

FINDINGS FROM THE
HBSC 2018 SURVEY IN SCOTLAND

HEALTH BEHAVIOUR IN SCHOOL-AGED CHILDREN:
WORLD HEALTH ORGANIZATION COLLABORATIVE
CROSS-NATIONAL STUDY (HBSC)



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NATIONAL REPORT





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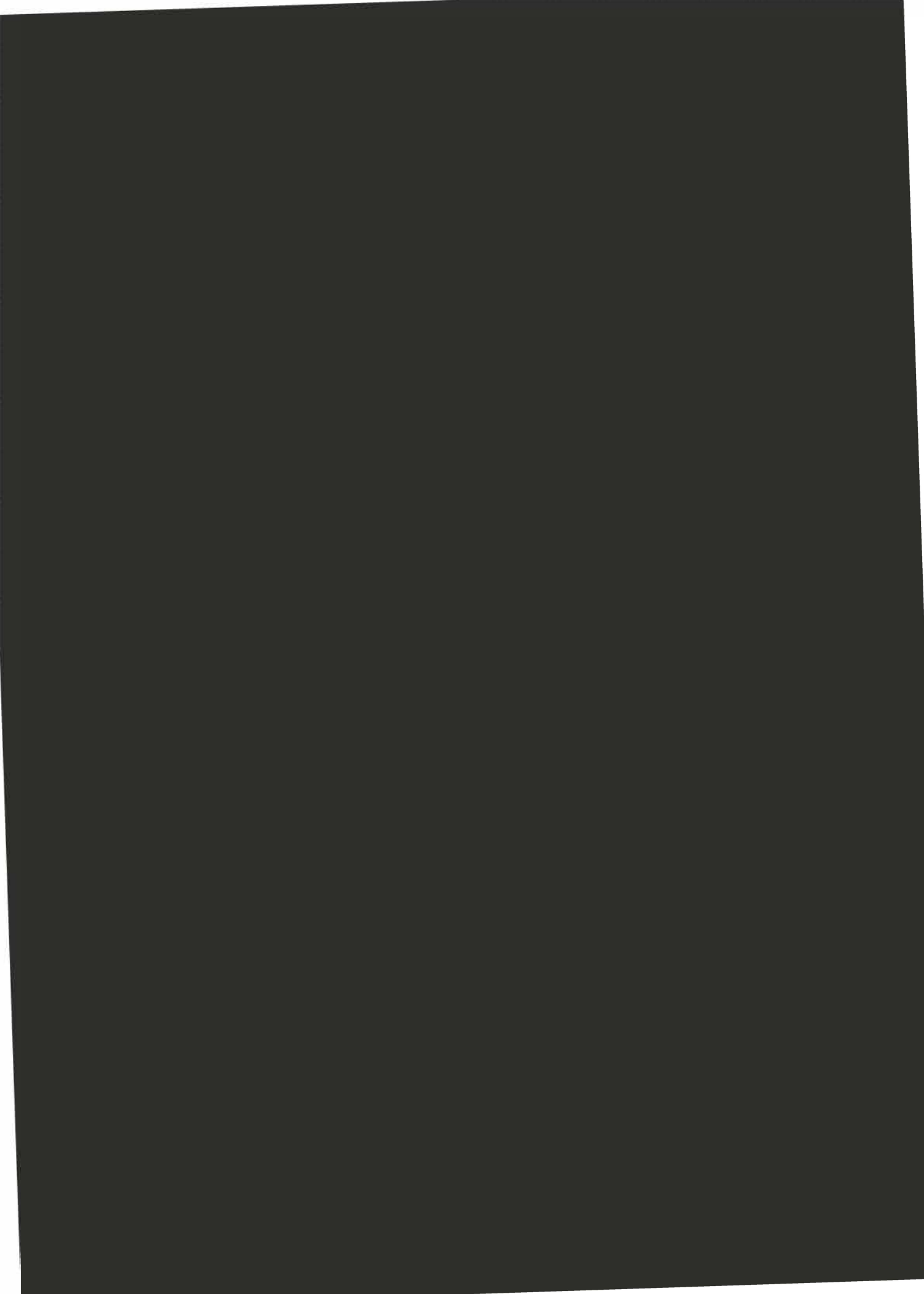
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FOREWORD

NHS Health Scotland are proud to have been commissioners of the 2018 Health Behaviour of School-aged Children (HBSC) study, which provides valuable insights into the health and wellbeing of children and young people aged 11, 13 and 15 years. Since 1990, Scotland has been part of this WHO collaborative study along with more than 40 other countries and regions in Europe and beyond.

The latest study shows a complex picture of sustained improvements, ongoing challenges and new, or previously under-explored, issues. Smoking and alcohol use have declined substantially over the past two decades. But inequalities across a range of outcomes remain entrenched. This report sheds light on mental health, with striking gender differences evident for some outcomes; for example, girls report higher stress and lower confidence, particularly at older ages.

By exploring a wide range of topics and contextual factors, the HBSC study can inform policy, practice and planning at local and national level. Such intelligence is crucial to achieving impact through a "Knowledge into Action" approach which aligns data with robust evidence and support for implementation.

Ongoing public health reform in Scotland will see closer working between local and national organisations, and a strong emphasis on action that is driven by data and evidence. Public health priorities for Scotland have been defined and include children and young people and mental health. From April 2020, NHS Health Scotland will become part of a new organisation, Public Health Scotland, working with partners on these priorities. At the same time, health and wellbeing is increasingly embedded as a priority in the Education setting.

In this report, HBSC has again provided high quality data on the health and wellbeing of school-aged children's health, and Scotland's primary source of international comparisons. As we face new and ongoing challenges, and develop new ways of working together to tackle them, such data will remain vital.

NHS Health Scotland welcome this report and the potential it has to underpin action to reduce inequalities and improve outcomes for school-aged children in Scotland.

Dr Rory Mitchell

Public Health Intelligence Principal, NHS Health Scotland

EXECUTIVE SUMMARY

This report presents data on adolescent health and wellbeing from the World Health Organisation (WHO) collaborative cross-national Health Behaviour in School-aged Children (HBSC) study in Scotland. Findings from the 2018 HBSC survey are presented and these are compared to equivalent data, where available, from seven previous survey rounds (1990, 1994, 1998, 2002, 2006, 2010 and 2014). A nationally representative sample of 5,286 pupils participated in the 2018 Scottish HBSC survey. Key findings are summarised below.

LIFE AT HOME

Most young people in Scotland (65%) lived with both their parents whilst 24% lived in a single parent family and 7% in a step-family. The proportion of young people living with both parents has gradually declined since 1990. More young people found it easy or very easy to talk about things that bothered them with their mothers (83%) compared to their fathers (71%). There has been a persistent gender difference since 1990, with boys finding it easier than girls to talk to their father; however, the proportion of girls who find it easy to talk to their fathers has increased from 48% in 1990 to 67% in 2018. Three-fifths (61%) of young people reported high levels of family support but this reduced with age. Just over a third (36%) of young people reported eating a meal with their family every day. Young people from more affluent families were more likely to report high family support, more easy communication with their parents and more frequent family meals.

LIFE IN THE LOCAL AREA

Less than half of 13- and 15-year olds in Scotland said their local areas was a 'really good' place to live, but the majority 'always' feel safe in their local area and agreed that there were good places in their local area to spend their free-time. Overall positive perceptions of the local area, based on a composite measure, decreased with age. Around two-thirds (67%) of adolescents used local greenspace at least once a week during the summertime. Young people from lower affluence families were less likely to report positive perceptions of their local area.

LIFE AT SCHOOL AND WITH FRIENDS

One quarter (25%) of adolescents in Scotland said they liked school 'a lot'; girls were more likely to report this than boys. Forty-one percent of adolescents experienced 'some' or 'a lot' of pressure from schoolwork. Fifteen-year-olds reported higher levels of schoolwork pressure than the 11- and 13-year olds, with highest levels reported by 15-year old girls (75%). Perceived schoolwork pressure is at its highest since 1994, and the gender gap has increased since 2010. Over half of young people (53%) said they expect to go to university when they leave school and this was more common among girls. Just over one in five adolescents reported high support from classmates, but this decreased with age from 34% of 11-year olds to 13% of 15-year olds. Just over half (53%) of 11- to 15-year olds reported high levels of peer support; this was higher among girls than boys at all ages. Young people from low affluence families were less likely to say they liked school and reported lower levels of support from classmates and peers.

PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOUR

Less than one in five (17%) of adolescents in Scotland meet the current physical activity recommendations for 60 minutes a day of moderate-to-vigorous physical activity (MVPA). Participation in leisure time vigorous physical activity was higher among boys than girls (47% versus 41%), with the greatest gender difference at age 15. Less than half of adolescents in Scotland usually walk to school and very few pupils cycle. Active school travel was more common in primary school. In terms of sedentary behaviour, around two-thirds (68%) of adolescents watch television for two or more hours a day on weekdays. TV viewing was higher among boys than girls at age 11 only. Since 2006, playing computer games on weekdays has increased substantially, from 22% to 42% among girls and from 53% to 71% among boys. Use of computers for non-gaming purposes has also increased from 44% in 2006 to 65% in 2018, with the highest levels of use among 15-year olds. Physical activity was higher among young people from higher affluence families with the exception of active travel to school. Conversely, screen time was higher among those from lower affluence families.

EATING BEHAVIOURS

Three-fifths (62%) of adolescents reported eating breakfast every day on school days, but prevalence decreased with age from 75% of 11-year olds to 51% of 15-year olds. Just over a third of adolescents reported eating fruit (35%) or vegetables (36%) every day. Fruit and vegetable consumption were higher among girls at all ages. Since 2002, daily consumption of cakes or biscuits has declined from 32% to 12% among boys and from 24% to 11% among girls. Almost one in five (17%) young people eat crisps and more than one in four (27%) eat sweets or chocolate every day. Daily consumption of sugary fizzy drinks has declined from 47% in 2002 to 17% in 2018. Around one in four (24%) young people drink fruit juice or smoothies and about one in twenty (6%) drink energy drinks every day. In general, healthier eating behaviours were more common among those from higher affluence families.

ORAL HEALTH

Three quarters (75%) of young people in Scotland brush their teeth at least twice daily. At every age, girls were more likely than boys to do so. Since 1990, there has been a steady increase in the proportion of both boys and girls who brush their teeth more than once a day. More frequent tooth brushing was significantly associated with family affluence, with higher prevalence among young people from higher affluence families. Young people reported a range of dental issues, the most common being crooked teeth or spaces between their teeth although this decreased with age. Girls were more likely than boys to report problems with their teeth at age 13 and 15. Young people from lower affluence groups were more likely to report having crooked or discoloured teeth, whereas having a dental brace or retainer was more common among young people from higher affluence families.

MENTAL HEALTH AND WELLBEING

The majority (85%) of young people reported high life satisfaction. Around one in five (22%) adolescents rated their health as 'excellent' but 15-year old girls were the least likely to report 'excellent' health (12%). Over a third (36%) of adolescents said they feel very happy with their life at present. Feeling very happy decreased with age from 51% of 11-year olds to 23% of 15-year olds. Over half (51%) of young people in Scotland reported 'often' or 'always' feeling confident in themselves (60% boys versus 42% girls). However, in 2018, levels of confidence were amongst the lowest seen in 24 years.

Around a third (35%) of young people experienced multiple health complaints every week and prevalence was higher among girls than boys at age 13 and 15. Prevalence of multiple health complaints is at its highest for both boys and girls since 1994. The most common health complaints were sleep difficulties, feeling nervous and feeling irritable. Girls were more likely than boys to perceive their body to be too fat (40% versus 26%) and this gender difference was seen at every age group. Conversely, boys were more likely to think they were too thin (16% boys, 9% girls).

The mean WEMWBS (Warwick-Edinburgh Mental Wellbeing Scale) score for 13- and 15-year olds was 47.1. Based on the WHO-5 Wellbeing index, 37% adolescents were classified as having low mood (33% boys, 41% girls) and 14% were at risk of depression (11% boys, 17% girls). Both low mood and risk of depression increased with age. All the mental health and wellbeing indicators were significantly associated with family affluence, with poorer outcomes for those from families with lower affluence.

SLEEP

The average sleep duration on weekdays was 8.3 hours for 13-year olds and 7.8 hours for 15-year olds. Adolescents slept for longer at weekends; on average 9.6 hours for 13-year olds and 9.3 hours for 15-year olds. The proportion of young people reporting sleep difficulties more than once a week has increased from 23% in 2014 to 30% in 2018. Among 13- and 15-year olds, sleep difficulties were more common among girls than boys and young people from lower affluence families were more likely to report difficulties in getting to sleep than those from higher affluence families (25% versus 35%).

SPENDING TIME ONLINE (ELECTRONIC MEDIA COMMUNICATION)

Nearly all (95%) young people said they owned a smartphone with connection to the internet. The vast majority (92%) of 15-year olds kept their smartphones in their bedroom at night. Over half (57%) of adolescents reported having a computer connected to the internet in their bedroom; boys were more likely to have this than girls. A third (33%) of adolescents reported that they had intense online contact (almost all the time throughout the day) with close friends and this was more common amongst girls than boys. Preference for online communication was higher amongst 15-year olds than 11- and 13-year olds. Nearly one in ten (9%) adolescents were categorised as having problematic social media use.

SEXUAL HEALTH

One in five 15-year olds in Scotland reported having had sexual intercourse (21% boys and 19% girls). The proportion of girls who reported having had sexual intercourse has fallen from 27% in 2014 to 19% in 2018 but there was no significant change amongst boys. Amongst those young people who said they had had sexual intercourse, 17% reported having first had sex at the age of 13 or younger, 31% at the age of 14 and 53% at age 15 or older. One in five reported using alcohol or drugs at first sexual intercourse. More boys than girls said they wanted their first sexual intercourse to have happened earlier whereas girls were more likely to say that they wished it had happened later. Three-fifths (60%) of adolescents reported using condoms at first sexual intercourse and a further one fifth (19%) reported using birth control pills. Less than one in ten (8%) reported using another contraceptive method. Adolescents from lower affluence families were less likely to use a condom only or in combination with the pill.

SUBSTANCE USE

One in ten adolescents said they had ever smoked tobacco and prevalence increased with age; 1% of 11-year olds, 7% of 13-year olds and 21% of 15-year olds. Lifetime use of tobacco is at its lowest level in 28 years. Young people were also asked about e-cigarette use for the first time in HBSC: 7% of 15-year olds and 3% of 13-year olds had used an e-cigarette in the last 30 days. Less than one in ten (8%) young people reported drinking alcohol weekly but this increased with age, from 3% of 11-year olds to 16% of 15-year olds. Weekly drinking has been declining since 1998. Eight percent of 15-year olds reported having used cannabis in the last 30 days, and boys were more likely to have done so than girls (12% versus 5%). Substance use did not tend to vary by family affluence; only cannabis use in last 30 days was more prevalent amongst young people from lower affluence families (13% versus 4%).

BULLYING AND DISCRIMINATION

Traditional bullying was more common than cyberbullying: 14% of young people reported that they had been bullied at school at least two or three times in the past couple of months whereas 5% reported being cyberbullied. There has been no change in prevalence of traditional bullying since 2014. The most common types of bullying reported by young people were name calling and being made fun of in a hurtful way, or others spreading lies or false rumours about them.

Young people were asked about their experiences of discrimination. Around one in four said they had been discriminated against based on their gender. At age 13, boys were most likely to report gender discrimination from teachers whereas girls were more likely to experience it from other pupils at school. Around one fifth of girls but over a quarter of boys said they had been discriminated against because of where they, their parents or grandparents were born. This type of discrimination was most likely to come from other pupils at school. Being discriminated against because of the amount of money their family had was less frequent than other forms of discrimination but had still been experienced by more than one in ten adolescents.

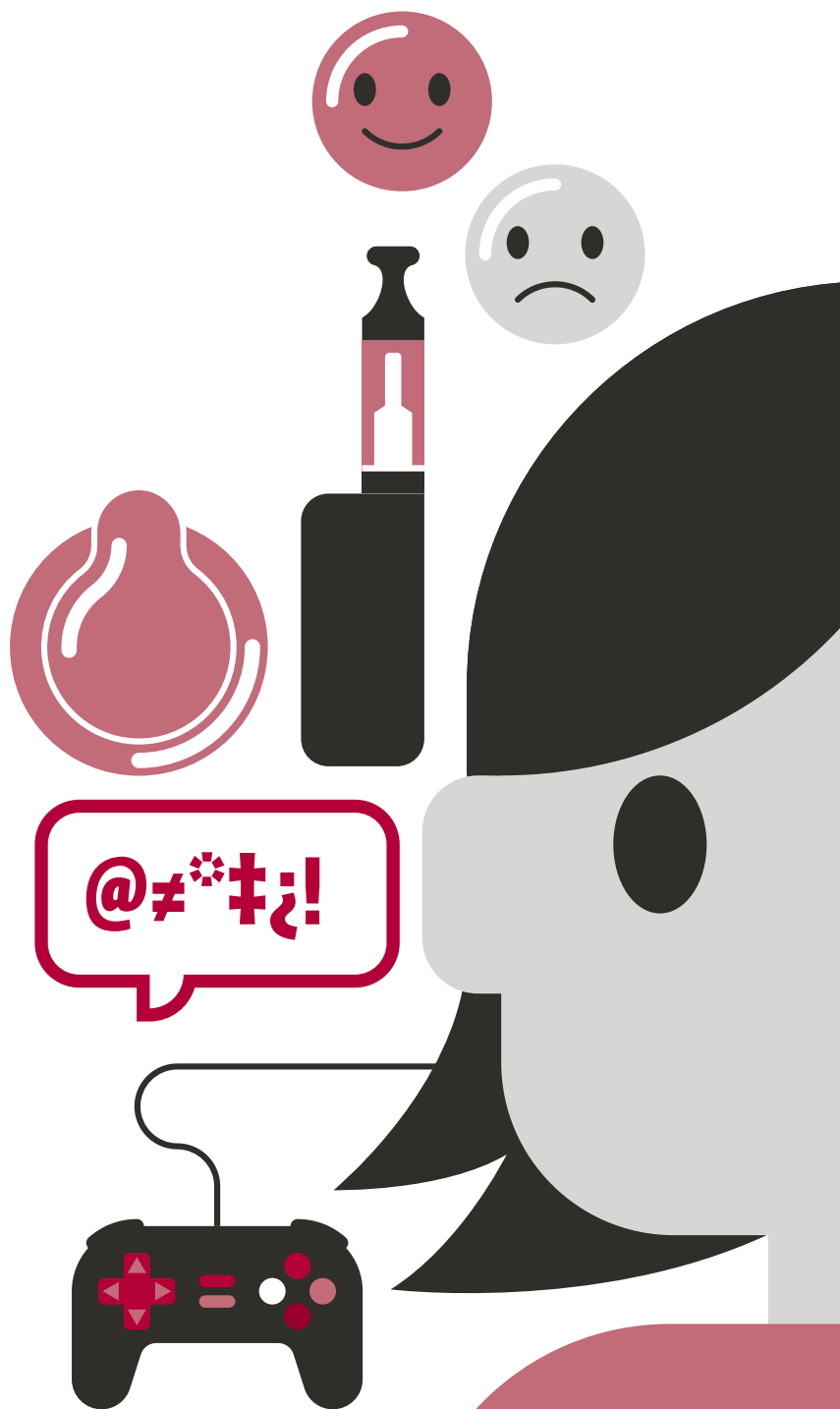
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We acknowledge all national teams in the international HBSC research network who collaborated on the production of the HBSC international research protocol, including the HBSC questionnaire; and the support of the WHO Regional Office for Europe. The HBSC study in Scotland is funded by NHS Health Scotland. We are grateful to Dr Rory Mitchell and colleagues at NHS Health Scotland for their ongoing support. We would like to thank previous members of the HBSC Scotland team for earlier contributions to the project: Alina Cosma, Candace Currie, Karen Hunter, Gina Martin, Gill Rhodes, Ross Whitehead.

Design work is by Damian Mullan at So... It Begins and illustrations are by Tom Holmes.

HBSC National Team: Dorothy Currie, Jo Inchley (Principal Investigator), Judith Mabelis, Damilola Mokogwu.



1 INTRODUCTION



INTRODUCTION

IMPROVING YOUNG PEOPLE'S HEALTH IN SCOTLAND

The improvement of young people's health in Scotland is an important part of Scottish Government policies.^{1,2,3} National and local policies and programmes concerned with the wellbeing of young people have focused on a number of areas including physical activity, nutrition and their importance in tackling obesity. There has also been a focus on mental health and sexual health, and an overarching aim to reduce health inequalities.^{4,5,6,7,8} Smoking, alcohol and drug use have also remained areas of concern with regards to local and national policies in Scotland.⁹ The strong commitment of the Scottish Government to adolescent health is evident in recent policy documents, such as the *Mental Health Strategy 2017–2027*, the *Learning Together: national action plan on parental involvement, engagement, family learning and learning at home strategy (2018–2021)* and *Raising Scotland's tobacco-free generation: our tobacco control action plan 2018*.^{10,11,12}

The Getting It Right For Every Child (GIRFEC) approach has wellbeing at its core and underpins all policy and practice affecting children and young people in Scotland.¹³ Within the school context, the importance of a health-promoting environment for young people is emphasised in Curriculum for Excellence, which stipulates that mental, emotional, social and physical wellbeing is essential for successful learning.

The Health Behaviour in School-Aged Children: A World Health Organisation (WHO) Collaborative Cross-National Study (HBSC).

The Health Behaviour in School-Aged Children (HBSC) Study in Scotland 2018 provides key data on the current health and wellbeing of Scottish adolescents and on how the health of our young people has changed over almost 30 years. HBSC takes a broad perspective, gathering information across a wide-range of health and wellbeing domains relevant to young people, including the social contexts in which they are growing up.¹⁴ The HBSC study focuses on young people attending school, aged 11, 13 and 15 years. These age groups cover important stages of physical and emotional development in young people, during a period of rapid physical and neurological change from the onset of adolescence to the middle teenage years, when important life and career decisions are being made. The school-based, self-complete survey is administered to a nationally-representative sample of pupils from each age group. As part of a cross-national study HBSC also provides the opportunity to compare the health and wellbeing of Scotland's adolescents with their peers in other countries across Europe and North America.

The HBSC cross-national study, of which the Scottish study is part, began in 1983 in three countries, and has now grown to include 50 countries and regions across Europe and North America. The first national HBSC survey was conducted in 1990, and national surveys have been conducted every four years since then, in line with the cross-national survey cycle. The study protocol and a core part of the survey instrument are common to all countries participating in the international study, providing robust cross-national comparable data on adolescents across Europe and North America. The Scottish study is based at the MRC/CSO Social and Public Health Sciences Unit (SPHSU), University of Glasgow and undertaken in collaboration with the School of Medicine, University of St Andrews. SPHSU also hosts the HBSC International Coordinating Centre (ICC). The study is funded by NHS Health Scotland.

HBSC is conducted in collaboration with the World Health Organization Regional Office for Europe, a partnership which supports the wide dissemination of research findings from the study to inform and influence health improvement policy and practice at national and international levels. As well as the national report which describes the current status of adolescent health and wellbeing in Scotland, the Scottish HBSC team produces scientific papers, thematic reports and briefing papers to inform policy makers, practitioners and academics on findings from the study. These national dissemination products are available on the HBSC Scotland website, and a full list of international publications is presented on the International HBSC website.

HBSC Scotland data are also used to support school-based health improvement activities through the Scottish Schools Health and Wellbeing Improvement Research Network (SHINE), based at the MRC/CSO Social and Public Health Sciences

Unit (SPHSU), University of Glasgow. SHINE aims to support improvements in health and wellbeing amongst school-aged children by building a collaboration between schools, researchers and policy-makers, and HBSC data are used by schools in the network to help identify their key health and wellbeing needs.

THE HBSC REPORT

The 2018 HBSC survey in Scotland is the 8th consecutive cross-national HBSC survey in which Scotland has participated, providing data on the health of the nation's young people over the last 28 years. This report provides information on the current health and wellbeing of Scotland's young people, as well as the social contexts affecting their lives. Where data are available, trends in health from the early 1990s are presented. The data in the report capture the key priority areas of mental health, physical activity, eating habits, sedentary behaviour, bullying and cyber bullying, substance use and sexual behaviour. Wider aspects of young people's lives are also included such as the extent to which young people feel supported by family, friends and teachers, how young people feel about their bodies, their involvement in physical fighting, experience of medically-attended injuries, and their perceptions of the neighbourhood in which they live. HBSC also places young people's health in social and economic context and gathers data on family structure and socioeconomic circumstances. New topics included in the national report for the first time in 2018 include: e-cigarette use, consumption of fruit juices, smoothies and energy drinks, information on dental health issues, the WHO-5 wellbeing and WEMWBS scales, experiences of discrimination, sleep duration, use of electronic and social media and inequalities in health.

METHODOLOGY

Questionnaire Design

The Scottish HBSC questionnaire follows the international HBSC survey protocol, developed by the HBSC international network of researchers. The study methods are outlined briefly below, with a more comprehensive description on specific variables available in Appendix 2. For each round of the international survey, a full research protocol is developed¹⁵ which includes the scientific rationale for topic areas included in the international standard questionnaire, and information on the validation of items. Some items are retained across many survey years permitting analysis of cross-national trends, while other items may be amended or dropped from one survey round to the next according to national and international priorities and methodological developments.

The HBSC 2017/18 international mandatory questionnaire comprised 75 questions that were considered 'core' to the international study. These questions are mandatory for all member countries of the network, including Scotland, to ensure that international comparisons can be made on a number of key social, health and behavioural measures. In addition to these mandatory questions, optional thematic packages validated internationally are made available.

The Scottish version of the HBSC 2018 questionnaire comprised the international mandatory items, selected optional packages to give a more in-depth understanding of some key areas of health and wellbeing, as well as items of specific interest to national stakeholders such as the Scottish Government for monitoring of national frameworks and action plans.

The questionnaire for Primary 7 pupils is shorter in length than those used in secondary schools, with some items not included to ensure the questionnaire could be completed by this age group within the time available. Some questions (such as those about sexual health and cannabis use) are only asked of 15-year olds. The 2018 Scottish questionnaire was designed to take approximately 40 minutes to complete by all age groups and included 110 questions (264 items) for S4 pupils, 95 questions (249 items) for S2 pupils and 79 questions (200 items) for P7 pupils. Item validation fieldwork was carried out in Spring 2017 and the final Scottish national questionnaire was piloted in the Autumn Term of 2017.

Sample Design

The HBSC 2018 sample was designed to be nationally representative and produce robust prevalence estimates of the health and wellbeing of 11, 13 and 15-year olds in Scotland. The survey was conducted in schools, using the class as the sampling unit, with all the pupils in selected classes being asked to complete the confidential questionnaire anonymously. The target

population was school children in the final year of primary school (P7, average age 11.5 years) and in the second and fourth years of secondary education (average age 13.5 and 15.5 years, respectively).

The national sample was proportionally stratified by school funding (Local Education Authority (LEA) funded or independent) and by education authority (for LEA funded schools). Samples were selected separately for each school year group. Within each stratum schools were selected with probability proportional to the number of classes in the required year group, giving larger schools a higher probability of inclusion in the sample of schools. Within each age group, one class from each selected school was included in the sample, giving pupils within the selected schools a higher probability of inclusion in the sample if they attended smaller schools. This ensured that overall, each pupil (in P7, S2 or S4) within a stratum had the same probability of inclusion in the sample.

The desired achieved sample size in each age group was set at 2000, higher than the approximately 1500 required as part of the international HBSC protocol. This larger sample size was designed to enable more precise estimates within sub-groups in Scotland.

Response rates

Of the 337 school classes asked to participate in the HBSC 2018 survey, 208 (62%) took part. The breakdown of response rates by class and pupils for each year group are provided in [Table 1.1](#). Pupil response rates within participating classes were generally similar to previous survey rounds, with approximately 83% of pupils in the class returning a questionnaire. However, class response rates were over 10% lower than in 2014, and the final sample did not reach the desired sample size of 2000 pupils in any age group. Response rates were higher among primary classes than secondary. Response in S4 was particularly poor, with just over 1500 pupils in the achieved sample. Schools who refused to participate were asked their reasons, and the main reason given was that they were too busy. The main reason for pupil non-response in participating classes was absence due to illness or authorised absence.

Table 1.1:
RESPONSE RATES HBSC SCOTLAND 2018

RESPONSE RATES IN 2018	(%)	ACHIEVED SAMPLES
Primary 7		
Class response	67	
Pupil response	85	
Total response	57	1956
Secondary 2		
Class response	60	
Pupil response	85	
Total response	51	1788
Secondary 4		
Class response	58	
Pupil response	79	
Total response	45	1542
Whole sample response	51	5286

Weighting

Post-stratification weighting of the sample was applied to make the sample representative of Scottish P7, S2 and S4 school pupils with respect to several school and individual level characteristics: proportion of pupils in each local authority; school-funding; school denomination; school Scottish Government 6-point urban-rural classification, and to equal representation of boys and girls. The methodology for post-stratification adjustments was the use of raking weights. Raking permits the simultaneous adjustment of weights for several characteristics and is a standard post-estimation technique applied in many national surveys. Data for weighting control variables were obtained from the Scottish Schools Pupil Census 2017 (which corresponds to the same school year cohort in which the sample was carried out).

Survey Administration

Questionnaires were administered in schools between the end of February and early June 2018, with the majority being returned by the end of May. The questionnaires were administered in schools by school teachers who were given written instructions on how to carry this out. On completion, each pupil placed their questionnaire in an envelope and sealed it. Sealed envelopes were then returned to the HBSC Scotland research team. A class return form was completed by teachers for each participating class, which detailed how many pupils completed the questionnaire, how many were absent and reasons for absence.

DATA CLEANING AND ACCESS

Coding of responses and data entry were conducted according to the HBSC international protocol, and the final national Scottish dataset was cleaned and data quality checks applied as required by the HBSC international study. The pseudonymised national HBSC 2018 data set will be deposited in the UK data archive in 2020. The data are also submitted to the Norwegian Social Sciences Division (NSD) in Bergen, Norway, to be compiled into the international HBSC 2017/2018 survey data set. The international data set excludes some pupils who had extreme ages for their school year group, in order to ensure compliance with the international protocol that requires 90% of pupils to have ages within +/- 1 year of the target ages (11.5 years, 13.5 years and 15.5 years). This resulted in the exclusion of 265 pupils compared with the national data set, where school grade (not age) was the inclusion criterion. The Scottish sample available as part of the HBSC 2017/2018 international data set consequently has 5021 pupils. The impact on prevalence estimates is negligible, usually less than one decimal place, but readers should be aware of the potential for slight differences in reporting of Scottish data from the two sources. The international HBSC mandatory 2017/2018 data set is made publically accessible via NSD three years after the international data set is finalised.

ETHICS, CONSENT AND RECRUITMENT

The 2018 Scottish HBSC study design and methodology was given ethical approval by the University of St Andrews Teaching and Research Ethics Committee. Directors of Education were contacted and permission was requested to invite schools to take part in the survey. Once permission was granted by Directors of Education, invitation letters were sent to selected schools explaining what was involved in taking part in the HBSC survey along with information about the HBSC survey, and an example questionnaire. Schools who did not respond to the invitation were contacted by email and by telephone. Recruitment was carried out by members of the research team and by Progressive Partnership Ltd who then carried out all subsequent liaison with participating schools. Queries from schools or parents were directed to the HBSC national research team. Survey materials including pupil information sheets and parental consent forms were sent to participating schools in advance of the survey. Pupils whose parents returned an opt-out consent form were not included in the survey. Pupils themselves could also opt out of the survey on the day by choosing not to take part.

PRESENTATION OF RESULTS

Precision of prevalence estimates

The Scottish HBSC national sample uses cluster sampling (i.e sampling a whole school class) rather than simple random sampling of individual pupils. Standard statistical methods that assume simple random sampling are therefore not appropriate, as they can under-estimate precision. Other design factors can also affect precision, such as stratification and weighting. All analyses in this report have therefore used design adjusted analyses and provide robust estimates of precision.

Data Analyses

Design adjusted chi-square tests were carried out to assess the statistical significance of differences between genders and age groups. All differences or changes reported are statistically significant unless otherwise stated. When comparing proportions a 99% level of significance was used in preference to the more standard 95% level, to take account of the fact that several tests of differences in proportion are carried out for each outcome. Analyses for age and gender took account

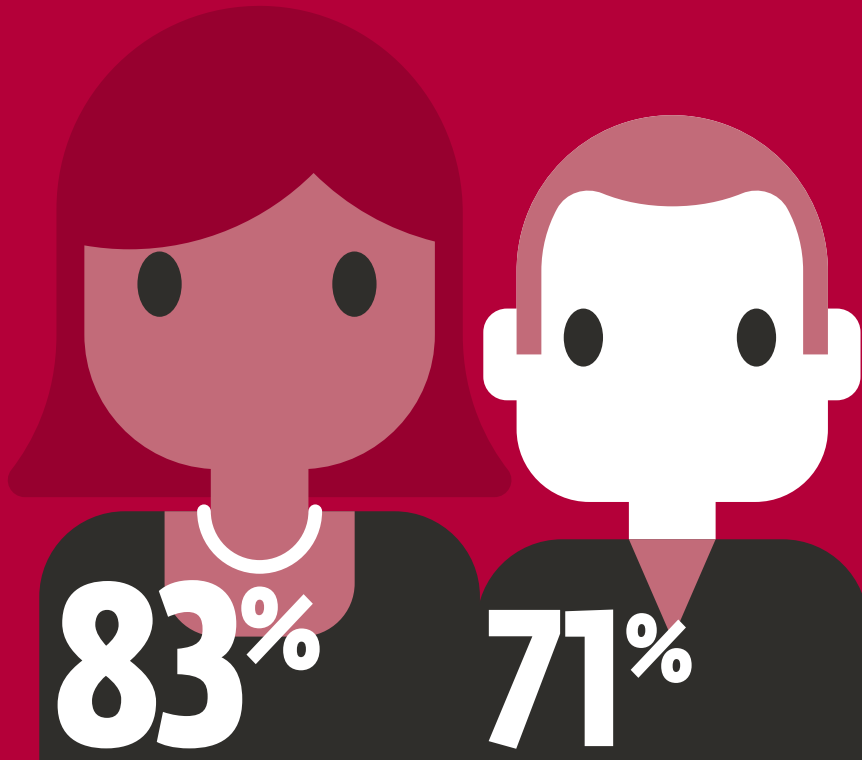
of the effect of the survey design – stratification, clustering and weighting – on the precision of the estimates presented. The statistical package SPSS v25 (IBM)¹⁶ and STATA v14¹⁷ were used for all design-adjusted analyses. In some cases, reported data appear not to add up to 100%; this is due to rounding error.

Structure of the report

This report has a total of 13 chapters. The first provides an introduction to the HBSC study. Chapters 2 to 4 give a descriptive summary of wider socio-environmental factors which are known to be associated with the health behaviour of young people: family, neighbourhood, school and peers. The chapters following these focus on health and wellbeing outcomes and health and risk behaviours. For most variables, prevalence by age and gender, as well as trends and socio-economic inequalities in health are presented in each chapter. A full list of items is included in Appendix 2.

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Young people found it **easier to talk** about things that bothered them **with their mother**, compared to their father

LIFE AT HOME

INTRODUCTION

The home life of adolescents has a major influence on their health and health behaviours.^{1,2} Many health behaviours are established during childhood and adolescence, and family beliefs, values and norms can shape future health behaviours.^{3,4} In addition, other aspects of family life, such as socio-economic status, household composition and family relationships contribute to children's health and development and can affect their future wellbeing.^{5,6,7}

In the UK, family structure has changed over the last three decades and has become increasingly diverse. Research has shown that a stable home environment supports physical and psychological wellbeing as well as positive social and behavioural outcomes.^{8,9,10,11} Similarly, good interpersonal relationships and communication between family members are associated with positive health outcomes, especially mental health.¹²

Eating meals regularly together as a family has been linked to positive eating habits and also emotional wellbeing in adolescence and beyond. This is in part because family meals encourage regular eating behaviours that are associated with better health and wellbeing and they also reduce the risk of establishing poor eating habits.^{13,14} Family meals have also been shown to promote positive family interactions for example, family communication and the transfer of cultural norms and values.^{15,16}

Family socio-economic status is also strongly associated with adolescent health. Higher levels of deprivation are consistently associated with more negative health behaviours and poorer health outcomes.^{17,18,19}

The importance of a supportive home environment for adolescent health is recognised in a number of Scottish Government policy documents which focus on promoting positive relationships between parents and adolescents. The *Scottish Action Framework: Delivering a Healthy Future*.²⁰ emphasises the important role the family plays in the healthy development of adolescents. It recognises that adolescents are primarily dependent on the continuing support and care of their families and underlines the vital role played by parents and carers. The strategy highlights the importance of assisting parents in this role and the need for services and facilities to support parents. The *National Parenting Strategy* also reiterates the importance of the family on adolescent health and health outcomes and focuses on promoting positive parent-child relationships.²¹

More recently, the Scottish Government committed to supporting families through the *Learning Together: National Action Plan on Parental Involvement, Engagement, Family Learning and Learning at Home 2018–2021*.²² which sets out a vision for parental involvement and engagement from pre-birth to age 18 and advocates for strategies that encourage active engagement in adolescents' learning and daily activities.

HBSC FINDINGS

Adolescents were asked about aspects of their home life including family structure, family support and communication, family meals and family affluence. Within the HBSC study family affluence is measured using the Family Affluence Scale (FAS), which sums several items on material assets within the household. Within the report relative family affluence is reported, with young people classified as being from low (least affluent 20%), medium (middle 60%) or high affluence (highest affluent 20%) families. Family structure and parental communication have been included in the Scottish HBSC survey since 1990 and family meals since 1994. However, the family meals question changed in 2018 from focusing only on evening meals to including all meals eaten together as a family; as such this measure is not directly comparable with the previous surveys. Family support was introduced as a new item in 2014.

In total, 208 schools across 33 local authorities in Scotland participated in the 2018 study. There were 5286 respondents of which 2581 (49%) were boys and 2705 (51%) were girls. The mean age in Primary 7 was 11.7 years, Secondary 2 was 13.7 years and Secondary 4 was 15.7 years. Ninety-three percent (93%) of respondents were born in the United Kingdom (UK) (88% in Scotland and 5% in England, Wales and Northern Ireland) while 7% were born in the rest of Europe and the world (Table 2.1).

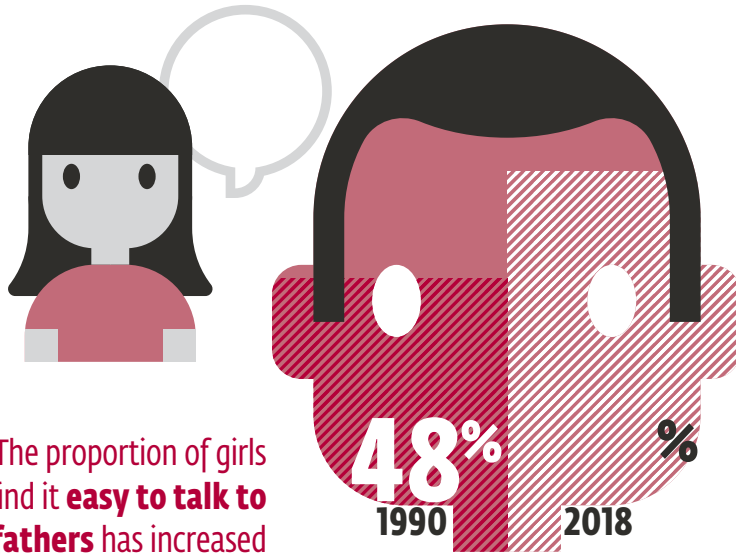


Table 2.1:
CHARACTERISTICS OF RESPONDENTS

Source: HBSC Scotland 2018 Survey

Characteristic		Number	(%)
Total respondents		5286	100
Gender	Boys	2581	49
	Girls	2705	51
Age group	11-year olds	1956	37
	13-year olds	1788	34
	15-year olds	1542	29
Country of birth	United Kingdom		
	Scotland	4691	88
	England, Wales or Northern Ireland	275	5
	Rest of Europe	179	4
	Rest of the world	131	3

Figure 2.1
FAMILY STRUCTURE

Source: HBSC Scotland 2018 Survey

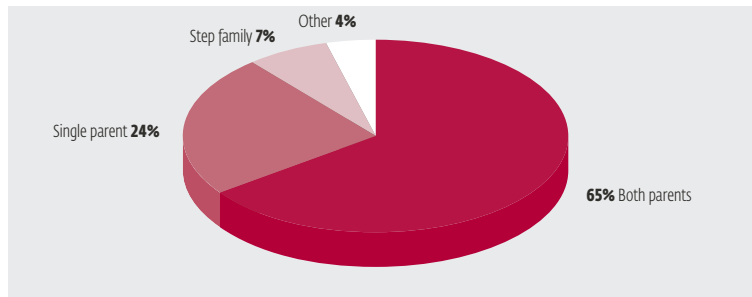
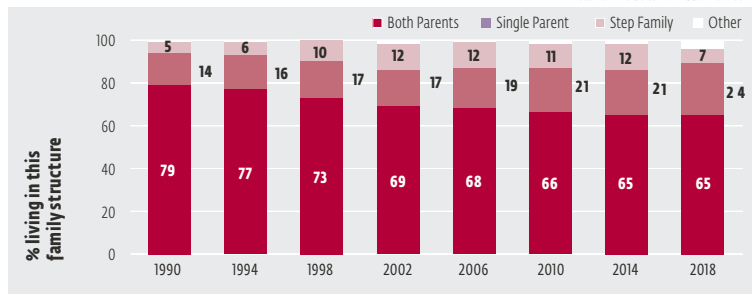


Figure 2.2
FAMILY STRUCTURE 1990-2018

Source: HBSC Scotland 1990-2018 Survey



Family Structure

In 2018, 65% of adolescents lived with both parents, 24% with a single parent, 7% in a stepfamily and 4% reported living in other home environments like a foster home or with extended family such as grandparents (Figure 2.1). Since 1990, the proportion of young people who live with both parents has gradually declined while those living in a single parent family has increased. Between 2014 and 2018, the proportion of adolescents living in stepfamilies has reduced from 12% to 7% while those living in other types of home or with extended families has remained the same largely the same (Figure 2.2).

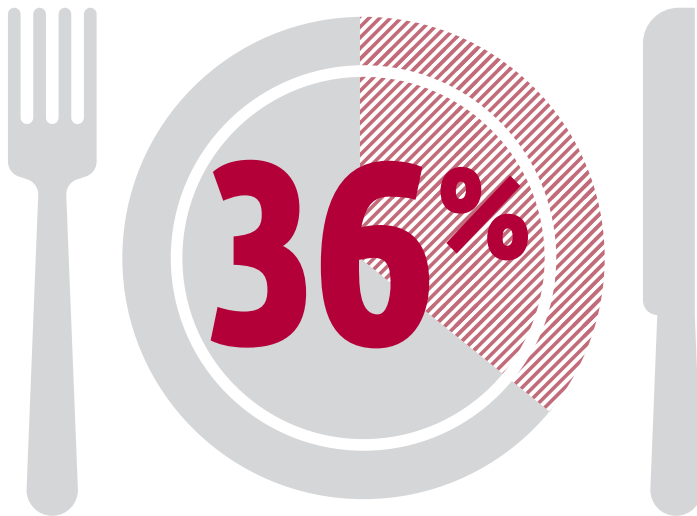
Family Support

Pupils were asked four questions about family support, including items on family help, emotional support, problem solving and decision making. These were combined to create a family support scale, ranging from 1-7. A score above 5.5 was classified as high family support.^{23 24} Perceived family support was highest among 11-year olds with 74% reporting high family support. Family support decreased with age; only 58% of 13-year olds and 51% of 15-year olds reported high levels of support from their family. No gender difference was observed in any of the age groups (Figure 2.3).

Family communication

Young people were more likely to find it easy to talk about things that bothered them with their mothers (83%) than with their fathers (71%). Ease of communication with fathers and mothers decreased with age (Figure 2.4 and Figure 2.5, respectively). Boys reported finding it easier to talk to their fathers than girls at age 13, but there were no gender differences among 11- and 15-year olds. There were no gender differences in maternal communication for any age group.

Since 1990, there has been an increase in the proportion of adolescents who find it easy to talk to their fathers. The largest increase was observed among girls, from 48% in 1990 to 67% in 2018 (Figure 2.6). Figures have remained fairly steady over time for adolescents' communication with their mothers (Figure 2.7). Persistent gender differences have also been observed with regards to paternal communication since 1990, while gender differences are barely observed in maternal communication (except in 2014).



Family Meals

Over one third (36%) of young people reported eating a meal with their family every day. A further 41% reported that they eat meals with their family most days of the week. Frequency of eating family meals has decreased since 1994 but remained fairly consistent since 2006. Although there was a marked decrease between 2014 and 2018 (Figure 2.9), these figures are not directly comparable due to the change in how family meals were measured during this period.

Just over a third of young people reported **eating a meal with their family** every day.

Figure 2.3
FAMILY SUPPORT

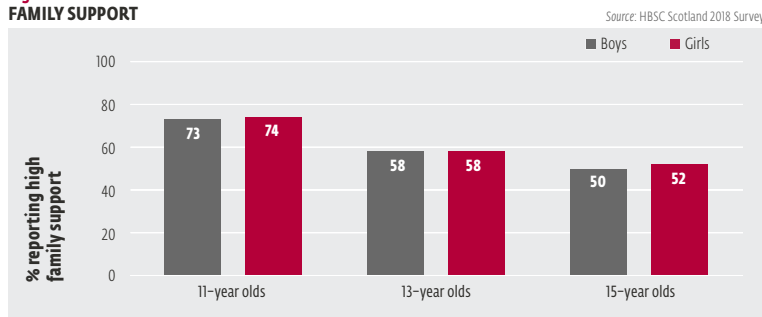


Figure 2.4
COMMUNICATION WITH FATHER

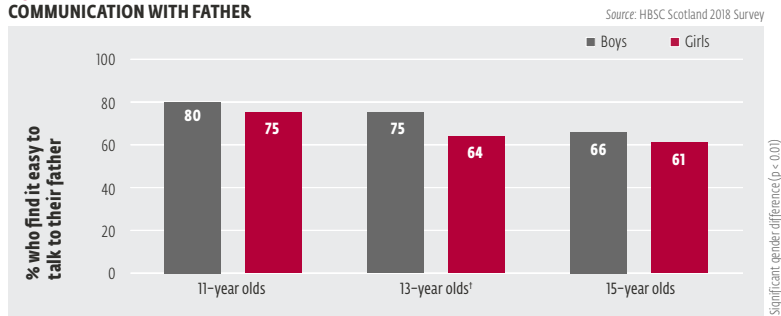


Figure 2.5
COMMUNICATION WITH MOTHER

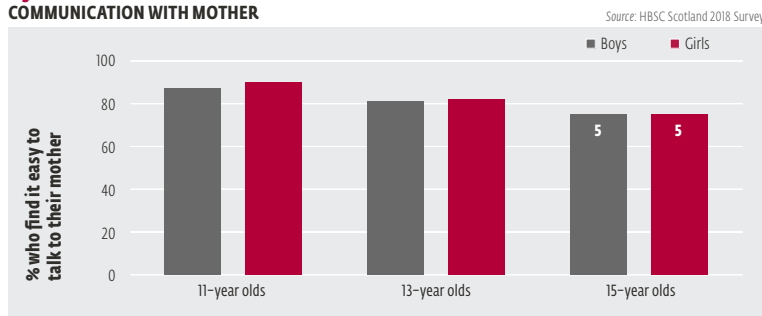


Figure 2.6
COMMUNICATION WITH FATHER 1990-2018

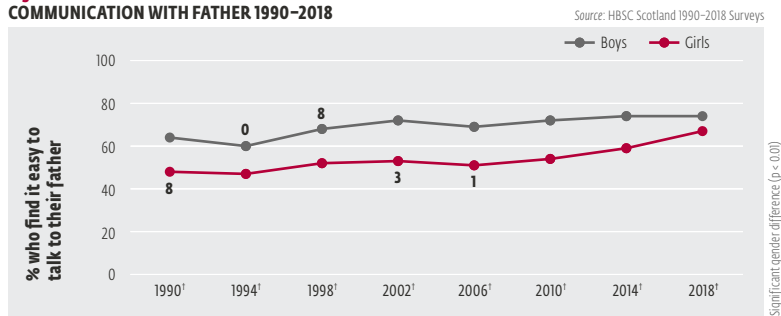
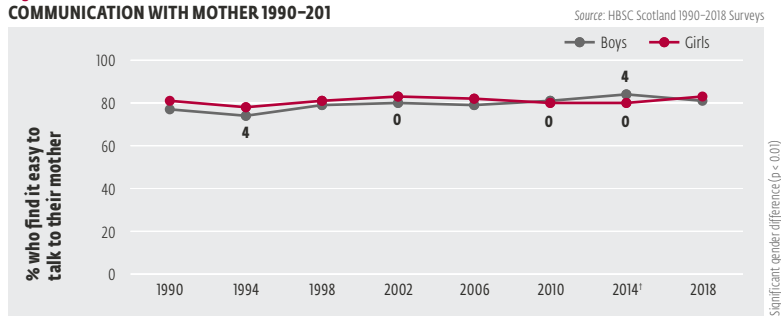


Figure 2.7
COMMUNICATION WITH MOTHER 1990-201



Inequalities in family life

All four indicators of family relationships within the home showed a significant relationship with family affluence. Higher FAS groups were more likely to report higher family support, easier communication with their father and mother and more frequent family meals (Table 2.2).

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Figure 2.8
FREQUENCY OF FAMILY MEALS

Source: HBSC Scotland 2018 Survey

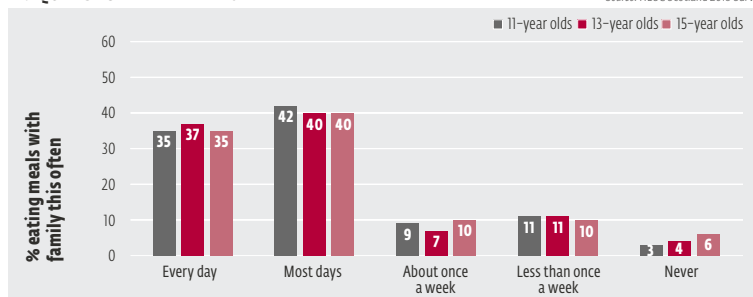


Figure 2.9
DAILY FAMILY MEALS 1994–2018

Source: HBSC Scotland 1994–2018 Survey

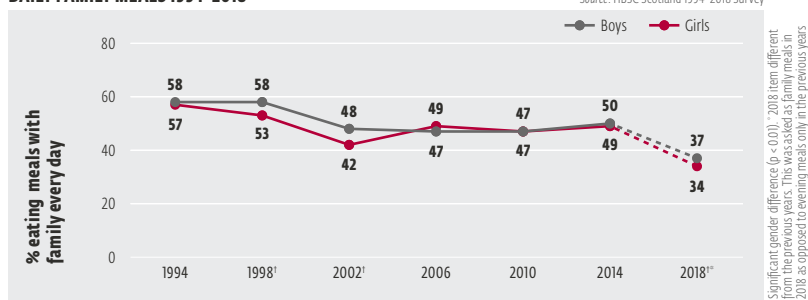
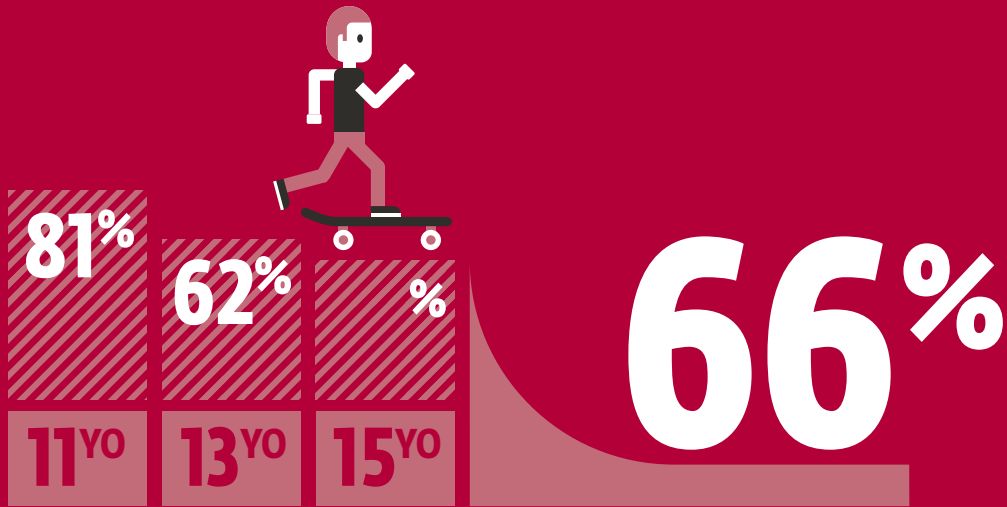


Table 2.2:
LIFE AT HOME BY FAMILY AFFLUENCE

Source: HBSC Scotland 2018 Survey

	Low FAS (%)	Medium FAS (%)	High FAS (%)
Family Support [†]	52	61	67
Communication with father [†]	65	71	74
Communication with mother [†]	76	83	85
Frequency of family meals [†]			
Every day	30	36	38

[†] Significant linear trend difference ($p < 0.01$)



Two-thirds of adolescents agreed that there were **good places** in their local area **to spend** their **free time**, but this decreased with age



LIFE IN THE LOCAL AREA

INTRODUCTION

The neighbourhood in which people live affects their health in ways that go beyond individual factors.¹² To understand health and health behaviours it is necessary to recognise that individuals are embedded in larger social systems and that context matters.

Neighbourhoods are considered to impact on health in two main ways: through the *social relationships* with families and peers, wider social cohesion and sense of community and through the *physical environment* such as safety, housing quality, recreational facilities, air pollution and shops.^{3,4} The neighbourhood in which one lives has been linked to a range of health and health behaviours including diet, physical activity, quality of life, and wellbeing.⁵ Neighbourhood-level factors such as socio-economic status, social and institutional resources and safety have also been shown to be important to children's mental health and development.⁶

It is recognised that the protective and risk factors in neighbourhoods are not equally distributed. Those living in more deprived areas are less likely to experience positive benefits from their neighbourhood and more likely to suffer the consequences of poor physical environments.⁷ More disadvantaged neighbourhoods are also associated with a greater frequency of stressful events, which may in turn have a negative impact on adolescent mental health as well as health-related behaviours such as substance misuse.⁸ Children growing up in more disadvantaged areas are more likely to experience multiple and cumulative physical and social stressors. These can adversely affect their health in a number of ways, including their socio-emotional development and physical health measures such as increased systolic blood pressure and cortisol levels.⁹

There is a growing body of research that looks at the importance of the neighbourhood physical environment, and particularly the role of the natural environment and greenspace as resources for health. Evidence suggests that nature has a positive impact on adolescent mental health and wellbeing.^{10,11} A review of evidence consistently demonstrated a favourable association between children's use of greenspace and their emotional and behavioural wellbeing, especially in relation to hyperactivity and inattention problems and potentially help with depressive symptoms.¹² Some studies have suggested that having greenspace nearby might moderate or buffer the impact of stressful life events on mental health and wellbeing.^{13,14} This effect may last into adulthood, for example, one study found that continued exposure to greenspace during childhood was associated with a 55% lower risk of developing a mental disorder later in life, independent of other known risk factors.¹⁵

The Scottish Government recognises the importance of the neighbourhood environment on the health of young people, including both the social and the physical environment.¹⁶ Living in "vibrant, healthy and safe places and communities" is the first of six public health priorities in Scotland.¹⁷ This encompasses aspirations to improve local greenspace and create safe places that nurture health. The Scottish Government's Active Scotland Outcomes Framework also contains outcomes relating to the neighbourhood including improving the infrastructure of both the built and natural environment to enable physical activity. It also includes indicators on measuring the perceived safety of the community for play and walking around.¹⁸

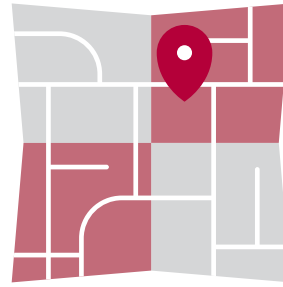
HBSC FINDINGS

HBSC asks adolescents about their perceptions of their neighbourhood focusing on aspects such as the social environment and safety. Adolescents were also asked about how often, and for how long, they used local greenspace during the summer months.

Local area is a good place to live

The 13- and 15-year olds were asked if they thought that their local area was a good place to live (Figure 3.1). Just over two-fifths (43%) reported that their local area was a 'really good' place to live (45% boys; 41% girls). Around 5% of young

61%



of adolescents reported 'always' feeling safe in their local area.

Figure 3.1
LOCAL AREA IS A GOOD PLACE TO LIVE*

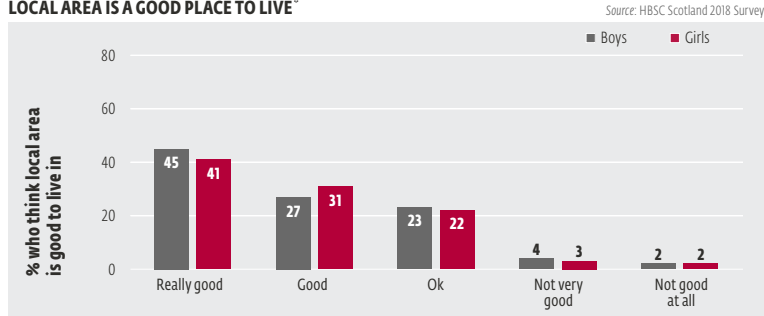


Figure 3.2
FEELING SAFE IN LOCAL AREA

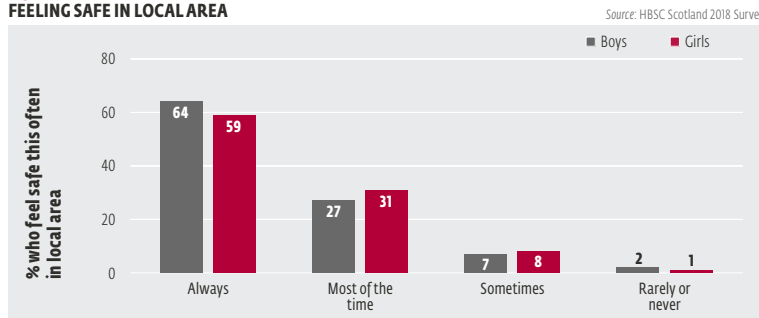


Figure 3.3
POSITIVE OVERALL PERCEPTION OF LOCAL AREA

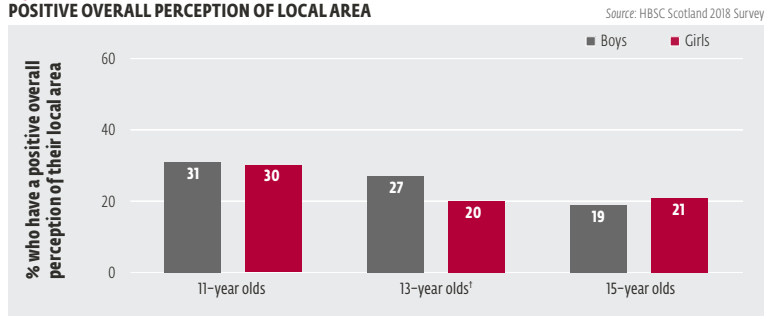
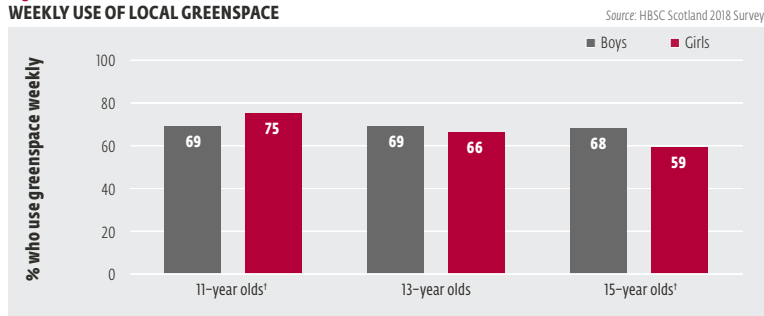


Figure 3.4
WEEKLY USE OF LOCAL GREENSPACE



people said that their local area was not very good or not at all good to live in. There were no significant age or gender differences.

Feel safe in local area

Overall, 61% of adolescents reported always feeling safe in their local area (64% boys; 59% girls) (Figure 3.2). Around one in ten were less positive saying that they sometimes, rarely, or never felt safe in their local area. There were no differences in feelings of safety in the local area by age or gender.

Perceptions of local area

Adolescents were asked the extent to which they agreed with a series of statements about their local area. This included the social environment as well as places for children and young people to play and spend their time (Table 3.1).

Overall, 71% of adolescents agreed (either a lot or a bit) that people stop and say hello and talk to each other in the street. There were no significant differences by age or gender, except amongst 15-year olds, with girls more likely to say that people stop and say hello than boys (75% versus 64% respectively).

The vast majority (82%) of adolescents agreed that it was safe for children to play outside during the day in their local area. There were no differences by age or gender, except amongst the 15-year olds, with girls being more likely than boys to agree that the local area was safe for children to play.

Two-thirds (66%) of young people agreed that there were good places to spend their free time, such as leisure centres, parks etc (64% boys; 68% girls). Younger adolescents were most likely to agree with this statement: 81% of 11-year olds agreed there were good places to spend their free time compared with 62% of 13-year olds and 54% of 15-year olds.

Overall 68% of young people agreed that they could trust people in their local area. There were no differences between boys and girls at any age, but younger adolescents were more likely to agree you could trust people than older adolescents (74% of 11-year olds and 62% of 15-year olds).

Two-thirds (67%) agreed they could ask for help or a favour from people in their local area. This did not vary by gender. Again, younger adolescents were more positive with 74% of them agreeing they could ask for help compared with 63% of 13-year olds and 62% of 15-year olds.

Adolescents were asked the extent to which they agreed with the statement 'Most people around here would try to take advantage of you if they got the chance'. Overall 61% of adolescents disagreed with this statement. There were no differences by age or gender.

Overall perception of local area

The responses to the six individual items were combined to create a score for overall perception of the local area. A favourable perception was defined as agreement with the first five statements and disagreement with the sixth (whether someone would try to take advantage of you). One quarter (25%) of young people reported a positive perception of their local area overall (Figure 3.3). Younger adolescents tended to be more positive with 30% of 11-year olds reporting a favourable perception of the local area compared with 23% of 13-year olds and 20% of 15-year olds. Only at age 13 were there gender differences, with girls being more positive about their local area than boys.

Weekly use of green space

Adolescents were asked how often they spent time in or passed through greenspace (for example, a park, beach, woods, playing fields etc.) in the summertime. Overall, 67% of adolescents said they went to a greenspace at least once a week (Figure 3.4). There were differences by age with 11-year olds visiting greenspace more often than older adolescents.

There were also some differences by gender. At age 11, girls were more likely than boys (75% versus 69%, respectively) to

Figure 3.5
DURATION OF USE OF LOCAL GREENSPACE

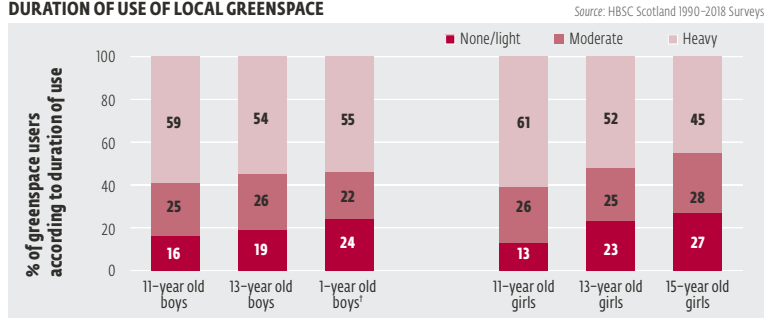


Table 3.1
PERCEPTIONS OF LOCAL AREA (%)

Source: HBSC Scotland 2018 Survey

	11-year olds Boys	11-year olds Girls	13-year olds Boys	13-year olds Girls	15-year olds Boys	15-year olds Girls	ALL
People say hello and stop to talk in the street	73	75	69	68	64	75 [†]	71
It is safe for younger children to play outside	85	85	85	81	78	80 [†]	82
You can trust people around here	76	73	71	66	61	62	68
There are good places to spend your free time	82	80	64	59	57	51	66
I could ask for help or a favour from neighbours	74	74	65	61	61	64	67
Most people would not try to take advantage of you	64	64	61	60	54	61	61

[†] Significant gender difference (p < 0.00)

Table 3.2
LIFE IN THE LOCAL AREA BY FAMILY AFFLUENCE

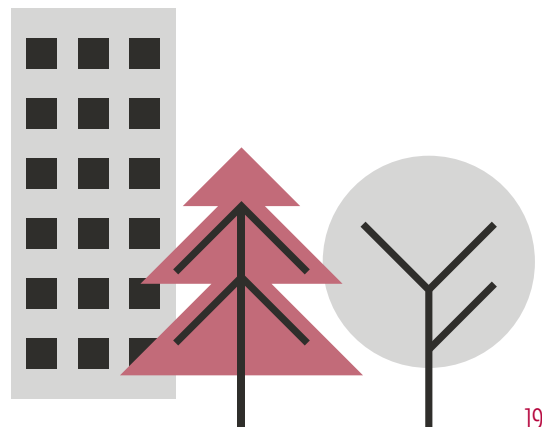
Source: HBSC Scotland 2018 Survey

	Low FAS (%)	Medium FAS (%)	High FAS (%)
Local area is a good place to live (Really good) [†]	28	44	59
Feeling safe in local area (Always safe) [†]	50	61	72
People say hello and stop to talk in the street [†]	62	72	78
It is safe for younger children to play outside [†]	75	83	87
You can trust people around here [†]	55	69	79
There are good spaces to spend your free time [†]	60	66	73
I could ask for help or a favour from neighbours [†]	54	67	79
Most people would not try to take advantage of you [†]	53	62	68
Weekly use of local greenspace [†]	60	69	71
Duration of use of local greenspace			
None/Light [†]	26	19	17
Moderate	26	25	26
Heavy [†]	48	56	57

[†] Significant linear trend difference (p < 0.00)

67%

Two-thirds of adolescents **used local greenspace** at least once a week during the summertime



use greenspace at least once a week but at age 15, this pattern had reversed such that boys reported visiting greenspace more often than girls (68% versus 59%, respectively). There were no differences in frequency of greenspace use between girls and boys at age 13–years old.

Duration of greenspace use

Adolescents were also asked how many hours they spent in local greenspace during the summertime. They were then classified as either a none/light user, moderate user or heavy user of greenspace (see Appendix 2 for classifications).

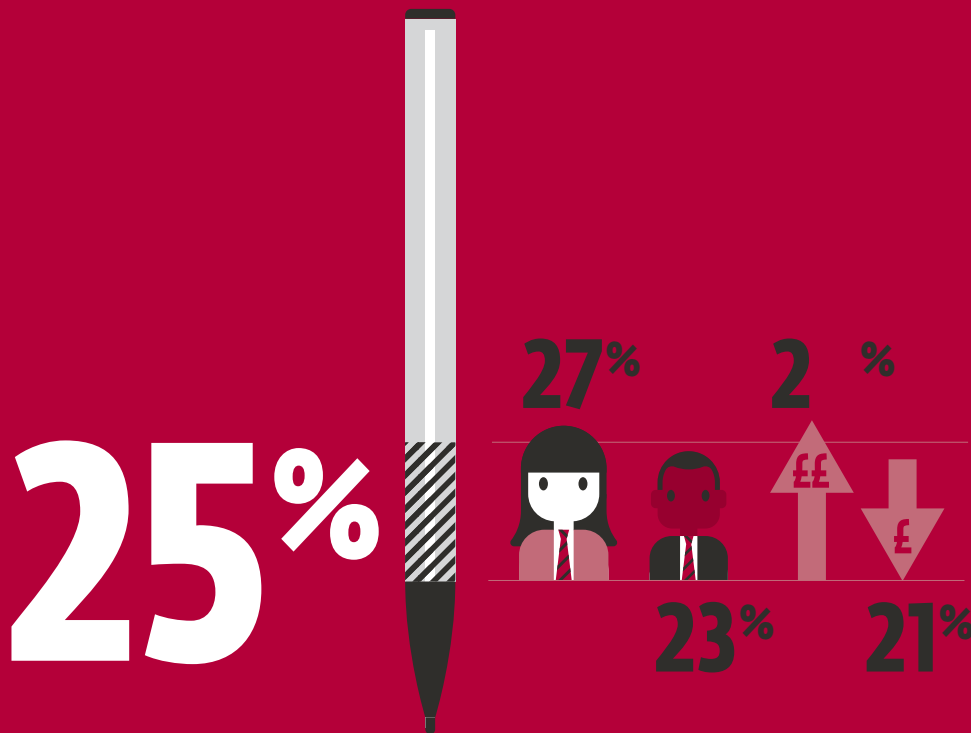
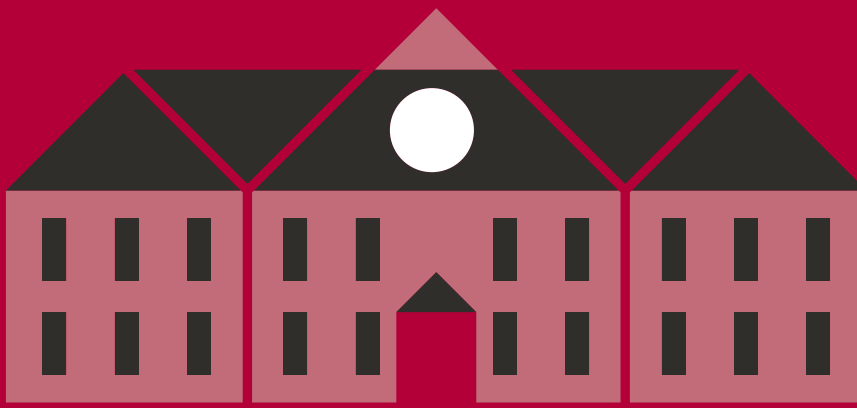
Just over half of adolescents (54%) reported 'heavy' use of their local greenspace (Figure 3.5). 11-year olds were more likely to be heavy users than older adolescents (60% of 11-year olds; 50% of 15-year olds). There were no gender differences in heavy use of greenspace at ages 11 and 13-years old. However, at age 15, boys (55%) were more likely to be heavy greenspace users than girls (45%). A quarter (25%) of adolescents were moderate users of greenspace. The proportion of none/light users increased with age.

Inequalities in perceptions of neighbourhood environment

There were consistent inequalities in young people's perceptions of their local neighbourhood. On all measures included, young people from the lowest FAS group were more likely to report negative perceptions of their local area (Table 3.2). For example, young people from the least affluent families were less likely to say that their local area was a good place to live, were less likely to feel safe in their neighbourhood, and were less likely to use local greenspace.

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One quarter of adolescents said they **liked school a lot**
Liking school was **higher among girls vs boys**
and among high vs low affluent groups

LIFE AT SCHOOL AND WITH FRIENDS

INTRODUCTION

Adolescents spend a significant amount of time in school and the school environment can positively influence adolescent health and wellbeing, and potentially mitigate some negative effects of other social factors.¹ School connectedness is the extent to which pupils feel accepted, respected, included, cared for and supported by people in the school environment both as an individual and in terms of their learning.^{2,3} There is some evidence to suggest that school connectedness serves as a protective factor against risk behaviours³ and is an important determinant of adolescent mental health.⁴ In particular, school connectedness is associated with healthier behaviours such as being a less frequent smoker and cannabis user, being less likely to binge drink⁵ and more likely to meet physical activity guidelines, as well as having fewer depressive symptoms.⁶ Better relationships with school staff are also associated with positive subjective wellbeing.⁷ Whilst school connectedness decreases as adolescents get older, there is also evidence to suggest that school and family connectedness during adolescence may offer long-lasting protective effects into adulthood across various domains such as mental health, substance use, sexual behaviour and violent relationships.⁸

A review of the evidence found that various aspects of school life impact on children's overall life satisfaction, in particular student perceptions of their academic ability, teacher support and satisfaction with school.⁹ A sense of belonging to school has also been associated with increased academic motivation, participation and school engagement.¹⁰

School can also be a source of stress, worry and unhappiness for adolescents.^{11,12} For example, young people who feel under pressure to perform well academically are more likely to report depressive symptoms and lower life satisfaction.¹³ Academic pressure also appears to impact on girls more than boys.^{14,15} For younger adolescents experiencing high stress school environments, increased academic expectations have been associated with increased school-related stress which in turn may impede academic achievement later on.¹⁶

An important aspect of school is the support provided by peers and friends. Peer attachment style has been related to low mood and depressive symptoms over and above school connectedness and individual self-esteem.¹⁷ Greater connections with school peers is associated with better subjective wellbeing and mental health.¹⁸ In addition, peer acceptance is related to liking school and school engagement while being rejected by one's peers is related to disengagement from school, lower school achievement, aspiration and social participation.¹⁹

Academic attainment is an important educational outcome and is strongly linked to health and wellbeing. Previous research in Scotland has shown that adolescents who aspire to go to university are significantly more likely to adopt healthy behaviours such as exercise and eating well and less likely to be involved in risk behaviours such as smoking, taking drugs or drinking alcohol, regardless of their social background.²⁰

As part of the Getting it Right For Every Child (GIRFEC) approach, services working with children and young people, and those who care for them, must play a part in promoting, supporting and safeguarding child wellbeing; this also includes schools. Health and wellbeing is one of the eight curricular areas in the Curriculum for Excellence and, along with literacy and numeracy, it is one of the three core areas which are the responsibility of all staff.²¹ Educational settings provide opportunities for sustained participation in activities that develop mental, emotional, social and physical wellbeing. It is the Scottish Government's aspiration that at school all children and young people learn about health and wellbeing to ensure they acquire the skills to live healthy, happy lives.²²

HBSC DATA

The HBSC survey collects data on young people's life at school and with their friends. This includes: how much pupils like school, perceived pressure from school work, expectations from teachers and parents, post-school aspirations and support received at school from teachers and classmates as well as friends. Some of these have been included since the 1990s while others, such as teacher and parent expectations have been added more recently.



Figure 4.1
LIKE SCHOOL A LOT

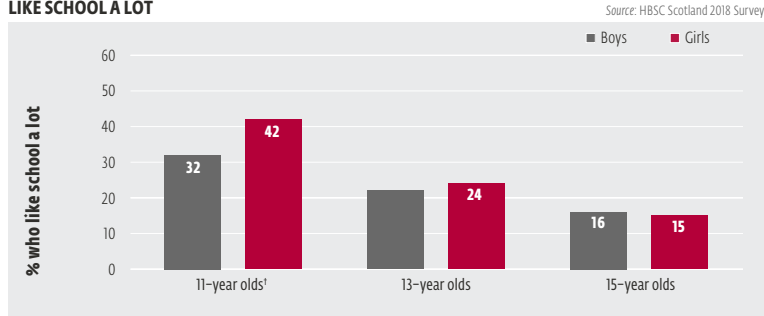


Figure 4.2
LIKE SCHOOL A LOT 1990-2018

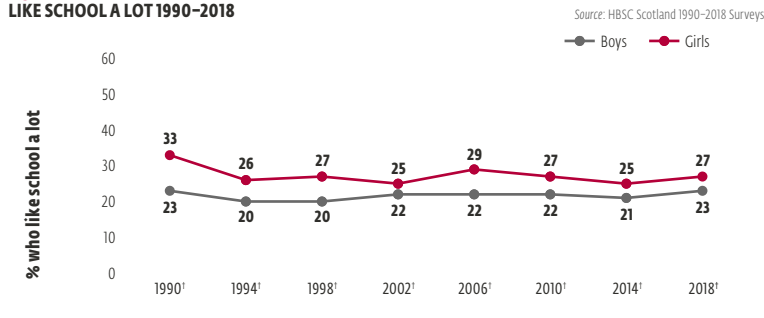


Figure 4.3
FEEL PRESSURED BY SCHOOLWORK

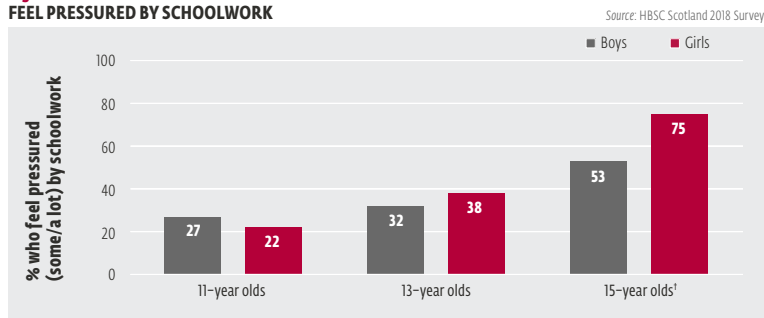
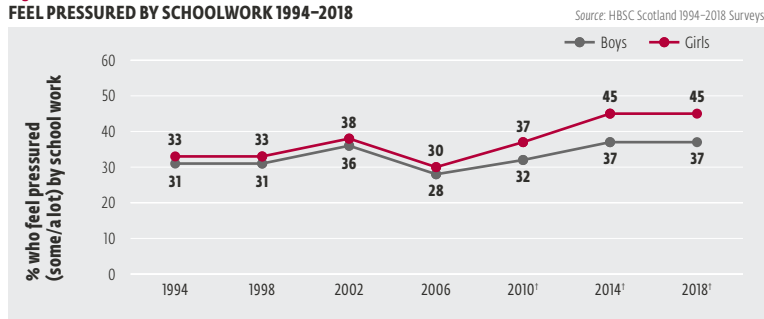
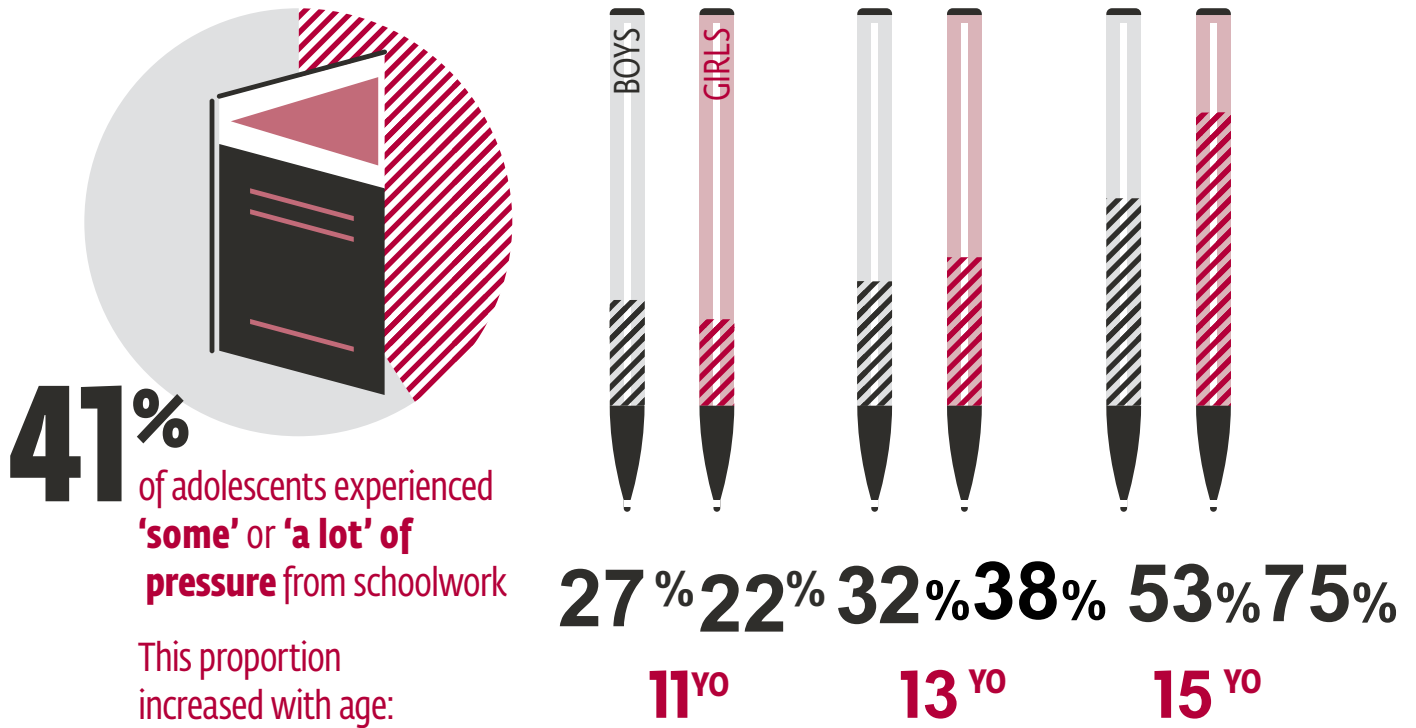


Figure 4.4
FEEL PRESSURED BY SCHOOLWORK 1994-2018





School Satisfaction

One quarter of young people (25%) reported that they liked school a lot, with younger adolescents more likely to like school than older adolescents (Figure 4.1). Liking school decreased steadily with age; 37% of 11-year olds said they liked school a lot compared with 23% of 13-year olds and 15% of 15-year olds. At age 11, boys were less likely than girls to say they liked school a lot (32% versus 42%). There were no gender differences at ages 13 and 15.

HBSC has tracked school satisfaction since 1990. During this period there has been little change in the proportion of young people who like school a lot (Figure 4.2). Over the years, girls have always been more positive about school than boys.

Feel pressured by schoolwork

Two-fifths (41%) of young people reported that they felt 'some' or 'a lot' of pressure from schoolwork (Figure 4.3). Feeling pressured by school work increased with age: 64% of 15-year olds reported feeling some or a lot of pressured compared with 35% of 13-year olds and 24% of 11-year olds. Among 15-year olds there was a significant gender difference, with three-quarters of girls (75%) feeling under pressure compared with just over half of the boys (53%). There were no differences between boys and girls at ages 11- and 13-years.

Perceived pressure from schoolwork has been measured since 1994. The proportion of adolescents who felt some or a lot of pressure from schoolwork has been increasing since 2006 and levels in 2018 are the highest seen since 1994 (Figure 4.4). Whilst the proportion of boys and girls who felt pressured by school work has increased over the years, the gap between boys and girls has widened since 2010, with girls reporting more pressure from schoolwork than boys.

Teacher and parent expectations

Young people were asked the extent to which they agreed that teachers and parents expect too much of them at school. Around one third (32%) of young people agreed or strongly agreed that teachers expect too much of them at school (Figure 4.5) and this increased with age from 22% of 11-year olds to 31% of 13-year olds and 44% of 15-year olds. Differences by gender were only evident at age 11 years old, with boys more likely than girls to report to that teachers expect too much of them (28% versus 16%, respectively).

Figure 4.5
TEACHER EXPECTATIONS

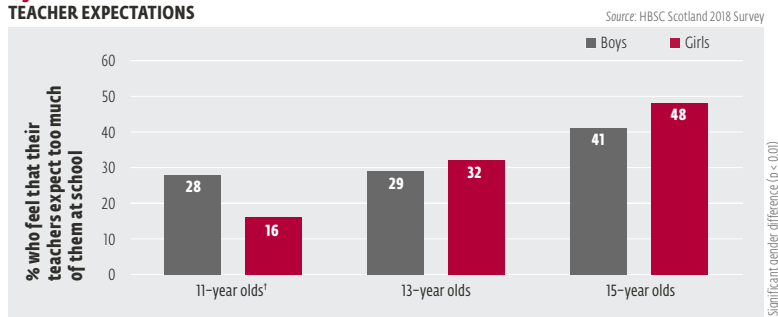


Figure 4.6
PARENT EXPECTATIONS

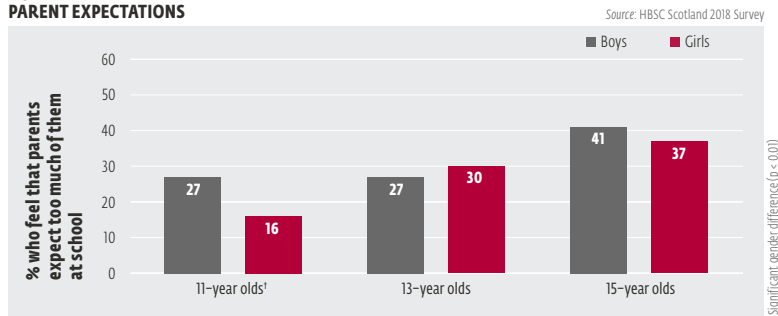


Figure 4.7
POST-SCHOOL EXPECTATIONS

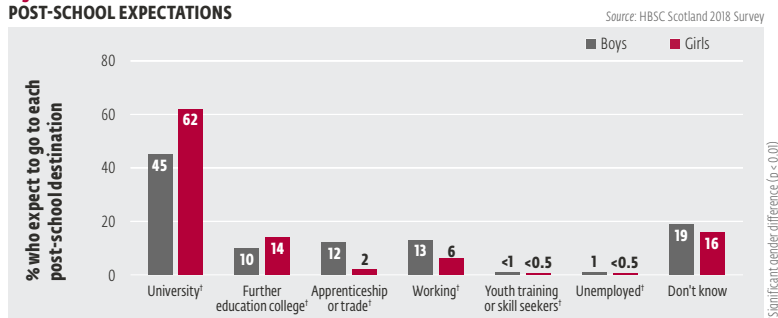


Figure 4.8
TEACHER SUPPORT

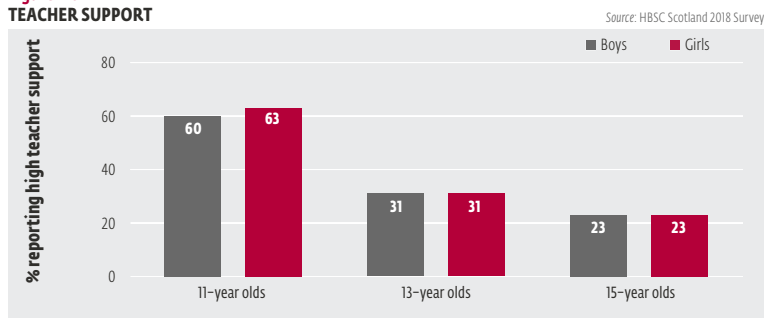
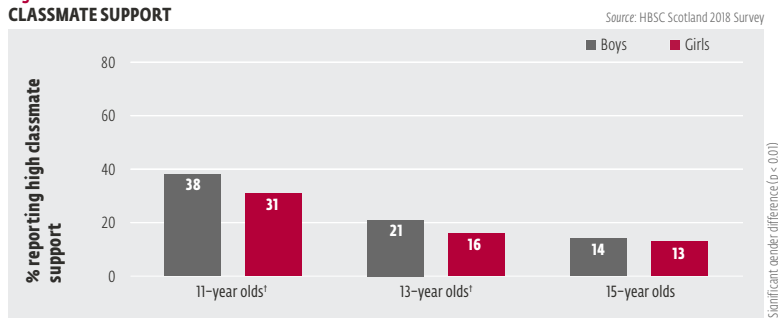


Figure 4.9
CLASSMATE SUPPORT



Over a quarter (29%) of young people agreed or strongly agreed that their parents expect too much of them at school (Figure 4.6). There were differences by age, with older adolescents more likely to agree that parental expectations were too high. The only difference by gender was at age 11, with boys more likely than girls to say that their parents expect too much of them at school (27% versus 16%, respectively).

Post school expectations/aspirations

Young people were asked what they expect to do on leaving school and were able to choose one option from a list. Over half (53%) said they thought they would go to university, with girls more likely than boys to say this (62% versus 45% respectively) (Figure 4.7). Boys were more likely than girls to say they expect to start an apprenticeship or job in the trade (12% versus 2%, respectively). Around one-sixth (17%) did not know what they wanted to do.

Teacher support

Young people were asked three questions about support from teachers, with items covering feelings of acceptance, trust and caring. The response to these items were added to create a teacher support score ranging from 0 to 12. Those scoring 10 or above were classified as having high teacher support.

Overall, 38% of pupils reported high teacher support, however, this varied considerably by age (Figure 4.8). The majority of 11-year olds (61%) reported high teacher support but this dropped to 31% of 13-year olds and 23% of 15-year olds. There were no significant differences in perceived levels of teacher support by gender at any age.

Classmate support

Young people were asked three questions about support from classmates; whether they enjoyed being with them, felt accepted by them and if they were kind and helpful. The response to these items were added to create a classmate support score ranging from 0 to 12. Those scoring 10 or above were classified as having high classmate support.

Just over one in five (22%) reported high classmate support (Figure 4.9). Perceived classmate support varied by age, with younger adolescents more likely to report high levels of support than older adolescents (34% of 11-year olds versus 13% of 15-year olds). There were also differences by gender, with higher levels of classmate support among girls at ages 11 and 13.



Peer support

Young people were asked four questions about perceived levels of peer support. These items were averaged to create a peer support score ranging from 1 to 7. A score of 5.5 and above indicates high peer support. Overall, just over half (53%) of 11 to 15-year olds reported high levels of peer support (Figure 4.10). At all ages, girls were more likely to report high peer support (60% versus 46% respectively). 11-year olds were more likely to report high peer support than those aged 13- and 15-years old.

Inequalities in school experience and peer support

School experience was found to vary by family affluence (Table 4.1). Young people from more affluent families were more likely to say they liked school a lot. Conversely, young people from the lowest FAS group were more likely to report feeling pressured by schoolwork and were less likely to expect to go to university after leaving school (41% in the lowest FAS group compared to 69% in the highest FAS group).

There were also consistent differences in perceived support by family affluence, with young people from the lowest affluence group less likely to report high support from classmates and peers.

Figure 4.10
PEER SUPPORT

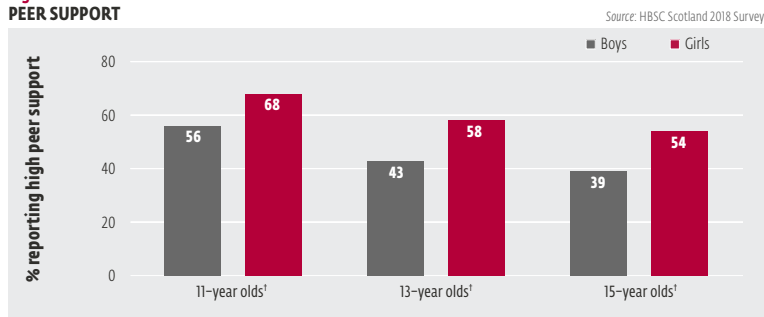


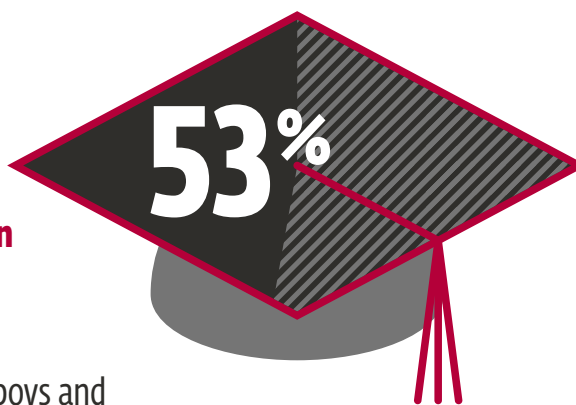
Table 4.1
LIFE AT SCHOOL AND WITH FRIENDS BY FAMILY AFFLUENCE

Source: HBSC Scotland 2018 Survey

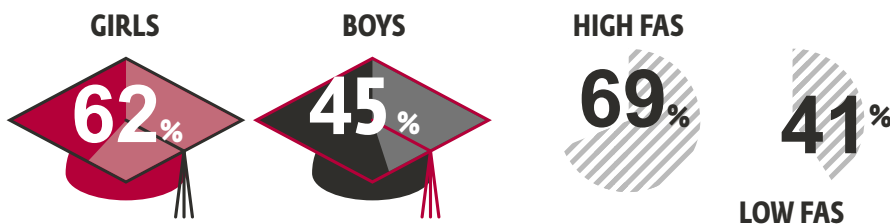
	Low FAS (%)	Medium FAS (%)	High FAS (%)
Like school a lot [†]	21	26	28
Feel pressured by schoolwork [†]	45	41	39
Teacher expectations	34	32	30
Parent expectations	31	29	28
Post-school expectations			
University [†]	41	54	69
Further education college [†]	17	12	7
Apprenticeship or trade	7	7	5
Youth training or skill seekers	< 1	< 1	< 1
Working [†]	12	10	6
Unemployed	< 1	< 1	< 1
Don't know [†]	23	17	12
Teacher support	35	39	39
Classmate support [†]	19	22	24
Peer support [†]	49	53	56

[†] Significant linear trend difference (p < 0.01)

Over half of young people said they expect to go to **university or further education** when they leave school

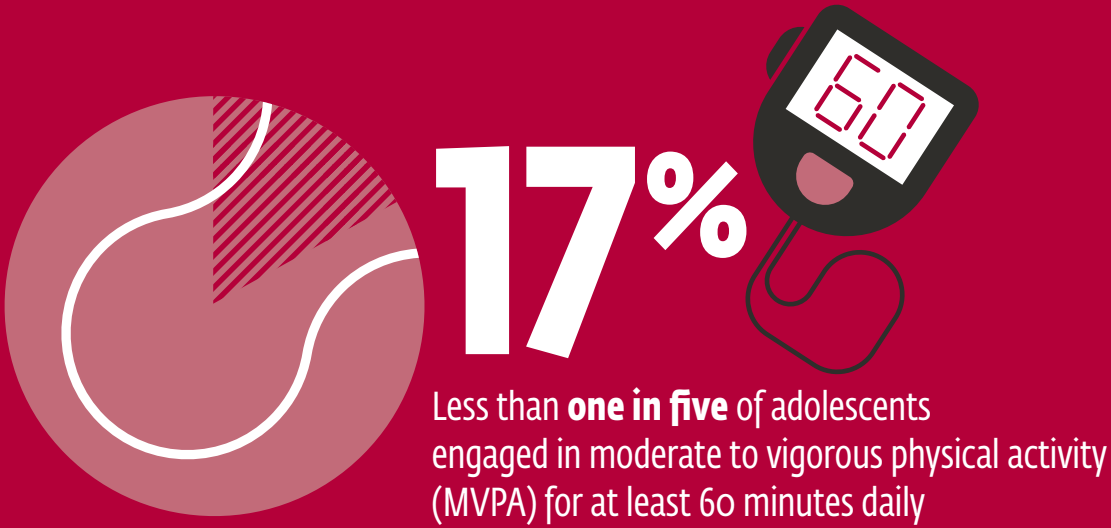


This was **higher among girls** vs boys and **high FAS** vs low FAS affluent groups

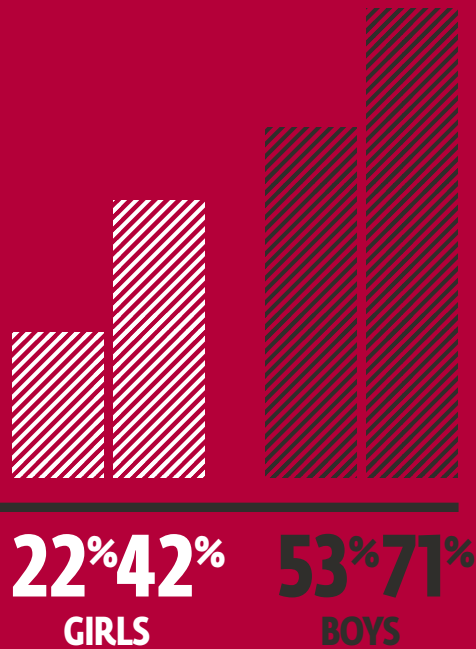


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- 22 <https://www.gov.scot/policies/schools/wellbeing-in-schools/>



Between **2006** and **2018** playing computer games on weekdays has **increased substantially**



PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOUR

INTRODUCTION

Physical activity (PA) is an important part of a healthy lifestyle and regular physical activity is associated with a reduced risk of many chronic conditions such as cardiovascular disease, type 2 diabetes and some cancers. As well as helping to maintain a healthy weight, young people's participation in physical activity is also associated with improved bone mineral density, aerobic fitness, muscular strength and improved mental health.^{1,2,3,4}

Levels of physical activity vary by gender, with girls typically less active than boys.^{5,6} Participation in physical activity also decreases with age for both boys and girls.^{7,8} Other factors which are associated with physical activity in adolescents include ethnicity, previous physical activity, intention to be active, opportunities to exercise, perceived competence, and social support.^{9,10,11}

Sedentary behaviour refers to any behaviour characterised by an energy expenditure of less than 1.5 metabolic equivalent task (MET) while in a sitting, reclining or lying position. Although for some young people sedentary activities may replace more active ones, levels of sedentary behaviour are generally not strongly correlated with levels of physical activity. This means that an adolescent may be highly active but also engage in high levels of sedentary behaviour.^{12,13}

Sedentary behaviour has a negative impact on health outcomes, regardless of levels of physical activity.^{14,15} For example, sedentary behaviour is associated with greater consumption of sugary drinks and snacks as well as higher levels of obesity and poorer mental health.^{16,17,18}

The Scottish Government's vision for a more active Scotland is described in the Active Scotland Outcomes Framework¹⁹ which aims to encourage children and young people to experience the joy of movement and develop positive attitudes to active living. A key outcome is to ensure that all children and young people in Scotland develop the physical confidence and competence required for a foundation of lifelong participation in physical activity and sport. The Framework is supported by Scotland's Physical Activity Delivery Plan 'A More Active Scotland'²⁰ along with other national strategies including 'Let's Get Scotland Walking' and 'Raising the Bar'.^{21,22} The UK Chief Medical Officers' Physical Activity Guidelines (2019) set out recommendations on the amount and type of physical activity we should aim to achieve at different life stages. Children and young people aged 5–18 are encouraged to engage in moderate-to-vigorous intensity physical activity for an average of at least 60 minutes per day across the week and a variety of other physical activities to develop movement skills, muscular fitness and bone strength. In addition, time spent being sedentary should be minimised.²³

HBSC FINDINGS

The 2018 HBSC survey asked adolescents about their physical activity, including both moderate and vigorous physical activity, as well as their screen time as an indicator of sedentary behaviour. The frequency of vigorous physical activity outside of school has been measured since 1990. Moderate to vigorous physical activity (MVPA) has been included in HBSC since 2002, thus allowing for the analysis of long term trends of the proportion of adolescents meeting the current physical activity guidelines.²³ HBSC has also collected information on active travel to and from school since 1998. Indicators of sedentary behaviour include, time spent watching television, videos and DVDs, time spent on computers and playing computer games. These have been collected since 1990 but, due to some changes to the items, trends are presented from 2006 only.

Figure 5.1
MEETING PHYSICAL ACTIVITY GUIDELINES*

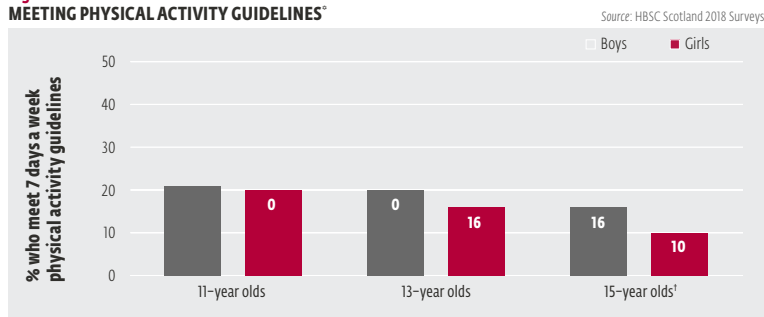


Figure 5.2
MEETING PHYSICAL ACTIVITY GUIDELINES* 2002-2018

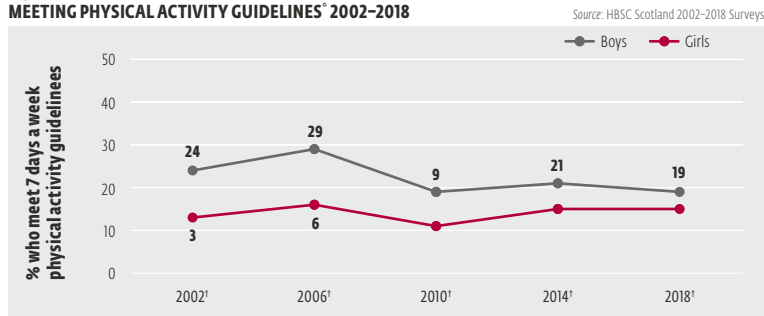


Figure 5.3
FREQUENCY OF LEISURE TIME VIGOROUS EXERCISE (4 OR MORE TIMES A WEEK)

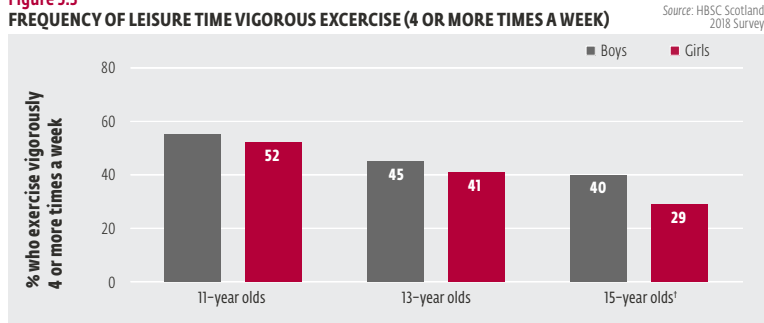


Figure 5.4
FREQUENCY OF LEISURE TIME VIGOROUS EXERCISE 1990-2018

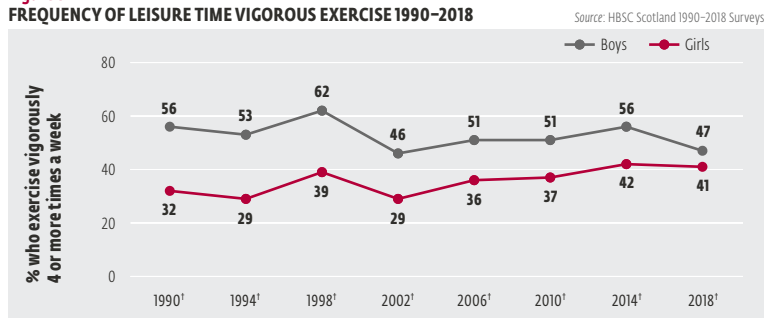
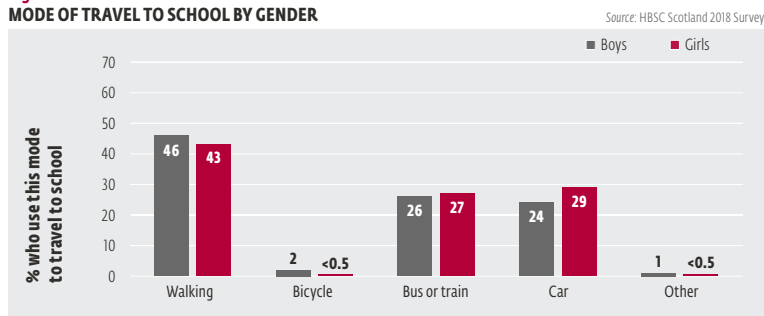
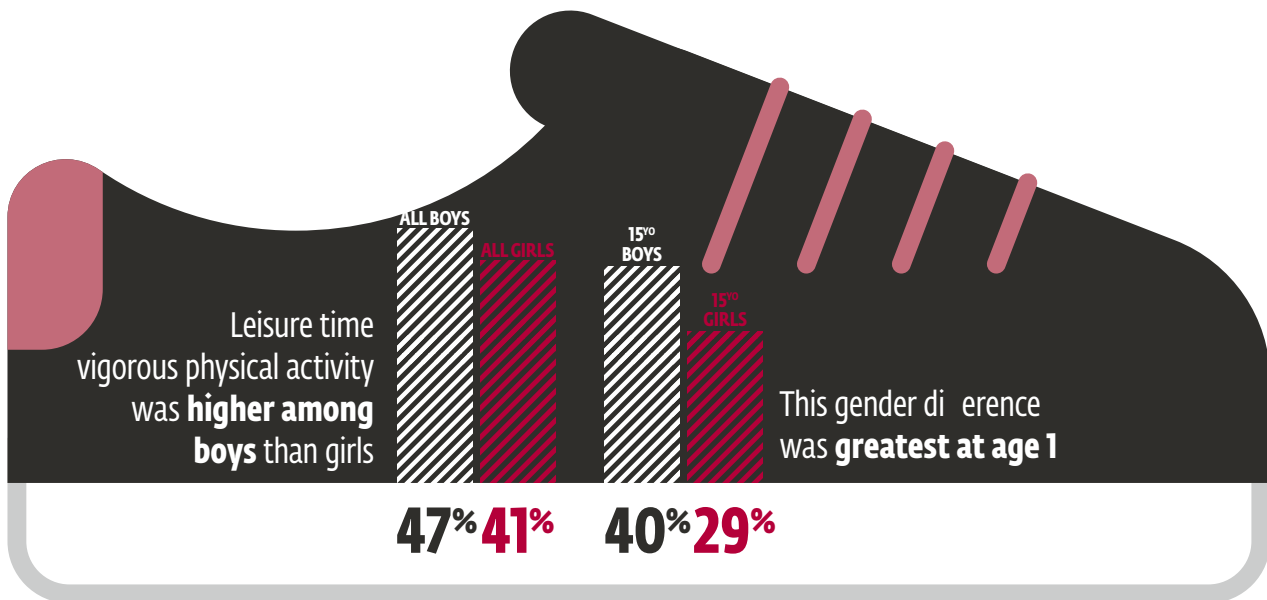


Figure 5.5
MODE OF TRAVEL TO SCHOOL BY GENDER



PHYSICAL ACTIVITY



Meeting the physical activity guidelines

In 2018, 17% of adolescents (19% boys, 15% girls) engaged in moderate to vigorous physical activity (MVPA) for at least 60 minutes every day. Boys reported more physical activity than girls at age 15 (16% versus 10% respectively) but there was no significant gender difference at ages 11 and 13. Daily MPVA was more common amongst 11-year olds and decreased with age (Figure 5.1). There has been no major change in the proportion of boys and girls meeting physical activity guidelines in recent years (Figure 5.2).

Leisure time vigorous physical activity

Vigorous physical activity was higher among boys than girls. Almost half (47%) of boys and two-fifths (41%) of girls reported taking part in leisure time vigorous exercise (outside of school hours) at least four times a week. The gender difference was greatest at age 15 (40% vs 29%). Participation in vigorous physical activity was highest at age 11 (55% of boys, 52% of girls) and decreased with age (Figure 5.3). Overall, the proportion of girls participating in leisure time vigorous physical activity has increased over time from 32% in 1990 to 41% in 2018. Leisure time VPA in boys has fluctuated over the years but has decreased since 2014 (from 56% to 47%) (Figure 5.4). The gender difference in vigorous physical activity has reduced since 1990 but remains significant, with higher participation among boys than girls in each survey year.

Travel to school

Overall, less than half (44%) of adolescents usually walk to school. Cycling to school was extremely rare with only 2% of boys and less than 1% of girls reporting that they travelled this way. Around a quarter of young people (27%) reported travelling to school by public transport (bus, train, tram or boat) and 27% by car, motorcycle or moped (Figure 5.5). Walking to school was more common among primary school children. In terms of non-active travel, 11-year olds were more likely to travel to school by car whilst secondary pupils were more likely to travel to school by public transport (Figure 5.6).

Figure 5.6
MODE OF TRAVEL TO SCHOOL BY AGE

Source: HBSC Scotland 2018 Survey

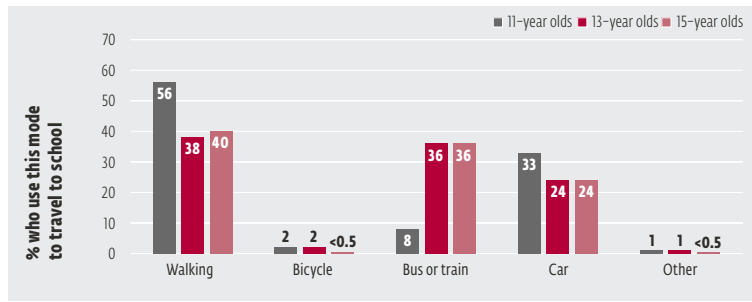
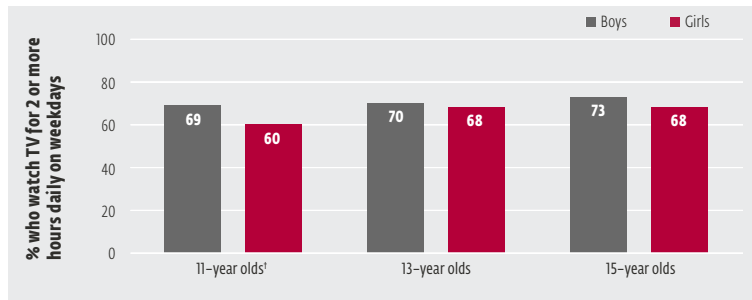


Figure 5.7
WATCHING TV FOR 2 OR MORE HOURS A DAY ON WEEKDAYS

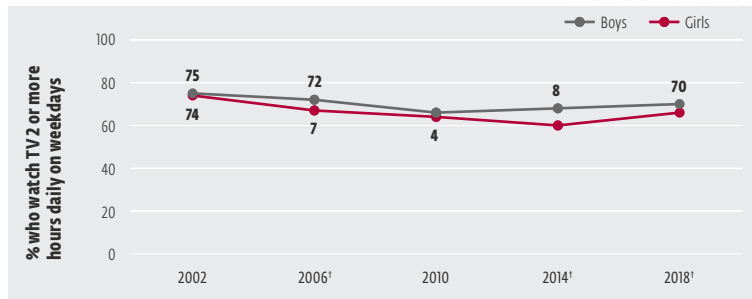
Source: HBSC Scotland 2018 Survey



¹Significant gender difference (p < 0.01)

Figure 5.8
WATCHING TV FOR 2 OR MORE HOURS A DAY ON WEEKDAYS 2002-2018

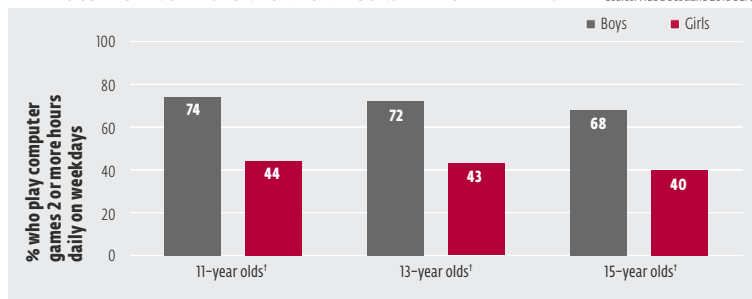
Source: HBSC Scotland 2002-2018 Surveys



¹Significant gender difference (p < 0.01)

Figure 5.9
PLAYING COMPUTER GAMES FOR 2 OR MORE HOURS A DAY ON WEEKDAYS

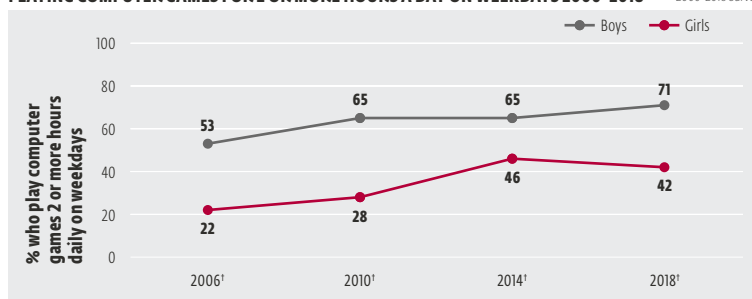
Source: HBSC Scotland 2018 Survey



¹Significant gender difference (p < 0.01)

Figure 5.10
PLAYING COMPUTER GAMES FOR 2 OR MORE HOURS A DAY ON WEEKDAYS 2006-2018

Source: HBSC Scotland 2006-2018 Surveys



¹Significant gender difference (p < 0.01)

SEDENTARY BEHAVIOUR

Time spent watching television

Around two-thirds of young people (68%) reported watching television for two or more hours a day on weekdays. Boys were more likely than girls to watch television for two or more hours daily at age 11 but no significant gender differences were observed in ages 13 and 15 (Figure 5.7).

TV viewing on weekdays has decreased in recent years. Between 2002 and 2018, the proportion of young people watching TV for two hours or more on weekdays fell from 75% to 68% (75% to 70% of boys, 74% to 66% of girls). Prevalence is similar by gender over time, but small differences were observed in 2006, 2014 and 2018, with higher levels among boys (Figure 5.8).

Time spent playing computer games

In 2018, boys were more likely than girls to report playing computer or video games for at least two hours a day on weekdays (71% versus 42%, respectively). Gender differences were observed in each age group. Time spent playing computer games did not vary greatly by age (Figure 5.9).

Playing computer games on weekdays has increased substantially over time. The proportion of girls playing computer games for at least two hours a day on weekdays has almost doubled, from 22% in 2006 to 42% in 2018. Among boys, prevalence increased from 53% to 71% over this same time period (Figure 5.10).

Time spent on computers for purposes other than playing games

Young people were asked about their use of the computer for purposes other than playing games such as chatting online, browsing the internet, emailing, homework etc. Two-thirds of girls (66%) reported using a computer for at least two hours a day on weekdays, compared to 63% of boys. There were no significant gender differences at age 11, but girls were more likely than boys to use the computer for non-gaming activities at ages 13 and 15 (Figure 5.11). Weekday use of a computer for non-gaming has been increasing since 2006 among both boys and girls (Figure 5.12). Whilst the proportion playing computer games is similar across age groups, the prevalence of non-gaming computer use increases with age.

Inequalities in physical activity and screen time

Young people from more affluent families reported higher levels of moderate-to-vigorous physical activity and leisure time vigorous activity (Table 5.1). This difference was greatest for vigorous physical activity. For example, over half (55%) of adolescents from high affluence families took part in VPA four or more times a week compared with around a third (36%) of those from low affluence families. Conversely, active travel to school was higher among low affluence groups. Screen time was also higher among low affluence groups, with the greatest difference in watching TV and playing computer games.

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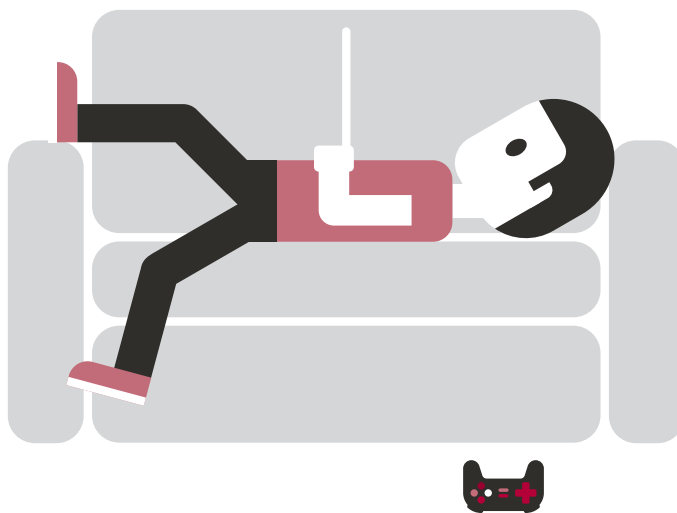


Figure 5.11
USING COMPUTERS (NOT GAMES) FOR 2 OR MORE HOURS A DAY ON WEEKDAYS Source: HBSC Scotland 2018 Survey

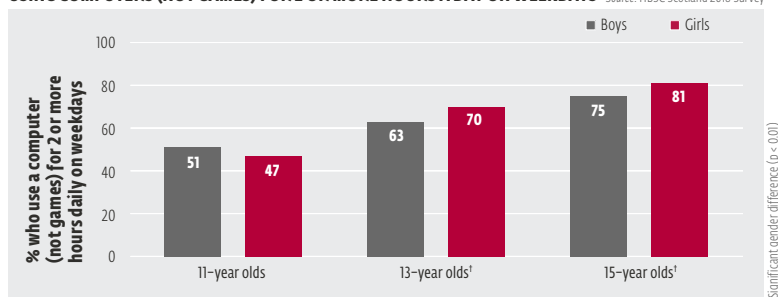


Figure 5.12
USING COMPUTERS (NOT GAMES) FOR 2 OR MORE HOURS A DAY ON WEEKDAYS 2006–2018 Source: HBSC Scotland 2006–2018 Surveys

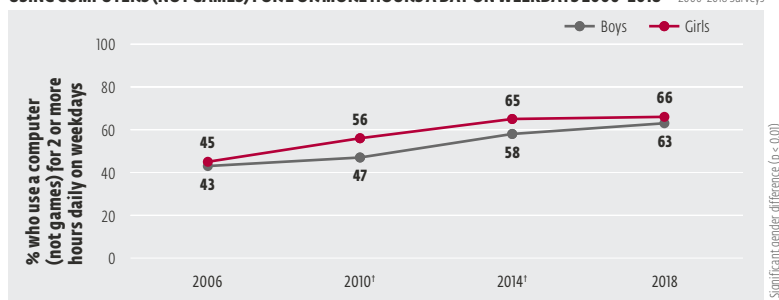


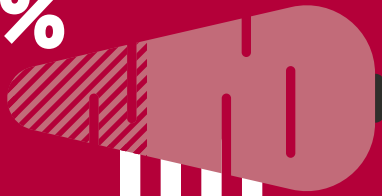
Table 5.1
PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOUR BY FAMILY AFFLUENCE Source: HBSC Scotland 2018 Survey

	Low FAS (%)	Medium FAS (%)	High FAS (%)
Meeting physical activity guidelines [†]	14	17	19
Frequency of leisure time vigorous exercise (4 or more times per week) [†]	36	42	55
Mode of travel to school (Active travel) [†]	56	45	36
Watching TV for 2 or more hours a day on weekdays [†]	74	69	60
Playing computer games for 2 or more hours a day on weekdays [†]	61	57	49
Using computers (not games) for 2 or more hours a day on weekdays [†]	67	64	62

[†] Significant linear trend difference ($p < 0.01$)

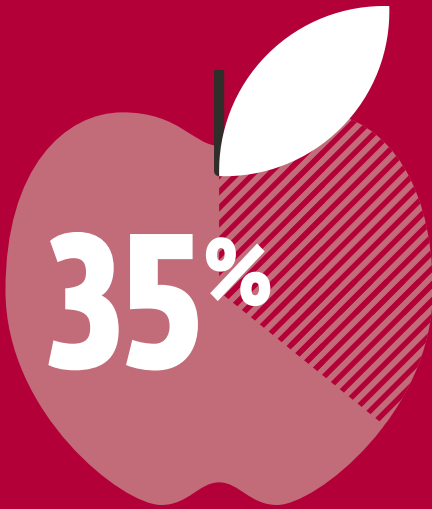
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36%



Less than two in five adolescents
ate fruit or vegetables every day

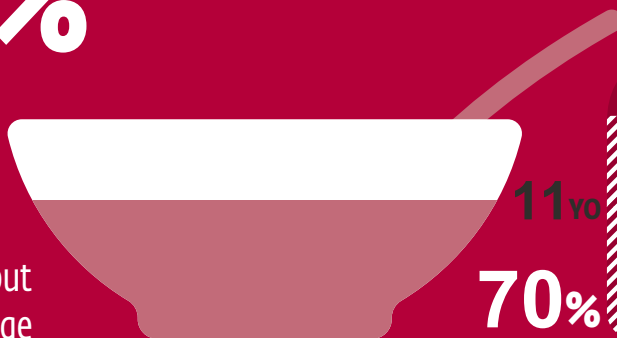
Girls were **more likely** than boys
to eat fruit and vegetables daily



35%

62%

Three-fifths of adolescents
reported **eating breakfast**
every day on school days, but
prevalence decreased with age



11yo
70%



15yo
50%

EATING BEHAVIOURS

INTRODUCTION

Healthy eating is essential for good health and wellbeing.¹ Adolescence is a key period because many healthy eating habits that are established during the adolescent years are maintained into adulthood. A healthy diet helps promote healthy development and reduces future risk of chronic illness.^{2,3}

Physical and psychological changes that occur during adolescence can have a significant impact on dietary behaviours.^{4,5} In addition, as adolescents become more independent, they have increasing autonomy over their own food choices.⁶ Adolescent eating behaviours are influenced by a multitude of factors (e.g. biological, social, physical, economic, psychological as well as knowledge, attitudes and beliefs about food) that may affect their dietary choices and eating behaviours.^{7,8} Where young people live and their socio-economic status can also affect eating behaviours. For example, research has shown that children living in rural areas have healthier eating habits compared to those living in urban centres, and adolescents from more affluent families also tend to report better eating habits.^{9,10}

There have been some improvements in the eating habits of adolescents in recent years, however, many studies still show that adolescents in Scotland are not meeting dietary recommendations.¹¹ While there is some evidence of increases in fruit and vegetable intake and decreases in consumption of sugary snacks,^{12,13} less than half of young people report eating fresh fruit and vegetables daily. Rates of breakfast consumption are also low compared to other developed countries. Breakfast consumption remains an important component of a healthy diet and lifestyle, and has been shown to positively affect the health and wellbeing of adolescents.^{14,15,16} Some studies have suggested that not eating breakfast is associated with increased consumption of unhealthy sugary and savoury snacks.^{17,18}

A high level of sugary or savoury snack consumption has been associated with a range of negative health outcomes, including an increased risk of dental caries and excessive body weight.^{19,20,21,22} and higher levels of sedentary behaviour such as watching TV and playing video games.^{23,24} Unhealthy eating behaviour has also been shown to be associated with low mood, depression, anxiety and stress in adolescents.^{25,26,27}

Parents have a strong influence on adolescent eating behaviours. Eating as a family during childhood has been linked to many benefits relating to eating behaviours and emotional wellbeing.^{28,29} Providing healthy and nutritious school meals provides another opportunity to raise awareness of healthy eating and encourage healthy food choices. The provision of free school meals may be particularly important in this regard. However, during adolescence, many young people start to eat outside of school at lunchtime due to peer influence, the attraction of being out of school, independence, and issues such as preferences and choices.³⁰

A number of national initiatives have been developed to support the promotion of healthy eating across Scotland. For example, the 'Supporting Healthy Choices' framework, developed jointly by the Scottish Government and the Food Standards Agency, works with the food and drink industry and other partners to take voluntary action to create a healthier food environment for consumers to encourage healthier choices and support sustained health behaviour change.³¹ In 2014, the Scottish Government published the 'Beyond the School Gate', which provides information and guidance for local authorities, schools, retailers and caterers to help them improve the food environment around schools.³² In 2015, the Scottish Government launched 'Eat Better Feel Better' to encourage and support people to make healthier choices in the way they shop, cook and eat.³³ In 2018, the Scottish Government also published 'A Healthier Future: Scotland's Diet & Healthy Weight Delivery Plan' to promote a healthy weight and physical wellbeing in the Scottish population. The delivery plan is committed to encouraging young people to lead change and action on healthy eating in line with their rights and ambitions to lead healthy and active lives.³⁴

Figure 6.1
EAT BREAKFAST EVERY MORNING ON WEEKDAYS

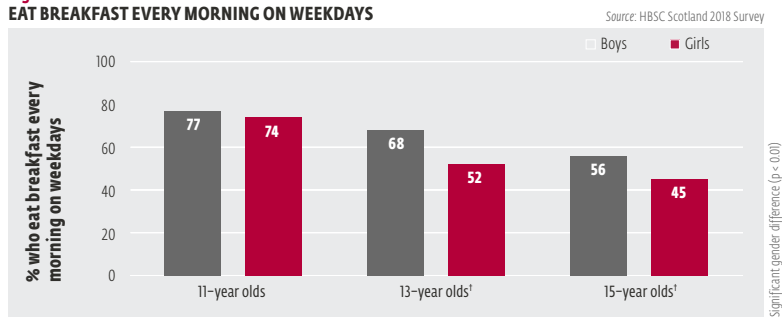


Figure 6.2
EAT BREAKFAST EVERY MORNING ON WEEKDAYS 2002-2018

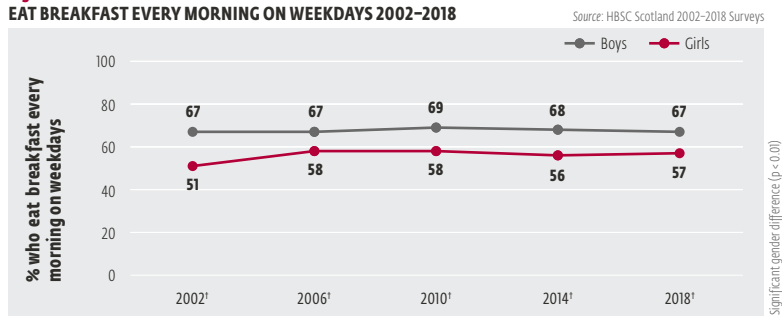


Figure 6.3
DAILY FRUIT CONSUMPTION

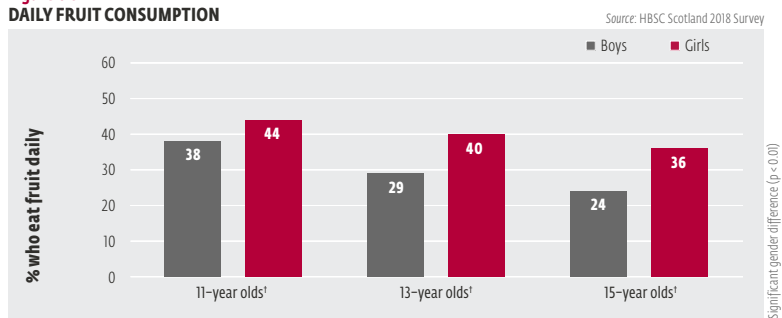


Figure 6.4
DAILY FRUIT CONSUMPTION 2002-2018

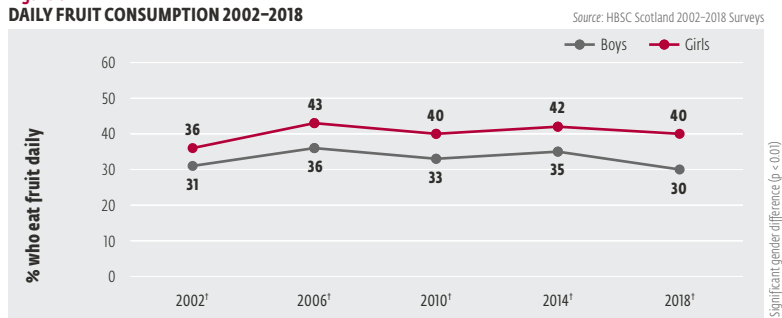
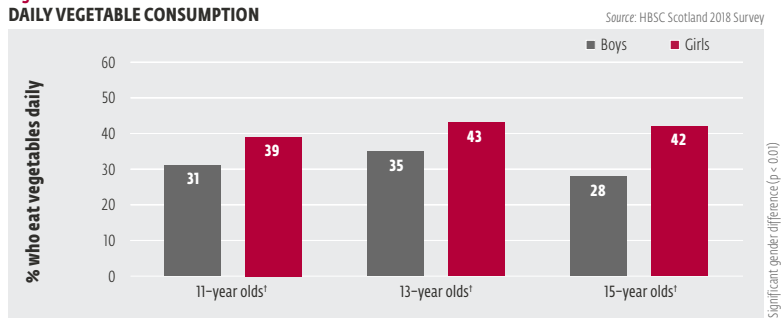


Figure 6.5
DAILY VEGETABLE CONSUMPTION



HBSC FINDINGS

HBSC collects data on food and drink consumption as well as breakfast and family meals. For the first time in the 2018 survey, adolescents were asked about their consumption of smoothies and energy drinks to reflect recent trends.³⁵

Breakfast Consumption

ON WEEKDAYS

Six in ten (62%) 11- to 15-year olds reported eating breakfast every day on school days. Younger adolescents were more likely to eat breakfast every weekday; 75% of 11-year olds compared to 50% of 15-year olds. Whilst there is no gender difference at age 11, at ages 13 and 15 girls were less likely than boys to eat breakfast on weekdays (Figure 6.1).

TRENDS IN EATING BREAKFAST ON WEEKDAYS

Between 2002 and 2018, the proportion of boys who report eating breakfast every day has remained stable (approximately 67%). Between 2002 and 2006, there was an increase in the proportion of girls who ate breakfast every day but this has remained stable at approximately 57% since then. Over the last 28 years, girls have been consistently less likely than boys to eat breakfast every day of the week (Figure 6.2).

Fruit and Vegetable Consumption

Overall, 35% of adolescents reported eating fruit every day. Daily fruit consumption reduced with age and was lowest amongst 15-year olds. At every age group, girls were more likely than boys to eat fruit every day (Figure 6.3). Levels of fruit consumption have remained relatively stable since 2006. Girls have consistently been more likely than boys to consume fruit daily in all age groups over the past 16 years (Figure 6.4).

Thirty-six percent (36%) of young people reported eating vegetables daily. At all ages girls were more likely than boys to eat vegetables every day (Figure 6.5). Since 2002, daily vegetable consumption for both boys and girls has remained fairly stable. Gender differences in vegetable consumption have persisted since 2002 with girls more likely to consume vegetables every day than boys (Figure 6.6).

Sweets, chocolate, cakes and biscuits consumption

Twenty-seven percent (27%) of adolescents reported eating sweets or chocolate every day with similar prevalence amongst boys and girls at all three ages (Figure 6.7). Daily consumption was lowest among 13-year old boys and highest among 15-year old boys. There has been an overall decrease in daily consumption of sweets and chocolates since 2002, from 47% to 27% among boys and 43% to 28% among girls (Figure 6.8).

Just over one in ten (12%) adolescents reported that they ate cakes or biscuits every day. Daily consumption of cakes or biscuits was approximately the same for boys and girls at all age groups (Figure 6.9). Trends in daily cakes and biscuits consumption (available for 2002, 2006 and 2018) show that there has been a decrease in daily cake and biscuit consumption from 28% in 2002 to 12% in 2018 (Figure 6.10).



More than one in four adolescents eat sweets or chocolates every day

Crisps and chips consumption

Seventeen percent (17%) of young people said that they ate crisps every day. Daily consumption of crisps was similar for boys (16%) and girls (18%) and was highest amongst 11-year olds compared with the other age groups (Figure 6.11). The prevalence of daily consumption of crisps has been falling since 2002, decreasing by more than half from 40% in 2002 to 17% in 2018 (Figure 6.12).

Figure 6.6
DAILY VEGETABLE CONSUMPTION 2002–2018

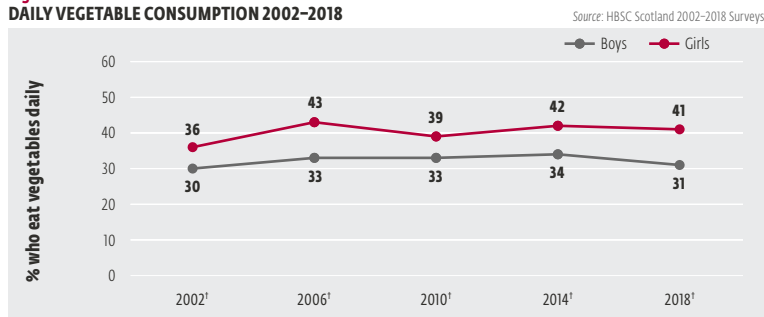


Figure 6.7
DAILY CONSUMPTION OF SWEETS OR CHOCOLATE

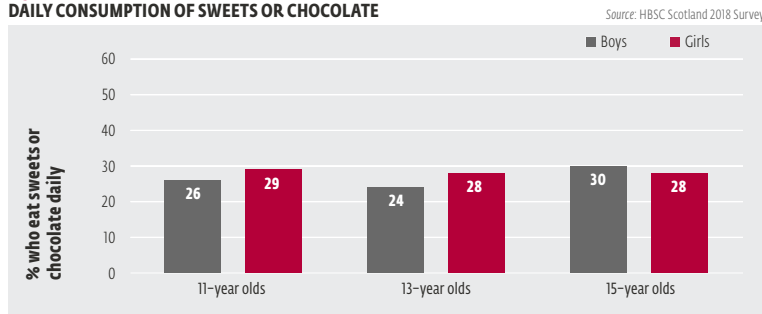


Figure 6.8
DAILY CONSUMPTION OF SWEETS OR CHOCOLATE 2002–2018

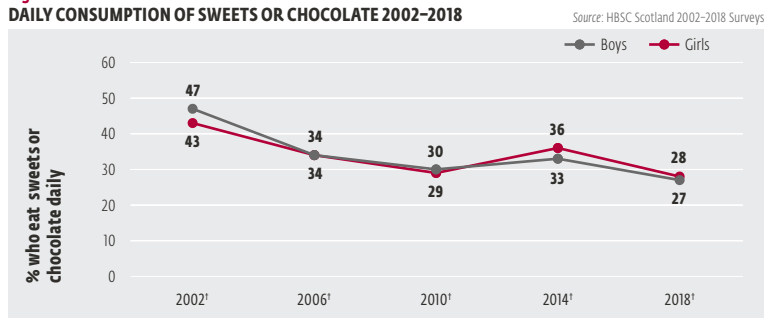
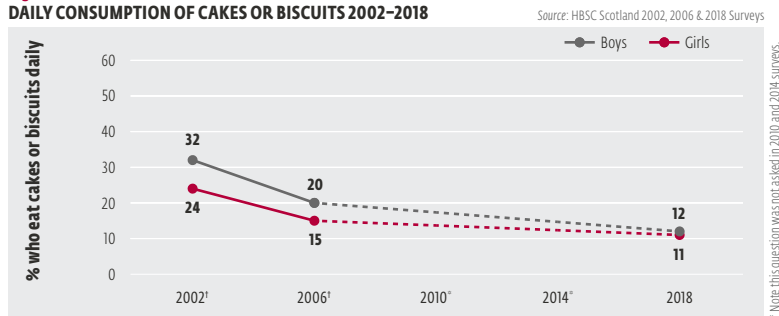


Figure 6.9
DAILY CONSUMPTION OF CAKES OR BISCUITS



Figure 6.10
DAILY CONSUMPTION OF CAKES OR BISCUITS 2002–2018



Nine percent (9%) of adolescents reported eating chips or fried potatoes every day, with 11-year olds most likely to consume them every day. At age 11, boys were more likely than girls to eat chips or potatoes every day (13% versus 9% respectively) but no gender differences were observed among 13 and 15-year olds (Figure 6.13). Levels of daily consumption of chips and potatoes have halved since 2002, from 22% to 9% among boys and from 16% to 8% among girls (Figure 6.14).

Sugary drinks and energy drinks consumption

Almost one in five (17%) adolescents reported drinking sugary fizzy drinks every day (20% of boys, 14% of girls). A gender difference was found among 11-year olds with boys being more likely than girls to have sugary drinks daily (17% versus 11%, respectively). Daily consumption of sugary drinks increased with age for both boys and girls (Figure 6.15). The proportion of young people who drink sugary drinks every day has decreased considerably since 2002, from 50% to 20% of boys and from 43% to 14% of girls. Since 2002, boys have consistently been more likely to drink sugary drinks than girls (Figure 6.16).

Around a quarter (24%) of adolescents reported drinking fruit juice or smoothies every day (23% of boys and 25% of girls). Consumption of fruit juice and smoothies was highest among 11-year olds (31% compared with 19% of 15-year olds). No gender differences were observed in any of the age groups (Figure 6.17).

Around one in twenty (5%) of young people reported daily consumption of energy drinks. Prevalence was highest among 15-year olds (7% of boys and 6% of girls). No gender differences were observed in any of the age groups (Figure 6.18). One in four (26%) reported consuming energy drinks at least once a week (32% boys and 21% girls)

The proportion of young people who **drink sugary drinks every day decreased between 2002 and 2018**

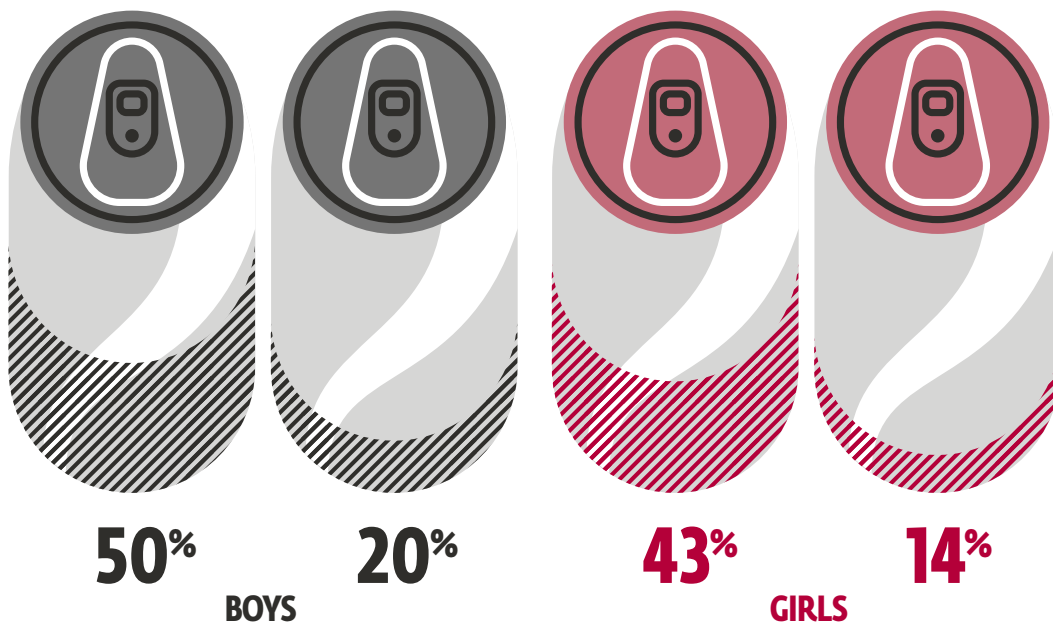


Figure 6.11
DAILY CONSUMPTION OF CRISPS

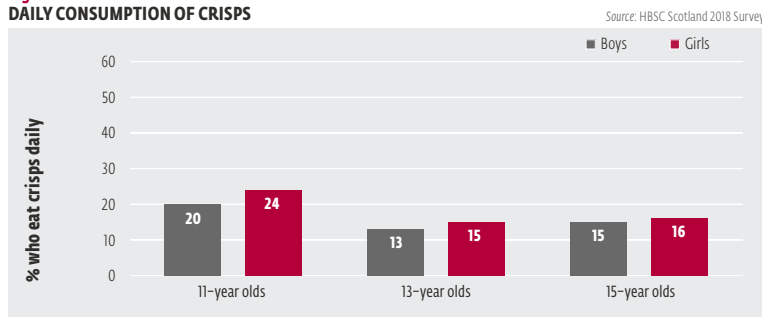


Figure 6.12
DAILY CONSUMPTION OF CRISPS 2002-2018

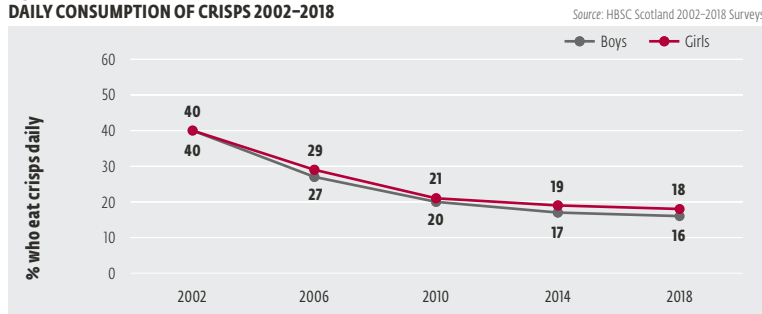


Figure 6.13
DAILY CONSUMPTION OF CHIPS

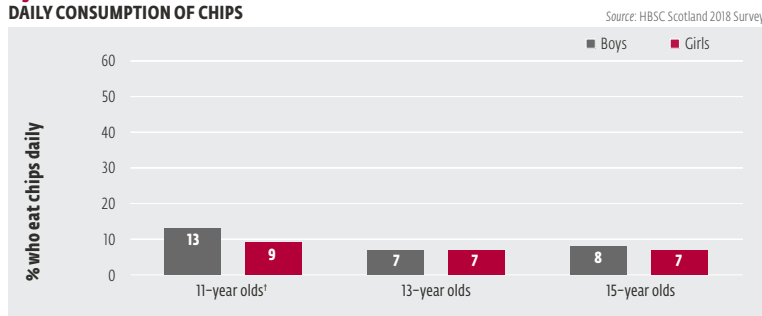


Figure 6.14
DAILY CONSUMPTION OF CHIPS 2002-2018

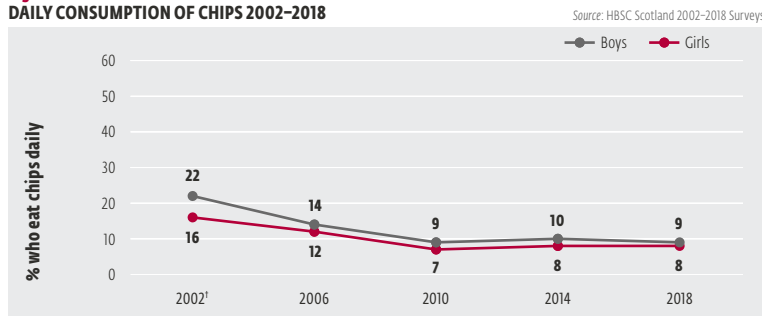
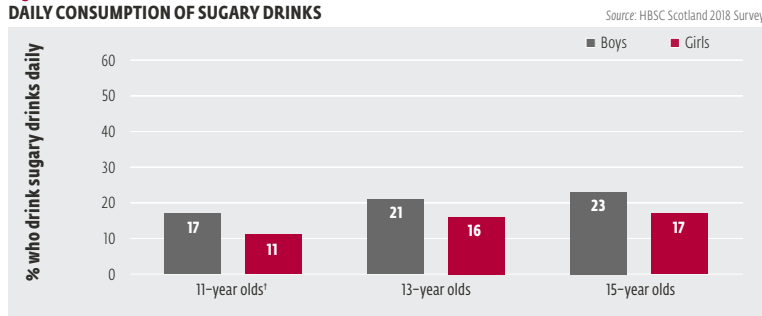


Figure 6.15
DAILY CONSUMPTION OF SUGARY DRINKS



Inequalities in eating behaviour

Healthy eating behaviours were more common among high FAS groups. For example, daily breakfast consumption on school days and daily consumption of fruit, vegetables and smoothie drinks were positively associated with family affluence. Conversely, daily consumption of chips and sugary drinks were negatively associated with family affluence such that the highest prevalence was among young people from the least affluent families. There was no FAS difference in daily consumption of sweets or chocolate, cakes or biscuit, crisps and energy drinks (Table 6.1).

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Figure 6.16
DAILY CONSUMPTION OF SUGARY DRINKS 2002–2018

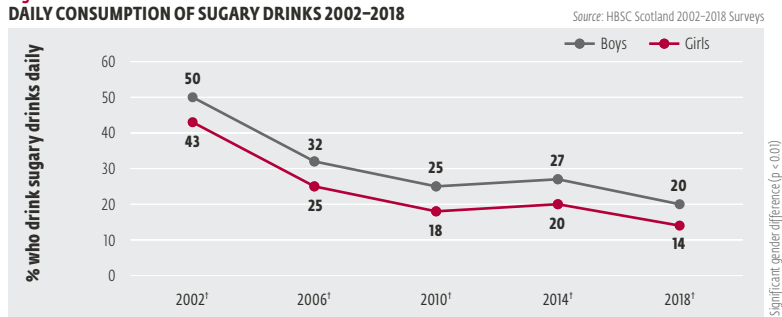


Figure 6.17
DAILY CONSUMPTION OF FRUIT JUICE OR SMOOTHIES

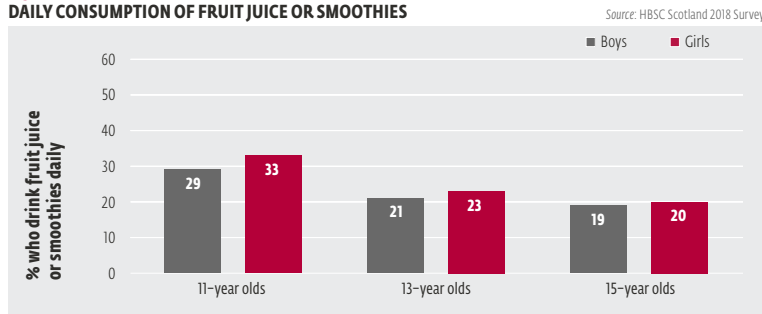


Figure 6.18
DAILY CONSUMPTION OF ENERGY DRINKS

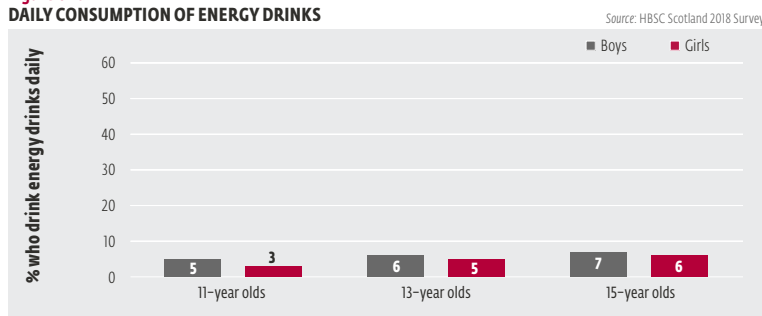


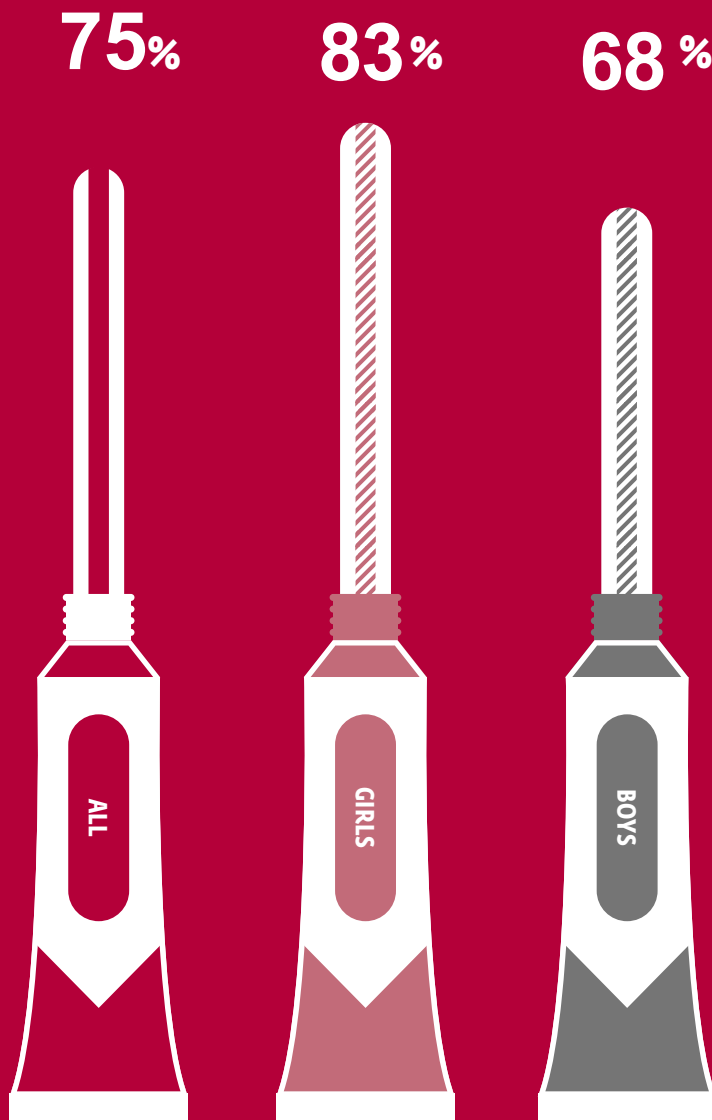
Table 6.1
EATING BEHAVIOURS BY FAMILY AFFLUENCE

Source: HBSC Scotland 2018 Survey

	Low FAS (%)	Medium FAS (%)	High FAS (%)
Eat breakfast every morning on weekdays [†]	51	63	68
Daily fruit consumption [†]	23	36	48
Daily vegetable consumption [†]	25	36	49
Daily consumption of sweets or chocolate	29	27	29
Daily consumption of cakes or biscuits	13	11	12
Daily consumption of crisps	20	17	17
Daily consumption of chips [†]	11	8	6
Daily consumption of sugary drinks [†]	23	17	12
Daily consumption of fruit juice or smoothies [†]	22	24	28
Daily consumption of energy drinks	7	5	4

† Significant linear trend difference ($p < 0.01$)

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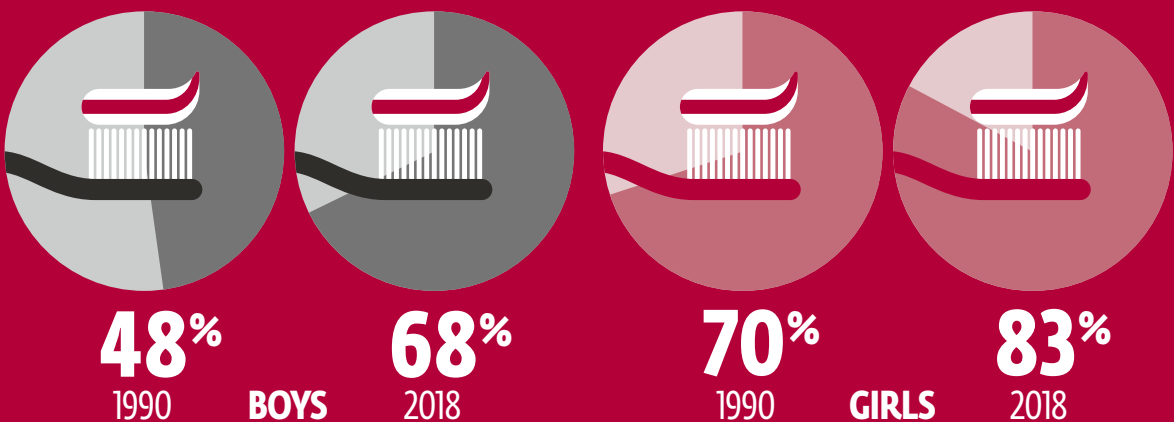


Three-quarters of adolescents **brush their teeth more than once a day**

Girls were more likely than boys to brush their teeth more than once a day

7 ORAL HEALTH

There has been a **steady increase** in the proportion of boys and girls who brush their teeth more than once a day since 1990



ORAL HEALTH

INTRODUCTION

Oral health is an important aspect of general health and is related to quality of life and individual wellbeing.¹² Dental caries are one of the most common types of oral diseases amongst adolescents and can have a negative impact on their quality of life through pain, infection, diet, and loss of sleep.^{3,4,5} Caries may also cause adolescents to miss school which means parents/carers may also have to have time off work.^{6,7}

Awareness of the importance of oral health tends to be low amongst adolescents. It is, however, essential to encourage good oral health at this age, given that many health behaviours and attitudes developed during this stage of the lifecourse last for a lifetime.⁸

Tooth brushing is the primary method of oral care but other oral hygiene practices such as flossing and the use of mouthwash are also important.⁹ Regular tooth brushing can help prevent oral diseases, like periodontal disease and dental caries, and foster oral health self-management through changes in knowledge, attitude and behaviour.^{10,11} Previous studies have reported that subjective oral health awareness is associated with objective oral health status,^{12,13} although some studies have found either no association or the opposite effect.¹⁴ These relationships are affected by a complex range of factors including socio-cultural factors.¹⁵

The Scottish Government and NHS Scotland are at the forefront of child and adolescent oral health improvement in Scotland. Several national supervised oral health programmes have been funded over recent years. Launched in 2006, Childsmile is a national programme designed to improve the oral health of children in Scotland and reduce inequalities both in dental health and access to dental services. Funded by the Scottish Government, the programme is now delivered across all NHS Boards in Scotland. Its main vision is that every child in Scotland up to the age of 5 years old has access to a tailored programme of care within Primary Care Dental Services (PCDS), free daily supervised toothbrushing at nursery and free dental packs to support toothbrushing at home. It is believed that habits learned during the early years will help maintain good oral health throughout childhood and adolescence.¹⁶

HBSC FINDINGS

The HBSC survey has collected information on toothbrushing since 1990, providing trend data over 28 years. In the 2018 survey, additional data on dental health issues were collected for the first time.

Tooth Brushing

Three quarters (75%) of Scottish adolescents reported that they brush their teeth more than once a day. This was more common among girls than boys at every age. There is little difference in the proportion of boys who brush their teeth more than once a day between ages 11 and 15, suggesting the importance of establishing good oral health habits early in life, especially among boys. Among girls, the proportion who brushed their teeth more than once a day increased with age from 79% at age 11 to 88% of girls at age 15 (Figure 71).

Since 1990, there has been a steady increase in the proportion of boys and girls who brush their teeth more than once a day. Among boys, the proportion has risen from 48% in 1990 to 68% in 2018. Among the girls, the proportion has increased from 70% in 1990 to 83% in 2018. Since 1990, the gender gap has persisted but has narrowed over time (Figure 72).

Dental Issues

Adolescents were also asked whether they had experienced any one of four specific issues with their teeth and mouth in the past couple of months. The most frequently reported issue was crooked teeth or spaces between their teeth, which nearly a third (31%) of adolescents reported. Among 11- and 13-year olds, this was more common among girls but no gender difference was observed among 15-year olds.

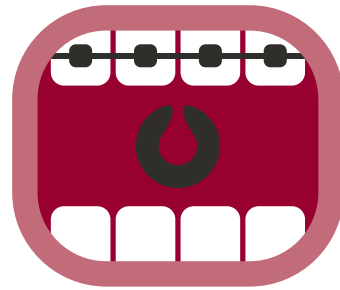


Figure 7.1
BRUSH TEETH AT LEAST TWICE A DAY

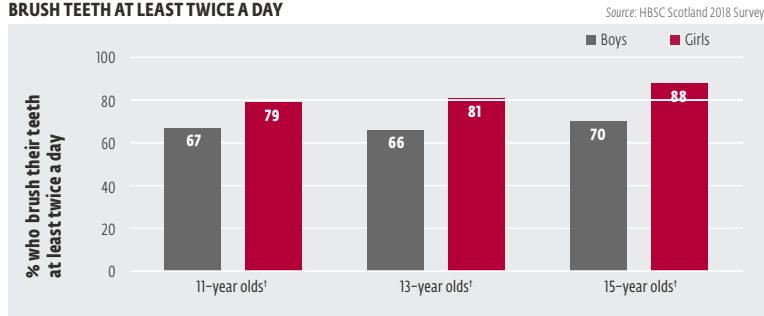


Figure 7.2
BRUSH TEETH AT LEAST TWICE A DAY 1990–2018

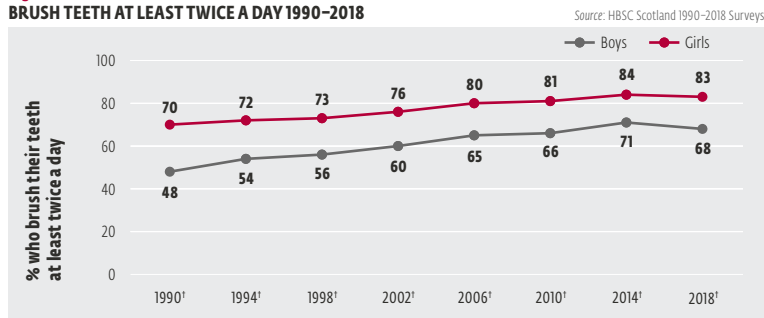


Table 7.1
DENTAL ISSUES (%)

Source: HBSC Scotland 2018 Survey

	11-year olds		13-year olds		15-year olds	
	Boys	Girls	Boys	Girls	Boys	Girls
Crooked teeth or spaces between teeth	34	40 ¹	25	34 ¹	24	28
Discoloured teeth or spots on teeth	16	14	12	15	12	13
Have dental braces or retainer	6	8	19	26 ¹	24	39 ¹
Anything else affecting appearance of mouth or teeth	14	16	10	12	11	9
Reported any dental issue	50	56	47	58 ¹	48	59 ¹

¹ Significant gender difference (p < 0.01)

Table 7.2
ORAL HEALTH BY FAMILY AFFLUENCE

Source: HBSC Scotland 2018 Survey

	Low FAS (%)	Medium FAS (%)	High FAS (%)
Brush teeth at least twice a day ¹	65	76	84
Dental issues			
Crooked teeth or spaces between teeth ¹	36	31	28
Discoloured teeth or spots on teeth ¹	19	14	8
Have dental braces or retainer ¹	17	20	25
Anything else affecting appearance of mouth or teeth	12	13	9

¹ Significant linear trend difference (p < 0.01)

Discolouration or spots on teeth were reported by 14% of adolescents. The prevalence of discoloured teeth was highest among 11-year olds. No differences by gender were observed. One in five adolescents reported that they used dental braces or a retainer. The use of braces or retainers was highest among 15-year olds (31%) and was more common among girls than boys at ages 13 and 15 (39% in girls versus 24% in boys among 15-year olds). More than one in ten young people reported other dental health issues. Over half (54%) of 15-year olds reported having at least one of the four dental issues. Among 13- and 15-year olds, girls were more likely than boys to report dental issues. No gender difference was observed among 11-year olds (Table 7.1).

Inequalities in oral health

Toothbrushing was significantly associated with family affluence, with higher prevalence among higher FAS groups. As well as brushing their teeth less often, adolescents from low affluence families were also more likely to report having crooked teeth or spaces between teeth, discoloured teeth or spots on teeth (Table 7.2).

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36%

Over a third of adolescents
said they were **very happy**

Happiness levels
decreased with age



MENTAL HEALTH AND WELLBEING

INTRODUCTION

Mental wellbeing is one of the Scottish Government's six public health priorities and is defined as: "... both feeling good and functioning effectively, maintaining positive relationships and living a life that has a sense of purpose".¹ Mental health and wellbeing are therefore more than the absence of mental illness but also about emotional wellbeing and functioning well in everyday life.

Adolescence is a critical time for young people to develop the socio-emotional capabilities to equip them for good health and wellbeing later on in life.² At the same time, adolescence is also period of vulnerability; nearly half of all lifetime mental health conditions occur by the age of 14 years.³ There is currently concern that mental health is worsening amongst adolescents and evidence suggests that emotional disorders are increasing, particularly amongst adolescent girls.^{4,5,6}

Many factors influence mental health and wellbeing, such as diet, physical activity, sleep, substance use, social relationships and school experience. Deprivation is also key risk factor for mental health. A systematic review showed that children and adolescents from socio-economically deprived backgrounds were two to three times more likely to develop mental health problems.⁷ Children living in more deprived areas are also more likely to encounter adverse life circumstances which, in turn, affect their mental health and wellbeing.⁸

In terms of promoting wellbeing, positive relationships with family, friends and school staff are consistently linked with health and wellbeing during adolescence.⁹ Research has also found that sleep and eating behaviours have stronger associations with adolescent wellbeing than bullying, physical activity and screen time.¹⁰

Poor mental wellbeing during adolescence can lead to difficulties in relationships with others, poorer engagement with school and lower confidence. For example, low life satisfaction has been related to behaviours such as substance use, depression, fighting and delinquency.¹¹ In contrast, high life satisfaction amongst adolescents has been linked to enhanced coping, self-efficacy, self-esteem, positive self-concept and purpose in life as well as involvement in meaningful pro-social activities and reduced risk of involvement in harmful behaviours such as drug or alcohol use. It is also linked to lower psychopathological externalising and internalising behaviour.¹² Young people with high subjective wellbeing have more favourable academic, social and physical health outcomes.^{13,14,15} There is some evidence that it may also serve as a buffer in the face of stressful life events.¹⁶

Many mental disorders and problems persist into adulthood with consequences for poorer health, social and economic outcomes as an adult.^{17,18} This is why one of the four key areas of the Scottish Government Mental Health Strategy (2017-2027)¹⁹ is to focus on prevention and early intervention in order to minimise the risk of poor mental health and its impact across an individual's lifetime. The strategy recognises the role that education plays in this and the link between educational attainment and achievement and wellbeing. A Children and Young People's Mental Health Taskforce published in July 2019 a series of recommendations for the Scottish Government and COSLA to improve how children's mental health services are organised, commissioned and provided. Amongst other aspects, it focuses on a whole system approach as well as early intervention.²⁰

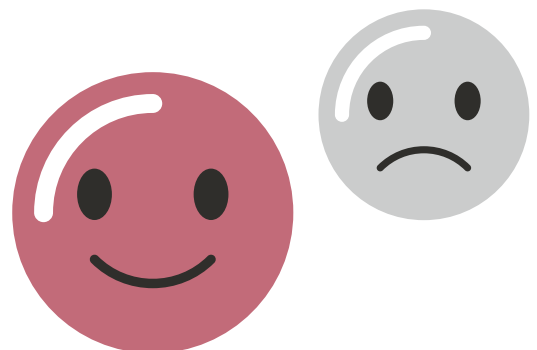


Figure 8.1
HIGH LIFE SATISFACTION

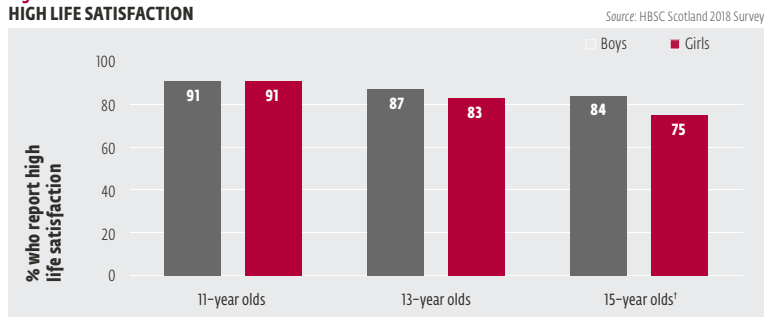


Figure 8.2
HIGH LIFE SATISFACTION 2002-2018

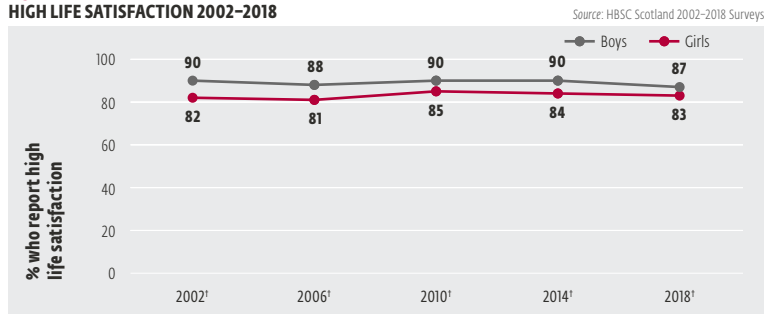


Figure 8.3
GOOD OR EXCELLENT HEALTH

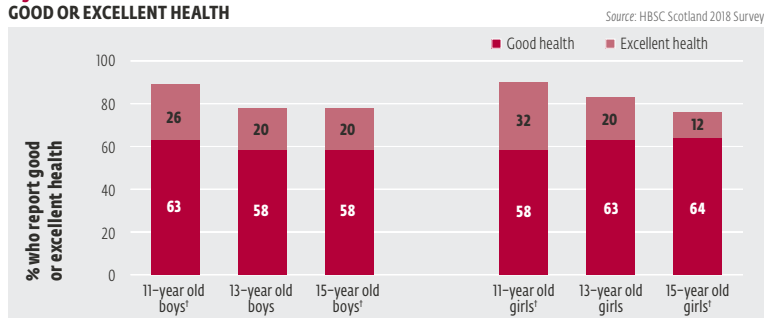


Figure 8.4
GOOD OR EXCELLENT HEALTH 2002-2018

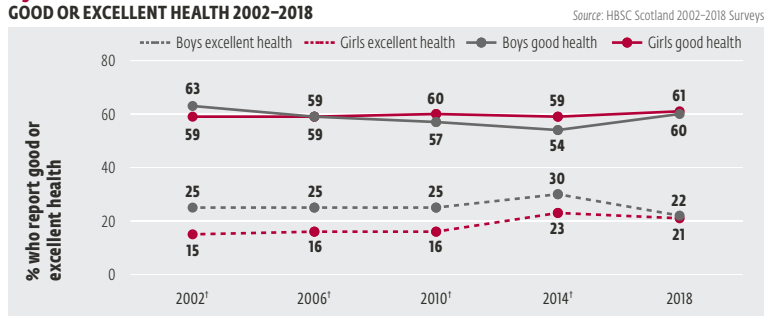
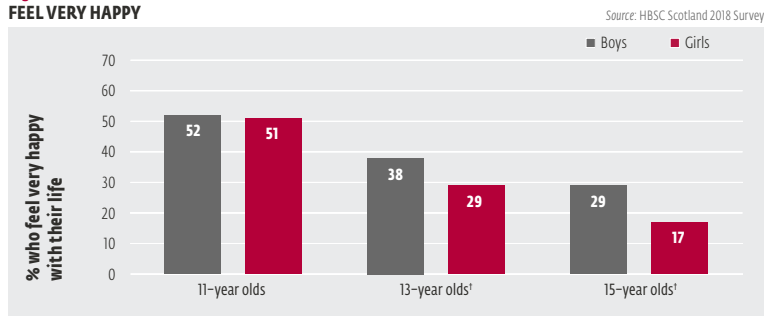


Figure 8.5
FEEL VERY HAPPY



The 2019 National Framework and Improvement plan is designed to help deliver both excellence and equity in education and one of the four key priorities of this framework is to improve children and young people's health and wellbeing.²¹ This includes a review of personal and social education and the recruitment of nurses and counsellors into secondary schools across Scotland. There has also been an increased national policy focus on the links between adverse childhood experiences (ACEs), abuse and neglect and an increased risk of mental health problems later in life. The Scottish Government is committed to reducing ACEs.²²

All this work is anchored in the long-standing national approach of Getting It Right For Every Child (GIRFEC)²³ which promotes the eight SHANARRI wellbeing outcomes (Safe, Healthy, Achieving, Nurtured, Active, Respected, Responsible, Included).²⁴ All services working with children and young people, and those who care for them, must play their part to promote, support and safeguard children and young people's wellbeing.

HBSC DATA

The HBSC survey includes a variety of subjective wellbeing indicators. These include a measure of overall life satisfaction as well as feelings such as happiness, feeling left out, self-confidence and perceived body image. It also asks about self-related health and frequency of somatic and psychological symptoms. Several of these measures have been included in HBSC since the 1990s. More recently, additional measures have been added, including stress (Cohen's Scale), low mood (WHO Wellbeing Five Index) and the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS), which looks at both the feeling and functioning aspect of mental wellbeing.

Life satisfaction

Young people were asked to rate their life satisfaction using the Cantril Ladder. They were shown a ladder with rungs numbered from 0 ('worst possible life') to 10 ('best possible' life) and asked to mark where on the ladder they felt their life was. A score of six or more was defined as high life satisfaction. Eighty-five percent (85%) of young people reported high life satisfaction (87% of boys; 83% of girls) (Figure 8.1). Life satisfaction decreased with age, with both boys and girls at age 15 reporting lower life satisfaction than those at age 11 (80% versus 91% respectively).

Gender differences in life satisfaction were present at age 15, with boys reporting higher levels of life satisfaction (84% versus 75%) but no significant difference was observed among 11- and 13- year olds.

Trends in high life satisfaction between 2002 and 2018 have remained stable for both boys and girls (Figure 8.2). For each survey year since 2002, a greater proportion of boys than girls reported high life satisfaction.

Self-rated health

The survey also asked young people to rate their general health, which is a broad measure capturing both physical and mental aspects of health.

Around a fifth (22%) of adolescents rated their health as 'excellent' (22% of boys; 21% of girls). A further 61% rated their health as 'good', 15% rated it as 'fair' and 2% as poor (Figure 8.3). Levels of excellent self-reported health decreased with age. Eleven-year olds were almost twice as likely to rate their health as 'excellent' compared with 15-year olds (29% versus 16% respectively).

At ages 11 and 15, boys were more likely to rate their health as excellent compared to girls. The largest difference between the genders is observed at age 15, with 12% of girls reporting excellent health compared with 20% of boys. Otherwise, when considering both good or excellent health, there were no significant differences between girls and boys.

Since 2002, levels of 'good' health have remained stable among both boys and girls and no significant gender differences were observed (Figure 8.4). The proportion of girls reporting 'excellent' health has increased in recent years, but this rise reflects increases among 11- and 13-year olds only, as levels among 15-year olds remain low.

Figure 8.6
FEEL VERY HAPPY 1994–2018



Figure 8.7
OFTEN OR ALWAYS FEEL CONFIDENT

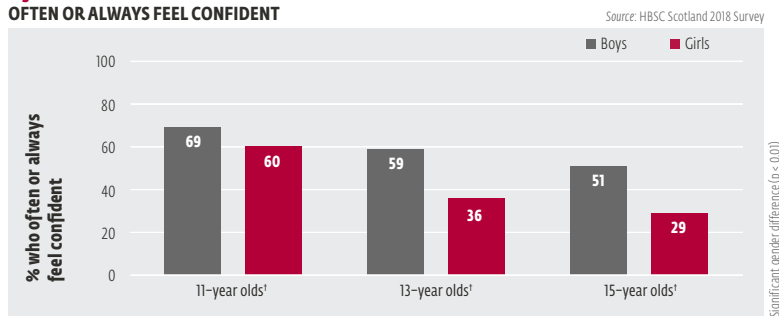
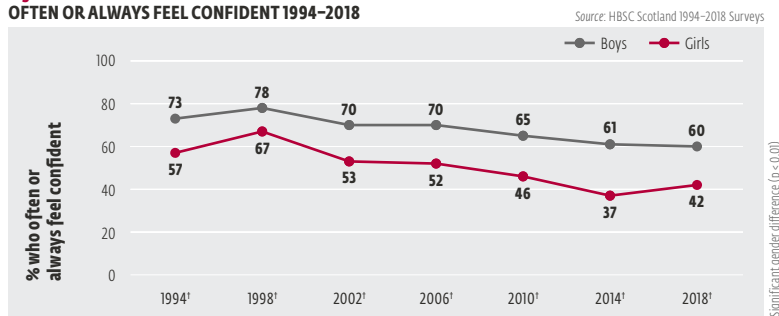


Figure 8.8
OFTEN OR ALWAYS FEEL CONFIDENT 1994–2018



Over half reported
often or always feeling confident in themselves

confidence was higher
among boys than girls



51%



60%



42%

Happiness

Young people were asked how happy they felt about their life at the moment. Overall over one third (36%) of young people reported being very happy (boys 40%, girls 32%) (Figure 8.5). At age 11, there were no differences between girls and boys but, at ages 13 and 15, boys were more likely to say they were very happy than girls. The biggest gender difference was seen at age 15, with 29% of boys reporting feeling very happy with their life compared with 17% of girls.

Happiness decreased with age: around half (51%) of 11-year olds reported feeling very happy compared with 33% of 13-year olds and 23% of 15-year olds. Levels of happiness with life have fluctuated over the years, with a peak in 2006 (Figure 8.6). Since then, levels have declined again and are now similar to those observed in 1994, which is among the lowest seen in the 24 years since these data have been collected.

Feeling confident

Adolescents were asked how often they felt confident and around half (51%) reported feeling often or always confident in themselves (Figure 8.7). There were differences by gender, with boys at all ages reporting higher levels of self-confidence than girls. This gender difference was most pronounced at ages 13- and 15-year olds. At age 13, 59% of boys reported feeling confident always or often compared with 36% of girls.

Confidence also decreased with age; 65% of 11-year olds felt often or always confident compared with 40% of 15-year olds. When considering the proportion who 'always' feel confident, there were also marked differences by age, from 22% of 11-year olds to 9% of 15-year olds.

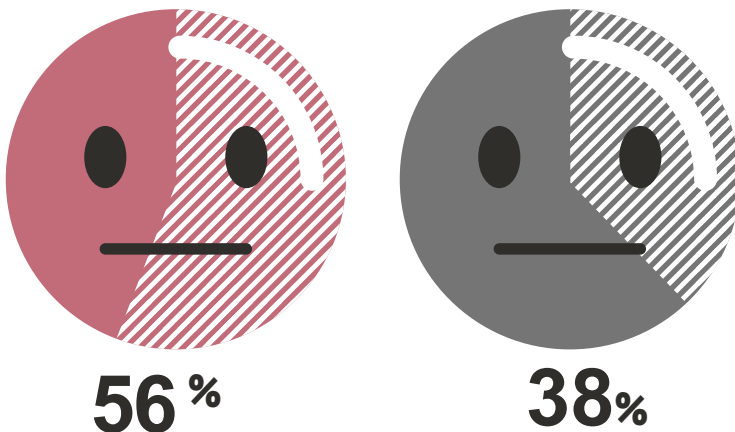
The Scottish HBSC survey has included a measure of confidence since 1994. Whilst there was a peak in confidence levels in 1998 (72% felt often or always confident) rates have fallen since then amongst both girls and boys (Figure 8.8). In 2018, levels of confidence were amongst the lowest seen in 24 years. At every survey year, boys were more likely to report feeling confident than girls.

Feeling left out

Around one in ten (11%) young people said that they often or always feel left out (9% of boys; 13% of girls) (Figure 8.9). Gender differences are evident at ages 13 and 15, with girls more likely to feel left out. Among 15-year olds, for example, girls were twice as likely than boys to report often or always feeling left out (16% versus 8%, respectively).

Trends in feeling left have fluctuated a little since 1998, especially among girls (Figure 8.10) but at each survey year more girls than boys have reported feeling left out.

Health complaints



At age 15, over half of the girls reported multiple health complaints compared with boys.

Figure 8.9
OFTEN OR ALWAYS FEEL LEFT OUT

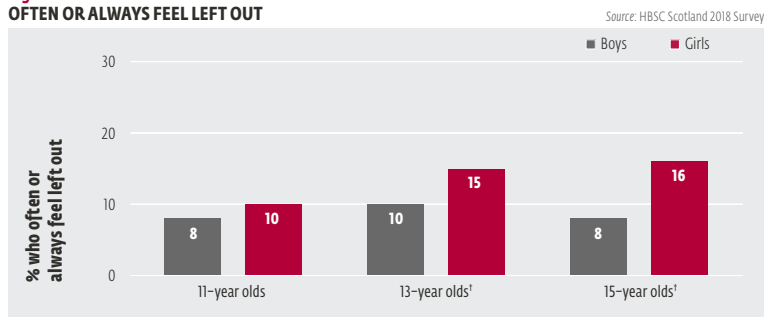


Figure 8.10
OFTEN OR ALWAYS FEEL LEFT OUT 1998–2018

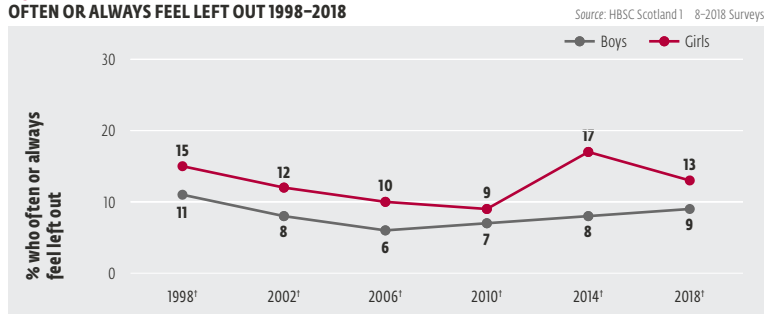


Figure 8.11
HEALTH COMPLAINTS

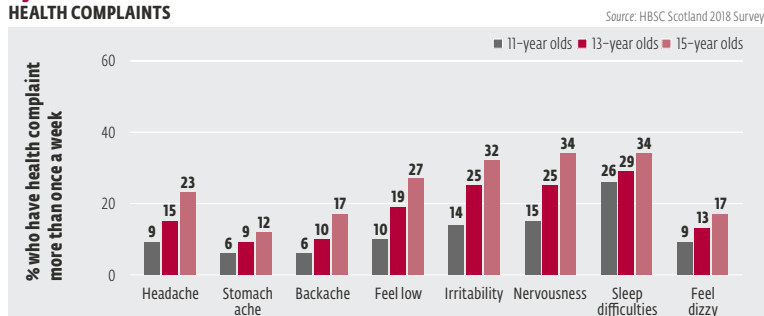


Figure 8.12
MULTIPLE HEALTH COMPLAINTS^{*}

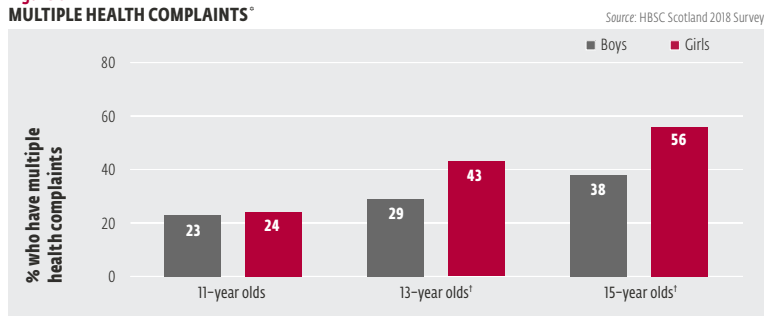
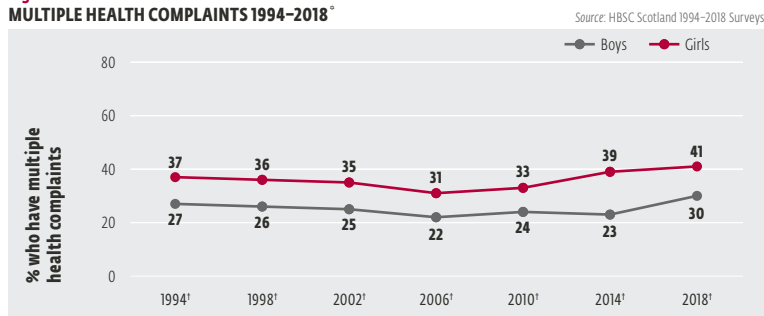


Figure 8.13
MULTIPLE HEALTH COMPLAINTS 1994–2018^{*}



INDIVIDUAL HEALTH COMPLAINTS

Young people were asked how often in the past 6 months they had experienced certain symptoms, both physical and psychological. **Figure 8.11** shows those who have experienced individual health complaints once a week or more for boys and girls combined. The three most frequently reported complaints were: sleep difficulties (30%), feeling nervous (25%) and feeling irritable (24%). The prevalence of all the individual health complaints increased with age, with 15-year olds most likely to report frequent health complaints.

Having multiple health complaints is defined as having two or more symptoms more than once a week. Over a third (35%) of young people reported multiple health complaints (**Figure 8.12**). Multiple health complaints increased with age for both boys and girls, from 23% of 11-year olds to 47% of 15-year olds. Gender differences were evident at ages 13 and 15, with girls more likely than boys to report multiple health complaints. The most marked difference was seen at age 15 with over half of girls (56%) reporting multiple health complaints compared with 38% of boys.

HBSC has been collecting data on multiple health complaints since 1994. Over the past 24 years, the proportion of young people experiencing multiple health complaints has fluctuated, but prevalence in 2018 is higher than in previous years (**Figure 8.13**). The gender difference has remained consistent across time, with girls more likely than boys to report multiple health complaints in each survey year.

Body Image

The survey asks young people about their perceived body size and whether they think their body is about right, too fat or too thin. Overall just over half (54%) reported that they thought their body was about right (**Figure 8.14**). Body perceptions varied by age, with younger adolescents more likely to say their body was about right compared with older adolescents (65% of 11-year olds compared with 50% of 13-year olds and 48% of 15-year olds). Girls were more likely than boys to perceive their body to be too fat (40% versus 26%). This gender difference was seen for each age group and increased with age.

In general, body dissatisfaction increased with age. Around a quarter (27%) of girls at age 11 perceived their body to be too fat compared with nearly half (48%) of 15-year old girls. Conversely, boys were more likely to think they were too thin (16% boys; 9% girls) and this was the case for every age group. The proportion of boys who felt they were too thin increased with age, from 14% at age 11 to 19% at age 15, whereas there was no age difference among girls. The biggest gender difference was seen at age 15, with around one in five (19%) boys feeling too thin compared with around one in ten (9%) girls.

Figure 8.15 shows trends in the proportion of adolescents who think they are too fat since 1990. Girls were more likely than boys to say they think their body is too fat in each survey year, but the difference between boys and girls appears to be decreasing. This is largely due to a slight increase in the proportion of boys who perceive their body is too fat. The proportion of young people reporting they are too thin has remained stable amongst boys and girls since 1990 (**Figure 8.16**), but there is a persistent gender difference with boys more likely to report this than girls at every survey year.

Perceived Stress

General stress is measured using the Cohen Perceived Stress Scale which asks young people four questions about how they feel they are coping with problems and whether they have felt in control of their life over the past month. Answers to the four questions are combined to create a total score ranging from 0 to 16. Higher scores reflect higher levels of perceived stress.

Mean stress scores did not vary significantly by age but there were some differences by gender (**Figure 8.17**). At ages 13 and 15, girls reported higher mean scores on the Cohen Perceived Stress Scale than boys. For example, the mean stress scores at age 15 were 7.8 for girls versus 6.7 for boys.

Figure 8.14
BODY IMAGE

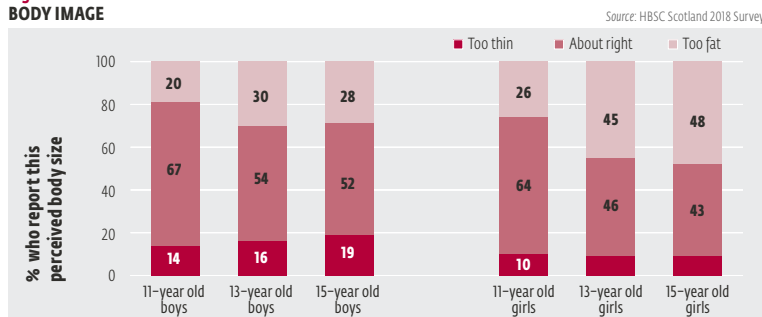
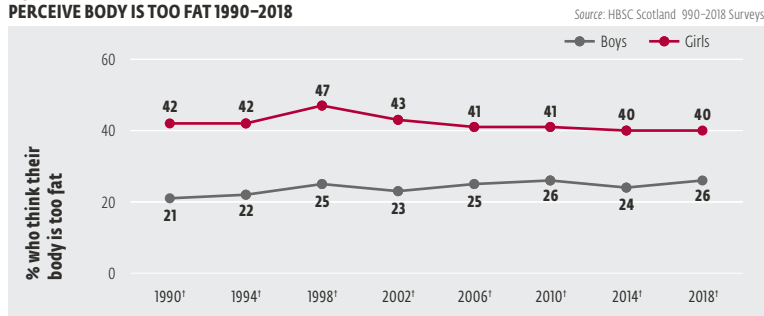


Figure 8.15
PERCEIVE BODY IS TOO FAT 1990-2018

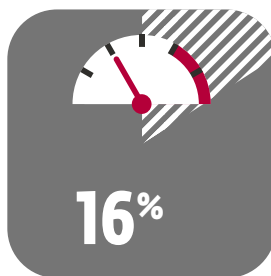
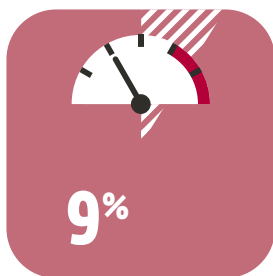


TOO FAT



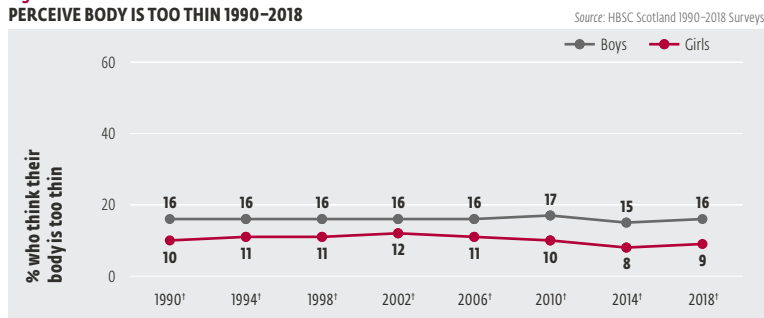
Girls were more likely than boys to perceive their body to be **too fat**

TOO THIN



Conversely, **boys were more likely** to think they were **too thin**

Figure 8.16
PERCEIVE BODY IS TOO THIN 1990-2018



The Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS)

The Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) is a measure of mental wellbeing and includes 14 questions which ask how someone has been feeling over the past two weeks. The items are all positively worded and ask about both feeling and functioning aspects of mental wellbeing. Possible scores range from 14 to 70 with higher scores indicating better mental wellbeing.

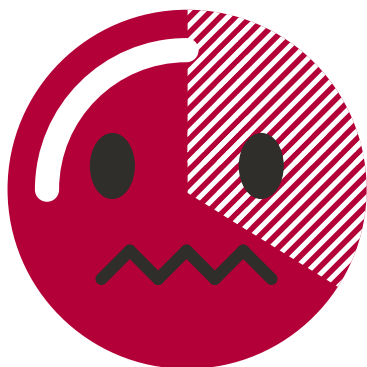
The mean WEMWBS score for boys and girls at ages 13 and 15 was 47.1 (Figure 8.18). There were no significant differences by age or gender.

Low mood and risk of depression (WHO 5 Wellbeing index)

The WHO-5 Wellbeing Index is a five item positively worded scale which provides a measure of emotional functioning. Scores are summed and transformed to create a scale ranging from 0 to 100. Scores of less than 50 on the WHO-5 indicate low mood and those with a score of 28 below are classified as at risk of depression.

Over a third (37%) of adolescents were classified as having low mood (33% boys, 41% girls) (Figure 8.19). Low mood increased with age, from 22% of 11-year olds to 37% of 13-year olds and 51% of 15-year olds. There were no differences between boys and girls at age 11, but there were in the older age groups. The most pronounced difference was among 15-year olds, with 43% of boys reporting low mood compared with 58% of girls.

Overall, more than one in ten (14%) young people could be described as at risk of depression (11% boys; 17% girls). Prevalence was lower among 11-year olds and increased with age. Amongst 13- and 15-year olds, girls were more likely to report being at risk of depression. This was particularly marked at age 15, where almost twice as many girls as boys were classified as at risk of depression (27% of girls; 14% of boys).



1 in 3
15-year olds reported **feeling irritable, feeling nervous or having sleep difficulties** more than once a week

Inequalities in mental health and wellbeing

The 2018 questions on mental health and wellbeing were analysed in relation to family affluence. On all the measures, more negative outcomes were associated with lower affluence (Table 8.1). Those in the highest affluence group were more likely to report high life satisfaction, good or excellent health, feeling happy and higher confidence. Multiple health complaints also varied by family affluence, with 45% of those young people in the least affluent group reporting multiple health complaints compared with 29% of those in the highest affluence group.

Young people in the lowest affluence group also had, on average, lower WEMWBS scores, higher levels of stress, and were more likely to be classified as having low mood according to the WHO-5 Wellbeing Index.

In terms of body image, those young people in the lowest affluence group were more likely to say they thought their body was too fat and the least likely to say they thought their body was about right. There were no differences in terms of perceptions of being too thin.

Figure 8.17
PERCEIVED STRESS SCALE

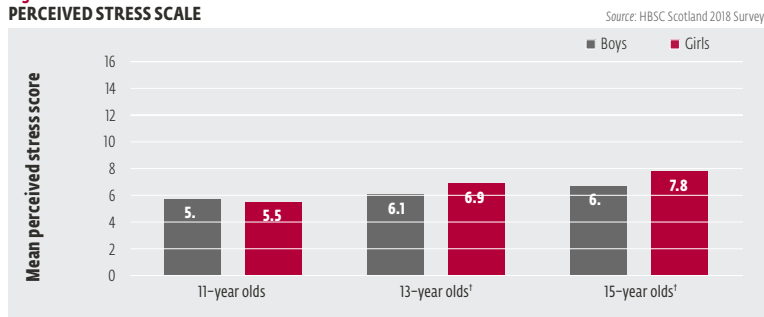


Figure 8.18
WELLBEING (WEMWBS)

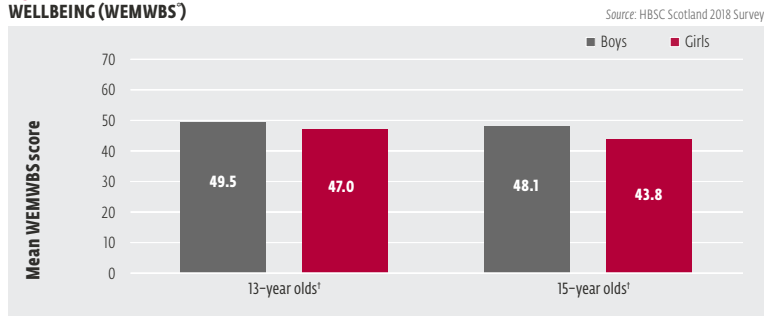


Figure 8.19
LOW MOOD OR RISK OF DEPRESSION (WHO 5 INDEX)

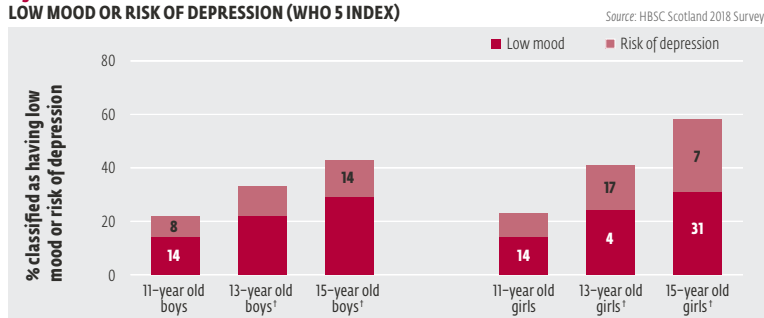


Table 8.1
MENTAL HEALTH AND WELLBEING BY FAMILY AFFLUENCE

Source: HBSC Scotland 2018 Survey

	Low FAS (%)	Medium FAS (%)	High FAS (%)
Report high life satisfaction [†]	77	87	89
Report good or excellent health [†]	74	84	87
Feel very happy [†]	28	36	44
Often or always feel confident [†]	41	52	57
Often or always feel left out [†]	15	11	9
Multiple health complaints [†]	45	35	29
Body Image			
Too thin	13	12	13
About right [†]	47	55	59
Too fat [†]	40	33	28
Perceived Stress scale[†]	7	6.4	6.1
Wellbeing (WEMWBS)[†]	44	48	48
WHO 5 index			
Low Mood/ Risk of depression [†]	47	35	30

[†] Significant linear trend difference (p < 0.01).

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24. <https://www.gov.scot/policies/girfec/wellbeing-indicators-shanarri/>

8.3 hrs
13^{YO}

Average **sleep duration** on weekdays



8.8 hrs
15^{YO}



SLEEP

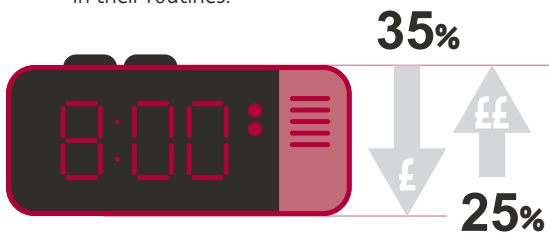
INTRODUCTION

Sleep is crucial to both physical and mental health and wellbeing. Whilst sleep difficulties are common in adolescence there is international evidence that young people are not getting enough sleep¹² and that, compared to a decade ago, adolescents today are getting less sleep than they used to.³

Adolescents need sleep to function well. Inadequate sleep has been associated with a range of negative outcomes such as low mood, attention difficulties and impaired school performance as well as other aspects such as poorer mental wellbeing, risky behaviour and weight gain.^{4,5} Amongst adolescents, severe lack of sleep has also been associated with greater interpersonal problems, lower life satisfaction, lower self-esteem and higher incidence of drug use.⁶ Chronic sleep loss is therefore considered an important public health issue.⁷

Sleep deprivation in children and adolescents may be caused by a number of different factors: physical, behavioural, psychological and cultural. These would include, for example, social relationships, consumption of energy drinks, leisure time activities and the use of electronic devices.⁸ There is some evidence to suggest that electronic devices and social media are impacting negatively on adolescent sleep patterns. Use of social media at night time has been associated with poorer sleep quality⁹ and sending or receiving text messages at night was associated with later bedtimes and shorter time in bed for adolescents.^{10,11}

NHS guidelines recommend adolescents get a minimum of 8 to 9 hours of good sleep on a school night.¹² Sleep Scotland is a national charity which provides schools with an education programme, Sound Sleep. This programme aims to raise awareness in schools of the importance of sleep for health and wellbeing, and helps pupils implement positive sleep habits in their routines.¹³



Young people from the **least affluent** group were **more likely to report difficulties** in getting to sleep than those in the most affluent group

HBSC DATA

In 2018, HBSC collected data on the sleep habits of adolescents at ages 13- and 15-years old. It asked adolescents when they go to bed and when they wake up on school nights and at weekends/during the holidays. Adolescents also answered a question about how often in the last six months they had experienced difficulties in getting to sleep.

Sleep duration on weekdays

Adolescents were asked to estimate what time they usually went to bed and woke up on a school night. This was then used to estimate the number of hours of sleep on school days. Overall, the 13-year olds slept slightly longer than the 15-year olds (8.3 hours versus 7.8 hours, respectively) (Figure 9.1). There were no differences in the amount of time spent sleeping between girls and boys at either age. Based on the NHS recommendation of a minimum of 8 to 9 hours of sleep each night the findings suggest that, on average, 13-year olds meet this guideline whereas 15-year olds are sleeping for less time than is recommended.

Sleep duration at weekends

The average amount of sleep time on non-school nights (at the weekend or during the school holidays) was also estimated. Adolescents spent longer sleeping at weekends/holidays than on school nights (9.4 hours versus 8.1 hours). On average, 13-year olds slept for slightly longer than 15-year olds (9.6 hours and 9.3 hours, respectively). There were no gender differences at either age (Figure 9.2).

Figure 9.1
SLEEP DURATION ON WEEKDAYS (HRS)

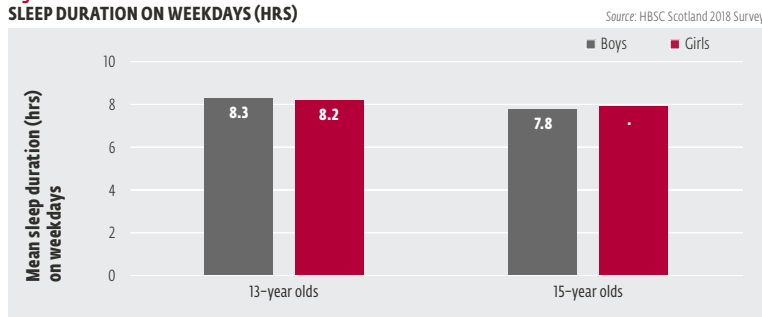


Figure 9.2
SLEEP DURATION WEEKENDS (HRS)

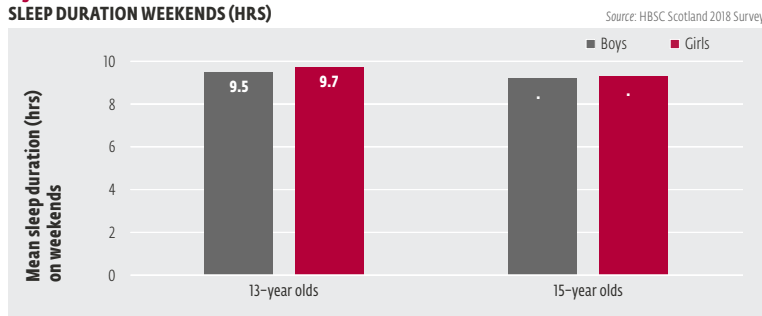


Figure 9.3
SLEEP DIFFICULTIES

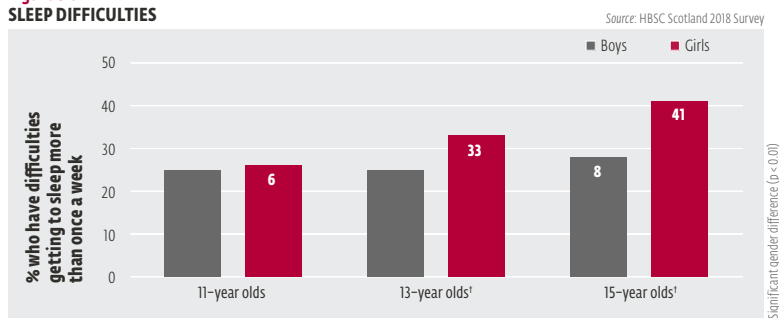


Figure 9.4
SLEEP DIFFICULTIES 1994-2018

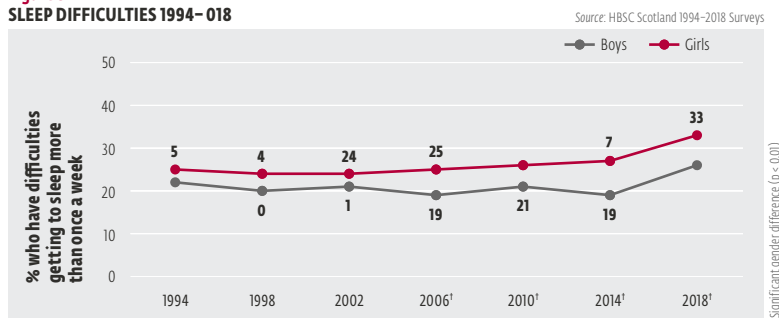
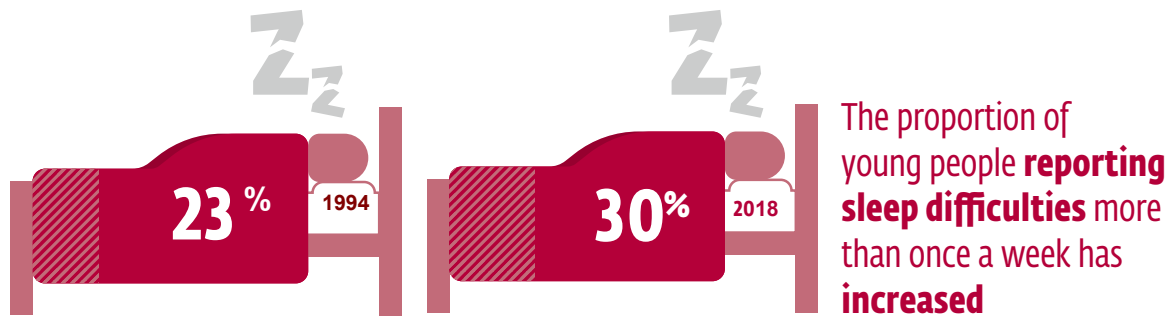


Table 9.1
SLEEP BY FAMILY AFFLUENCE

Source: HBSC Scotland 2018 Survey

	Low FAS	Medium FAS	High FAS
Sleep duration on weekdays (hrs) ¹	7.9	8.1	8.1
Sleep duration weekends (hrs)	9.3	9.5	9.5
Sleep difficulties (%) ¹	35	30	25

¹ Significant linear trend difference (p < 0.01)



Sleep difficulties

Adolescents were asked how often in the past six months they had experienced difficulties in getting to sleep. Overall, almost one in three (30%) adolescents reported sleep difficulties more than once a week (Figure 9.3). There was no gender difference among 11-year olds but, at ages 13 and 15, girls were more likely to report sleep difficulties. This difference was particularly pronounced at age 15, with 41% of girls having difficulties sleeping more than once a week compared with 28% of boys.

The HBSC survey has been asking young people about difficulties in getting to sleep for 24 years. In 1994, around a quarter (23%) of young people reported sleep difficulties more than once a week. This has remained fairly stable over the years but increased to 30% in 2018 (Figure 9.4). From 2006 onwards, girls were more likely than boys to have difficulties getting to sleep and this gender difference is particularly evident in 2018: 33% of girls reported a sleep difficulty compared with 26% of boys.

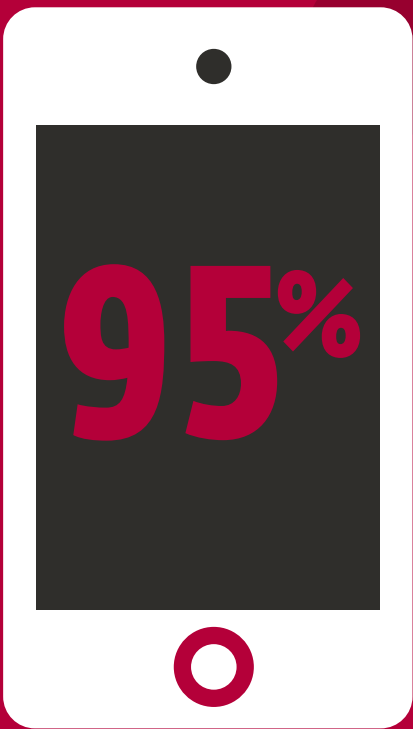
Inequalities in sleeping habits

The amount of sleep on school days varied by family affluence with those in the least affluent group sleeping slightly less than other young people (Table 9.1). The amount of sleep at the weekend did not vary by family affluence. However, the proportion of young people reporting difficulties in getting to sleep did vary by family affluence, with increasing sleep difficulties associated with decreasing family affluence: 35% of those in the lowest affluence group reported difficulties getting to sleep compared with 30% of the middle affluence group and 25% of the highest affluence group.

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SPENDING TIME ONLINE
(ELECTRONIC MEDIA COMMUNICATION)



90%_{YO}

97%_{YO}

99%_{YO}

young people reported
owning a smartphone
(with connection to the internet)

92% of 15-year olds kept
their smartphone in
their bedroom at night



SPENDING TIME ONLINE (ELECTRONIC MEDIA COMMUNICATION)

INTRODUCTION

Digital technology now plays an increasingly important role in adolescents' lives.¹ Television, which dominated domestic media until the mid-late 90s, has now been replaced with other digital media such as mobile phones, instant messaging services, interactive video games and social networking platforms.^{2,3,4} Over 80% of adolescents in the UK own at least one type of digital device such as a mobile phone or computer/tablet with internet access.^{5,6} Many adolescents are using new technologies with increasing frequency to text and instant message, email, blog, and to access social networking sites.^{7,8,9} Many adolescents not only have television in their homes, but more than half have now a television in their bedrooms.^{10,11,12} This explosion in the use of technology by adolescents has many potential benefits. It allows adolescents to talk to people worldwide and to communicate more easily and regularly with family and peers, which may bring about an increased sense of safety and connectedness.^{13,14,15} The internet also provides opportunities for adolescents who have difficulty making friends, for example adolescents who are home schooled or socially anxious, to develop new and rewarding social connections.¹⁵ Additionally, the growing accessibility of the internet through smartphones and wireless computers allows adolescents to quickly and easily access a wide range of information and learning opportunities.^{16,17}

Electronic media communication (EMC) has become a common means of social interaction among adolescents, with both positive and negative consequences. Evidence suggests that, for the majority of adolescents, EMC facilitates face-to-face interaction rather than replacing it and does not result in seclusion or loneliness.^{18,19,20} However, some research has found that EMC is associated with negative behavioural and health outcomes. For example, excessive use of digital media has been associated with increased aggressiveness, early sexual activity, and the use of tobacco and alcohol.^{21,22} Other studies report an association with obesity and eating disorders.^{23,24} There is also a growing body of evidence that suggests that electronic media use negatively affects sleep. Increased exposure to electronic media and the presence of a TV, computer, or mobile device in the bedroom have been associated with lower sleep duration, especially among adolescents.^{25,26}

Research has often highlighted mixed results regarding electronic media use and mental health. In one study, TV exposure was found to be significantly related to self-esteem, but the direction of effect was influenced by personal factors.²⁷ Another study concluded that screen time of 4 or more hours a day was associated with lower psychological wellbeing. It also revealed that non-users and low users of screens generally did not differ in wellbeing and that associations between screen time and lower psychological wellbeing were larger in adolescents compared to younger children.³⁵ Another multi-country study found little evidence for substantial negative associations between digital engagement and adolescent wellbeing.³⁶ In relation to educational outcomes, a study looking at the relationship between electronic media use, cognitive development and academic achievement proved inconclusive.¹⁶

In 2013, the Scottish Government set out a strategy to provide schools and local authorities with advice on how to develop policies to encourage safe and responsible use of personal mobile technology in schools. It reiterated that policies should be designed to protect staff, children and young people from harassment and abuse which can arise from the misuse of technology. The strategy encouraged the promotion of digital citizenship, moving beyond compliant behaviour and involving a commitment to responsible behaviour. It suggested that engaging the whole school community – staff, pupils and parents – in policy development was the most effective means of ensuring engagement with, and commitment to, the policy. To date, action has been taken across a number of programmes and settings to support safe and responsible use of personal mobile technology in school and beyond including; 360 Degree Safe, Respectme, Child Exploitation and Online Protection Centre, Think U Know, Childline, and Positive Relationships and Behaviour.^{28,29,30,31,32,33,34}

HBSC FINDINGS

In 2018, HBSC included a number of measures on access to digital devices such as smartphones, televisions and computers (connected to the internet) and electronic media use. Young people were asked about how much they use electronic media for communication with family members, friends and others. Data were also collected on preference for online versus face-to-face communication as well as problematic social media use.

Figure 10.1
HAVE A SMARTPHONE

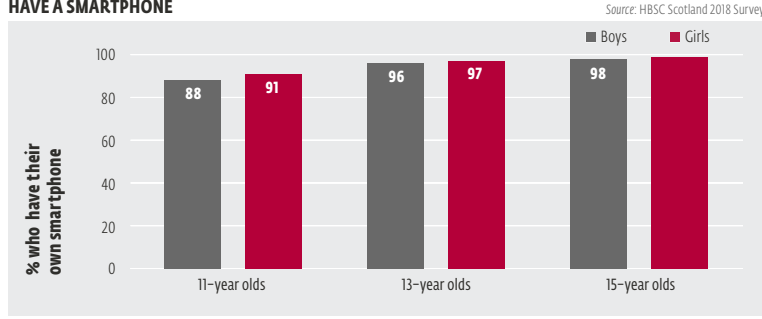


Figure 10.2
SMARTPHONE KEPT IN BEDROOM AT NIGHT

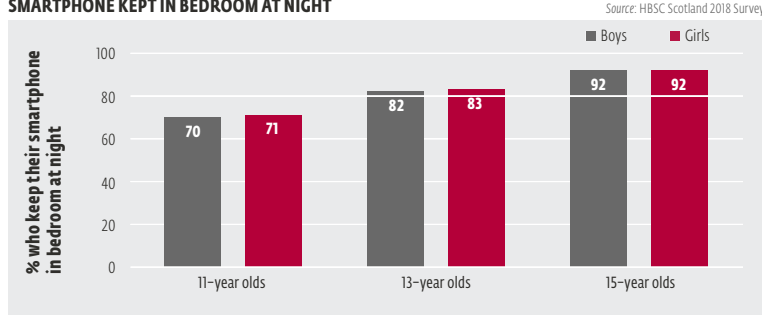


Figure 10.3
COMPUTER IN BEDROOM

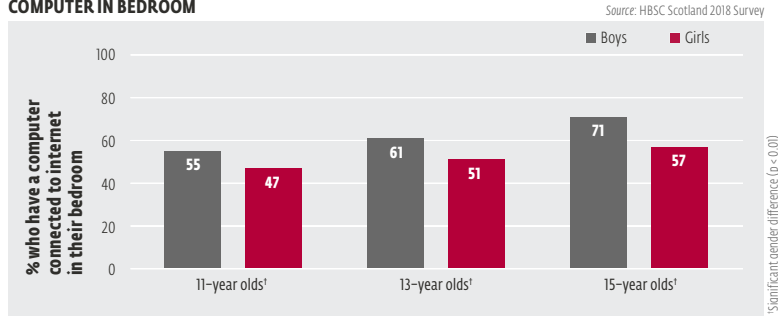


Figure 10.4
TELEVISION IN BEDROOM

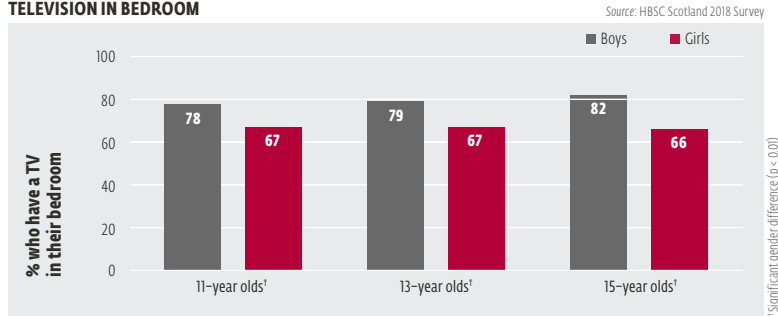
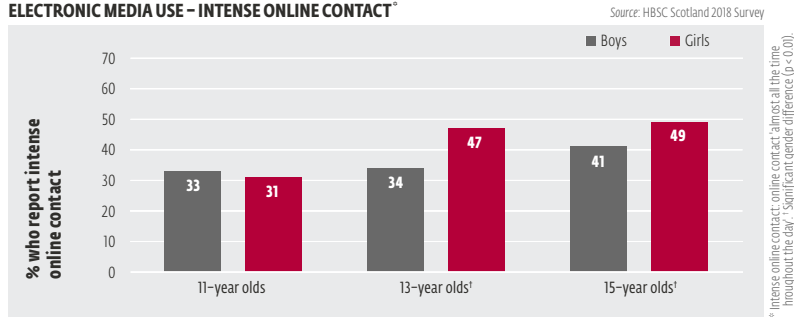


Figure 10.5
ELECTRONIC MEDIA USE – INTENSE ONLINE CONTACT*

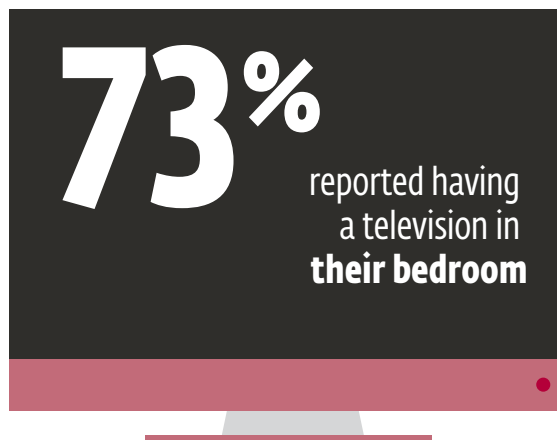


Smartphones

Almost all (95%) young people reported owning a smartphone (with connection to the internet). There were no gender differences in any age group. Fifteen year-olds were more likely to own a smartphone than 11- or 13-year olds (Figure 10.1). Eighty-two percent of adolescents reported that they kept their smartphone in their bedroom at night but this varied with age, from 71% of 11-year olds to 92% of 15-year olds (Figure 10.2).

Computers and televisions

Young people were asked about the devices they had in their bedrooms. Over half (57%) of adolescents reported having a computer in their bedroom that is connected to the internet. Across all age groups boys were more likely than girls to have a computer with internet connection in their bedroom. As with smartphones this was also more common among 15-year olds (64%) compared to 11- and 13-year olds (51% and 56% respectively) (Figure 10.3). The majority of adolescents (73%) also reported having a television in their bedroom, but this was more common among boys than girls (Figure 10.4).



Electronic media communication

One-third (33%) of adolescents reported that they had online contact with close friends *almost all the time throughout the day*, which is described as 'intense' contact. Gender differences were observed at ages 13 and 15, with girls more likely to report intense online contact with close friends (Table 10.1). Fifteen percent of adolescents reported having intense contact with friends from a larger group of friends and 6% with friends that they met online. Among 11-year olds, boys were more likely than girls to have intense contact with friends they met through the internet (5% versus 2% respectively). Sixteen percent of adolescents reported intense online contact with other people such as their parents, brothers/sisters, teachers and classmates, and there were no gender or age differences (Table 10.1).

Overall, 38% of Scottish adolescents reported intense online contact with at least one of the groups. At ages 13 and 15, girls were more likely to report intense online communication than boys (Figure 10.5). Frequency of online communication also increased with age.

Preference for online/social media communication

Adolescents were asked about whether they found it easier to talk about certain matters (secrets, inner feelings and concerns) online or in person. Over a quarter of adolescents said they found it easier to talk online about their secrets (27%), their inner feelings (28%) and their concerns (26%) compared with face to face. Preference for online communication was higher among 15-year olds than 11- and 13-year olds. No gender differences were observed (Table 10.2).

Social Media Disorder Scale

Adolescents were asked nine questions about their social media use. Combined, these items were used to create a measure of problematic social media use. Use of social media was classified as problematic if they responded 'yes' to 6 or more of the questions.

According to this classification, almost one in ten (9%) adolescents reported problematic social media use. Gender differences were observed only among 13-year olds, with girls more likely to report problematic social media use than boys (11% versus 7% respectively) (Table 10.3). This is also reflected in responses to the individual items with 13-year old girls more likely than boys to report that they often felt bad when they could not use social media, tried to spend less time on social media but failed, regularly had arguments with others because of social media, regularly lied to parents or friends about the amount of time spent on social media, often used social media to escape from negative feelings and had serious conflicts with parents, brothers or sisters because of their social media use. A smaller number of gender differences were also observed among

Table 10.1
ELECTRONIC MEDIA USE -INTENSE ONLINE CONTACT* (%)

Source: HBSC Scotland 2018 Survey

	11-year olds		13-year olds		15-year olds	
	Boys	Girls	Boys	Girls	Boys	Girls
With close friends	23	24	27	42 [†]	36	45 [†]
With friends from a larger friendship group	12	10	15	16	19	19
With friends you got to know through the internet but didn't know before	5	2 [†]	7	5	10	7
With other people	18	15	15	17	16	14

*Intense online contact: online contact almost all the time throughout the day.
†Significant linear trend difference (p < 0.01).

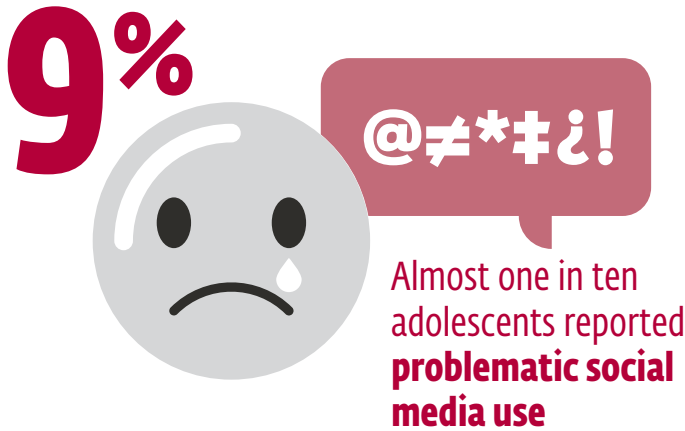
Table 10.2
PREFERENCE FOR ONLINE COMMUNICATION (%)

Source: HBSC Scotland 2018 Survey

	11-year olds		13-year olds		15-year olds	
	Boys	Girls	Boys	Girls	Boys	Girls
Talk more easily about secrets online	21	17	34	27	36	30
Talk more easily about inner feelings online	19	15	30	34	34	36
Talk more easily about concerns online	18	16	28	29	36	32



15-year olds with girls more likely to say that they tried to spend less time on social media but failed and often used social media to escape negative feelings (Table 10.3).



Inequalities in electronic media communication

Access to digital devices varied by family affluence but associations did not always go in the same direction. For example, young people from low affluent families were less likely to have a computer with internet connection in their bedroom but were more likely to have a TV in their bedroom. In relation to online communication, less affluent adolescents were more likely to prefer talking about their inner feelings online than face-to-face, but there were no differences for secrets and concerns. Intense online communication and problematic social media use did not vary by family affluence (Table 10.4).

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Table 10.3
PROBLEMATIC SOCIAL MEDIA USE (%)

Source: HBSC Scotland 2018 Survey

	11-year olds		13-year olds		15-year olds	
	Boys	Girls	Boys	Girls	Boys	Girls
Regularly found you can't think of anything else except when you can use social media again	23	19	25	24	25	25
Regularly felt dissatisfied because you wanted to spend more time on social media	18	15	20	22	20	23
Often felt bad when you could not use social media	22	21	23	30 [†]	27	32
Tried to spend less time on social media, but failed	31	36	25	43 [†]	28	49 [†]
Regularly neglected other activities because you wanted to use social media	12	10	14	18	19	20
Regularly had arguments with others because of your social media use	19	21	19	25 [†]	25	30
Regularly lied to parents or friends about amount of time you spend on social media	11	10	13	18 [†]	20	21
Often used social media to escape negative feelings	30	29	29	39 [†]	34	44 [†]
Had serious conflict with parents or family because of your social media use	11	6 [†]	9	13 [†]	16	16

[†] Significant gender difference (p < 0.01)

Table 10.4
ELECTRONIC MEDIA COMMUNICATION BY FAMILY AFFLUENCE

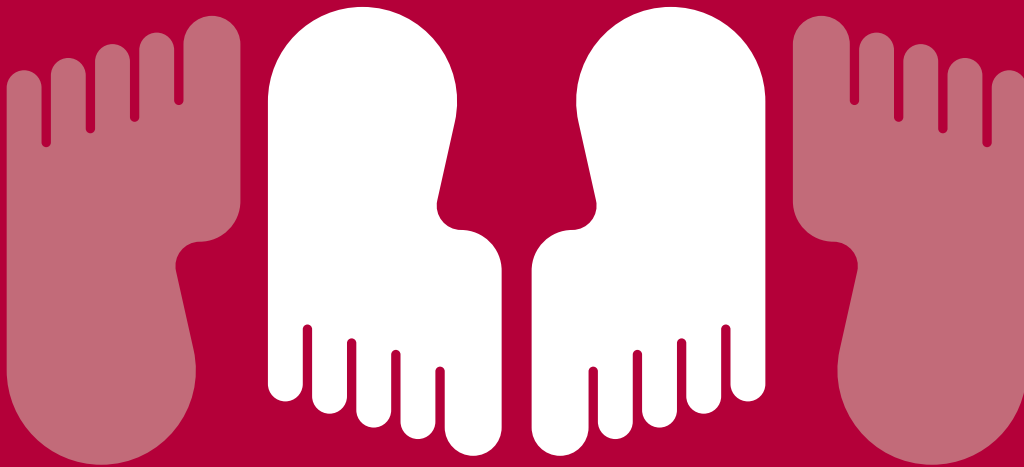
Source: HBSC Scotland 2018 Survey

	Low FAS (%)	Medium FAS (%)	High FAS (%)
Have a Smartphone	93	95	96
Smartphone kept in bedroom at night	81	83	79
Computer in bedroom [†]	49	59	59
Television in bedroom [†]	81	74	62
Electronic media use – intense online contact with at least one group	37	39	41
Preference for online communication			
Talk more easily about secrets online	29	27	26
Talk more easily about inner feelings online [†]	33	27	26
Talk more easily about concerns online	28	26	27
Problematic social media use	10	9	10

[†] Significant linear trend difference (p < 0.01)

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One in five 15-year olds reported
having had sexual intercourse



21% BOYS **19%** GIRLS

SEXUAL HEALTH

INTRODUCTION

Sexual health and wellbeing is an important aspect of the physical and emotional wellbeing of individuals and ultimately for the social and economic development of communities.^{1,2} The ability of individuals to achieve optimal sexual health depends on them having access to relevant information, knowledge about the potential risks and consequences of sexual activities, and access to good quality sexual health care.^{3,4}

Adolescents in particular are prone to poor sexual health outcomes, such as sexually transmitted infections (STIs) and unwanted pregnancy.^{5,6} Young people tend to partake in more risky sexual behaviours with higher rates of sexual partner change and lower levels of contraceptive use, particularly condom use. They are also less likely to access health care, either due to a lack of appropriate services or difficulty in accessing services provided.^{7,8} Teenage pregnancy has been found to be associated with poorer health outcomes for the child such as low birth weight, increased risk of mortality, and poorer socioeconomic status for the young person themselves.^{9,10}

Studies have shown that the human brain undergoes a period of rapid development during the adolescent years which continues well into early adulthood.^{11,12} The limbic system that is responsible for instinctive reactions, like risk taking, fear and aggressive behaviour, develops early. However, the prefrontal cortex, the area of the brain that controls reasoning and helps us think before we act, develops later in life.

This part of the brain is still changing and maturing well into adulthood.^{13,14} As a result of these developmental processes, adolescents may be less capable of understanding the relationship between behaviour and the consequences of their actions.¹⁵ Adolescents also often face pressure to experiment with alcohol, cigarettes and drugs as well as to have sex at an earlier age. While teenage relationships can be positive and healthy, it is important that adolescents understand the concept of fully informed consent as a basis for any sexual relationship in order to reduce vulnerability to sexual exploitation.^{16,17}

The National Survey of Sexual Attitudes and Lifestyles (NATSAL) in the UK found that 29% of 16–24 year olds said they had sex with someone of the opposite sex before the age of 16. It also showed that, among 16–24 year olds, over the past 60 years, age at first heterosexual intercourse had fallen to an average of 16 years. The latest survey found that 31% of males and 29% of females now have their first sexual encounter before the age of 16 and many have been sexually active by 18 years old.¹⁸

The HBSC survey also provides a source of information on the sexual health of adolescents in Scotland. In 2014, around a quarter of 15 year old girls (27%) and boys (24%) reported having had sex. Compared with other HBSC countries, girls in Scotland were more likely to have had sex by age 15 whereas the proportion of boys was similar to the HBSC average.^{19,20}

In September 2015, the Scottish Government published the Sexual Health and Blood Borne Virus Framework 2015–2020 update. It reported on the progress made since the original Framework published in 2011 which brought together policy on sexual health and wellbeing, HIV and viral hepatitis for the first time.²² The Framework's original outcome relating to teenage pregnancy has now been integrated into Scotland's first ever strategy on Pregnancy and Parenthood in Young People (2016–2026).^{23,24}

HBSC FINDINGS

HBSC Scotland has collected data from 15-year olds about sexual intercourse since 1990 in some schools, and across the whole sample since 1998. Information on 15-year olds' condom and other contraceptive use has been collected since 2002. Questions are also included about alcohol or drug use at first sexual intercourse, age at first intercourse and feelings about timing of first intercourse.

Since 1990, prevalence of sexual intercourse among 15 year olds has fallen

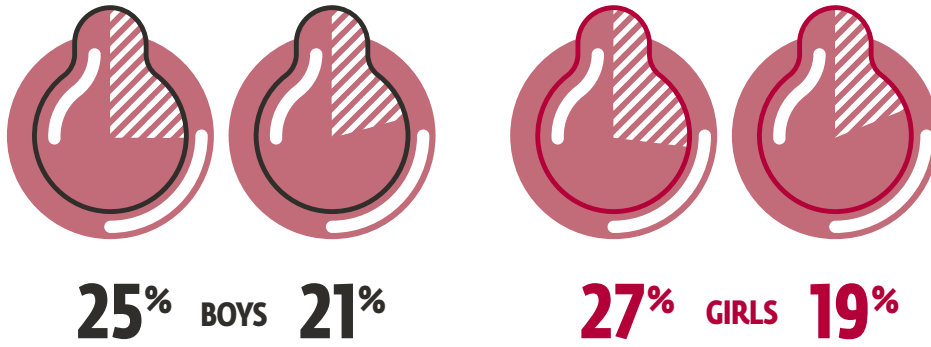
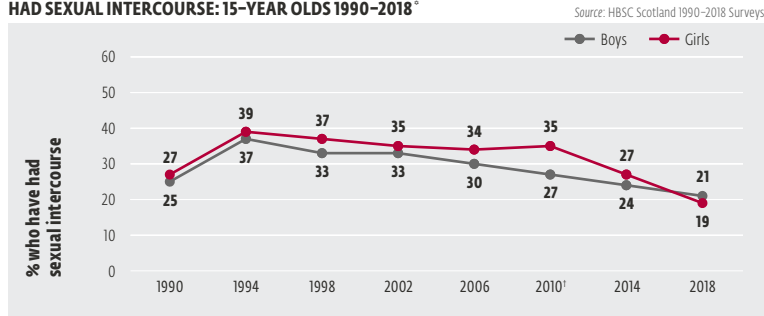
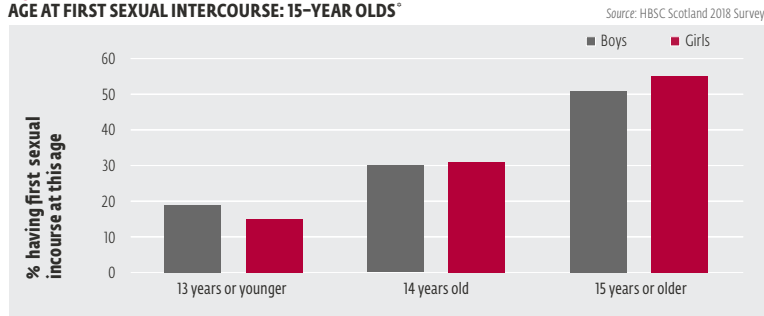


Figure 11.1
HAD SEXUAL INTERCOURSE: 15-YEAR OLDS 1990-2018*



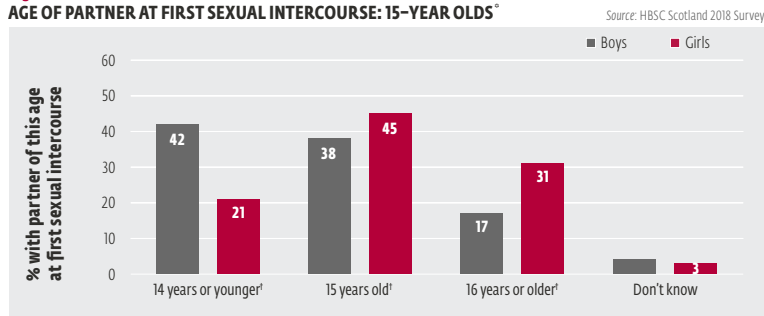
* Note: from 1990 to 1998, a slightly different question was used to ask young people about sexual intercourse. Also note that in 1994 there was a large proportion of missing responses for this question (44.4%). From 2010 onwards, the question at this time wishing not to include sexual health items.
¹ Significant gender difference (p < 0.01).

Figure 11.2
AGE AT FIRST SEXUAL INTERCOURSE: 15-YEAR OLDS*

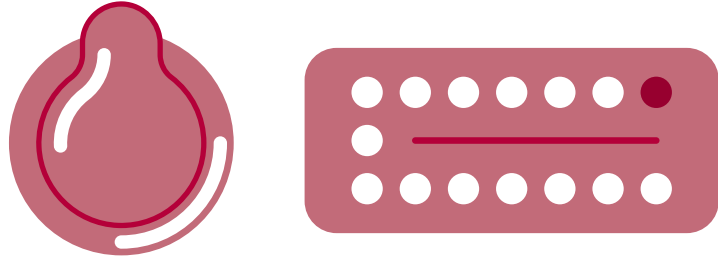


* Of those 15-year olds who have had sexual intercourse.
¹ Significant gender difference (p < 0.01).

Figure 11.3
AGE OF PARTNER AT FIRST SEXUAL INTERCOURSE: 15-YEAR OLDS*



* Of those 15-year olds who have had sexual intercourse.
¹ Significant gender difference (p < 0.01).



Sexual intercourse

In 2018, the proportion of 15-year olds who reported having had sexual intercourse was similar for boys and girls (21% and 19%, respectively). The proportion of girls who reported having sexual intercourse declined between 2014 and 2018 (from 27% to 19%). This represents an almost 50% reduction in prevalence since 2010. There was little change among boys during this period (from 24% in 2014 to 21% in 2018) (Figure 11.1).

Age and partner's age at first intercourse

Amongst those 15-year olds that report having had sexual intercourse (n=284), 17% report having first had sex at the age of 13 or younger, 31% at the age of 14 and 53% at age 15 and older. No gender differences were observed in any of the age groups (Figure 11.2). Respondents were also asked about partner's age at first sexual intercourse. Around one third (32%) said that their partner was 14 years old or younger, 41% said they were 15 years old and 23% reported that their partner was 16 years or older. Boys were more likely than girls to report that their partner was aged 14 or younger (42% versus 21%, respectively). Girls were more likely to report that their partner was aged 15 or older (Figure 11.3).

Alcohol or drug use at first sexual intercourse

Of those who had had sexual intercourse, 20% reported using alcohol or drugs at their first sexual intercourse (23% of boys and 17% of girls, but this gender difference was not statistically significant) (Figure 11.4).

Feelings about timing of first sexual intercourse

Adolescents were also asked about their feelings on the timing of their first sexual intercourse. Boys were more likely than girls to have wanted it to have happened earlier (17% and 6%, respectively). Girls were more likely than boys to report that they wanted their first sexual intercourse to happen at the time it did (48% and 35%, respectively) or wished that it had happened later than it did (24% and 11%, respectively). Boys were more likely than girls to say that they had not thought about the timing of their sexual intercourse (37% versus 22%) (Figure 11.5).

Contraception use at first sexual intercourse

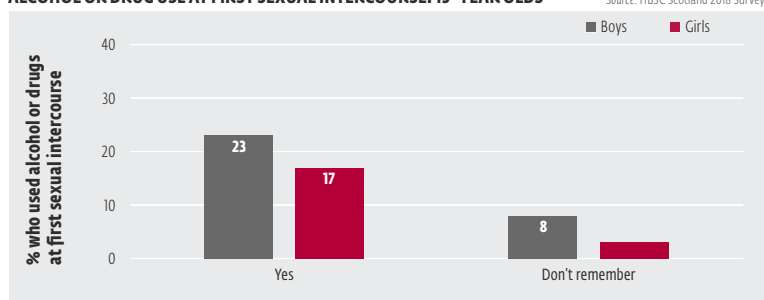
Three-fifths (60%) of those who had had sex reported using condoms at first intercourse, 19% had used the birth control pill and 8% had used using other methods of contraception. Gender differences were observed in condom use with girls being more likely to report condom use than boys (70% and 52%, respectively). No gender differences were observed in the use of the pill and other contraceptives (Figure 11.6).

Contraception use at last sexual intercourse

Of those who had had sex, two-fifths (41%) said they used a condom only at last sexual intercourse and 13% used the contraceptive pill only. Boys were more likely than girls to report using a condom only (44% versus 39%) and girls were more likely than boys to report pill use (18% versus 8% respectively).

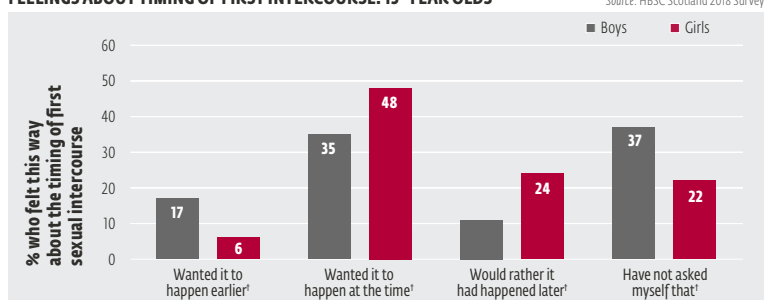
Seventeen percent (17%) used both a condom and birth control pill the last time they had sex (19% of girls and 14% of boys). One third of boys (34%) and a quarter of girls (24%) had used neither a condom nor birth control pill when they last had sex. Since 2014, there has been little change in type of contraceptive used at last intercourse (Table 11.1). Condom and pill use were higher at first intercourse when compared with last intercourse (61% versus 41% respectively for condom use and 19% versus 13% respectively for pill use).

Figure 11.4
ALCOHOL OR DRUG USE AT FIRST SEXUAL INTERCOURSE: 15-YEAR OLDS* Source: HBSC Scotland 2018 Survey



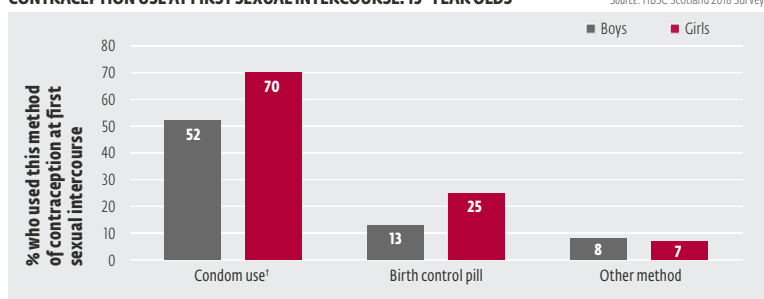
*Of those 15-year olds who have had sexual intercourse

Figure 11.5
FEELINGS ABOUT TIMING OF FIRST INTERCOURSE: 15-YEAR OLDS* Source: HBSC Scotland 2018 Survey

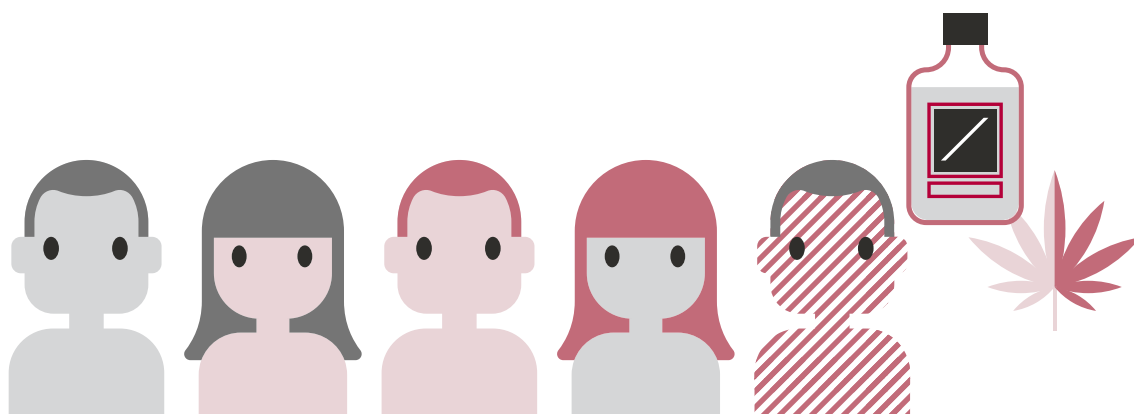


* Of those 15-year olds who have had sexual intercourse.
[†] Significant gender difference (p < .001).

Figure 11.6
CONTRACEPTION USE AT FIRST SEXUAL INTERCOURSE: 15-YEAR OLDS* Source: HBSC Scotland 2018 Survey



* Of those 15-year olds who have had sexual intercourse.
[†] Significant gender difference (p < .001).



One in five reported **using alcohol or drugs** at first sexual intercourse (of those that had reported having sexual intercourse)

Inequalities in sexual health

Significant differences by family affluence were observed in contraceptive use at last sexual intercourse, with adolescents from low affluence families less likely to use a condom only or in combination with the pill (Table 11.2).

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Table 11.1
CONTRACEPTION USE AT LAST SEXUAL INTERCOURSE:
15-YEAR OLDS 2002-2018* (%)

Source: HBSC Scotland 2018 Survey

Contraceptive used	2002		2006		2010		2014		2018	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Condom only	65	48	73	58	69	59	44	41	44	39
Contraceptive pill only	4	7	2	10	7	11	9	16	8	18
Condom & pill	12	16	12	16	6	11	15	17	14	19
Neither condom nor pill	19	28	13	15	19	20	32	27	34	24

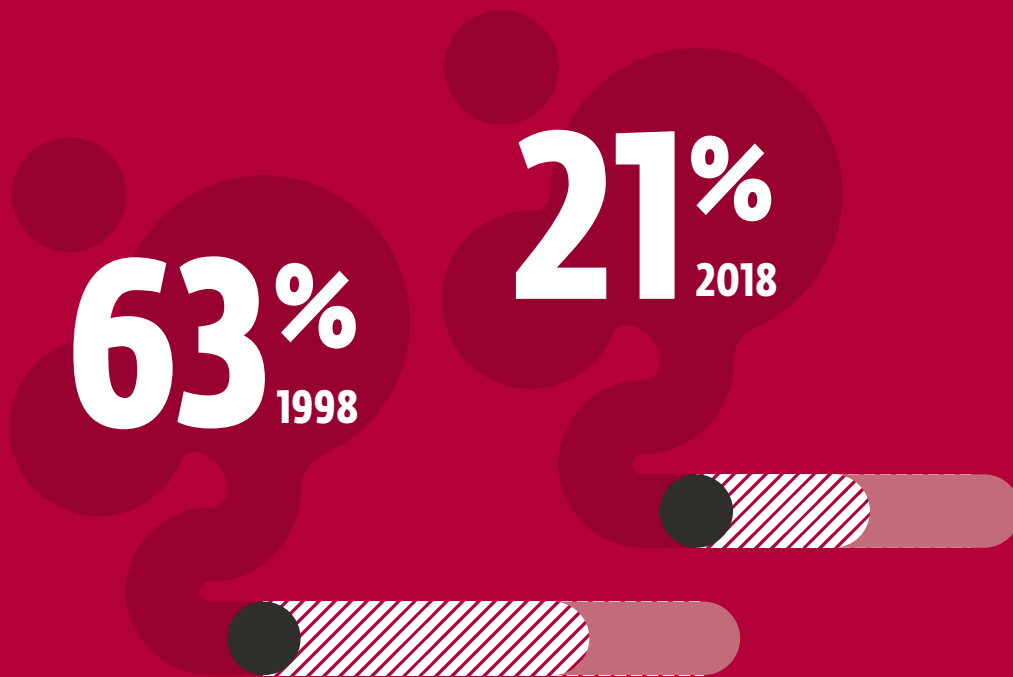
* of those 15-year olds who have had sexual intercourse. Note: Between 2002 and 2010, the survey was conducted using questions from 2001 only one question was asked.

Table 11.2
SEXUAL HEALTH BY FAMILY AFFLUENCE

Source: HBSC Scotland 2018 Survey

	Low FAS (%)	Medium FAS (%)	High FAS (%)
Had sexual intercourse: 15-year olds	26	19	17
Age at first sexual intercourse: 15-year olds			
13 years or younger	25	16	10
14 years old	26	32	37
15 years or older	49	52	54
Age of partner at first sexual intercourse: 15-year olds			
Younger (14 years or younger)	28	34	33
Same age (15 years old)	32	42	48
Older (16 years or older)	34	21	17
Dont know	6	3	2
Feelings about timing of first intercourse: 15-year olds			
Wanted it to happen earlier	14	10	17
Wanted it to happen at the time	33	42	53
Would rather it had happened later	14	20	10
Have not asked myself that	39	28	20
Contraception use at first sexual intercourse: 15-year olds			
Condom use	52	64	60
Birth control pill	20	19	14
Other Method	8	6	7
Contraception use at last sexual intercourse: 15-year olds			
Condom only [†]	24	45	51
Contraceptive pill only	9	16	11
Condom & pill	24	14	13
Neither condom nor pill [†]	43	25	25

[†] Significant linear trend difference ($p < 0.01$).



Lifetime use of tobacco is at its
lowest level in 28 years
(for 15-year olds)

SUBSTANCE USE

INTRODUCTION

Evidence from Scotland shows that the prevalence of substance use (tobacco, alcohol, illicit drugs) amongst adolescents has declined considerably over the last couple of decades.¹ Nevertheless, adolescence is the most common time to start consuming alcohol and other drugs and it is also a critical period, given that unhealthy behaviours (including substance use) adopted in adolescence often continue into adulthood.² Research also suggests that the adolescent brain is especially vulnerable to the effects of alcohol and cannabis use; substance use can impair neurocognitive functioning (including memory and intelligence) as well as sensitivity to reward and emotional regulation.³ There are also links between substance use disorders and depression, anxiety, post-traumatic stress disorder, conduct disorder and psychosis.⁴

Adolescent risk behaviours often cluster, that is, there is an association between behaviours such as anti-social behaviour, substance use and risky sexual behaviour. Risk taking in early adolescence is linked to greater risk-taking behaviours in later adolescence.⁵

Some of the strongest predictors of adolescent substance misuse are peer related, including substance use and other risk taking behaviour among peers.⁶ Other risk factors for substance use include low school engagement and low academic achievement as well as family factors such as a history of substance use or abuse, low family supervision, and unclear family rules.^{7,8,9} In contrast, positive relationships with family may reduce the likelihood of substance use.¹⁰

Substance use disorders developed in adolescence have a high likelihood of being carried on into adulthood.¹¹ Substance misuse is often a contributing factor or associated with adult unemployment, poor health, accidents, suicide, mental illness and decreased life expectancy.¹² As such, substance use is a significant health concern in Scotland given its detrimental impacts on both the individual and wider society. One of Scotland's national public health priorities is a "Scotland where we reduce the use of and harm from alcohol, tobacco and other drugs".¹³ Adolescence is therefore viewed as a critical time for prevention and early intervention.¹⁴

Tobacco

Tobacco smoking is a major public health problem and is the world's leading cause of preventable poor health and premature death.¹⁵ In 2017, there were an estimated 9,332 smoking-related deaths in those aged 35 and over in Scotland.¹⁶

The short-term health consequences to young people of smoking include respiratory and non-respiratory effects, nicotine addiction and associated risk of other drug use.¹⁷ For adolescents who start smoking at a young age there are potentially more damaging effects. Smoking affects lung development and therefore puts adolescents at greater risk of developing Chronic Obstructive Pulmonary Disease (COPD) in later life and at a higher chance of developing lung cancer regardless of the amount smoked.¹⁸

Despite recent declines in smoking in Scotland, it is still a priority area for public health action. In 2018, the Scottish Government published, "*Raising Scotland's tobacco-free generation: our tobacco control action plan 2018*".¹⁹ This plan builds on The Tobacco Control Strategy published in 2013 that aims to reduce overall smoking prevalence to 5% by 2034 with the aim that those born in 2013 will be part of the first tobacco free generation when they turn 21 years old. Since 2013, the Scottish Government has also implemented a number of tobacco control measures, including, reducing the visibility of cigarettes and tobacco products from retail, ending the sale of cigarettes from vending machines, banning smoking in a car with a child under the age of 18, and introducing plain packaging for all cigarettes on sale.

Electronic cigarette (E-cigarettes)

An e-cigarette (sometimes referred to as a vape or vapouriser) is a device that allows someone to inhale nicotine in a vapour rather than smoke a cigarette.²⁰ They are commonly used as a way to help people give up cigarette smoking. While research is still ongoing, they are considered to have minimal impact on morbidity and mortality among adults, with fewer

used an
e-cigarette
in the last
30 days

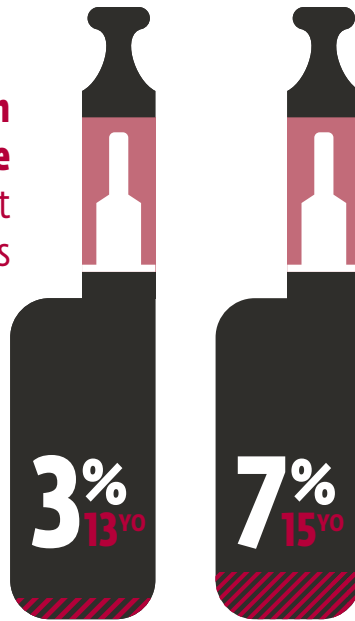


Figure 12.1
EVER SMOKED TOBACCO

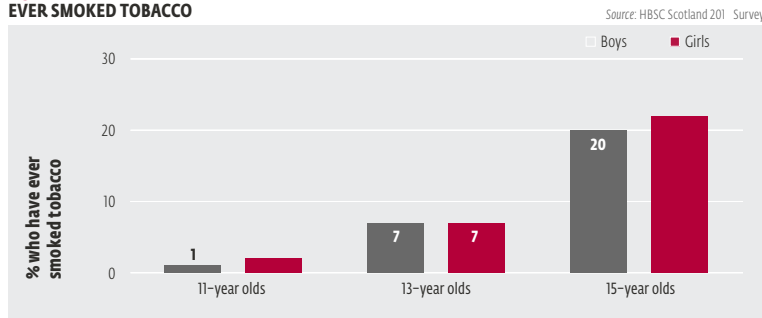


Figure 12.2
EVER SMOKED TOBACCO: 15-YEAR OLDS 1990-2018

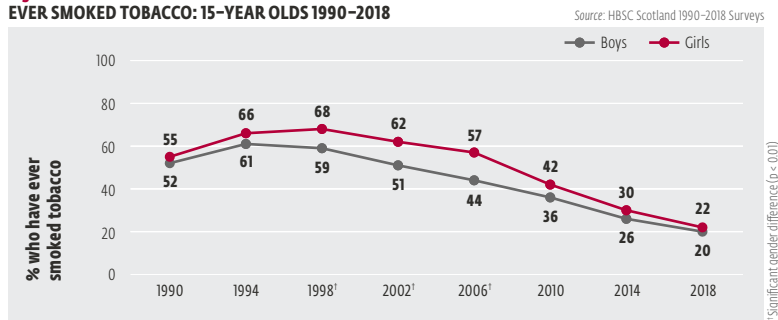
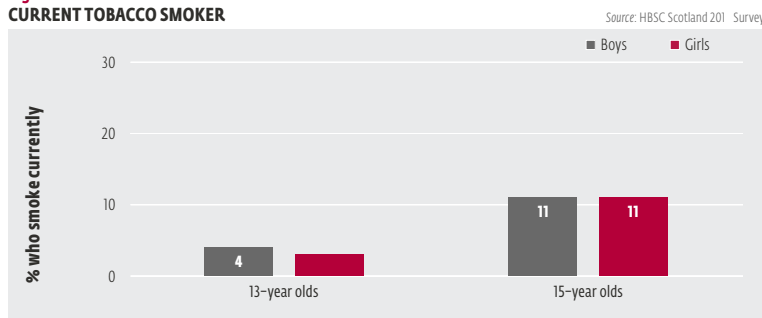


Figure 12.3
CURRENT TOBACCO SMOKER



associated risks when compared to tobacco smoking. There are, however, concerns that long-term use may cause nicotine dependence and increased risk of respiratory and cardiovascular effects.²¹ Whilst vaping rates are low amongst adolescents, there is some evidence that it is increasing in England (a non-probability sample) and among non-smokers in Scotland.^{22,23} There are also concerns that vaping may undermine recent declines in smoking behaviour and act as a gateway to cigarette smoking.^{24,25} Evidence is mixed in this respect, but it suggests that whilst ever trying an e-cigarette is associated with later cigarette smoking, it is modestly related to someone becoming an 'escalated' tobacco smoker.²⁶ Nevertheless, e-cigarettes are a relatively new and evolving phenomenon that need to be further researched.

The Scottish Government policy is that e-cigarettes should not be used by children since they are highly addictive and they are only recommended for adults as a way to assist smoking cessation. The Scottish Government has therefore banned the sale of vaping devices to those aged 18 and under and, for other people, the purchase of them for under 18s.²⁷

Alcohol

Approximately 80% of lifetime alcohol use is initiated in adolescence in high- and middle-income countries.²⁸ Whilst there has been a downward trend in alcohol consumption amongst adolescents in Scotland and weekly drinking among teenagers in Scotland is around average when compared with other European countries²⁹ there is still a commitment to reduce alcohol consumption further.

Alcohol consumption in adolescents has been shown to be associated with physical injury, health risks and violent behaviour.³⁰ It is also linked to undertaking risky behaviour such as unsafe sex, anti-social behaviour, getting in trouble with the police, criminal behaviour as well as poorer educational outcomes.³¹ Furthermore, alcohol use in adolescence is associated with higher rates of alcohol use and dependence in adulthood as well as more mental health problems and wider social harms.³²

Over time, excessive alcohol consumption can cause damage to the body such as the liver and brain. It is also recognised as a contributory factor to other diseases such as cancer, stroke and heart disease. As such, alcohol problems are a major concern for public health in Scotland given the high prevalence of drinking alcohol and the adverse consequences for individuals and for society.

The Scottish Government updated its 2009 Alcohol Framework in 2018 and retains its three central themes of reducing consumption; positive attitudes, positive choices and supporting families and communities.³³ Central to all Scottish Government policies is to protect children from harm. Specifically, the Alcohol Framework aims to reduce child exposure to harmful parental drinking and to prevent underage drinking by providing education in schools and calling for restrictions on marketing and advertising on television. It also aims to create a safer society by reducing overall drinking levels amongst the population, which should lead to less alcohol related violence and crime, creating safer communities for young people.

Cannabis

Cannabis is another widely used substance amongst Scottish adolescents.³⁴ Cannabis use amongst adolescents is associated with increased depression, conduct problems and health risk behaviours.³⁵ It has also been associated with a decline in IQ scores before age 18 and an increase in the risk of injury.³⁶ There is some evidence that the adolescent brain is particularly vulnerable to the effects of cannabis and use may lead to subtle but lasting neurobiological changes affecting brain functions and behaviour.³⁷ These changes to the brain may impact on academic functioning and also have implications for social functioning and employment in later life.³⁸ There are particular concerns about the increased risk of depression and other mental health problems. For example, a recent systematic review showed that cannabis use in adolescence is associated with an increased risk of depression and suicidal behaviour later in life.³⁹

HBSC DATA

The HBSC survey has asked young people about smoking, alcohol consumption, and cannabis use since 1990. A question on e-cigarette use was introduced in 2018. It includes questions on whether they have ever used these substances and if so,

Figure 12.4
CURRENT SMOKING: 15-YEAR OLDS 1990-2018

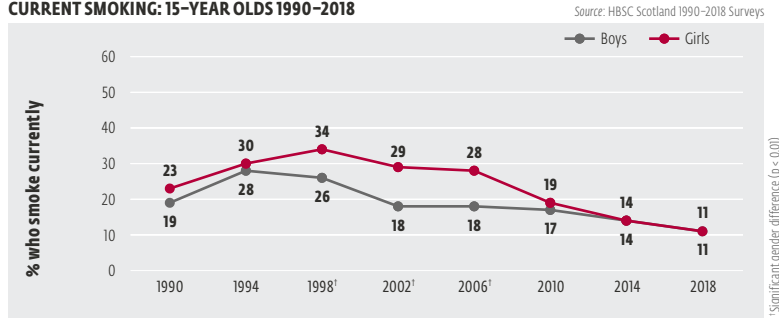


Figure 12.5
EVER USED E-CIGARETTE

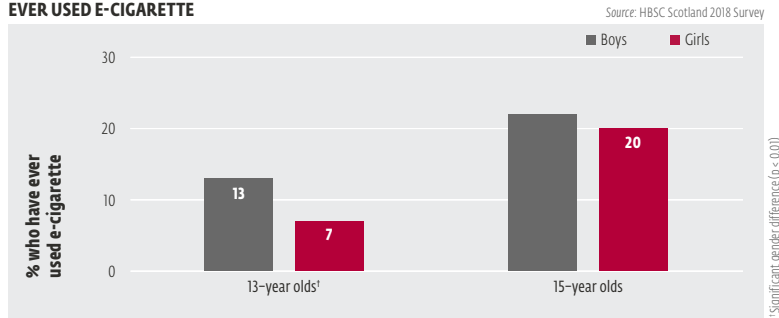
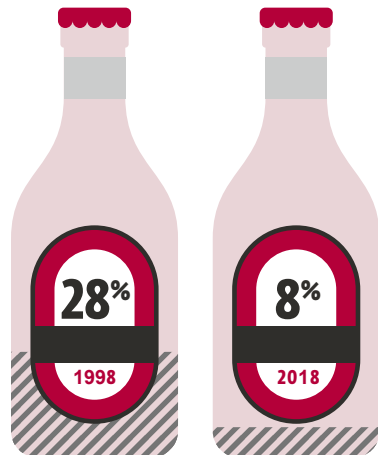
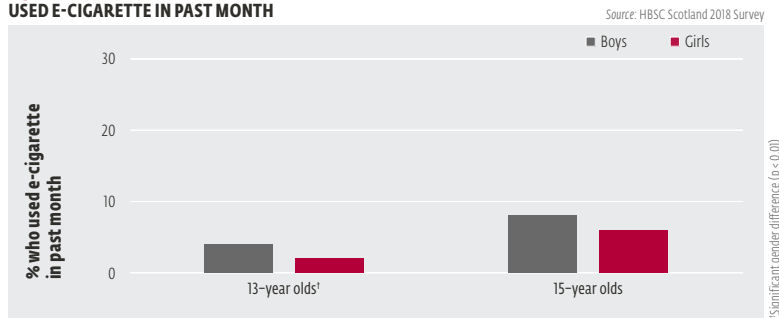


Figure 12.6
USED E-CIGARETTE IN PAST MONTH



Eight percent of young people **drink alcohol weekly** but this has **declined** since 1998.

the frequency of use. Adolescents were also asked about the different types of alcohol they drink and whether they have been drunk.

Tobacco use in lifetime

One in ten (10%) adolescents reported that they had smoked tobacco in their lifetime and this increased with age, from 1% of 11-year olds, 7% of 13-year olds to 21% of 15-year olds (Figure 12.1). There were no gender differences in lifetime tobacco use.

HBSC has asked about lifetime tobacco use since 1990, when over half (53%) of 15-year olds reported that they had tried tobacco (Figure 12.2). The proportion of 15-year olds who had ever smoked reached its peak in 1998 when nearly two-thirds (63%) reported they had used tobacco. Since then rates have declined steadily. In 2018, one fifth (21%) of 15-year olds said they had smoked tobacco. This is the lowest level in 28 years.

Current cigarette smoking

Seven percent (7%) of young people said they currently smoked cigarettes and this increased with age, from 3% of 13-year olds to 11% of 15-year olds (Figure 12.3). There were no gender differences in the prevalence of smoking at either age.

HBSC has asked young people about current smoking status since 1990. Among 15-year olds, around a fifth (21%) were current smokers in 1990 and this had increased to almost a third (30%) by 1998. Since then prevalence has declined steadily to 11% in 2018, the lowest rate in 28 years (Figure 12.4).

E-cigarette use

In 2018, 13- and 15-year olds were asked about their use of e-cigarettes. This included products such as e-cigarette, e-hookah, shisha-pen, flavour vape, e-smoker.

Young people were asked if they had ever used an e-cigarette. Overall 16% percent of 13- and 15-year olds reported having used an e-cigarette at least once in their lifetime (Figure 12.5). Rates were higher among older adolescents, with twice as many 15-year olds (21%) reporting using an e-cigarette in their lifetime compared with 13-year olds (10%). There were no gender differences in e-cigarette use at either age. These rates closely parallel the rates of ever smoking of tobacco cigarettes in these age groups, suggesting that e-cigarette use is at least as common as traditional cigarettes among both 13- and 15-year olds in Scotland.

The 15-year olds were more likely to have used an e-cigarette in the last 30 days than 13-year olds (7% versus 3% respectively) (Figure 12.6). There were no differences in e-cigarette use by gender at either age.

Weekly drinking

Adolescents were asked how often they drank alcohol. Overall 8% of young people reported drinking alcohol every week and this increased with age; 2% of 11-year olds compared with 4% of 13-year olds and 16% of 15-year olds (Figure 12.7). There were no differences between girls at boys at any age.

The HBSC survey has asked young people about weekly alcohol consumption since 1990. The highest rates were seen in 1998 when 45% of 15-year olds were weekly drinkers (Figure 12.8). Since then, rates of weekly drinking have generally been declining.

Types of alcohol

15-year olds were asked how often they drank different types of alcoholic drinks. They were asked to also include times when they had only had a small amount. Cider was the most commonly consumed type of alcohol with 7% of 15-year olds reporting that they drunk this every week (10% of boys; 6% of girls) (Figure 12.9). Around one in twenty (6%) of 15-year olds said they drink alcopops or spirits every week. Boys were more likely to drink beer than girls (9% versus 2% respectively).

Figure 12.7
WEEKLY DRINKING

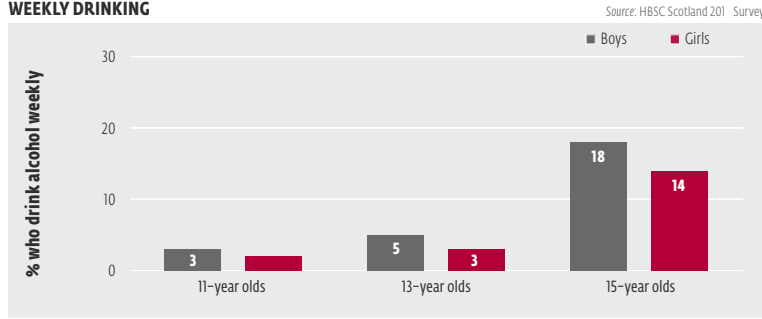


Figure 12.8
WEEKLY DRINKING: 15-YEAR OLDS 1990-2018

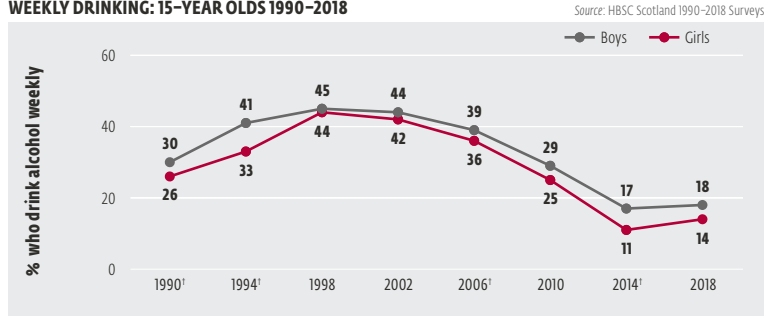


Figure 12.9
TYPES OF ALCOHOL DRUNK WEEKLY: 15-YEAR OLDS

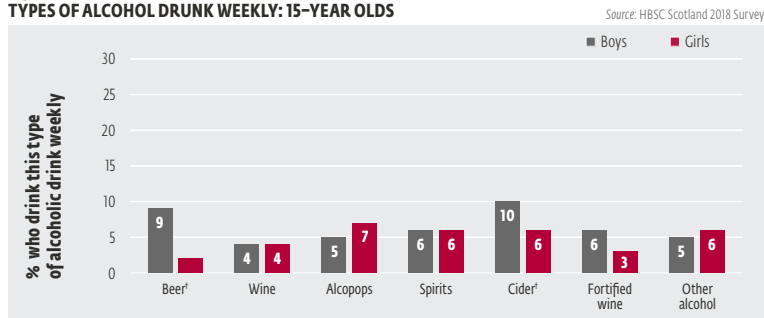


Figure 12.10
Been drunk 2 or more times in lifetime

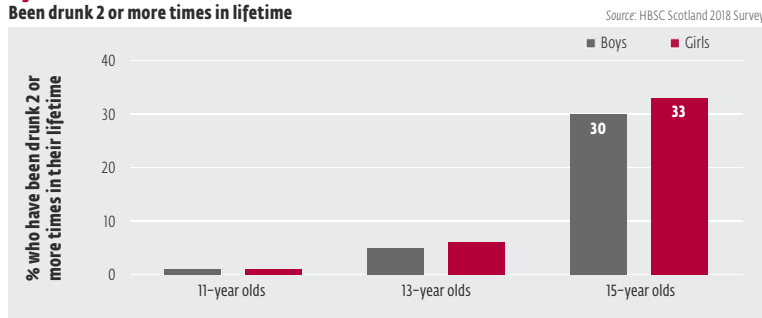
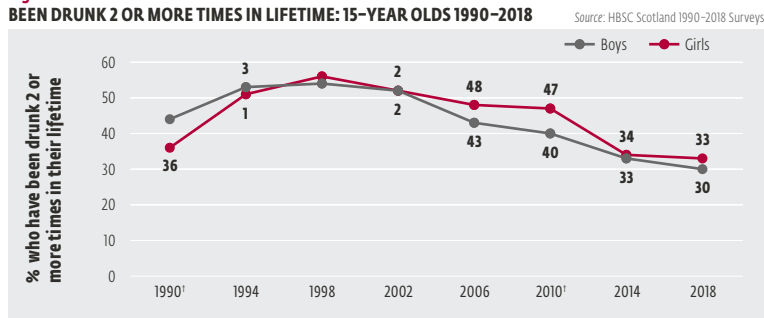


Figure 12.11
BEEN DRUNK 2 OR MORE TIMES IN LIFETIME: 15-YEAR OLDS 1990-2018



Drunkenness in lifetime

Overall, 13% of young people reported being drunk two or more times in their life. Prevalence of drunkenness increased with age: almost one third (31%) of 15-year olds reported being drunk at least twice compared with 6% of 13-year olds and 1% of 11-year olds (Figure 12.10). There were no gender differences in reports of drunkenness at any age.

Questions about drunkenness have been included in HBSC since 1990. (Figure 12.11). Among 15-year olds, prevalence of drunkenness increased from 40% in 1990 to 55% in 1998. Since then, levels have declined steadily. In 2018, 31% of 15-year olds reported having been drunk at least twice in their life which is the lowest level since 1990. There were no differences between boys and girls.

Cannabis use in lifetime

Overall 17% of 15-year olds had used cannabis at least once in their lifetime and this higher among boys (20%) than girls (13%) (Figure 12.12). HBSC has asked about lifetime cannabis use for the past 16 years. In 2002, 37% of 15-year olds had used cannabis at least once in their life. Since then, the prevalence of cannabis use has been falling and figures for 2018 are the lowest since 2002. Gender differences were significant in 2010 and 2018.

Cannabis use in last 30 days

Just under one in ten (8%) 15-year olds reported using cannabis in the last 30 days and boys were more likely to do so than girls (12% versus 5%) (Figure 12.13). In 2006, 13% of 15-year olds had used cannabis in the last 30 days and this has fallen to 8% of 15-year olds in 2018. In most years (except 2006) boys were more likely to have used cannabis than girls. Cannabis use has remained stable amongst boys but has declined amongst girls.

Inequalities in substance use

In general, adolescent substance use is not strongly patterned by family affluence (Table 12.1). Only Cannabis use in the last 30 days was found to have a significant association, with higher prevalence among young people from low affluence families (13% versus 4%).

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Figure 12.12
EVER USED CANNABIS: 15-YEAR OLDS 2002-2018

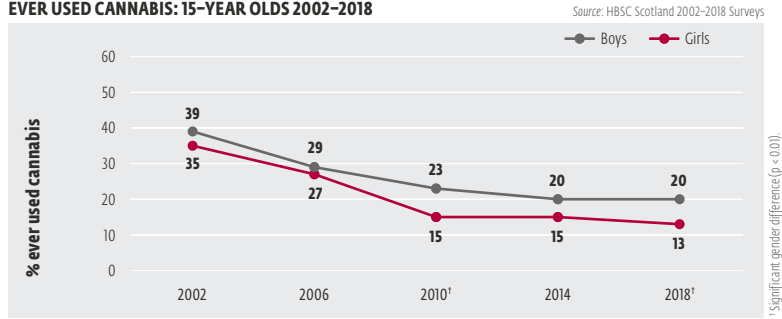
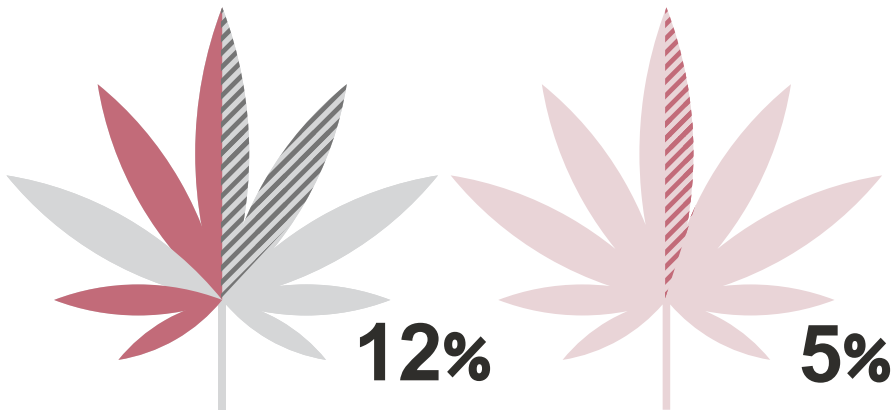
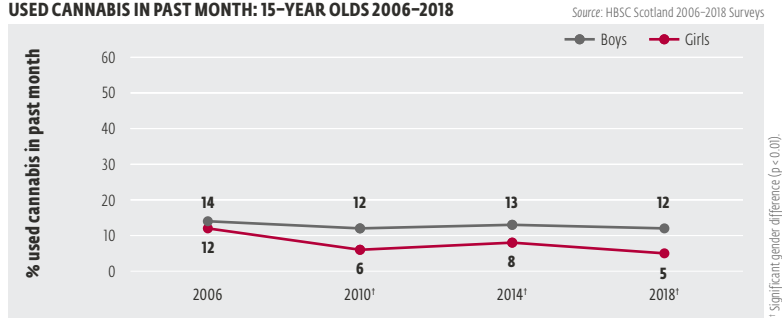


Figure 12.13
USED CANNABIS IN PAST MONTH: 15-YEAR OLDS 2006-2018



Boys were more likely than girls to have used cannabis in the last 30 days

Table 12.1
SUBSTANCE USE BY FAMILY AFFLUENCE

Source: HBSC Scotland 2018 Survey

	Low FAS (%)	Medium FAS (%)	High FAS (%)
Ever smoked tobacco	12	9	9
Ever smoked tobacco: 15-year olds	22	20	20
Current tobacco smoker	8	7	6
Weekly drinking	9	7	7
Been drunk 2 or more times in lifetime	13	12	15
Ever used cannabis: 15-year olds	19	16	16
Used cannabis in past month: 15-year olds [†]	13	8	4
Ever used e-cigarette	18	14	16

[†] Significant linear trend difference ($p < 0.01$).

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13

BULLYING AND DISCRIMINATION



1 in **7** adolescents had **been bullied at school** at least twice in the past couple of months.

BULLYING AND DISCRIMINATION

INTRODUCTION

Bullying is a form of aggression and is most often described in the literature as when someone is exposed, repeatedly over time, to negative actions on the part of one or more other people.^{1,2,3} Cyber-bullying follows the same definition as bullying but takes place online or via electronic devices.⁴ Cyber-bullying has the potential to be anonymous and for wider reach because different people can repeatedly view a single act of bullying over a relatively short space of time.⁵

Bullying in adolescence is a mental health issue. For victims of bullying, it has been associated with anxiety and depression, eating disorders, self harm and suicide as well as psychosomatic symptoms.^{6,7} Some studies have reported that almost half of all children and adolescents are bullied at some time during their school years with at least one in ten being bullied on a regular basis.^{8,9,10}

Discrimination occurs when people are treated less favourably because of personal characteristics such as their identity, religion, gender, sexual orientation, age, marital status or physical characteristics.¹¹ Although the UK has strong equality laws, discrimination is still a feature of everyday life for some adolescents in the UK.¹²

Schools are an important place to address bullying and discrimination through anti-bullying and equality policies as well as wider whole school approaches. Both bullies and victims tend to report low levels of school attachment.^{13,14} Young people's home environment and levels of parental support are also strongly correlated with bullying and discrimination. For example, supportive parenting has been shown to protect children from being both victims and perpetrators of bullying and discrimination; conversely problems in family communication are associated with increased risk of becoming a bully.^{15,16} Attitudes within a young person's peer group are also strong determinants of bullying behaviour and interventions to tackle bullying often seek to raise awareness and change attitudes within the wider peer group rather than focusing only on the perpetrators and victims of bullying.¹⁷

The Scottish Government is committed to tackling and eradicating bullying for children and adolescents in Scotland.¹⁸ In 2017, the Scottish Government introduced "*Respect for All*", a national approach to anti-bullying. It provides a holistic framework for adults working with children and adolescents to address all aspects of bullying and recognises that for adolescents to thrive and achieve their full potential, they need environments that are safe, nurturing, respectful and free from fear, abuse and discrimination.¹⁹

In terms of tackling discrimination, in 2017, the Education Scotland Equality Strategy was designed to support Education Scotland in mainstreaming the Equality Duty as defined in the Equality Act 2010. Its vision and long term plan are designed to deliver the equality outcomes detailed within the Scottish Government Equality Outcomes and Mainstreaming Report 2017 and help meet the Scottish Government's commitment to delivering excellence and equity in Scottish education.²⁰

HBSC FINDINGS

The 2018 survey asks young people about their experiences of bullying at school, both as a victim and perpetrator. Data on bullying have been collected since 2002. In 2014, the survey also started collecting data on the prevalence of cyberbullying and being cyberbullied. For the first time in 2018, young people were asked about their experiences of discrimination on the grounds of where they were born, gender and how much money their family has.

Bullying

BEING BULLIED AND CYBERBULLIED

Thirteen percent (13%) of boys and 14% of girls reported that they had been bullied at school at least two or three times in the past couple of months. Girls and boys report similar levels of exposure to bullying at all ages and there are no significant

Figure 13.1
BEEN BULLIED AT LEAST 2-3 TIMES A MONTH IN THE PAST COUPLE OF MONTHS Source: HBSC Scotland 2018 Survey

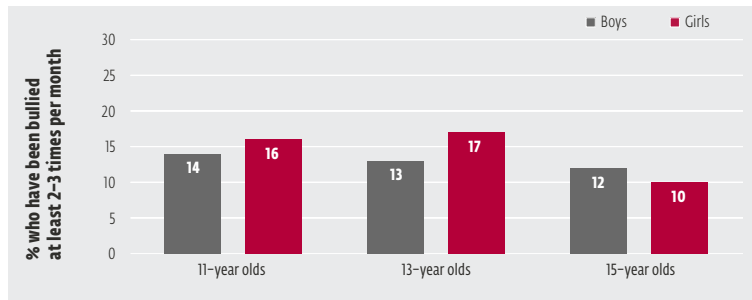


Figure 13.2
BEEN BULLIED AT LEAST 2-3 TIMES A MONTH IN THE PAST COUPLE OF MONTHS 2002-2018 Source: HBSC Scotland 2002-2018 Surveys

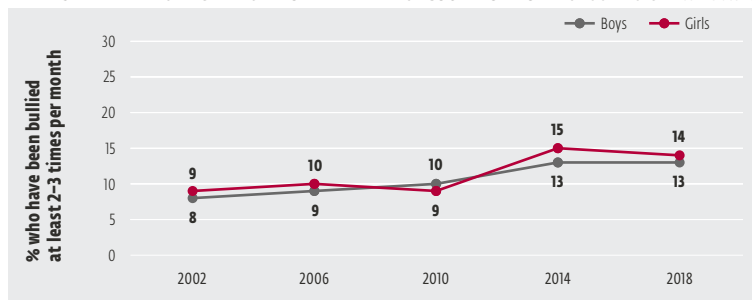
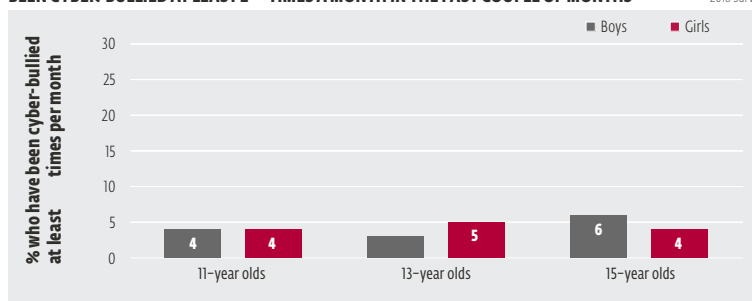


Figure 13.3
BEEN CYBER-BULLIED AT LEAST 2 TIMES A MONTH IN THE PAST COUPLE OF MONTHS Source: HBSC Scotland 2018 Survey



5% of adolescents had been **cyberbullied at least twice** in the past couple of months

differences between levels of being bullied across the different age groups (Figure 13.1). Prevalence of being bullied between 2010 and 2014 but no significant change was observed between 2014 and 2018 (Figure 13.2).

Five percent (5%) of adolescents reported that they had been cyberbullied at least twice in the past couple of months. There was very little variation by age and gender but prevalence of being cyberbullied was highest amongst 15-year old boys (6%). (Figure 13.3).

BULLYING AND CYBERBULLYING OTHERS

Overall 3% of adolescents reported that they had bullied others at least twice a month in the past couple of months. At ages 11 and 13 years-old, there were no differences between the genders but at age 15, boys were more likely to report being a bully than girls (6% versus 1% respectively) (Figure 13.4).

Since 2002, there has been a small downward trend in bullying others (from 6% in 2002 to 3% in 2018). Gender differences has also persisted over time with boys being more likely to report bullying others in each survey year (Figure 13.5).

Levels of reported cyberbullying others are low. Just 2% of adolescents reported cyberbullying others at least twice a month in the last couple of months, with the exception of 15-year old boys where 4% reported this (Figure 13.6).

SPECIFIC VICTIMISATION (MULTIPLE FORMS OF BULLYING)

Adolescents were asked how often they experienced specific types of bullying at school in the past couple of months (Table 13.1). The type of bullying most frequently reported was “being called mean names, made fun of and teased in a hurtful way” with 15% of young people reporting that they had experienced this form of bullying at least twice over the past couple of months. Differences by gender were observed with 13-year old girls more likely to have reported this type of bullying compared with boys of the same age (19% versus 14%, respectively). The second most common form of bullying was “other students told lies or spread false rumors about me and tried to make others dislike me” experienced by 13% of adolescents at least twice in the past couple of months. Again, there was a significant gender differences among 13-year olds with higher prevalence among girls. Over one in ten young people (17%) reported experiencing multiple forms of bullying at least twice in the past couple of months.



The most common form of bullying experienced was having others spread lies or false rumours to try and make people dislike them.

Figure 13.4
BULLIED OTHERS AT LEAST 2-3 TIMES A MONTH IN PAST COUPLE OF MONTHS Source: HBSC Scotland 2018 Survey

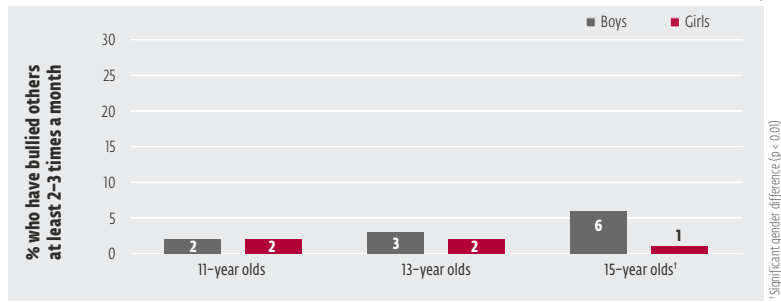


Figure 13.5
BULLIED OTHERS AT LEAST 2-3 TIMES A MONTH IN PAST COUPLE OF MONTHS 2002-2018 Source: HBSC Scotland 2002-2018 Surveys

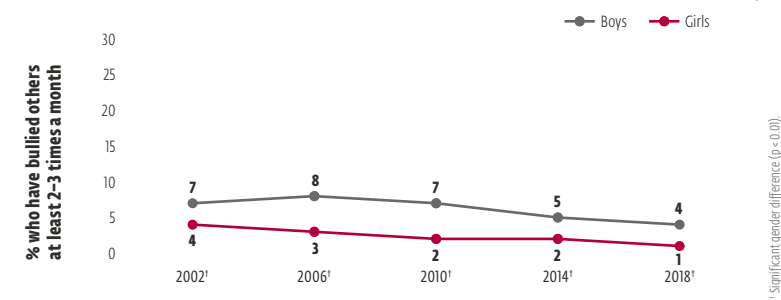


Figure 13.6
CYBER-BULLIED OTHERS AT LEAST 2-3 TIMES A MONTH IN THE PAST COUPLE OF MONTHS Source: HBSC Scotland 2018 Survey

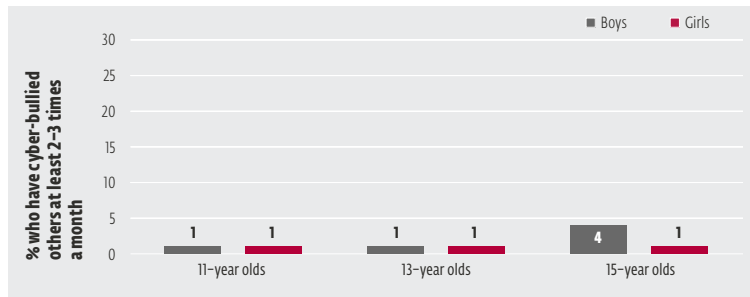


Table 13.1:
EXPERIENCED SPECIFIC TYPES OF BULLYING AT LEAST 2-3 TIMES IN SCHOOL IN THE PAST COUPLE OF MONTHS (%) Source: HBSC Scotland 2018 Survey

	11-year olds		13-year olds		15-year olds	
	Boys	Girls	Boys	Girls	Boys	Girls
Called mean names, made fun of or teased in hurtful way	14	18	14	19 ¹	14	12
Purposely excluded	12	15	9	15 ¹	8	11
Hit, kicked, shoved around or locked indoors	10	7	8	5	5	3
Others spread lies or false rumours to try to make others dislike me	13	16	11	16 ¹	10	12
Called names because of my race or colour	5	4	5	4	3	2
Called names because of my religion	3	3	2	2	2	2
Called names because of my weight	7	7	9	10	8	7
Called names because of my medical condition/disability	3	3	3	4	3	3
Called names because of dental issues	5	4	2	5 ¹	3	2
Called names because of the clothes I wear	5	4	4	6	4	3
Other students made sexual jokes or gestures to me	8	5 ¹	6	8	8	8
Experienced multiple forms of bullying (at least 2 of above)	18	19	16	21 ¹	14	14

¹ Significant gender difference (p < 0.01)

Discrimination

Thirteen and fifteen year-olds were asked about their experience of specific types of discrimination from pupils, teachers and other adults outside of school (Table 13.2).

EXPERIENCE OF DISCRIMINATION BASED ON GENDER

Around 1 in 4 pupils said they had experienced discrimination on the basis of their gender from any source. At age 13, boys were more likely than girls to report being discriminated against because of their gender by teachers, whereas girls were more likely than boys to report discrimination by other pupils at school. One in ten (10%) 13-year olds and 14% of 15-year olds reported that they had experienced gender discrimination from other adults outside of school, and prevalence was similar for boys and girls.

EXPERIENCE OF DISCRIMINATION BECAUSE OF WHERE YOU, YOUR PARENTS OR GRANDPARENTS WERE BORN

Overall, more than 1 in 4 boys and 1 in 5 girls said they had been discriminated against because of their ethnicity (Table 13.3). Highest levels of perceived discrimination were from other pupils at school; one in five boys said they had been discriminated against by other pupils, and were more likely than girls to report this at age 15. Thirteen percent of adolescents said they had experienced some discrimination from teachers due to where they or their parents/grandparents were born. Boys were more likely than girls to report this type of discrimination from teachers at age 13, but there was no gender difference at age 15.

Eleven percent (11%) of 13-year old and 13% of 15-year old reported that they had experienced discrimination from other adults outside of school because of their country of birth. No gender difference was observed in this category.

EXPERIENCE OF DISCRIMINATION BECAUSE OF FAMILY WEALTH

Compared with gender and ethnicity, fewer young people reported being discriminated against because of the amount of money their family has. However, more than one in ten (12% of 13-year olds and 14% of 15 year olds) said they had experienced this form of discrimination from other pupils at school. Just 4% of 13-year olds and 6% of 15-year olds reported that they had experienced some form of discrimination from their teachers because of their family wealth. Perceived discrimination by teachers was higher among boys than girls at age 13. Five percent of 13-year olds and 10% of 15-year olds reported that they had experienced discrimination from other adults outside of school because of their family wealth. No gender difference was observed in this category (Table 13.4).

Inequalities in bullying and discrimination

Bullying and discrimination showed no differences by family affluence (Table 13.5).

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Table 13.2:
EXPERIENCE OF DISCRIMINATION BASED ON GENDER (%)

Source: HBSC Scotland 2018 Survey

Source of discrimination	13-year olds		15-year olds	
	Boys	Girls	Boys	Girls
Pupils at school	10	18 [†]	11	15
Teachers	21	13 [†]	21	14
Other adults outside of school	8	11	12	16
Discrimination from any source	23	24	25	25

[†] Significant gender difference (p < 0.01)

Table 13.3:
EXPERIENCE OF DISCRIMINATION BECAUSE OF WHERE YOU, YOUR PARENTS OR GRANDPARENTS WERE BORN (%)

Source: HBSC Scotland 2018 Survey

Source of discrimination	13-year olds		15-year olds	
	Boys	Girls	Boys	Girls
Pupils at school	21	16	20	13 [†]
Teachers	16	11 [†]	16	11
Other adults outside of school	13	9	15	11
Discrimination from any source	29	21 [†]	27	19 [†]

[†] Significant gender difference (p < 0.01)

Table 13.4:
EXPERIENCE OF DISCRIMINATION BECAUSE OF AMOUNT OF MONEY FAMILY HAS (%)

Source: HBSC Scotland 2018 Survey

Source of discrimination	13-year olds		15-year olds	
	Boys	Girls	Boys	Girls
Pupils at school	13	12	14	13
Teachers	6	2 [†]	6	5
Other adults outside of school	6	4	9	10
Discrimination from any source	15	13	16	17

[†] Significant gender difference (p < 0.01)

Table 13.5
BULLYING AND DISCRIMINATION BY FAMILY AFFLUENCE

Source: HBSC Scotland 2018 Survey

	Low FAS (%)	Medium FAS (%)	High FAS (%)
Been bullied at least 2-3 times a month in the past couple of months	15	14	12
Been cyber-bullied at least 2-3 times a month in the past couple of months	5	4	4
Bullied others at least 2-3 times a month in past couple of months	3	2	3
Cyber-bullied others at least 2-3 times a month in the past couple of months	2	1	1
Experienced multiple forms of bullying	18	17	16
Experience of discrimination			
Experience of discrimination based on gender	26	23	28
Experience of discrimination because of where you, your parents or grandparents were born	25	24	20
Experience of discrimination because of family wealth	18	13	21

[†] Significant linear trend difference (p < 0.01)

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This Appendix presents additional data tables to supplement the chapters in the main report.

Table A1.1:
INVOLVED IN A PHYSICAL FIGHT 3 OR MORE TIMES IN THE LAST YEAR (%)

Source: HBSC Scotland 2018 Survey

	Boys	Girls
11-year olds [†]	17	5
13-year olds [†]	11	2
15-year olds	8	4

[†] Significant gender difference ($p < 0.01$).

Table A1.2:
MEDICALLY ATTENDED INJURIES AT LEAST ONCE IN THE LAST YEAR (%)

Source: HBSC Scotland 2018 Survey

	Boys	Girls
11-year olds	50	46
13-year olds [†]	52	44
15-year olds [†]	49	40

[†] Significant gender difference ($p < 0.01$).

Table A1.3:
PERCEPTION OF PHYSICAL ENVIRONMENT IN LOCAL AREA(%)

Source: HBSC Scotland 2018 Survey

	11-year old boys	11-year old girls	13-year old boys	13-year old girls	15-year old boys	15-year old girls
There are groups of young people who cause trouble	55	51	57	62	60	60
There is litter, broken glass or rubbish lying around	66	67	59	64	60	63
There are run down houses or buildings	19	17	31	35	34	36

Table A1.4:
TEACHER SUPPORT^a (%)

Source: HBSC Scotland 2018 Survey

	11-year old boys	11-year old girls	13-year old boys	13-year old girls	15-year old boys	15-year old girls
Teachers accept me as I am	90	91	78	78	77	74
Teachers care about me as a person	84	87	60	63	56	56
I have a lot of trust in my teachers	79	82	51	51	54	44 [†]

^a These three items are combined to make a composite score for teacher support.
[†] Significant gender difference ($p < 0.01$).

Table A1.5:
CLASSMATE SUPPORT^a (%)

Source: HBSC Scotland 2018 Survey

	11-year old boys	11-year old girls	13-year old boys	13-year old girls	15-year old boys	15-year old girls
Pupils in my classes enjoy being together	73	66	64	53 [†]	55	49
Most pupils in my classes are kind and helpful	74	70	58	51 [†]	51	52
Other pupils accept me as I am	77	73	69	59 [†]	64	57

^a These three items are combined to make a composite score for classmate support.
[†] Significant gender difference ($p < 0.01$).

Table A1.6:
**WATCHING TV FOR 2 OR MORE HOURS A DAY
AT THE WEEKEND 2002–2018 (%)**

Source: HBSC Scotland 2002–2018 Surveys

	Boys	Girls
2002	81	78
2006 [†]	79	72
2010 [†]	77	74
2014 [†]	81	77
2018	83	81

[†] Significant gender difference ($p < 0.01$)

Table A1.7:
**PLAYING COMPUTER GAMES FOR 2 OR MORE HOURS A DAY
AT THE WEEKEND 2006–2018 (%)**

Source: HBSC Scotland 2006–2018 Surveys

	Boys	Girls
2006 [†]	63	27
2010 [†]	76	37
2014 [†]	78	57
2018 [†]	86	54

[†] Significant gender difference ($p < 0.01$)

Table A1.8:
**USING COMPUTERS (NOT GAMES) FOR 2 OR MORE HOURS A DAY
AT THE WEEKEND 2006–2018 (%)**

Source: HBSC Scotland 2006–2018 Surveys

	Boys	Girls
2006 [†]	45	49
2010 [†]	52	63
2014 [†]	68	74
2018 [†]	69	71

[†] Significant gender difference ($p < 0.01$)

Table A1.9:
SUBSTANCE USE IN LAST 30 DAYS (%)

Source: HBSC Scotland 2018 Survey

	11-year old boys	11-year old girls	13-year old boys	13-year old girls	15-year old boys	15-year old girls
Tobacco use at least once in last 30 days	1	1	3	3	11	11
Alcohol use at least once in last 30 days	4	3	12	14	40	48
Drunkenness 2 or more times in last 30 days	<0.5	<0.5	2	3	7	9

A2

APPENDIX 2: HBSC SURVEY ITEMS

This Appendix describes the questions included in the 2018 HBSC survey in Scotland. This does not replicate the full survey but lists only items presented in the 2018 HBSC Scotland National Report.

CHAPTER 2: MY LIFE AT HOME

SOCIO-DEMOGRAPHIC CHARACTERISTICS

GENDER

Are you a boy or girl? (*Boy / Girl*).

GRADE

What class are you in? (*Primary 7, Secondary 2, Secondary 4*).

WHERE I AM FROM

In which country were you born? (*Scotland / England, Wales or Northern Ireland / Republic of Ireland / Poland / Pakistan / Another country (please say where)*).

FAMILY AFFLUENCE

The Family Affluence Scale is an indicator of young people's socioeconomic status comprising items on material assets in the family. Scale scores were calculated by summing up the responses to all of the items. A measure of relative FAS within each grade and gender, based on 3 groups was used: low (bottom 20%), medium (middle 60%) and high (highest 20%).

Does your family own a car, van or truck? (*No (=0) / Yes, one (=1) / Yes, two or more (=2)*).

Do you have your own bedroom for yourself? (*No (=0) / Yes (=1)*).

How many computers do your family own (including PCs, Macs, laptops and tablets, not including game consoles and smartphones)? (*None (=0) / One (=1) / Two (=2) / More than two (=3)*).

How many times did you and your family travel out of Scotland for a holiday/vacation last year? (*Not at all (=0) / Once (=1) / Twice (=2) / More than twice (=3)*).

How many bathrooms (room with a bath/shower or both) are in your home? (*None (=0) / One (=1) / Two (=2) / More than two (=3)*).

Does your family have a dishwasher at home? (*No (=0) / Yes (=1)*).

FAMILY STRUCTURE

All families are different (for example, not everyone lives with both their parents, sometimes people live with just one parent, or they have two homes or live with two families) and we would like to know about yours.

Please answer this first question for the home where you live all or most of the time and tick the people who live there. (*Mother / Father / Stepmother (or father's girlfriend/partner) / Stepfather (or mother's boyfriend/partner) / I live in a foster home or children's home / Someone or somewhere else (e.g. siblings, grandparents)*). Please write it down.

FAMILY SUPPORT

Scores were calculated by taking the mean of the responses to the four items below. A mean score above 5.5 was classified as high family support.

My family really tries to help me / I get the emotional help and support I need from my family / I can talk about my problems with my family / My family is willing to help me make decisions (*Very strongly disagree = 1 to Very strongly agree = 7*).

FAMILY COMMUNICATION

How easy is it for you to talk to the following people about things that really bother you?

Father/Mother (*Very easy / Easy / Difficult / Very difficult / Dont have or see this person*).

FAMILY MEALS

How often do you and your family usually have meal together? (*Every day / Most days / About once a week / Less often / Never*).

CHAPTER 3: LIFE IN MY LOCAL AREA

LOCAL AREA IS A GOOD PLACE TO LIVE

Do you think that the area in which you live is a good place to live? (*Yes, it's really good / Yes, it's good / It's OK / It's not very good / No, it's not good at all*).

FEEL SAFE IN LOCAL AREA

Generally speaking, I feel safe in the area where I live ... (*Always / Most of the time / Sometimes / Rarely or never*).

PERCEPTION OF LOCAL AREA

Please say how you feel about these statements about the area where you live. People say "hello" and often stop to talk to each other in the street / It is safe for younger children to play outside during the day / You can trust people around here / There are good places to spend your free time (e.g. leisure centres, parks, shops) / I could ask for help or a favour from neighbours / Most people around here would try to take advantage of you if they got the chance. (*Agree a lot / Agree a bit / Neither agree nor disagree / Disagree a bit / Disagree a lot*).

USE OF LOCAL GREENSPACE

Thinking of the summer months, out of school hours **how often** do you usually pass through or spend time in any of the following places in your local area? Parks, play areas, public gardens, woods, playing fields or sports pitches, golf courses, beaches, canals, rivers or lochs or other types of natural open space. (*Less than once a month / About once a month / 2 to 3 times a month / 1 to 2 times a week / 3 to 4 times a week / 5 to 6 times a week / Every day*)

Thinking of the summer months, out of school hours **how much time** overall in a week do you usually spend in the following places in your local area? Parks, play areas, public gardens, woods, playing fields or sports pitches, golf courses, beaches, canals, rivers or lochs or other types of natural open space. (*None / Half an hour or less per week / Between half to one hour per week / Between 1 to 2 hours per week / Between 2 to 4 hours per week / Between 4 to 6 hours per week / 7 or more hours per week*).

Frequency of greenspace use was classed as: weekly user (at least once a week).

Duration of greenspace use was categorised as: None/Light user ('None' to 'Half an hour or less per week'), moderate user ('Between half to one hour per week' to 'Between 1 to 2 hours per week'), heavy user ('Between 2 to 4 hours per week' to '7 or more hours per week').

CHAPTER 4: LIFE AT SCHOOL AND WITH FRIENDS**SCHOOL SATISFACTION**

How do you feel about school at present? (*I like it a lot / I like it a bit / I don't like it very much / I don't like it at all*).

FEEL PRESSURED BY SCHOOLWORK

How pressured (stressed) do you feel by the schoolwork you have to do? (*Not at all / A little / Some / A lot*).

TEACHER EXPECTATIONS

My teachers expect too much of me at school. (*Strongly agree / Agree / Neither agree nor disagree / Disagree / Strongly disagree*).

PARENT EXPECTATIONS

My parents expect too much of me at school. (*Strongly agree / Agree / Neither agree nor disagree / Disagree / Strongly disagree*).

POST-SCHOOL EXPECTATIONS/ASPIRATIONS

What do you think you will be doing when you leave school? (*University / Further Education College / Apprenticeship or Trade / Youth Training or Skill Seekers / Working / Unemployed / Don't know*).

TEACHER SUPPORT

A sum score was generated from the responses to the three items below. Scores of 10 or more were classified as high teacher support.

Here are some statements about the teachers in your class(es). Please show how much you agree or disagree with each one. I feel that my teachers accept me as I am / I feel that my teachers care about me as a person / I feel a lot of trust in my teachers. (*Strongly agree (=4) / Agree (=3) / Neither agree nor disagree (=2) / Disagree (=1) / Strongly disagree (=0)*).

CLASSMATE SUPPORT

A sum score was generated from the responses to the three items below. Scores of 10 or more were classified as high classmate support.

Here are some statements about the pupils in your class(es). Please show how much you agree or disagree with each one. The pupils in my class(es) enjoy being together / Most of the pupils in my class(es) are kind and helpful / Other pupils accept me as I am. (*Strongly agree (=4) / Agree (=3) / Neither agree nor disagree (=2) / Disagree (=1) / Strongly disagree (=0)*).

PEER SUPPORT

Scores were calculated by taking the mean of the responses to the four items below. Scores of 5.5 or more were classified as high peer support.

My friends really try to help me / I can count on my friends when things go wrong / I have friends with whom I can share my joys and sorrows / I can talk about my problems with my friends (*Very strongly disagree = 1 to Very strongly agree = 7*).

CHAPTER 5: PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOUR**MODERATE-TO-VIGOROUS PHYSICAL ACTIVITY**

Physical activity is any activity that increases your heart rate and makes you get out of breath some of the time. Physical activity can

be done in sports, school activities, playing with friends, or walking to school. Some examples of physical activity are running, walking quickly, cycling, dancing, skateboarding, swimming, football, and gymnastics.

For the next question, add up all the time you spend in physical activity each day.

Over the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day? (*0 days / 1 day / 2 days / 3 days / 4 days / 5 days / 6 days / 7 days*).

LEISURE TIME VIGOROUS PHYSICAL ACTIVITY

OUTSIDE SCHOOL HOURS: How often do you usually exercise in your free time so much that you get out of breath or sweat? (*Every day / 4 to 6 times a week / 2 to 3 times a week / Once a week / Once a month / Less than once a month / Never*).

TRAVEL TO SCHOOL

On a typical day is the main part of your journey to school made by...? (*Walking / Bicycle / Bus, train, tram, underground or boat / Car, motorcycle or moped / Other means*).

TIME SPENT WATCHING TELEVISION

How many hours a day, in your free time, do you usually spend watching TV, videos (including YouTube or similar services), DVDs, and other entertainment on a screen? *Weekdays / Weekend*. (*None at all / About half an hour a day / About 1 hour a day / About 2 hours a day / About 3 hours a day / About 4 hours a day / About 5 hours a day / About 6 hours a day / About 7 or more hours a day*).

TIME SPENT PLAYING COMPUTER GAMES

How many hours a day, in your free time, do you usually spend playing games on a computer, games console, tablet (like iPad), smartphone or other electronic device (NOT including moving or fitness games)? *Weekdays / Weekend*. (*None at all / About half an hour a day / About 1 hour a day / About 2 hours a day / About 3 hours a day / About 4 hours a day / About 5 hours a day / About 6 hours a day / About 7 or more hours a day*).

TIME SPENT ON COMPUTER FOR PURPOSES OTHER THAN PLAYING GAMES

How many hours a day, in your free time, do you usually spend using electronic devices such as computers, tablets (like iPad) or smart phones for other purposes, for example, homework, emailing, tweeting, facebook, chatting, surfing the internet? *Weekdays / Weekend*. (*None at all / About half an hour a day / About 1 hour a day / About 2 hours a day / About 3 hours a day / About 4 hours a day / About 5 hours a day / About 6 hours a day / About 7 or more hours a day*).

CHAPTER 6: EATING BEHAVIOURS**BREAKFAST CONSUMPTION**

How often do you usually have breakfast (more than a glass of milk or fruit juice)? *Weekdays (I never have breakfast during weekdays / One day / Two days / Three days / Four days / Five days)*. *Weekends (I never have breakfast during the weekend / I usually have breakfast on only one day of the weekend (Saturday or Sunday) / I usually have breakfast on both weekend days (Saturday and Sunday)*.

FOOD AND DRINKS CONSUMPTION

How many times a week do you usually eat or drink...? Fruit / Vegetables / Fruit juice or smoothies/ Sweets or chocolate / Cakes or biscuits/ Crisps / Chips or fried potatoes / Coke or other soft drinks that contain sugar/ Energy drinks (e.g. Red Bull, Lucozade, Monster). (Never / Less than once a week / Once a week / 2–4 days a week / 5–6 days a week / Once a day, every day / Every day, more than once).

CHAPTER 7: ORAL HEALTH

TOOTH BRUSHING

How often do you brush your teeth? (More than once a day / Once a day / At least once a week but not daily / Less than once a week / Never).

DENTAL ISSUES

At the moment or in the past couple of months, have you had any of the following? Crooked teeth or spaces between your teeth / Discoloured teeth or spots on your teeth/A dental brace or retainer / Anything else affecting the appearance of your mouth or teeth. (Yes / No).

CHAPTER 8: MENTAL HEALTH AND WELLBEING

LIFE SATISFACTION

Young people were shown a picture of a ladder and given the following description and question: Here is a picture of a ladder. The top of the ladder '10' is the best possible life for you and the bottom '0' is the worst possible life for you. In general where on the ladder do you feel you stand at the moment?

In this adapted version of the Cantril Ladder, a score of six or more was defined as high life satisfaction.

SELF-RATED HEALTH

Would you say your health is.....? (Excellent / Good / Fair / Poor).

HAPPINESS

In general, how do you feel about your life at present? (I feel very happy / I feel quite happy / I don't feel very happy / I'm not happy at all).

FEELING CONFIDENT

How often do you feel confident in yourself? (Never / Hardly ever / Sometimes / Often / Always).

FEELING LEFT OUT

How often do you feel left out of things? (Never / Hardly ever / Sometimes / Often / Always).

HEALTH COMPLAINTS

In the last 6 months: how often have you had the following ...? Headache / Stomach-ache / Backache / Feeling low / Irritability or bad temper / Feeling nervous / Difficulties in getting to sleep/ Feeling dizzy. (About every day / More than once a week / About every week / About every month / Rarely or never).

Multiple health complaints are defined as having 2 or more symptoms more than once a week.

BODY IMAGE

Do you think your body is ...? (Much too thin / A bit too thin / About the right size / A bit too fat / Much too fat).

COHEN PERCEIVED STRESS SCALE

In the last month... How often have you: felt that you were unable to control the important things in your life? / felt confident about your ability to handle personal problems? / felt that things were going your way? / felt difficulties were piling up so high that you could not overcome them? (Never / Almost never / Sometimes / Fairly often / Very often). A total score is calculated from the 4 items, with a range from 0 to 16 (higher stress). The mean perceived stress score for subgroups is presented.

Cohen, S., Kamarck, T. and Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*. 24(1): 385–396.

THE WARWICK-EDINBURGH MENTAL WELLBEING SCALE (WEMWBS)

Below are some statements about feelings and thoughts. Please tick the box that best describes your experience of each over the last 2 weeks. I've been feeling optimistic about the future / I've been feeling useful / I've been feeling relaxed / I've been feeling interested in other people / I've had energy to spare / I've been dealing with problems well / I've been thinking clearly / I've been feeling good about myself / I've been feeling close to other people / I've been feeling confident / I've been able to make up my own mind about things / I've been feeling loved / I've been interested in new things / I've been feeling cheerful. (None of the time (=1) / Rarely (=2) / Some of the time (=3) / Often (=4) / All of the time (=5)).

A score is calculated by summing the scores of the 14 items. The minimum score is 14 and the maximum is 70. Mean WEMWBS score for each subgroup is presented.

Tennant, R., Hiller, L., Fishwick, R., Stewart-Brown, S., Platt, S., Parkinson, J., Joseph, S., Weich, S. and Secker, J. (2007). The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): development and UK validation. *Health and Quality of Life Outcomes*. 5(63):1–13.

WHO-5 WELLBEING INDEX

Please indicate for each of the five statements which is closest to how you have been feeling during the last two weeks. Notice that higher numbers mean better wellbeing. Example: if you have felt cheerful and in good spirits more than half of the time during the last two weeks, tick the box with number 4 next to it. During the last two weeks... I have felt cheerful and in good spirits / I have felt calm and relaxed / I have felt active and vigorous / I woke up feeling fresh and rested / My daily life has been filled with things that interest me. (At no time / Some of the time / Less than half of the time / More than half of the time / Most of the time / All of the time).

A sum score is calculated from the responses to the five statements and multiplied by four to obtain a percentage score ranging from 0 and 100. A score of 50 or less is classified as low mood. A score of 28 or less is classified as being at risk of depression.

Mean WHO5 score is presented for each subgroup.

Topp C.W., Østergaard S.D., Søndergaard S., and Bech P. (2015). The WHO-5 Well-Being Index: A Systematic Review of the Literature. *Psychotherapy and Psychosomatics*. 84(1): 167–176.

CHAPTER 9: SLEEP**SLEEP DURATION**

When do you usually go to bed: if you have to go to school the next morning? / at weekends or during holidays? (No later than 21:00 / 21:30 / 22:00 / 22:30 / 23:00 / Midnight 00:00 / 00:30 / 01:00 / 01:30 / 02:00 or later) / (No later than 21:00 / 21:30 / 22:00 / 22:30 / 23:00 / Midnight 00:00 / 00:30 / 01:00 / 01:30 / 02:00 / 02:30 / 03:00 / 03:30 / 04:00 or later).

When do you usually wake up: on school mornings? / at weekends or during holidays? (No later than 05:00 / 05:30 / 06:00 / 06:30 / 07:00 / 07:30 / 08:00 or later) / (No later than 07:00 / 07:30 / 08:00 / 08:30 / 09:00 / 09:30 / 10:00 / 10:30 / 11:00 / 11:30 / 12:00 / 12:30 / 13:00 / 13:30 / 14:00 or later).

Average nightly sleep duration was calculated for weekdays and weekends.

SLEEP DIFFICULTIES

In the last 6 months: how often have you had the following...? Difficulties in getting to sleep (About every day / More than once a week / About every week / About every month / Rarely or never). This was classed as sleep difficulty if reported more than once a week.

CHAPTER 10: SPENDING TIME ONLINE (ELECTRONIC MEDIA COMMUNICATION)**SMARTPHONES**

Do you have your own smartphone (with internet access)? (Yes / No).

If YES, do you keep it in your bedroom during the night? (Yes / No).

COMPUTERS

In your bedroom, do you have a computer which is connected to the internet? (Yes / No).

TELEVISIONS

In your bedroom, do you have a television? (Yes / No).

ELECTRONIC MEDIA COMMUNICATION

The next questions are about 'online contact' and 'online communication'. When we use these terms we mean 'sending and receiving text messages, emoticons, and photo, video or audio messages through instant messaging (e.g Snapchat, Whatsapp, Skype, Facebook Messenger), social network sites (e.g Facebook, Instagram) or e-mail (on a computer, laptop, tablet, or smartphone)'.

How often do you have online contact with the following people? Close friend(s) / Friends from a larger friend group / Friends that you got to know through the internet but you didn't know before / Other people than friends (e.g parents, brothers/sisters, classmates, teachers). ("Don't know/doesn't apply" / Never or almost never / At least every week / Daily or almost daily / Several times each day / Almost all the time throughout the day).

Intense contact was defined as contact almost all the time throughout the day.

PREFERENCE FOR ONLINE/SOCIAL MEDIA COMMUNICATION

Below are some statements about the internet. Please show how much you agree or disagree with each one.

On the internet, I talk more easily about secrets than in a face-to-face encounter / On the internet, I talk more easily about my inner feelings than in a face-to-face encounter / On the internet, I talk more easily about my concerns than in a face-to-face encounter. (Strongly disagree / Disagree / Neither agree nor disagree / Agree / Strongly agree). Responding 'Agree' or 'Strongly agree' was categorised as having a preference for online communication.

SOCIAL MEDIA DISORDER SCALE

We are interested in your experiences with social media. The term social media refers to social network sites (e.g Facebook, Instagram) and instant messengers (e.g WhatsApp, Snapchat, Skype, Facebook messenger). During the past year, have you... regularly found that you can't think of anything else but the moment that you will be able to use social media again? / ...regularly felt dissatisfied because you wanted to spend more time on social media? / ..often felt bad when you could not use social media? / ..tried to spend less time on social media but failed? / ..regularly neglected other activities (e.g hobbies, sport) because you wanted to use social media? / ..regularly had arguments with others because of your social media use? / ..regularly lied to your parents or friends about the amount of time you spend on social media? / ..often used social media to escape from negative feelings? / ..had serious conflict with your parents, brother(s) or sister(s) because of your social media use? (No / Yes).

Problematic use is classified as responding 'yes' to at least 6 of the 9 items

CHAPTER 11: SEXUAL HEALTH**SEXUAL INTERCOURSE**

Have you ever had sexual intercourse (sometimes this is called "making love" "having sex" or "going all the way"? (Yes / No).

AGE AT FIRST INTERCOURSE

How old were you when you had sexual intercourse for the first time? (11 years old or younger / 12 years old / 13 years old / 14 years old / 15 years old / 16 years old).

AGE OF PARTNER AT FIRST INTERCOURSE

How old was your partner when you had sexual intercourse for the first time? (11 years old or younger / 12 years old / 13 years old / 14 years old / 15 years old / 16 years old / 17 years old / 18 years old / 19 years old / 20 years old or older / I do not know).

ALCOHOL AND DRUG USE AT FIRST SEXUAL INTERCOURSE

Did you drink alcohol or use drugs before you had sexual intercourse the first time? (Yes / No / I do not remember).

FEELINGS ABOUT TIMING OF FIRST SEXUAL INTERCOURSE

When you first had sexual intercourse, would you personally say: (You wanted it to happen earlier / You wanted it to happen at that time / You would rather have had it later / You did not ask yourself that).

CONTRACEPTION USE AT FIRST SEXUAL INTERCOURSE

The first time you had sexual intercourse, did you or your partner use a condom?/The first time you had sexual intercourse, did you or your partner use regular birth control pills?/The first time you had sexual intercourse, did you or your partner use any other methods of contraception? (Yes / No / Don't know).

CONTRACEPTION USE AT LAST SEXUAL INTERCOURSE

The last time you had sexual intercourse, did you or your partner use a condom?/The last time you had sexual intercourse, did you or your partner use regular birth control pills?/The last time you had sexual intercourse, did you or your partner use any other form of contraception? (Yes, please say what / No / Don't know).

CHAPTER 12: SUBSTANCE USE

TOBACCO USE (LIFETIME AND CURRENT)

On how many days (if any) have you smoked cigarettes?
In your lifetime / In the last 30 days. (Never / 1–2 days / 3–5 days / 6–9 days / 10–19 days / 20–29 days / 30 days or more).

TYPES OF ALCOHOL /WEEKLY USE

At present, how often do you drink anything alcoholic, such as beer, wine or spirits? Try to include even those times when you only drink a small amount.

Beer or lager/Wine or champagne/Alcopops (like Smirnoff Ice, Barcadi, Breezer, WKD)/Spirits (like whisky, vodka)/Cider/Fortified (strong) wine like sherry, martini, port, Buckfast/Any other drink that contains alcohol. (Every day / Every week / Every month / Rarely / Never).

Weekly alcohol use is classified as answering 'Every week' or 'Every day' to any of the items.

DRUNKENNESS IN LIFETIME

Have you ever had so much alcohol that you were really drunk?
In your lifetime. (No, never / Yes, once / Yes, 2–3 times / Yes, 4–10 times / Yes, more than 10 times).

CANNABIS USE IN LIFETIME AND LAST 30 DAYS

Have you ever taken cannabis? In your lifetime / In the last 30 days. (Never / 1–2 days / 3–5 days / 6–9 days / 10–19 days / 20–29 days / 30 days or more).

E-CIGARETTE USE

On how many days (if any) have you used electronic cigarettes (e.g. e-cigarette, e-hookah, shisha pen, flavour vape, e-smoker)? In your lifetime / In the last 30 days. (Never / 1–2 days / 3–5 days / 6–9 days / 10–19 days / 20–29 days / 30 days or more).

CHAPTER 13: BULLYING AND DISCRIMINATION

BEING BULLIED AND BULLYING OTHERS

Here are some questions about bullying. We say a person is being bullied when another person, or group of people, repeatedly say or do nasty and unpleasant things to him or her. It is also bullying when a person is teased in a way he or she does not like or when he or she is left out of things on purpose. The person that bullies has more power than the person being bullied and wants to cause harm to him or

her. It is not bullying when two people of about the same strength or power argue or fight. It is also not bullying when two people of about the same strength or power argue or fight.

How often have you been bullied at school in the past couple of months? (I have not been bullied at school in the past couple of months / It has happened once or twice / 2 or 3 times a month / About once a week / Several times a week).

How often have you taken part in bullying another person(s) at school in the past couple of months? (I have not bullied another person(s) at school in the past couple of months / It has happened once or twice / 2 or 3 times a month / About once a week / Several times a week).

BEING CYBER-BULLIED AND CYBER-BULLYING OTHERS

In the past couple of months how often have you taken part in cyberbullying/ have you been cyberbullied (e.g., sent (or someone sent) mean instant messages, email or text message, wall postings, created a website making fun of someone, posted unflattering or inappropriate pictures online without permission or shared them with others)? (I have not cyber-bullied another person in the past couple of months/I have not been cyber-bullied in the past couple of months / It has happened once or twice / 2 or 3 times a month / About once a week / Several times a week).

SPECIFIC VICTIMISATION (MULTIPLE FORMS OF BULLYING)

How often have you been bullied AT SCHOOL in the past couple of months in the ways listed below?

I was called mean names, was made fun of, or teased in a hurtful way / Other students left me out of things on purpose, excluded me from their group of friends, or completely ignored me / I was hit, kicked, pushed, shoved around, or locked indoors / Other students told lies or spread false rumours about me and tried to make others dislike me / I was bullied with mean names or comments about my race or colour/I was bullied with mean names or comments about my religion / I was bullied with mean names or comments about my weight / I was bullied with mean names or comments about my medical condition or disability / I was bullied with mean names or comments about my teeth or mouth (e.g. crooked or missing teeth, gaps in teeth, dental braces) / I was bullied with mean names or comments about the clothes I wear / Other students made sexual jokes, or gesture to me. (I have not been bullied in this way in the past couple of months / Once or twice / 2 or 3 times / About once a week / Several times a week).

DISCRIMINATION

How often do the following people treat you unfairly or negatively: because of where you, or your parents or grandparents were born? / because you are a boy or a girl? / because of the amount of money your family has? Teachers / Other adults outside of school / Pupils at school. (Never / Hardly ever / Sometimes / Often / Very often).



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