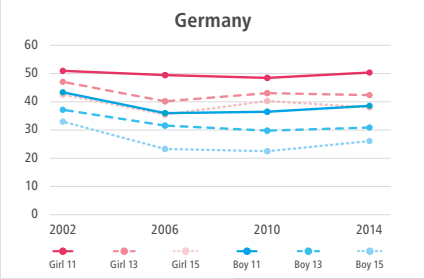


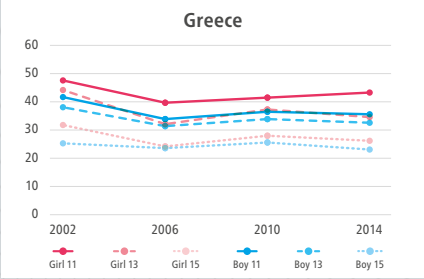


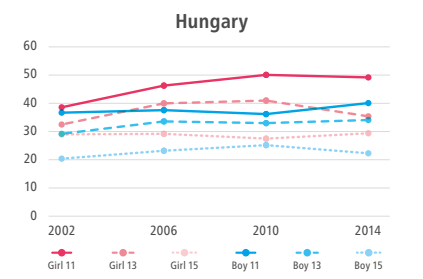


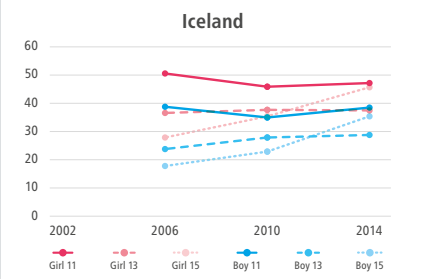


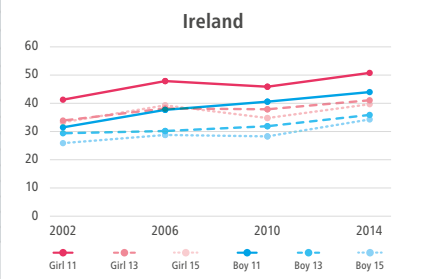


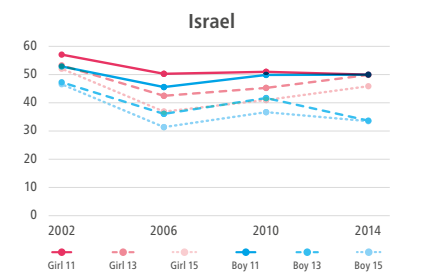


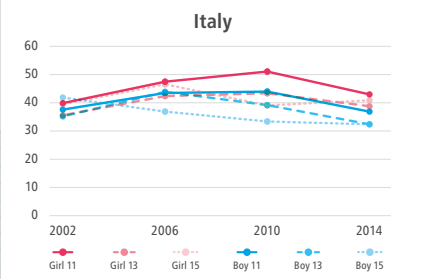


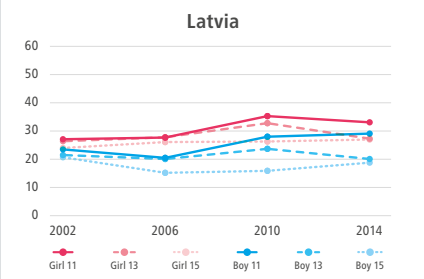




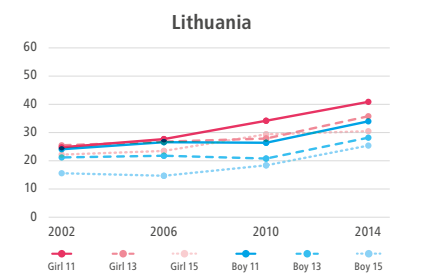


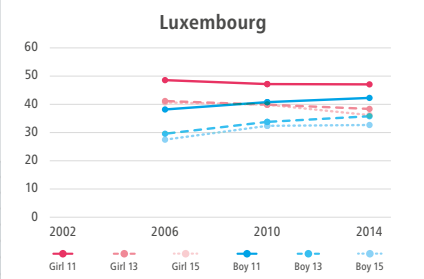


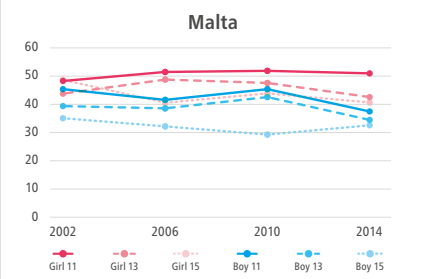


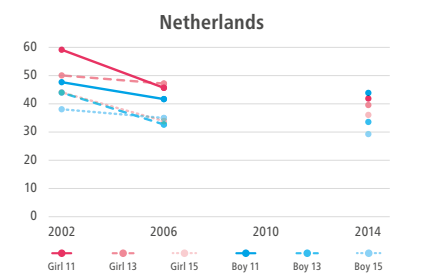


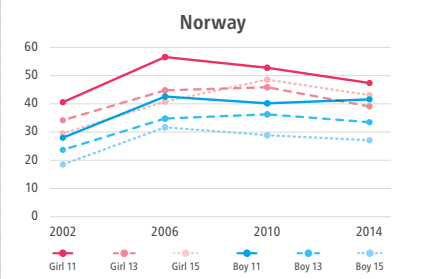
Daily fruit consumption (%) contd

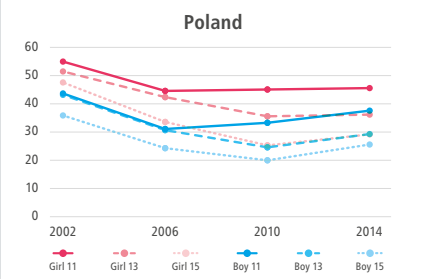


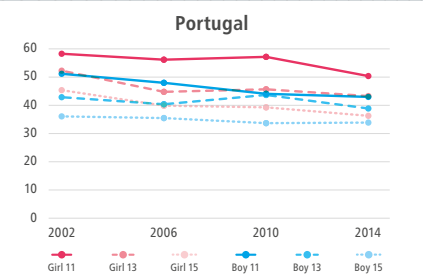


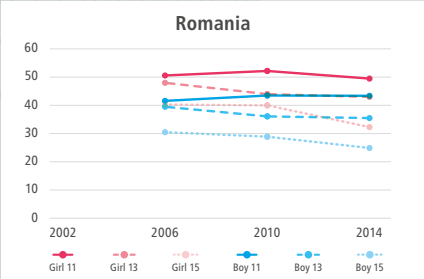


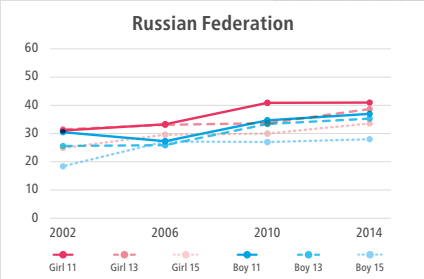


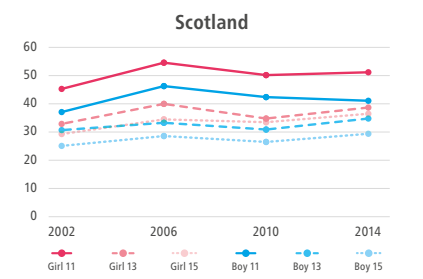


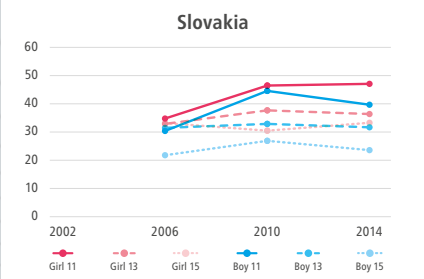


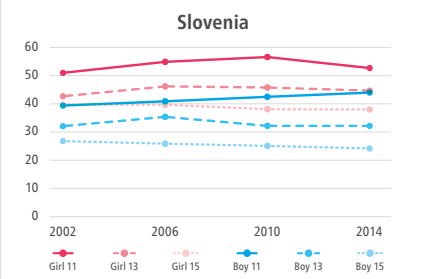


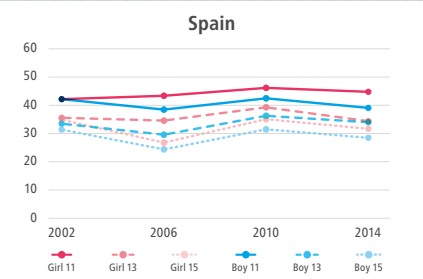


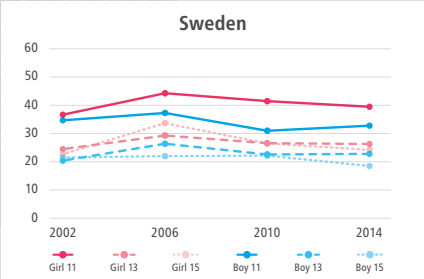


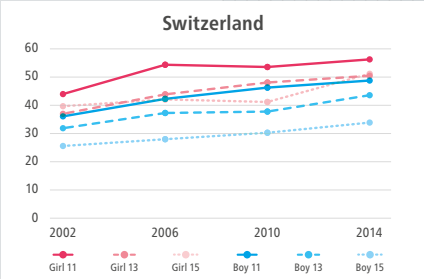


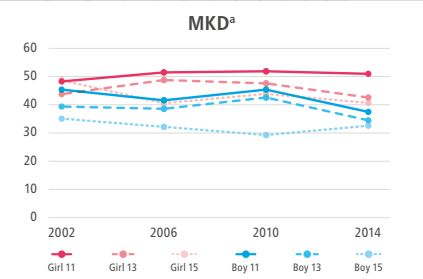


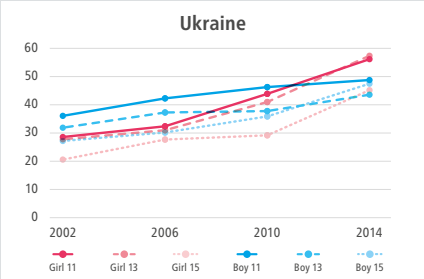


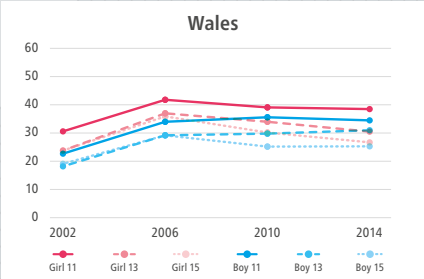






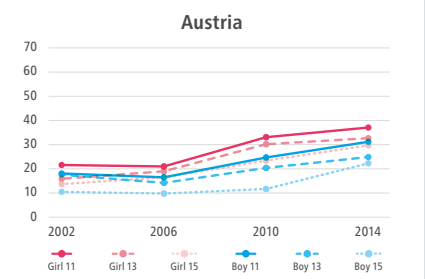


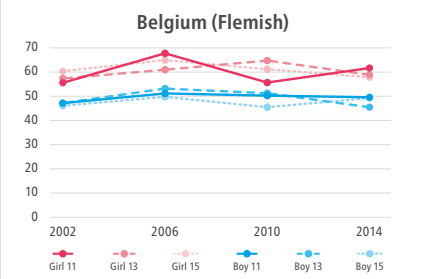


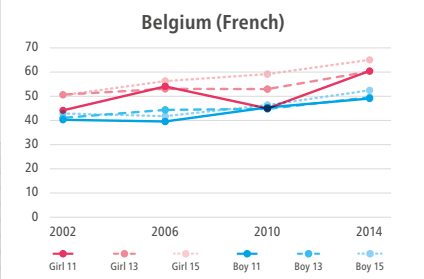


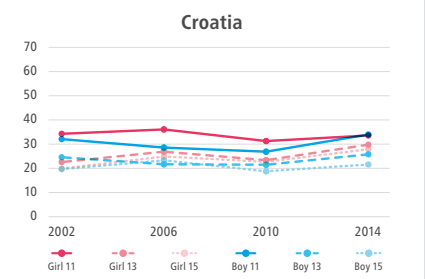
[a] The former Yugoslav Republic of Macedonia.

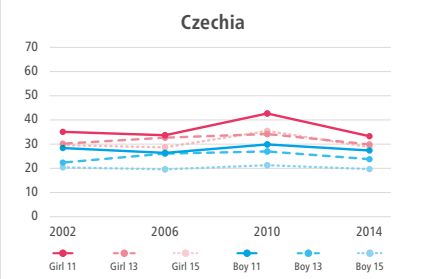
Daily vegetable consumption (%)

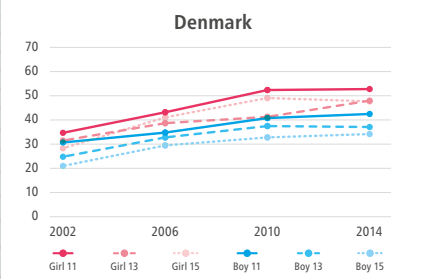


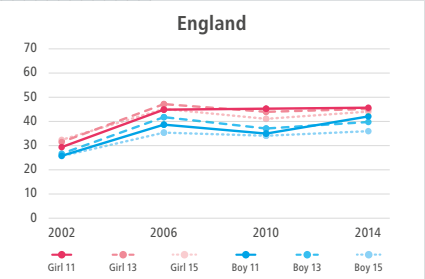


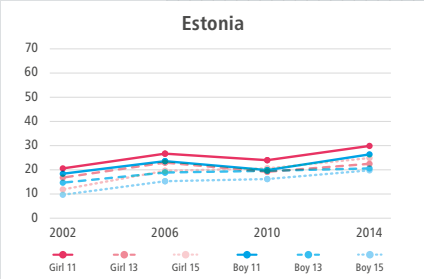


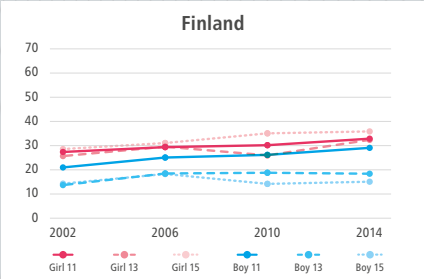


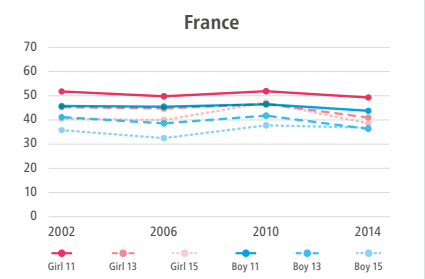


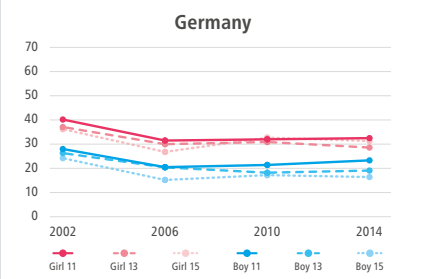


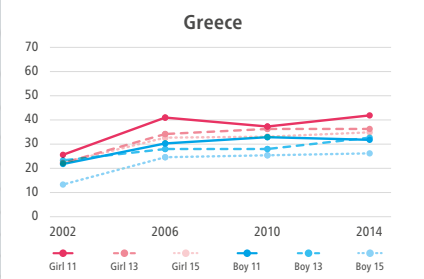


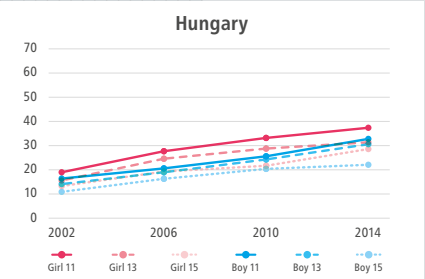


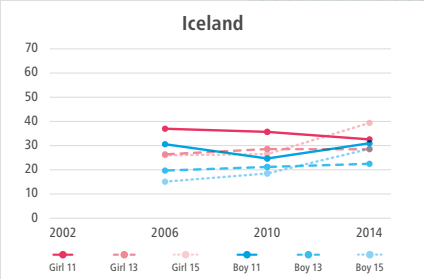


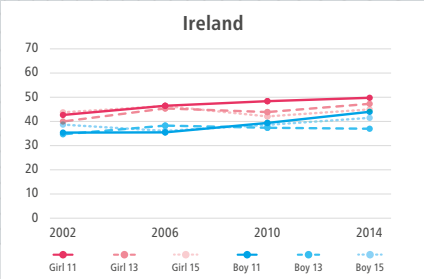


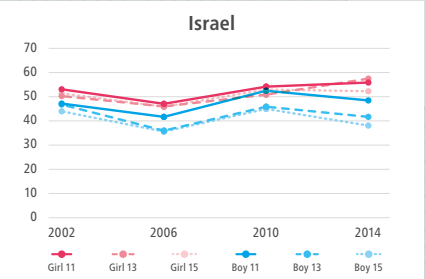


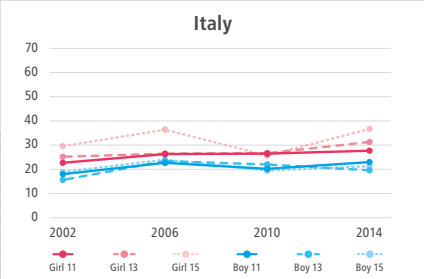


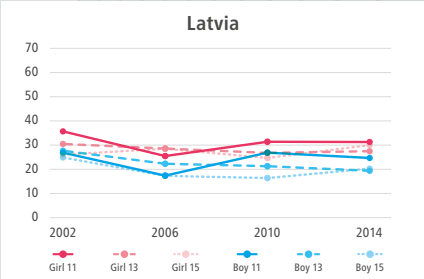




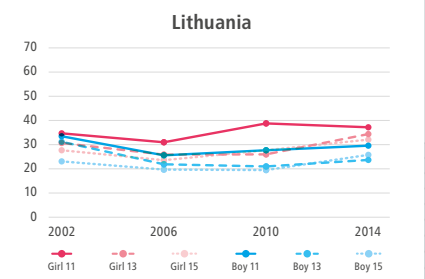


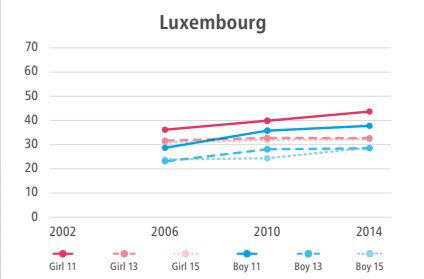


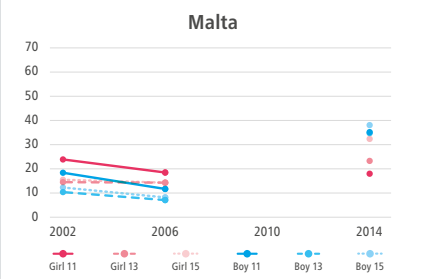


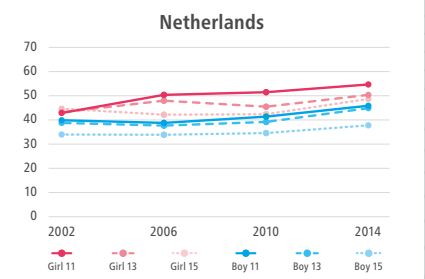


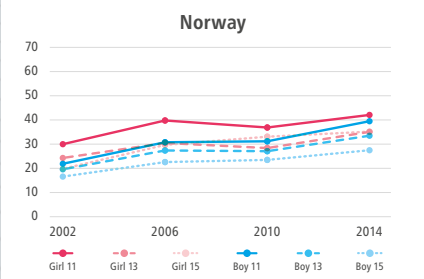
Daily vegetable consumption (%) contd

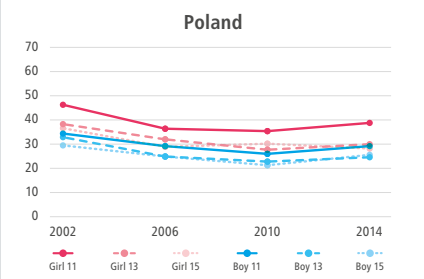


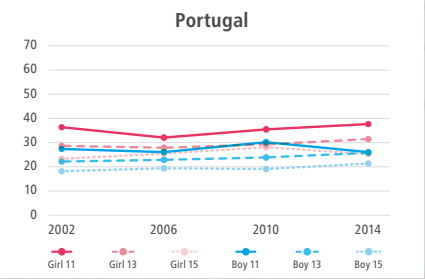


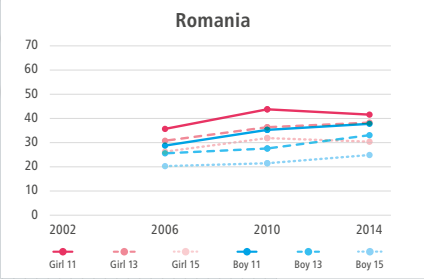


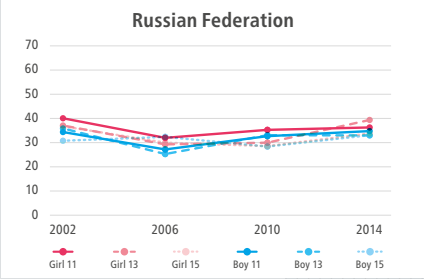


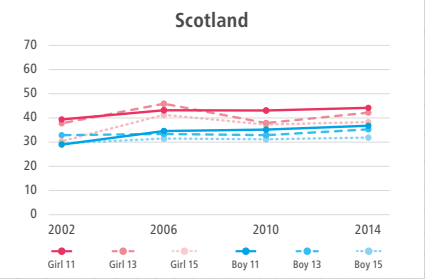


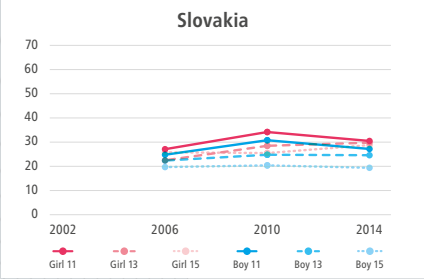


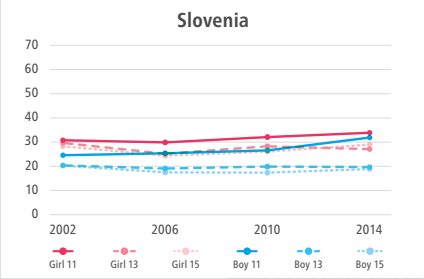


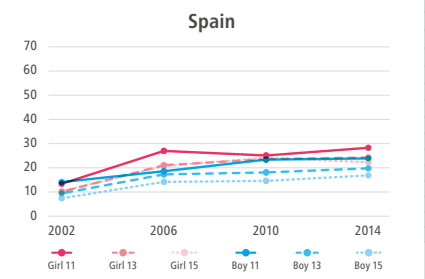


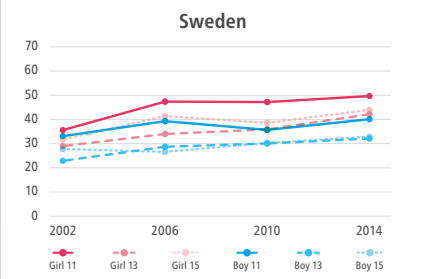


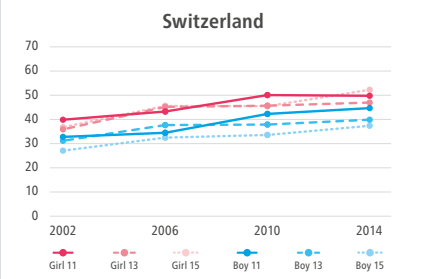


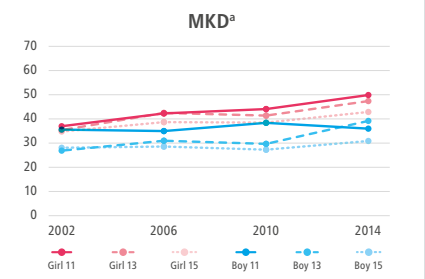


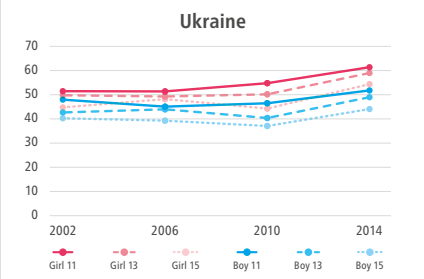


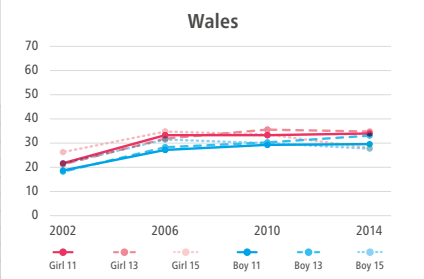






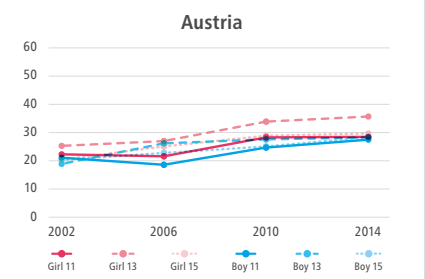


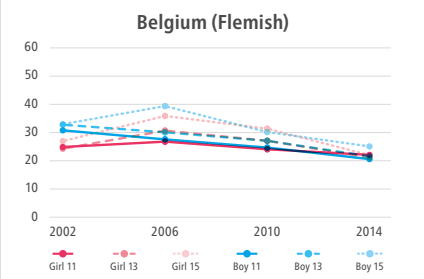


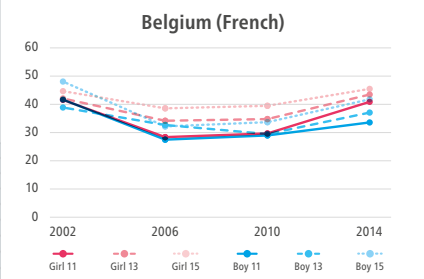


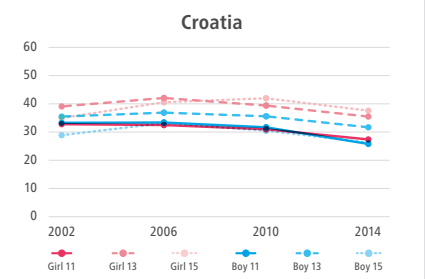
[a] The former Yugoslav Republic of Macedonia.

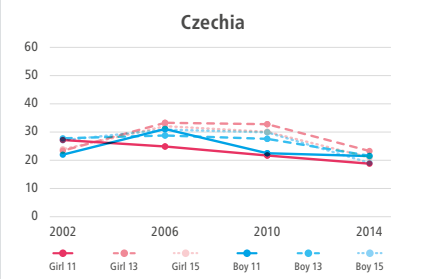
Daily sweets consumption (%)

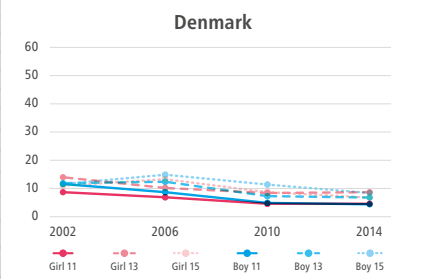


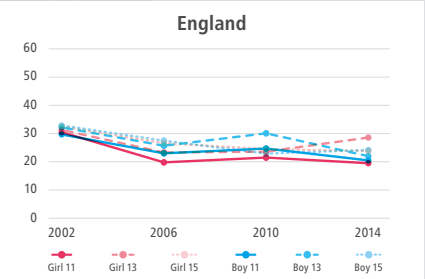


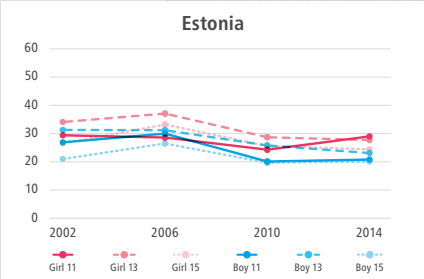


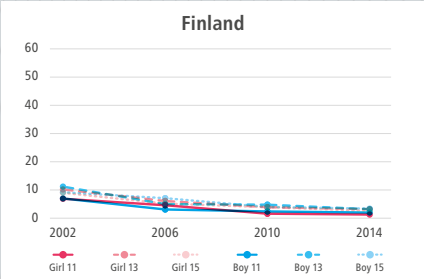


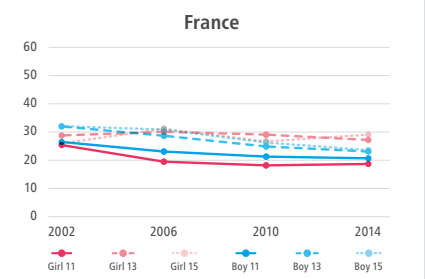


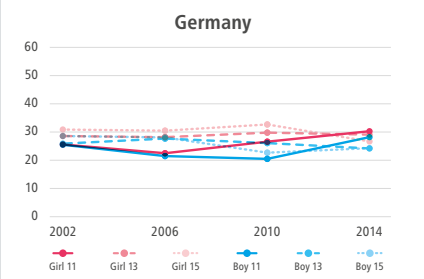


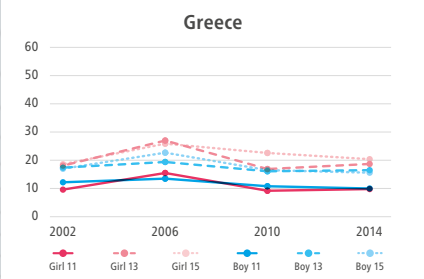


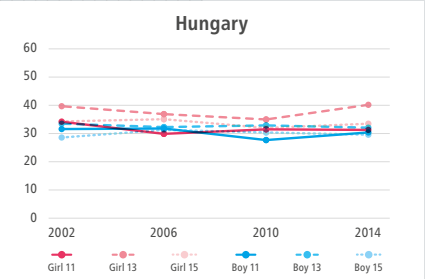


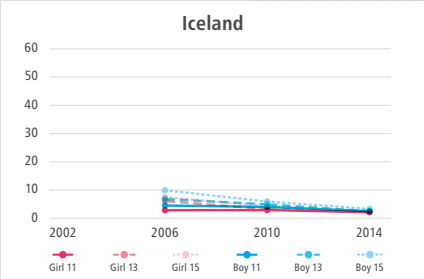


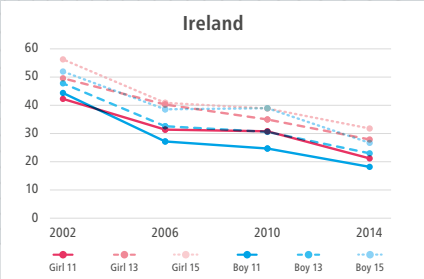


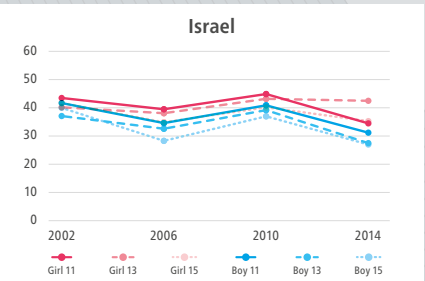


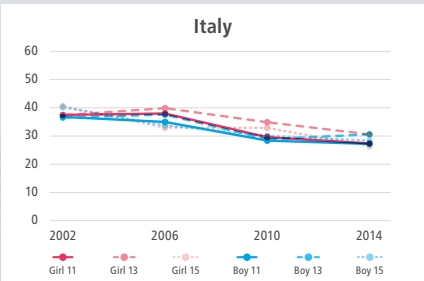


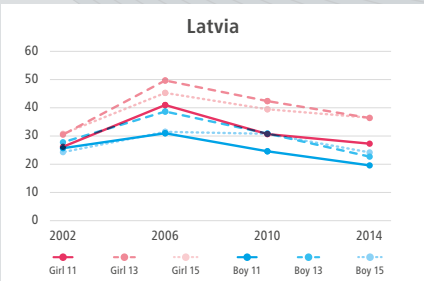




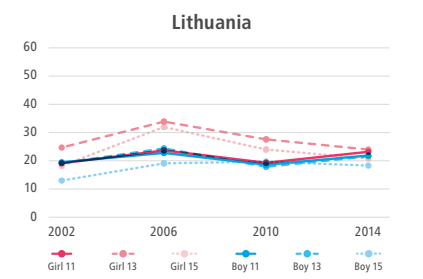


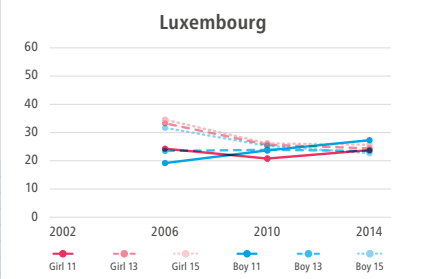


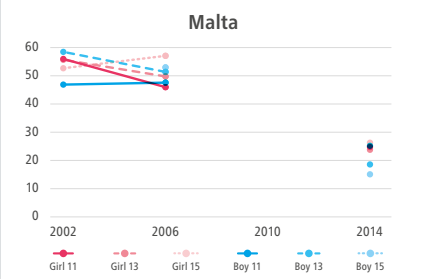


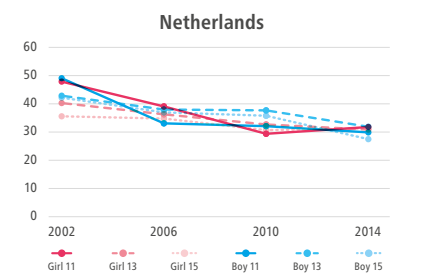


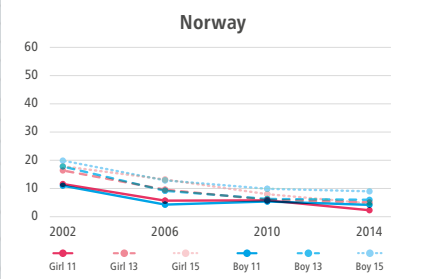
Daily sweets consumption (%) contd

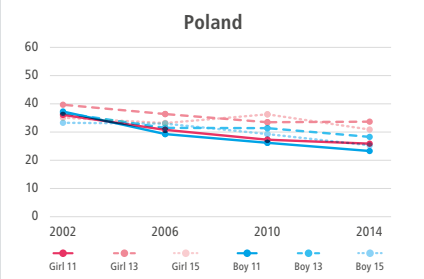


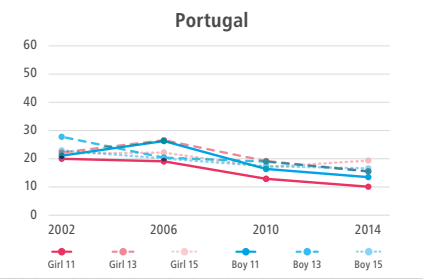


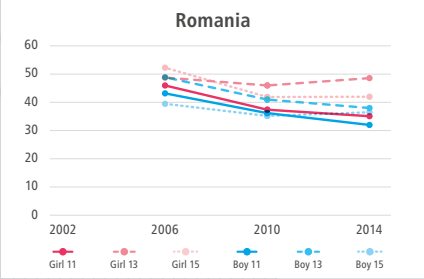


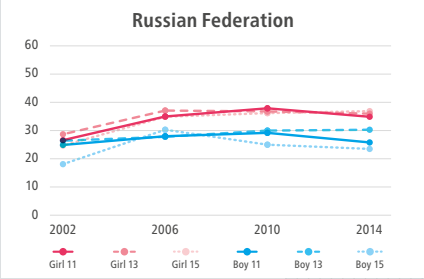


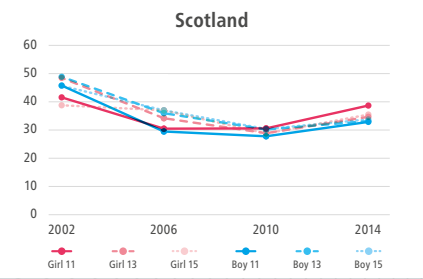


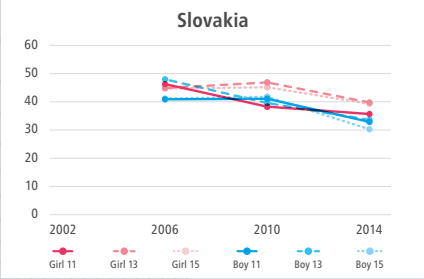


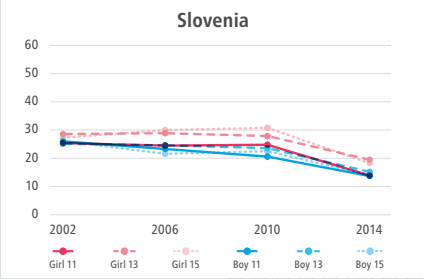


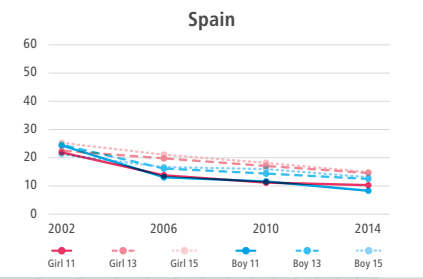


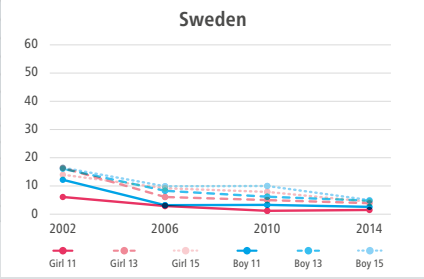


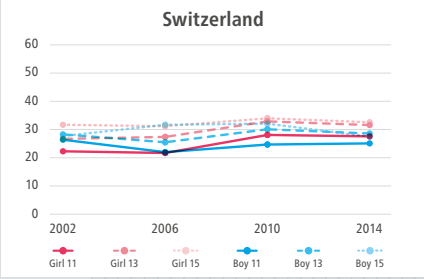


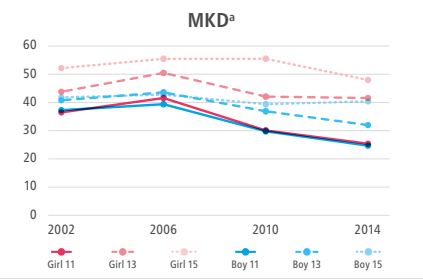


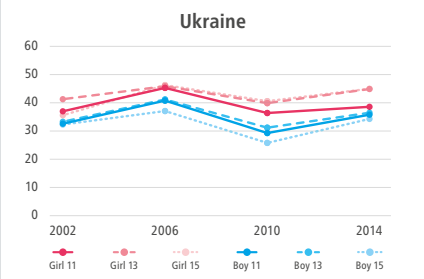


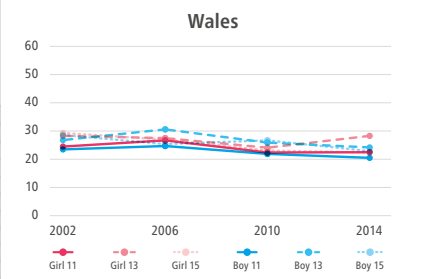






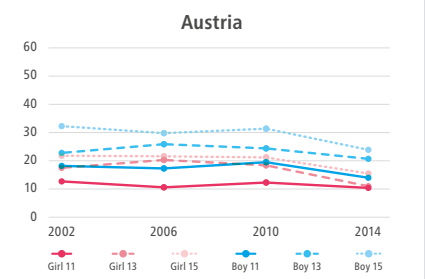


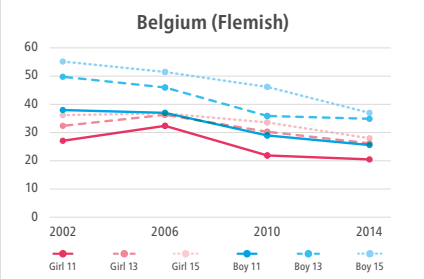


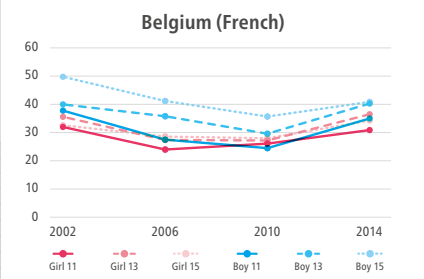


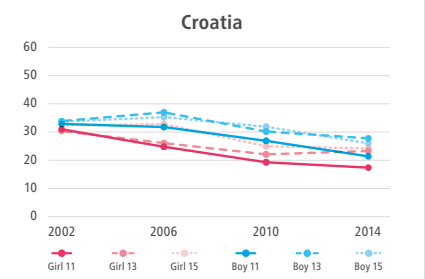
[a] The former Yugoslav Republic of Macedonia.

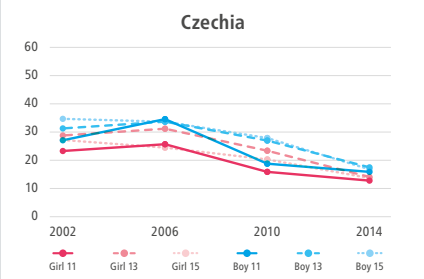
Daily soft-drinks consumption (%)

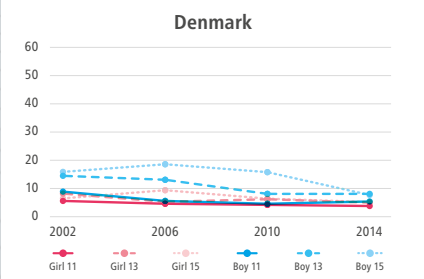


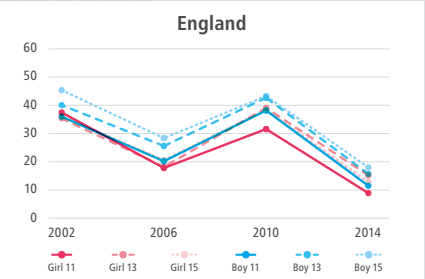


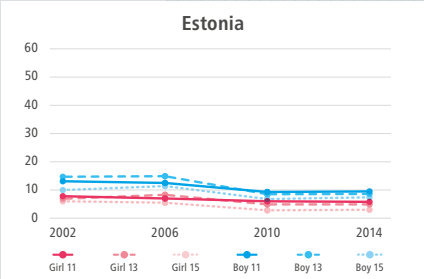


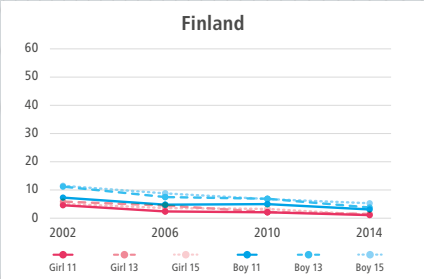


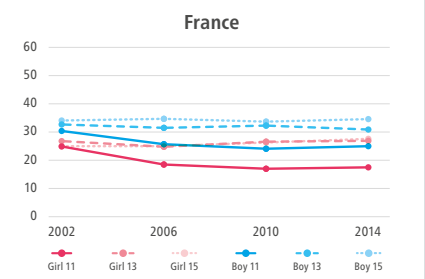


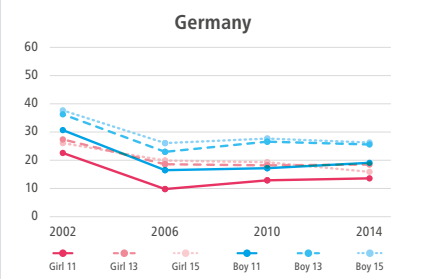


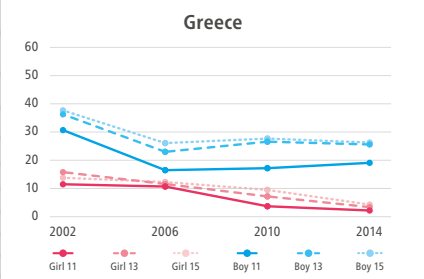


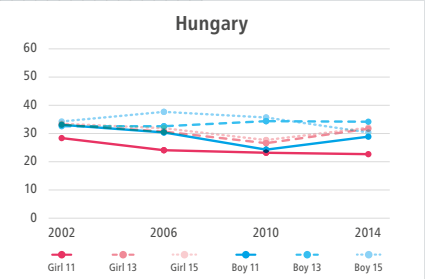


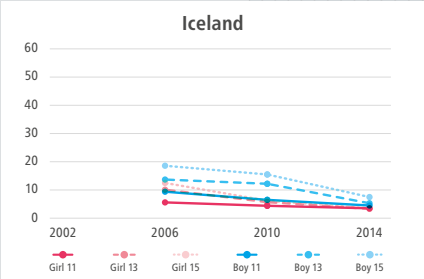


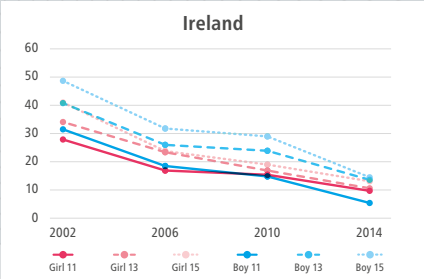


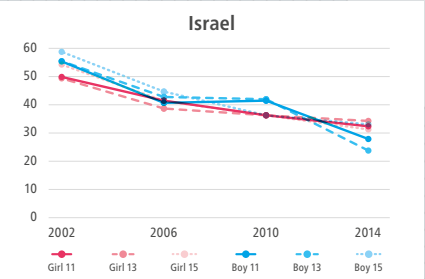


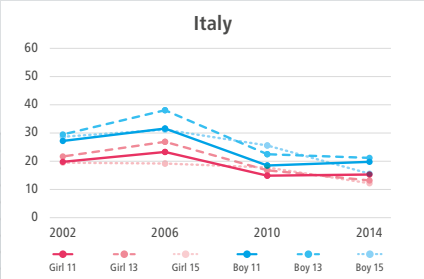


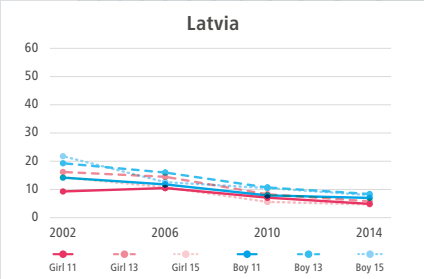




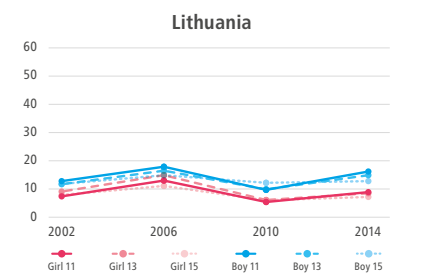


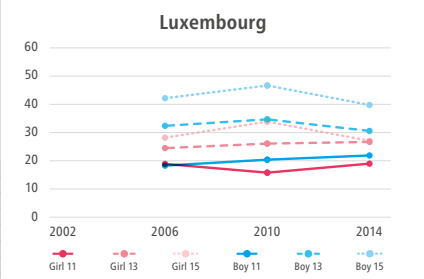


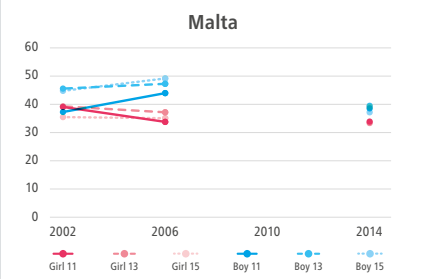


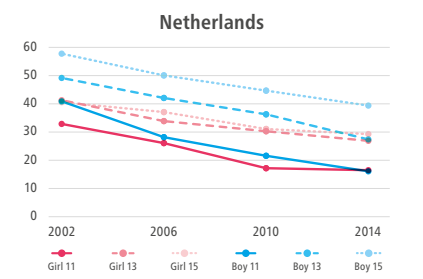


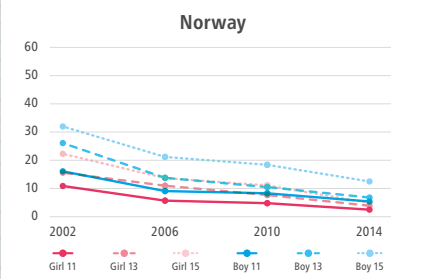
Daily soft-drinks consumption (%) contd

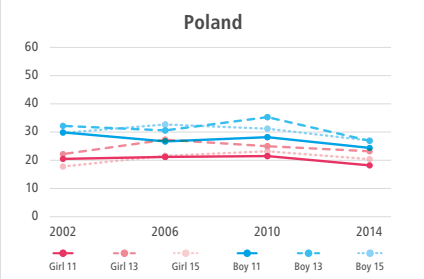


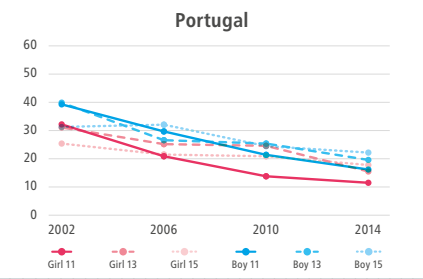


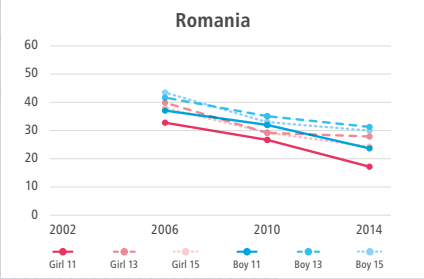


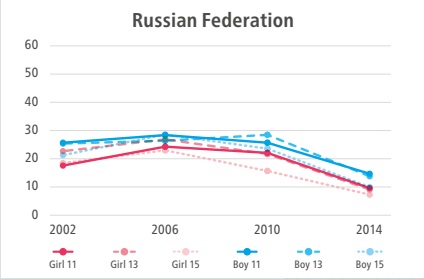


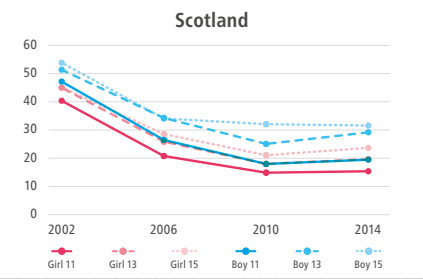


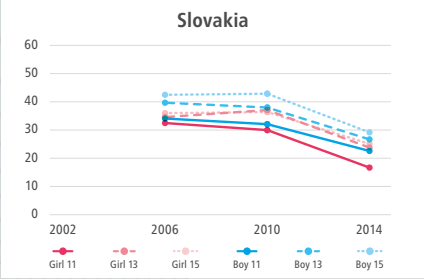


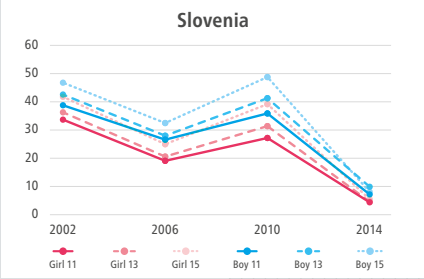


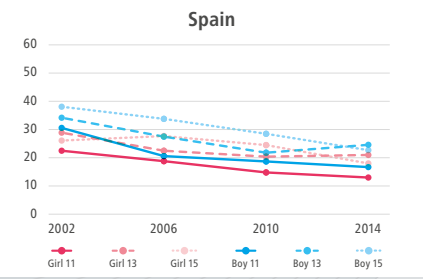


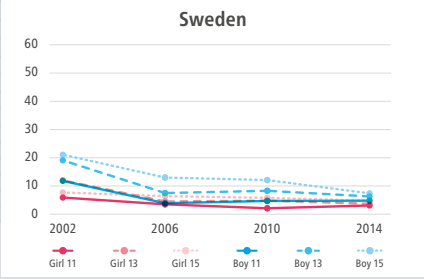


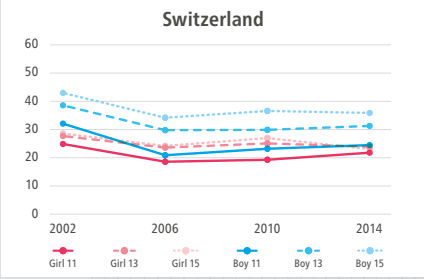


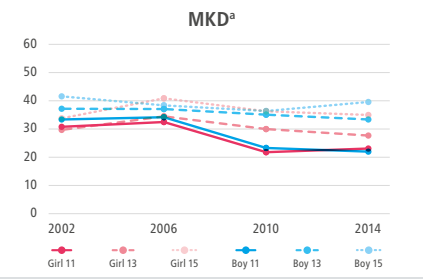


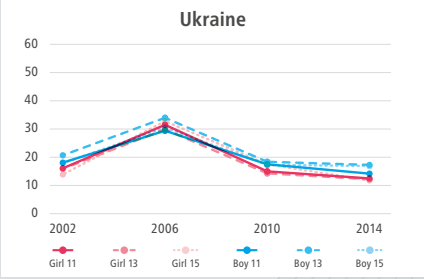


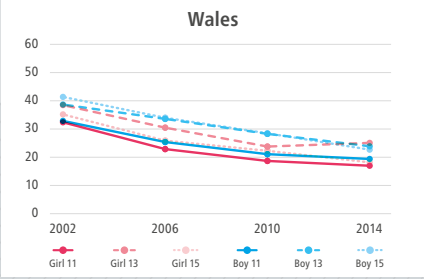






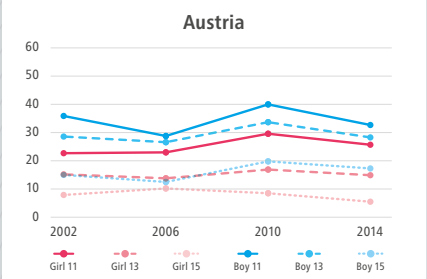


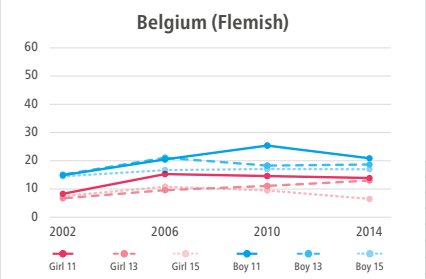


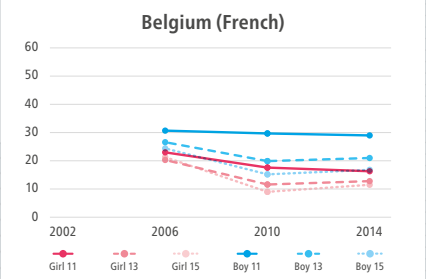


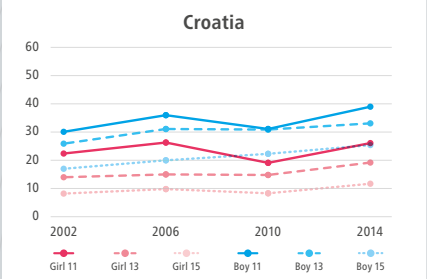
[a] The former Yugoslav Republic of Macedonia.

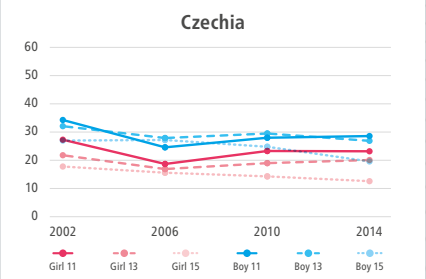
Moderate-to-vigorous-intensity physical activity of 60 minutes or more daily (%)

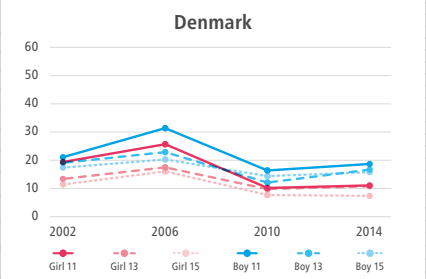


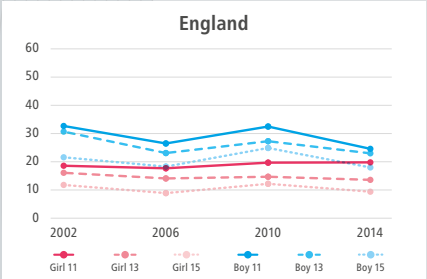


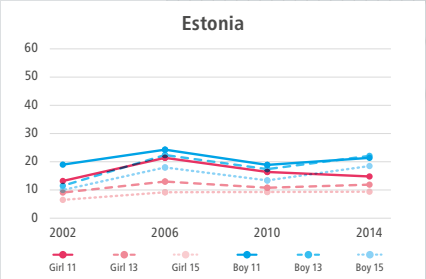


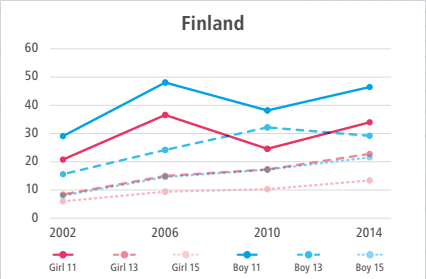


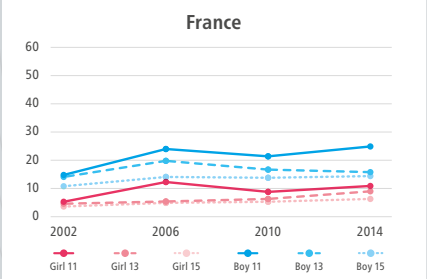


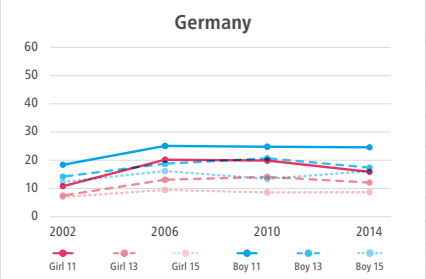


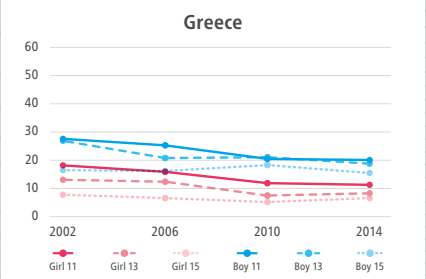


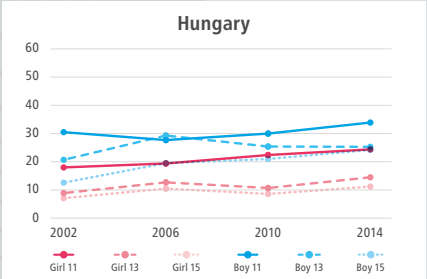


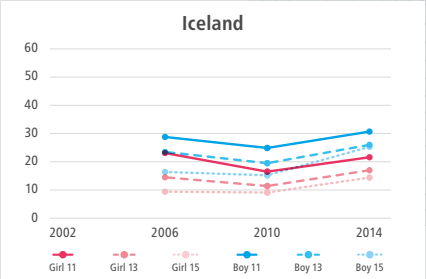


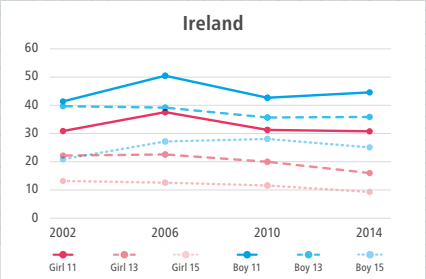


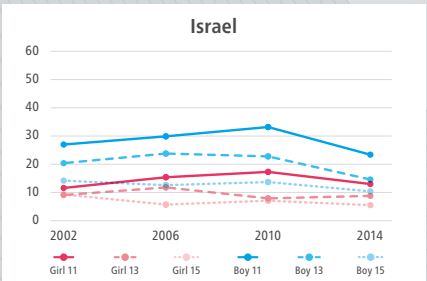


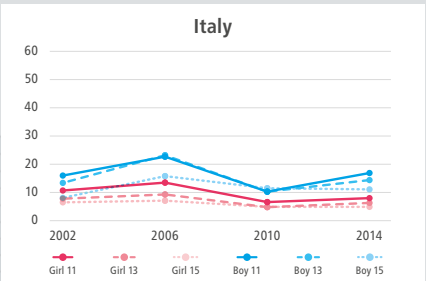


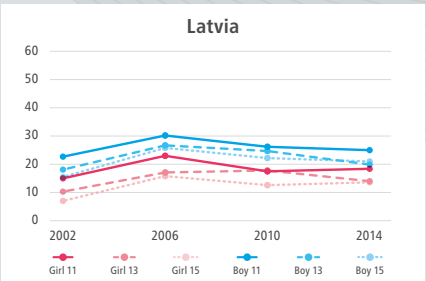




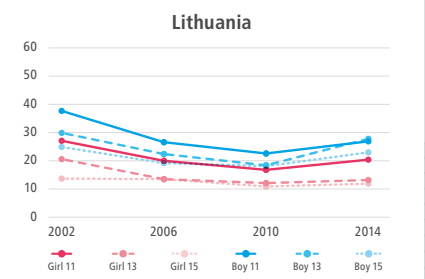


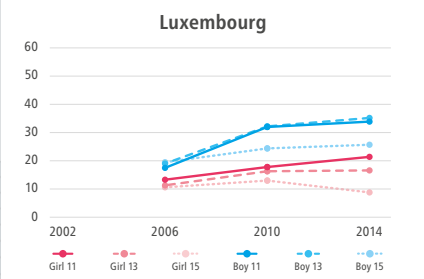


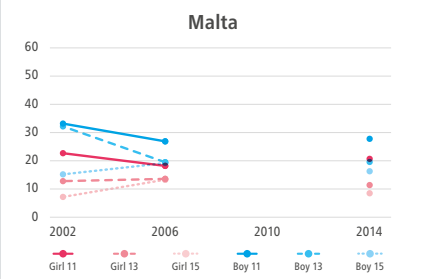


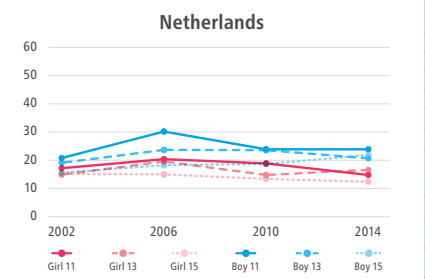


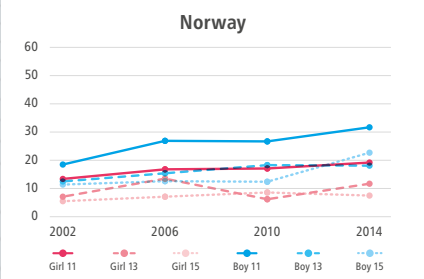
Moderate-to-vigorous-intensity physical activity of 60 minutes or more daily (%) contd

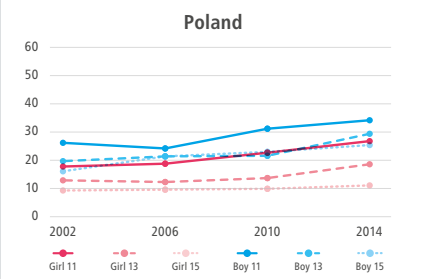


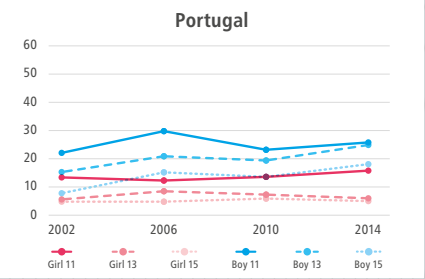


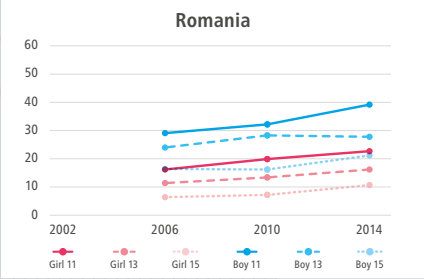


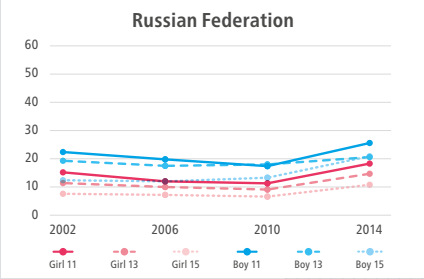


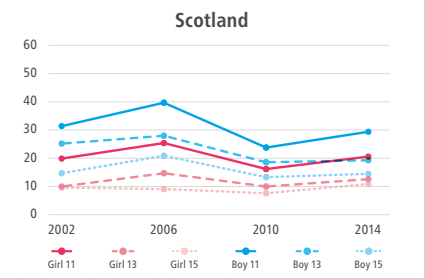


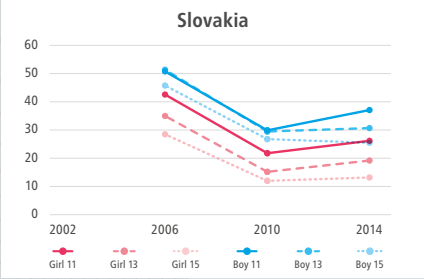


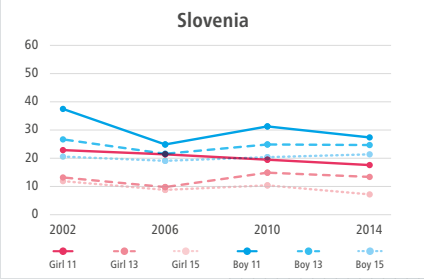


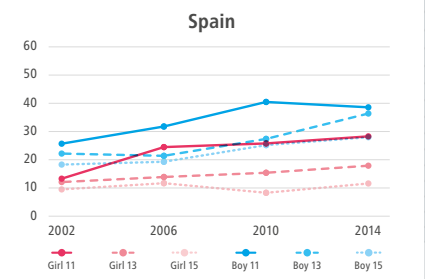


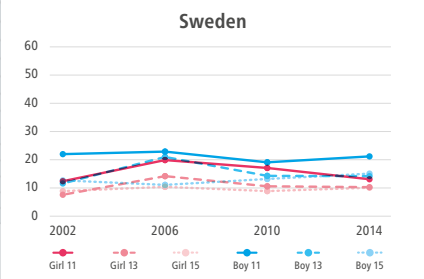


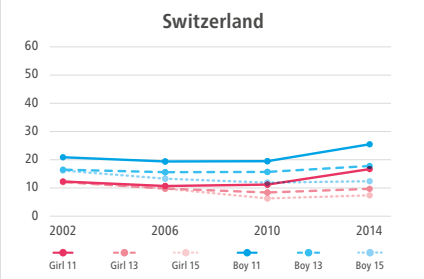


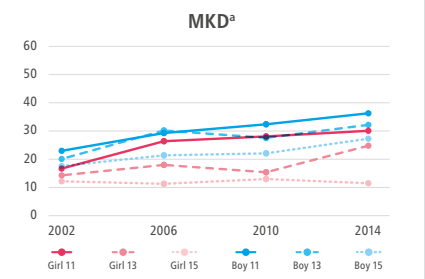


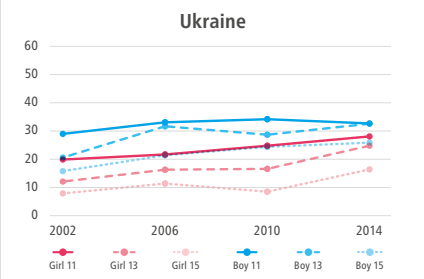


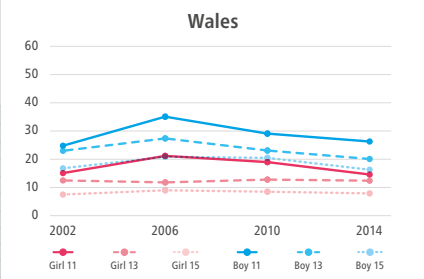






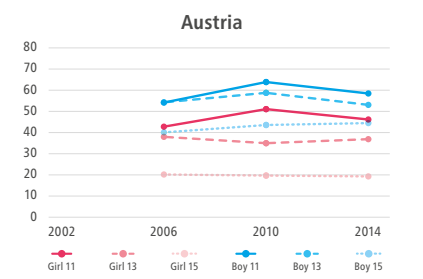


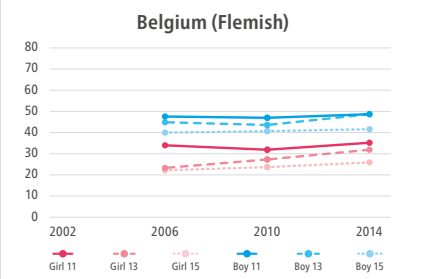


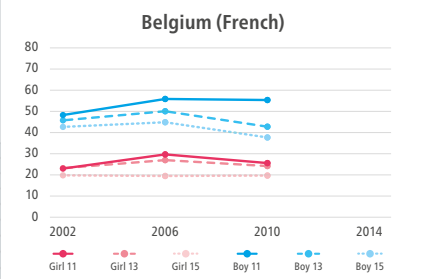


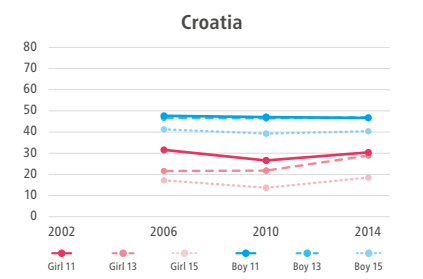
[a] The former Yugoslav Republic of Macedonia.

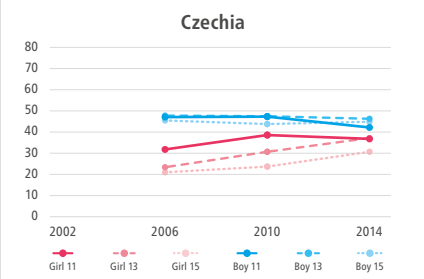
Vigorous-intensity physical activity four or more times a week (%)

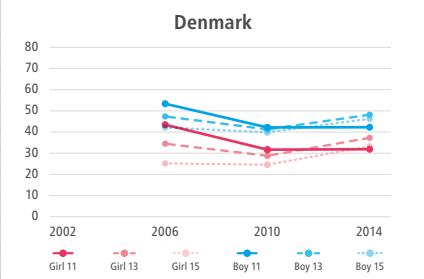


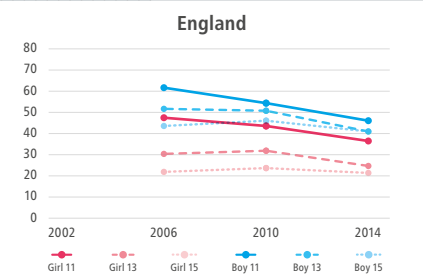


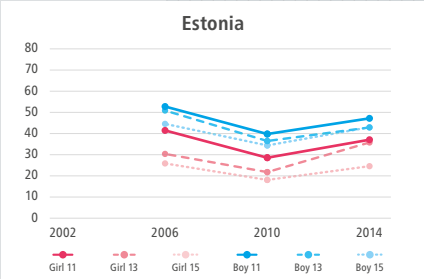


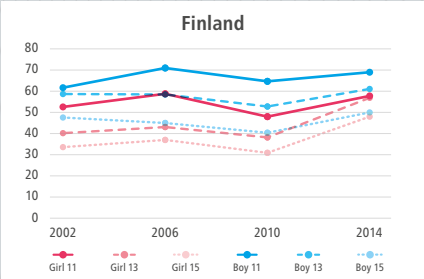


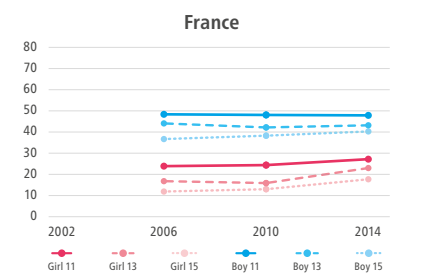


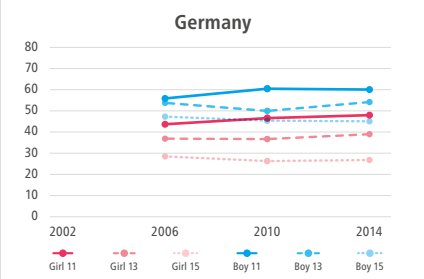


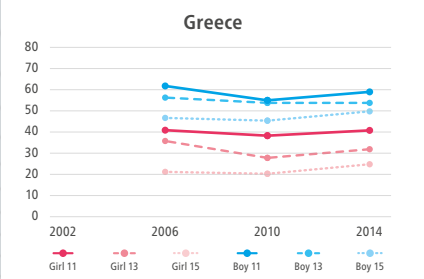


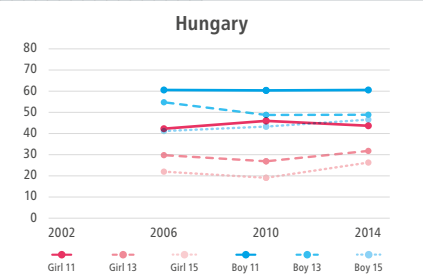


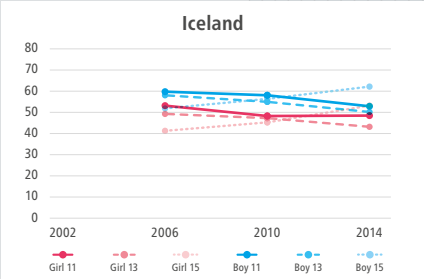


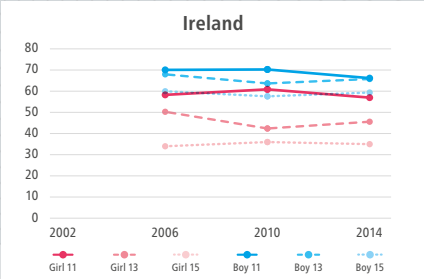


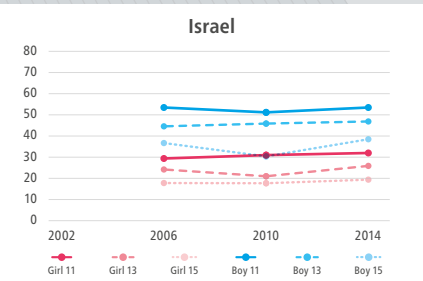


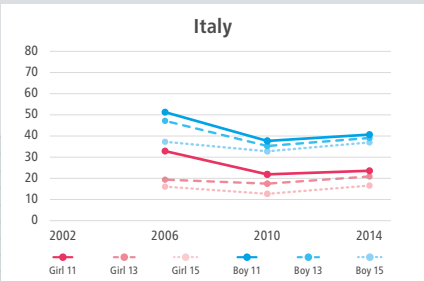


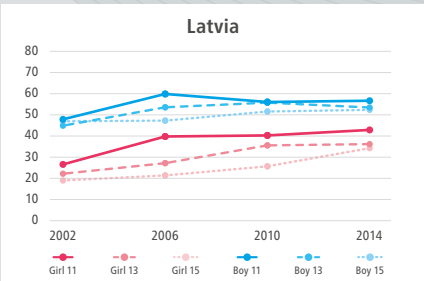




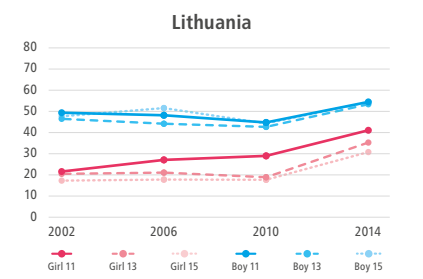


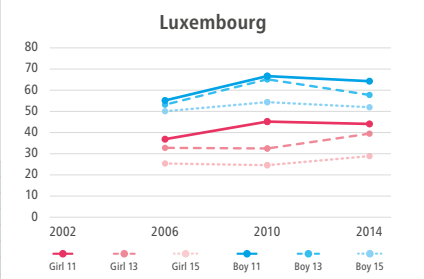


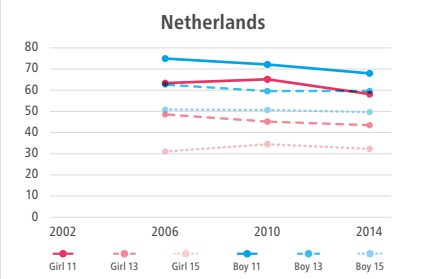


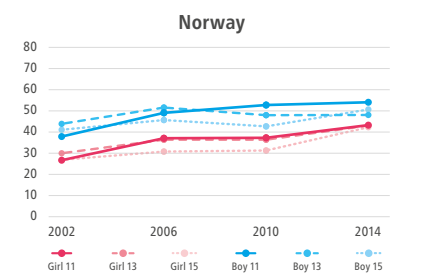


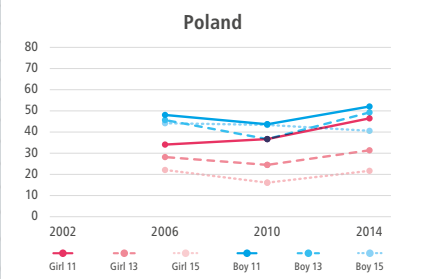
Vigorous-intensity physical activity four or more times a week (%) contd

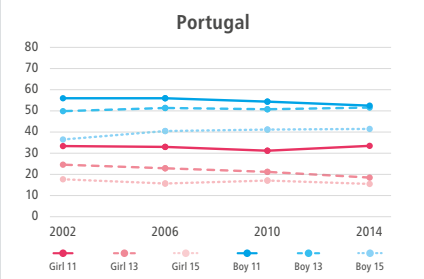


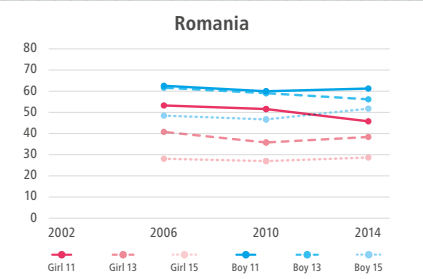


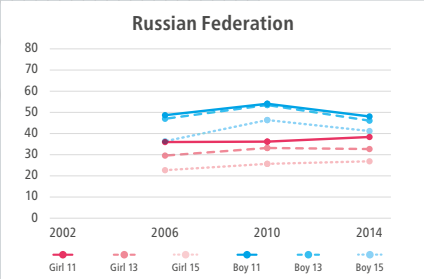


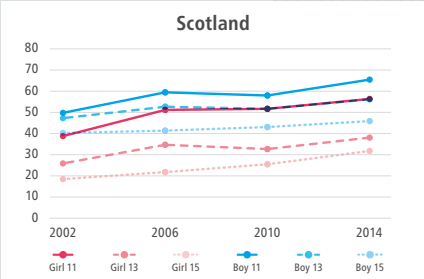


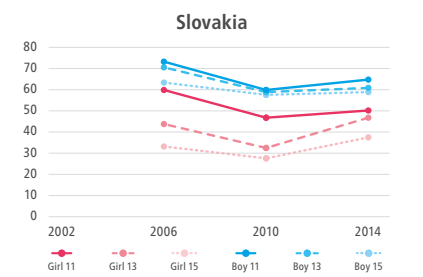


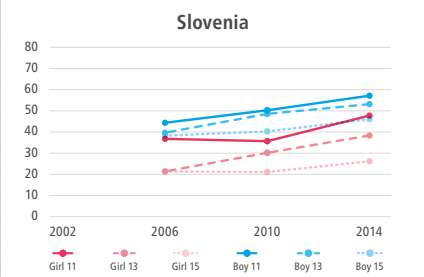


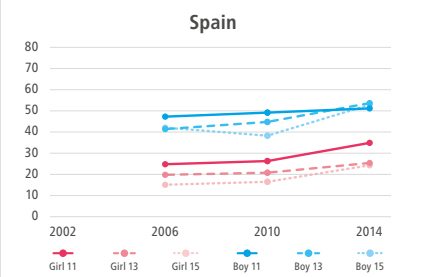


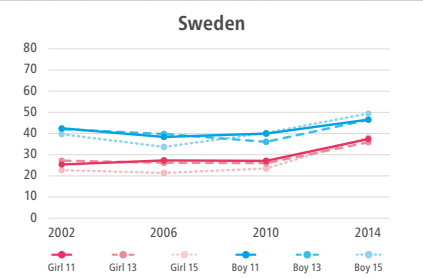


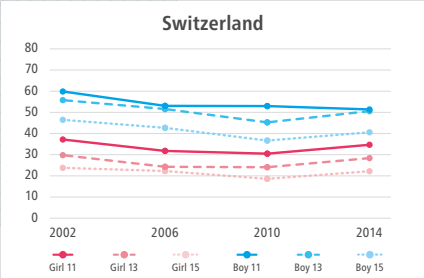


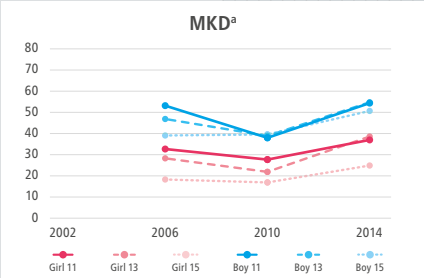


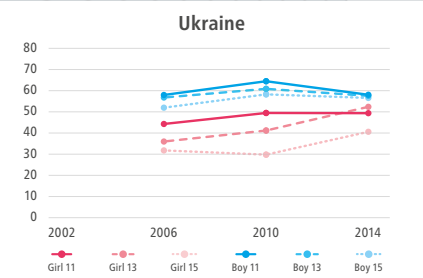


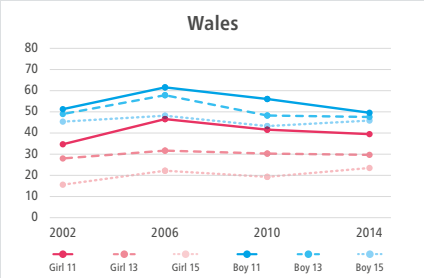






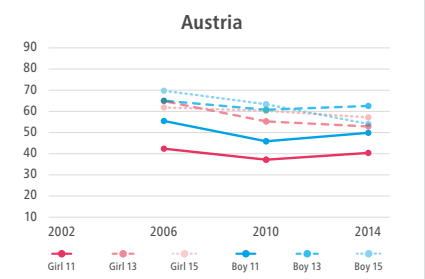


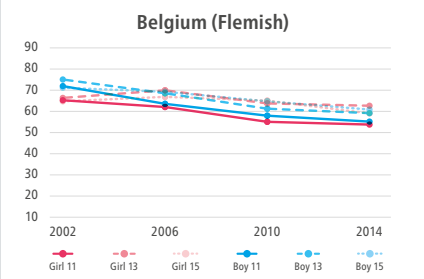


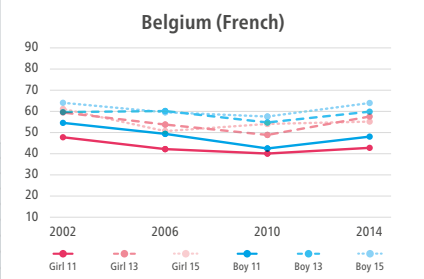


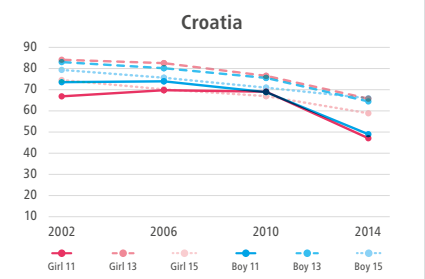
[a] The former Yugoslav Republic of Macedonia.

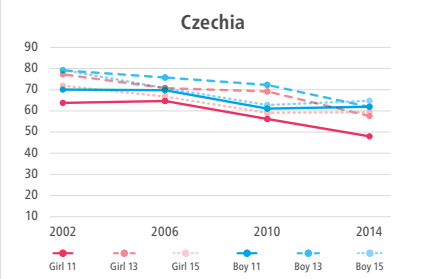
TV-viewing two hours or more on weekdays (%)

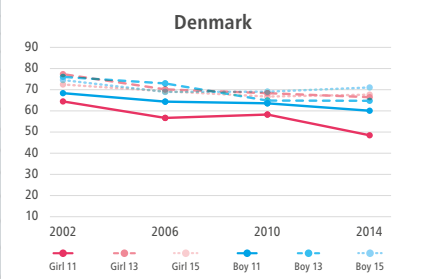


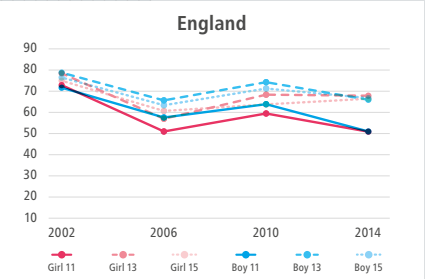


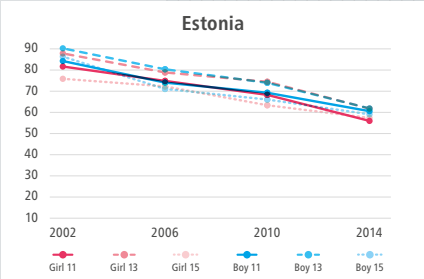


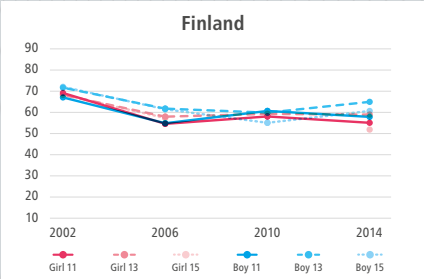


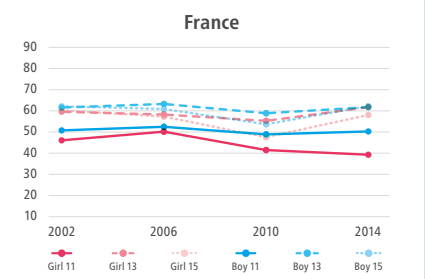


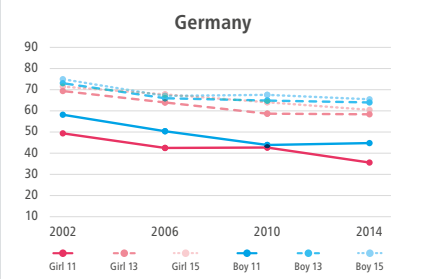


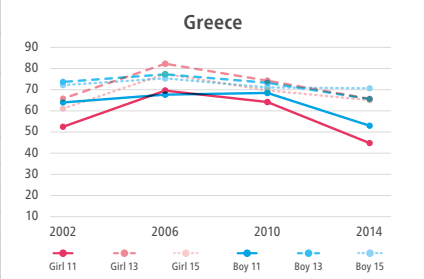


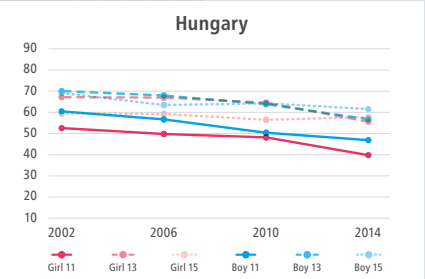


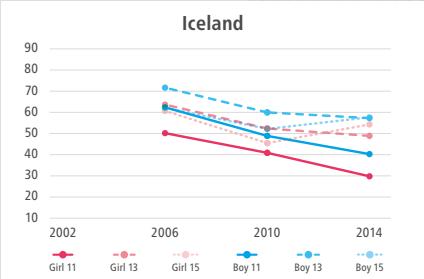


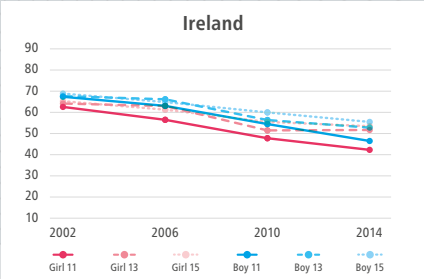


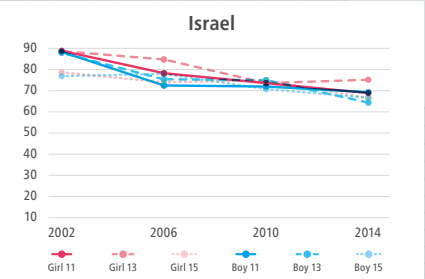


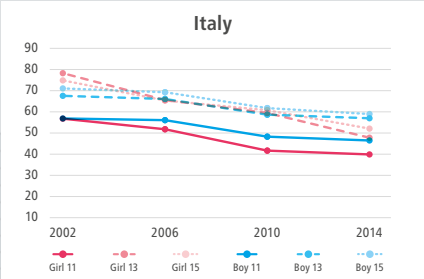


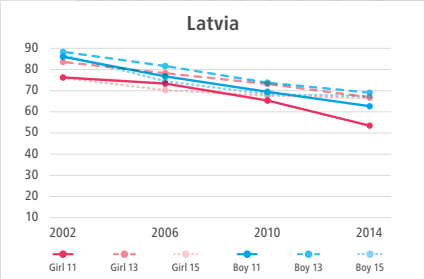




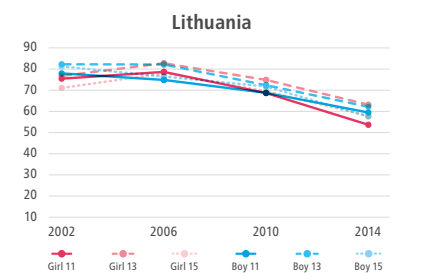


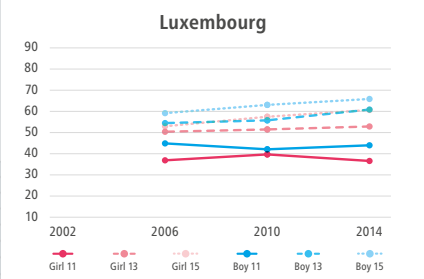


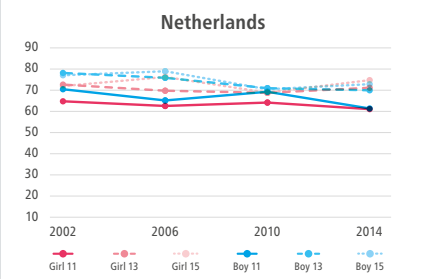


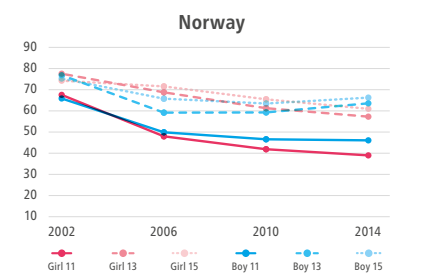


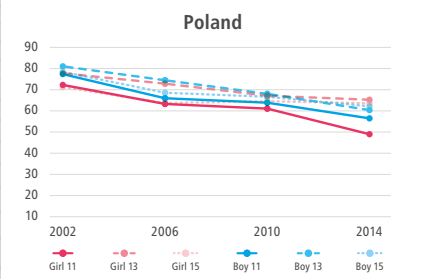
TV-viewing two hours or more on weekdays (%) contd

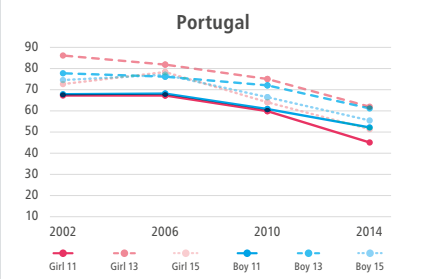


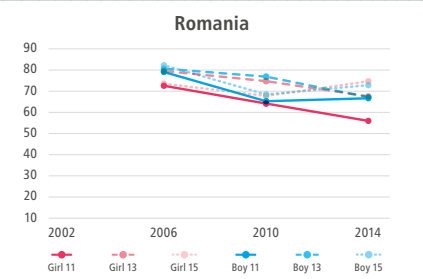


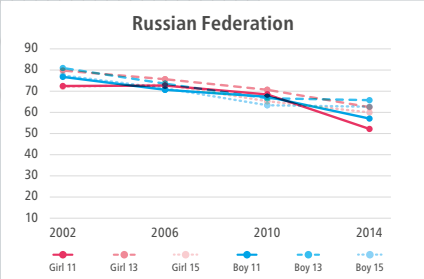


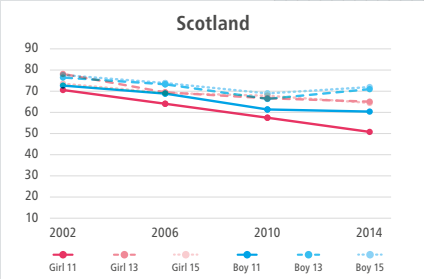


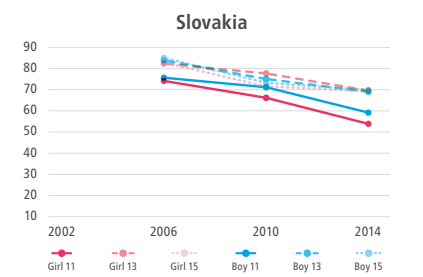


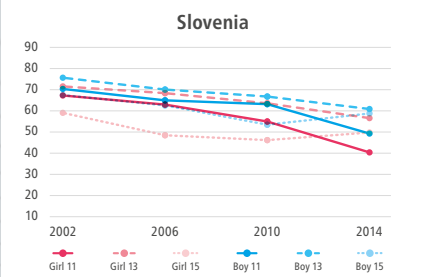


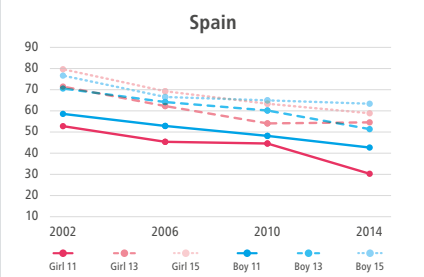


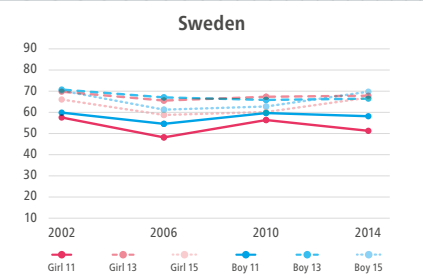


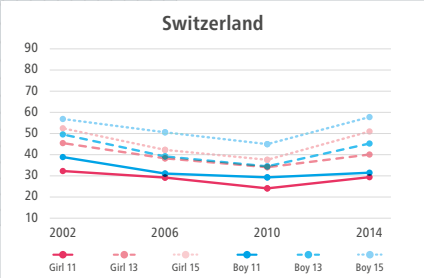


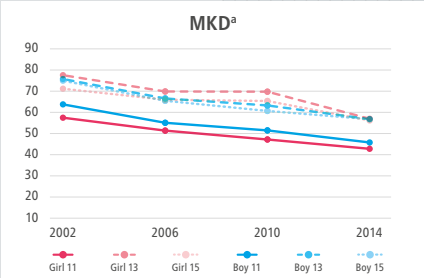


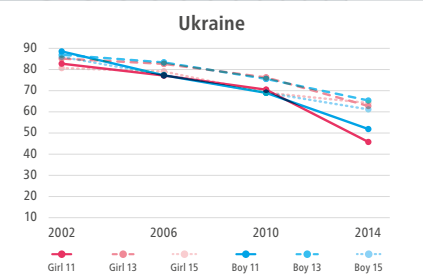


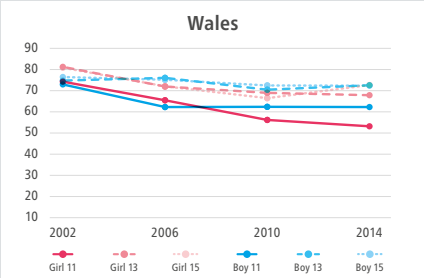






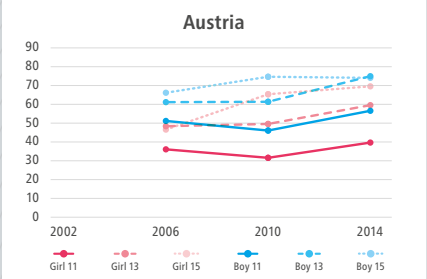


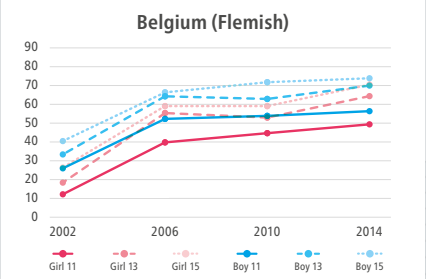


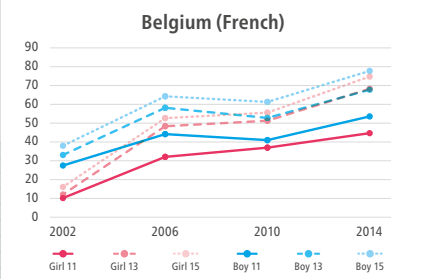


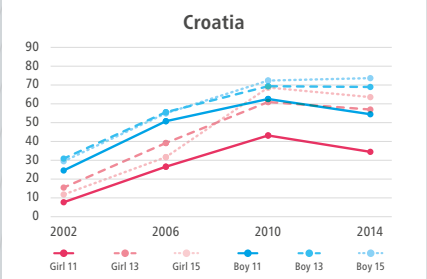
[a] The former Yugoslav Republic of Macedonia.

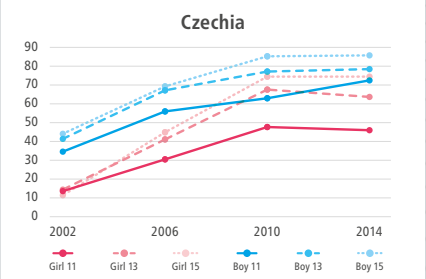
Computer use of two hours or more on weekdays (%)

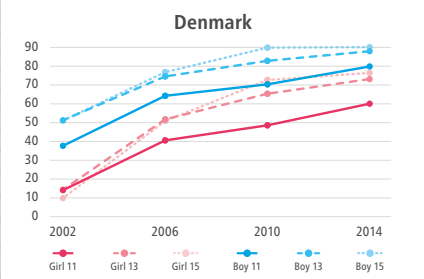


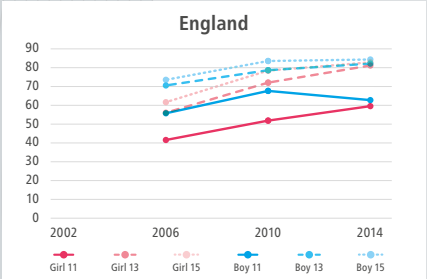


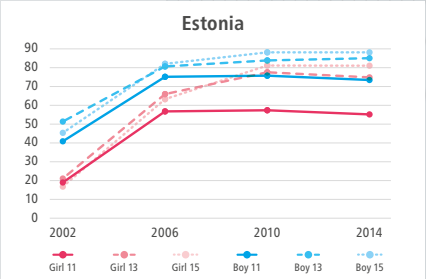


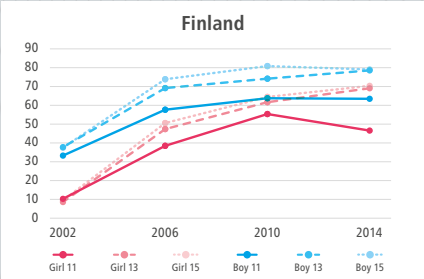


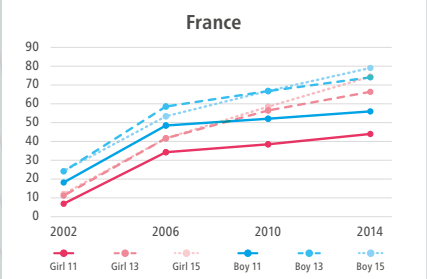


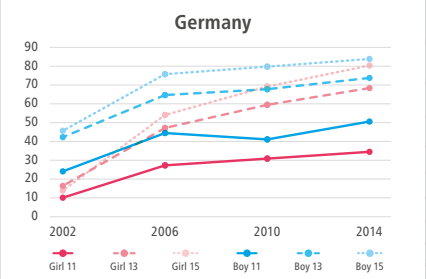


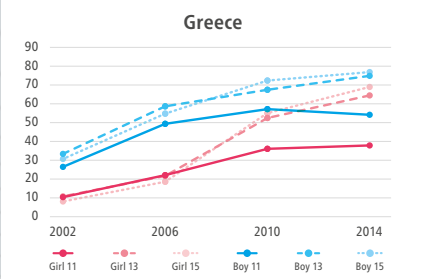


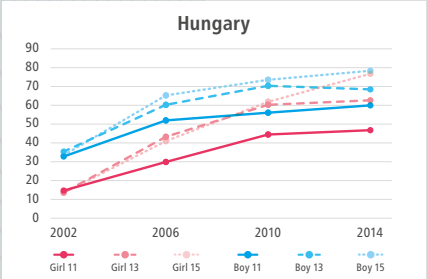


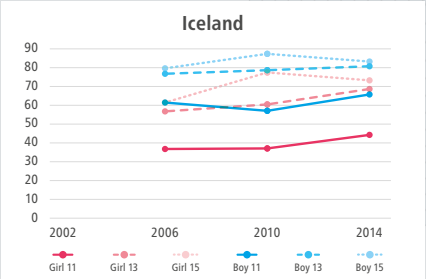


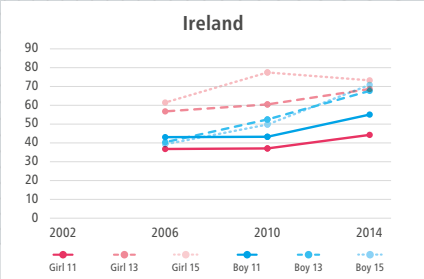


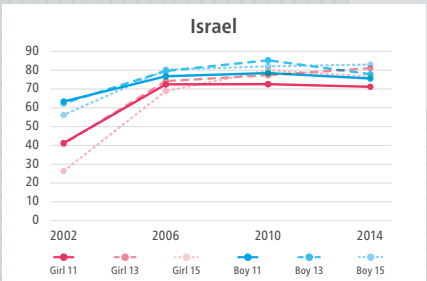


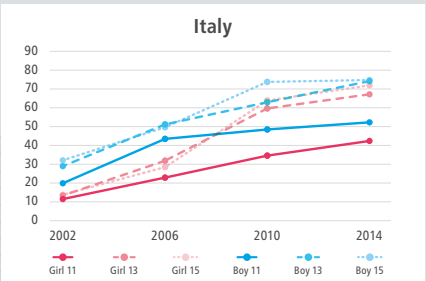


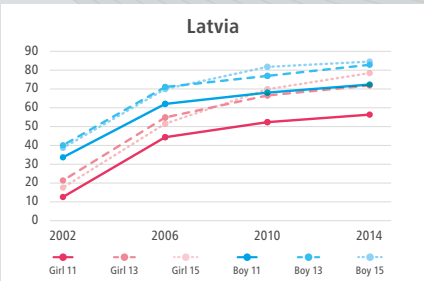




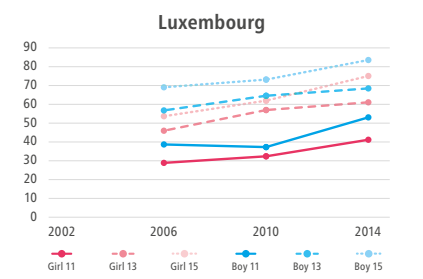


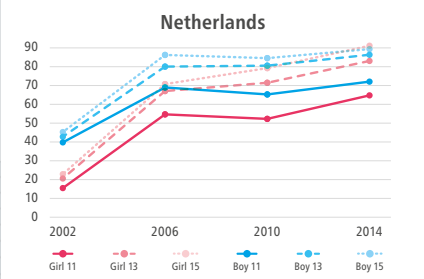


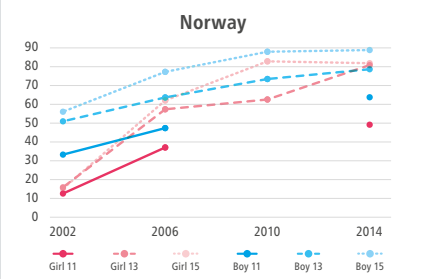


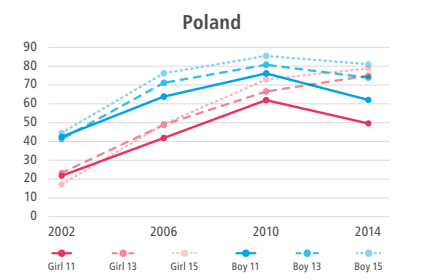


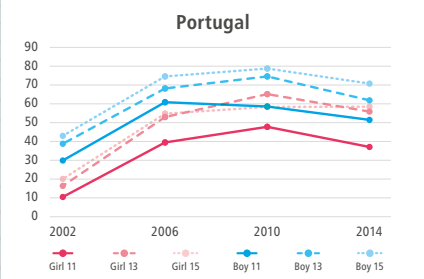
Computer use of two hours or more on weekdays (%) contd

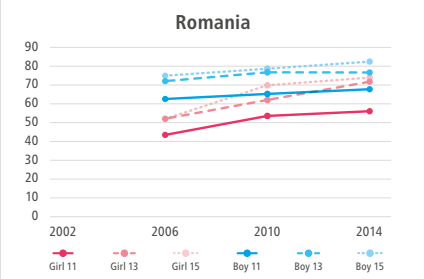


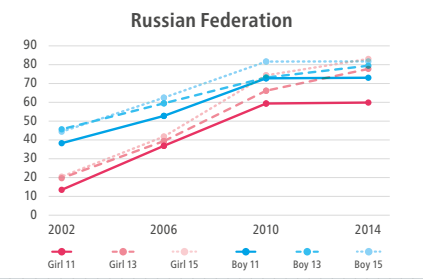


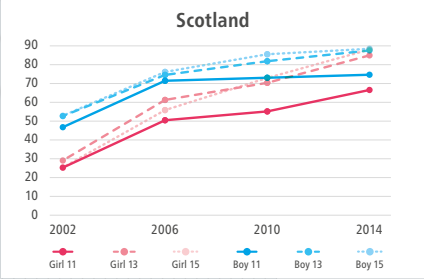


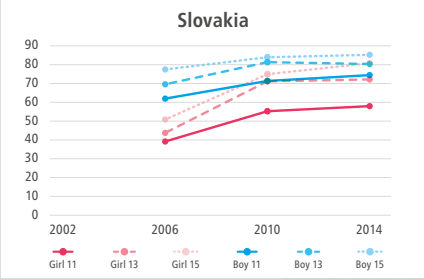


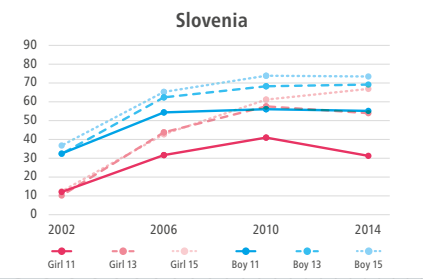


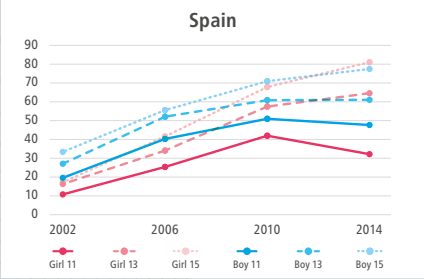


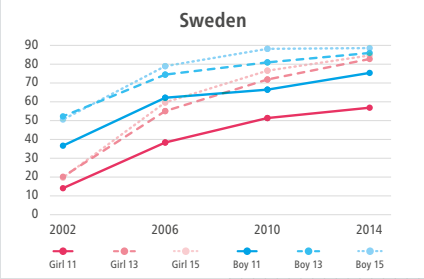


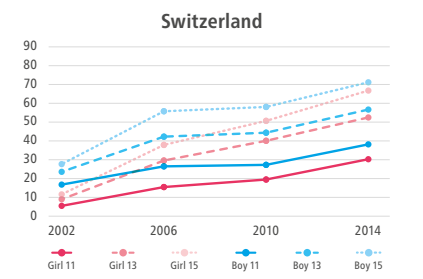


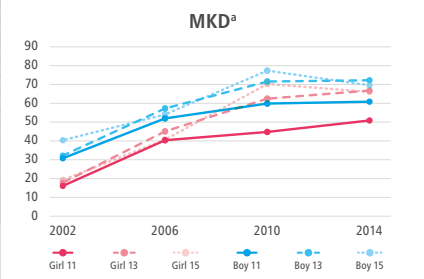


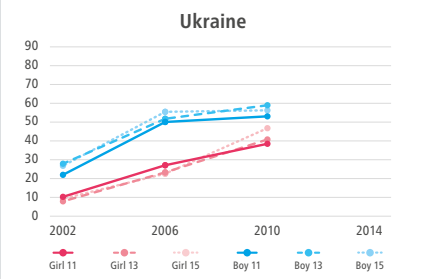


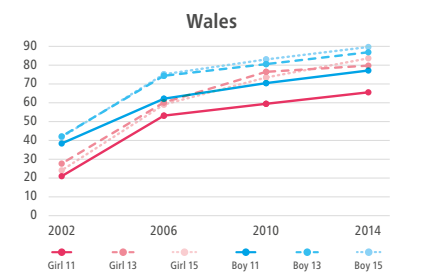












[a] The former Yugoslav Republic of Macedonia.

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.

Member States
Albania
Andorra
Armenia
Austria
Azerbaijan
Belarus
Belgium
Bosnia and Herzegovina
Bulgaria
Croatia
Cyprus
Czechia
Denmark
Estonia
Finland
France
Georgia
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Luxembourg
Malta
Monaco
Montenegro
Netherlands
Norway
Poland
Portugal
Republic of Moldova
Romania
Russian Federation
San Marino
Serbia
Slovakia
Slovenia
Spain
Sweden
Switzerland
Tajikistan
The former Yugoslav Republic of Macedonia
Turkey
Turkmenistan
Ukraine
United Kingdom
Uzbekistan

9 789289 052405 >

Adolescent obesity and related behaviours: trends and inequalities in the WHO European Region, 2002–2014

The Health Behaviour in School-aged Children (HBSC) survey is a WHO collaborative cross-national study that monitors the health behaviours, health outcomes and social environments of boys and girls aged 11, 13 and 15 years every four years. HBSC has collected international data on adolescent health, including eating behaviours, physical activity, sedentary behaviour and, more recently, overweight and obesity, for over 25 years, allowing prevalence to be compared across countries and over time. This report presents the latest trends in obesity, eating behaviours, physical activity and sedentary behaviour from the HBSC study and highlights gender and socioeconomic inequalities across the WHO European Region. Trends have previously been reported separately, but this report brings together for the first time HBSC data on obesity and obesity-related behaviours to review the latest evidence and consider the range and complexity of factors influencing childhood obesity.

World Health Organization
Regional Office for Europe
UN City, Marmorvej 51,
DK-2100 Copenhagen Ø, Denmark
Tel.: +45 33 70 00
Fax: +45 33 70 01
E-mail: euwhocontact@who.int
Website: www.euro.who.int

cahru
CHILD AND ADOLESCENT HEALTH RESEARCH UNIT