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St Andrews



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SCOTLAND

NATIONAL REPORT

**FINDINGS FROM THE
HBSC 2014 SURVEY IN SCOTLAND**

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





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Candace Currie
Winfried van der Sluijs
Ross Whitehead
Dorothy Currie
Gill Rhodes
Fergus Neville
Jo Inchley

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FOREWORD

NHS Health Scotland are proud commissioners of the 7th Scottish Health Behaviours in School-aged Children (HBS-C) survey. This high quality work provides the only means for comparing the health, wellbeing and social circumstances of children and young people in Scotland with those in 43 other countries and regions across Europe and North America. Furthermore, the study provides trends over 25 years – tracking the outcomes which are improving and worsening with some authority.

The survey provides data for children and young people aged 11, 13 and 15 years across a wide range of topics, from wellbeing and health behaviours through to contextual factors such as peer relations and the school environment. It therefore provides a hugely important dataset to allow the exploration of the causes, variation and inequalities in outcomes between and within countries over time.

This year's report has again generated findings that are of great interest. For example, less than a fifth of respondents were found to be meeting the physical activity guidelines and around two-thirds spent two or more hours in front of a screen each weekday. Although fewer young people reported having experienced sexual intercourse, the proportion of those that did who used a condom may have decreased. However, other health behaviours are clearly improving, with the proportion reporting that they brushed their teeth twice daily and the proportion reporting 'excellent' health increasing.

Work is currently underway to consider the future survey landscape for children and young people in Scotland to ensure that we make best use of the resources available. This work has already identified that having the ability to compare Scottish data internationally is important and valuable in helping us maximise the positive impact of research, policy and practice on the health and wellbeing outcomes for our children and young people.

Dr Gerry McCartney

Public Health Consultant and Head of Public Health Observatory Division
NHS Health Scotland

EXECUTIVE SUMMARY

This report presents data on adolescent health from the World Health Organization (WHO) collaborative cross-national Health Behaviour in School-aged Children (HBSC) study in Scotland. Prevalence statistics for 2014 are presented and these are compared to equivalent data where available from six previous survey rounds (1990, 1994, 1998, 2002, 2006 and 2010). A nationally representative sample of over 10,800 pupils participated in the 2014 Scottish HBSC survey. The key findings are summarised below.

FAMILY LIFE

Most young people in Scotland (65%) live with both of their parents, 19% live with a single mother and 2% live with a single father. Twelve percent (12%) live in a stepfamily. The proportion of young people living with both parents has gradually declined since 1990. The proportion of Scottish young people describing their family as 'very well off' increased from 11% in 1998 to 21% in 2014. Since 1990 there has been a steady increase in easy communication with fathers, but young people remain more likely to find it easy to talk to their mother (82%) than to their father (66%) about things that really bother them. There has been a persistent gender difference since 1990, with boys finding it easier than girls to talk to their father. Sixty-two percent (62%) of young people perceive a high level of emotional and practical support from their family, but this reduces with age.

THE SCHOOL ENVIRONMENT

Approximately one quarter of young people in Scotland (23%) report that they like school 'a lot', but this proportion reduces with age, especially among girls. Only 12% of 15-year olds like school a lot. Most boys (62%) and girls (69%) feel their school performance is 'good' or 'very good', but perceived school performance is lower among older pupils. Two fifths (41%) of 11-15 year olds report that they feel 'some' or 'a lot' of pressure from schoolwork. This proportion increases steeply with age, such that 80% of 15-year old girls and 60% of 15-year old boys report schoolwork pressure. The proportion of young people feeling pressured by schoolwork has been rising since 2006, especially among girls. The gender gap in perceived schoolwork pressure is now wider than at any point since 1994. Most young people (62%) report a high level of classmate support, but the proportion is smaller among secondary school pupils. One third (30%) of 11-15 year olds report high teacher support, however this proportion differs substantially between primary and secondary school pupils (53% of 11-year olds versus 21% of 13-year olds and 15% of 15-year olds).

PEER RELATIONS

The vast majority (95%) of Scottish 13- and 15-year olds have three or more close friends. One in five (21%) young people meet their friends every day after school before 8pm. Most 13- and 15-year olds (88%) say they find it easy to talk to their best friend about things that really bother them. Sixty one percent (61%) of young people report daily contact with their friends using either the phone, texting, email, instant messenger or other social media. Older pupils are more likely to talk to their friends every day via electronic media. Daily electronic media contact is more common among girls (66% versus 56% of boys). Over half of 11-15 year olds (57%) report high level of emotional and practical support from friends, with girls being more likely than boys to report this (65% of girls versus 49% of boys).

NEIGHBOURHOOD ENVIRONMENT

More than half of 13- and 15-year olds in Scotland (59%) 'always' feel safe in their local area, and one third (30%) feel safe 'most of the time', but one in ten (9%) only feel safe 'sometimes'. Forty two percent (42%) think their local area is a 'really good' place to live, but this perception reduces with age, especially among girls. One quarter (26%) of 13-year olds have an overall favourable perception of their local area's safety and sociability, however this reduces to 19% among 15-year olds. Fifteen percent (15%) report that they use local green space less than once a month during the summer months.

EATING HABITS

Over half of 11-year olds in Scotland eat a meal with family every day (58%) and 42% of 15-year olds do so. Sixty two percent (62%) of young people eat breakfast every weekday. Fruit and vegetables are both consumed daily by 38% of young people and since 2002 there has been a steady increase in daily fruit and vegetable consumption. Pupils aged 11 are more likely than 13- and 15-year olds to eat fruit every day. One third (35%) of young people eat sweets or chocolate every day. One fifth (18%) eat crisps daily, but this has been declining since the early 2000s. One in four young people (24%) consume cola or other sugary drinks at least once a day.

PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOUR

Fewer than one in five (18%) Scottish young people meet government physical activity guidelines. Boys are more likely than girls to meet these guidelines, with the gender gap being especially pronounced at age 11. Relative to 2010, there has been a small improvement in the proportion of boys and girls meeting physical activity guidelines, however rates have not improved compared to 2002. The percentage of girls participating in vigorous physical activity has gradually increased since 1990, but there has been little change among boys. Almost half of young people (46%) walk to school, but only 4% of boys and 1% of girls travel to school by bicycle. Sixty four percent (64%) of young people watch television for two or more hours every day during the school week, but this has been decreasing steadily since 2002. Sixty five percent (65%) of boys and 46% of girls play computer games for at least 2 hours every weekday. Whilst there has been little change in the prevalence of computer gaming among boys since 2010, there has been a steep increase among girls.

WEIGHT CONTROL BEHAVIOUR

Girls in Scotland are twice as likely as boys to be trying to lose weight through dieting (22% of girls versus 10% of boys). Among girls, weight control behaviour increases with age, such that almost one third (31%) of 15-year old girls are actively trying to lose weight. There has been little change since 2002 in the proportion of boys and girls trying to lose weight.

BODY IMAGE AND BMI

One quarter of boys (25%) and 41% of girls in Scotland report that they are 'too fat'. The gender difference in perceived overweight is especially large at age 15, where over half (55%) of girls report that they are too fat, compared to 28% of boys. At ages 13 and 15, boys are around three times more likely than girls to report that they are 'quite' or 'very' good-looking. The gender gap in perceived looks is now at its widest in the past 24 years, due to girls aged 13 and 15 becoming increasingly less likely since 2002 to report good looks. According to self-reported height and weight, 74% of 15-year olds in Scotland have a normal body mass index (BMI); 14% are overweight/obese, and 12% are underweight.

TOOTH BRUSHING

Three quarters (77%) of young people in Scotland brush their teeth at least twice daily. Since 1990, there has been a steady increase in the proportion that brush their teeth twice a day. Whilst boys have been less likely than girls to brush their teeth twice a day since 1990, this gender difference has gradually been reducing over this period. Particular improvement in tooth brushing was seen among 15-year old boys over the last 4 years.

WELL-BEING

Most Scottish young people report high life satisfaction (87%), but the prevalence reduces with age, especially among girls. The proportion of young people who feel 'very happy' also reduces steeply with age (59% of 11-year olds versus 27% of 15-year olds). Feeling confident has been gradually declining among both boys and girls since a peak in 2002. The proportion of 11-15 year olds reporting 'excellent' health increased between 2010 (21%) and 2014 (26%). One third (31%)

report two or more health complaints at least once a week, with a steep age-related increase among girls. The gender gap in multiple health complaints is now at its widest since 1994, with 39% of girls and 23% of boys reporting two or more weekly complaints. Over half (59%) of 13- and 15-year olds report using medicine in the previous month, with substantially more girls than boys using medicine at age 15. Girls report higher levels of psychological stress than boys, and 15-year olds report greater stress than 13-year olds.

SUBSTANCE USE

Over a quarter (28%) of Scottish 15-year olds have tried smoking. At age 13, girls are more likely than boys to have smoked. The prevalence of smoking among 15-year olds has been decreasing substantially since the late 1990s, but 14% of 15-year olds still report that they currently smoke, and many (57%) of these smokers do so at least once a day. Weekly drinking among 15-year olds has also decreased substantially since 1998, however 17% of boys this age and 11% of girls consume alcohol at least once a week. One third (34%) of 15-year olds have been drunk at least twice in their lives. One fifth (18%) of Scottish 15-year olds have used cannabis at least once in their lives, with the prevalence reducing between 2002 and 2014.

SEXUAL HEALTH

Between 2010 and 2014, there was a decline in the proportion of 15-year old girls that report having had sex (from 35% to 27%). Of those 15-year olds that report having had sexual intercourse, 24% report first intercourse at 13 years or younger, with boys more likely than girls to report this (34% versus 16%, respectively). Over half (58%) used a condom the last time they had sexual intercourse (with or without birth control pills), but this represents a decrease from 72% in 2010*. Thirteen percent (13%) reported using birth control pills without a condom. One third (29%) used neither a condom nor birth control pills at last intercourse, an increase from 19% in 2010. In 2014, only 16% used both a condom and birth control pills at last intercourse.

BULLYING AND FIGHTING

Fourteen percent (14%) of young people in Scotland report that they have been bullied at school at least twice a month in the past two months. The proportion of young people being bullied increased between 2010 and 2014, especially among girls. One quarter (24%) of 13-year old girls report being bullied at least once via electronic media messages in the past couple of months. Similarly, 18% of 13-year old girls report that they have been bullied via electronic media pictures. Five percent (5%) of girls and 15% of boys report that they have been involved in a physical fight three or more times in the previous year. Since 2002, prevalence of fighting has decreased among boys.

INJURIES

Half of boys in Scotland (50%) and 40% of girls suffered at least one medically treated injury in the past 12 months. Among boys, there has been a gradual decrease in the prevalence of injury since 2002. Of those boys who were injured, their most serious injury was most likely to occur during a sports or recreational activity (46%). Girls were more likely to be at home when their most serious injury happened (29%). Nearly half (46%) of all young people that were injured in the past year report that their most serious injury required hospital treatment. At age 15, injured boys are more likely than injured girls to have required medical treatment (51% versus 38%).

*Between 2002 and 2010, condom use was assessed by two different questionnaire items, whereas in 2014, only one question was asked.

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Acknowledgement is made to 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 to the study of its partner, the WHO Regional Office for Europe. We are grateful to Gerry McCartney, Head of Public Health Observatory and his team at Health Scotland for their ongoing support. The HBSC study in Scotland is funded by NHS Health Scotland. Special thanks to Karen Hunter, Gina Martin, Ferran Marsa Sambola, Mitchell Collins and Diana Donaldson for their help with the recruitment of the schools.

Design work is by Damian Mullan at So... It Begins and illustrations are by Jill Calder.

HBSC National Team:

Candace Currie (Principal Investigator)

Alina Cosma

Dorothy Currie

Jo Inchley

Fergus Neville

Gill Rhodes

Winfried van der Sluijs

Ross Whitehead



University of
St Andrews

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HEALTH BEHAVIOUR IN SCHOOL-AGED CHILDREN:
WHO COLLABORATIVE CROSS-NATIONAL STUDY (HBSC)
2014 SURVEY IN SCOTLAND NATIONAL REPORT



1 INTRODUCTION AND METHODS

INTRODUCTION

HEALTH IMPROVEMENT OF YOUNG PEOPLE IN SCOTLAND

The improvement of young people's health in Scotland is a key aim of recent Government policies. National and local targets and programmes concerned with the well-being of children and adolescents have focused on physical activity, nutrition and their importance in tackling obesity, as well as mental health and sexual health, with an overarching aim to reduce health inequalities. Smoking, alcohol and drug use are also areas of concern as are risks associated with being overweight. The strong commitment to young people's health and well-being is evident in recent policy documents, such as the *Mental Health Strategy for Scotland*¹, *The Obesity Route Map*², the *National Parenting Strategy*³ and *Creating a Tobacco-Free Generation: A Tobacco Control Strategy for Scotland*⁴. The *Getting It Right For Every Child (GIRFEC)*⁵ approach also has well-being at its core and underpins all policy and practice affecting children and young people in Scotland. Within the school context, the importance of a health-promoting environment for young people is emphasised in the *Curriculum for Excellence*⁶, which stipulates that mental, emotional, social and physical well-being is essential for successful learning. This is supported by the *Schools (Health Promotion and Nutrition) (Scotland) Act 2007*⁷ which states that schools have a duty to promote the mental, emotional, social and physical health and well-being of all pupils.

THE HEALTH BEHAVIOUR IN SCHOOL-AGED CHILDREN: WHO COLLABORATIVE CROSS-NATIONAL STUDY (HBSC)

The Health Behaviour in School-Aged Children (HBSC) Study in Scotland is a key source of information on child and adolescent health in the country, providing national, international and local data to a wide range of stakeholders. HBSC takes a broad perspective, gathering information on wide-ranging aspects of young people's health and well-being as well as the social contexts in which they are growing up⁸. The HBSC Cross-National Study began in 1983 in three countries, and has now grown to include 44 countries and regions in Europe and North America. Scotland became a member country in 1986 and the first national HBSC survey was conducted in 1990. National surveys have been conducted every four years since then, in line with the cross-national survey cycle. The study in Scotland is based at the Child and Adolescent Health Research Unit (CAHRU) within the University of St Andrews and is funded by NHS Health Scotland. CAHRU is also the HBSC International Coordinating Centre (ICC).

The target population of the HBSC study is young people attending school, aged 11, 13 and 15 years. These age groups were selected because it is during these years that important stages of development occur (i.e., the onset of adolescence, the challenge of physical and emotional changes and the middle teenage years, when important life and career decisions are being made). The school-based survey is administered to a nationally-representative sample of pupils from each age group in each participating country. Pupils complete questionnaires in the classroom during one school period.

As well as providing data on the health and well-being of young people in Scotland as a whole, for the first time in 2014, local authorities and health boards were given the opportunity to carry out a boosted sample of the HBSC survey to provide them with data with which to monitor the health of young people within a local context and progress towards national Single Outcome Agreements.

HBSC is conducted in collaboration with the World Health Organization Regional Office for Europe, and this partnership supports the wide dissemination of research findings to inform and influence health improvement policy and practice at national and international levels. The Scottish HBSC team has produced a range of papers, reports and briefing papers to inform policy makers, practitioners and academics on findings from the study. These are available on the CAHRU websiteⁱ. A full list of international publications is presented on the HBSC websiteⁱⁱ.

THE REPORT

HBSC surveys in Scotland have produced a wealth of data on the health of the nation's youth over the last 24 years. This report provides up-to-date information on young people's health and behaviour in Scotland, as well as the social contexts affecting their lives. Where data are available, patterns are traced back to the early 1990s. The data presented capture all the key priority areas of mental health, physical activity, eating habits, substance use and sexual behaviour. Less commonly-reported issues are also examined; examples include how young people feel about their bodies, their efforts at weight control, their experience of bullying and fighting, how they get along with friends and family, their perception of their neighbourhood environment and relationships at school. HBSC places young people's health in social and economic context and gathers data on family structure and socioeconomic circumstances. The report therefore also shows how the social context of young people's lives has changed over recent years. New topics included in the national report for the first time in 2014 include: health-related quality of life, stress, cyberbullying, serious injury, location and activity during injury, family and peer support, and teacher support. Analyses assessing the role that contextual factors play in explaining young people's health and well-being in Scotland are reported in briefing papers and journal publications listed on the CAHRU websiteⁱ.

STUDY METHODOLOGY

QUESTIONNAIRE DESIGN

The Scottish HBSC questionnaire follows the international HBSC survey protocol⁹, developed by the HBSC international network of researchers. The questionnaire is designed by network members working in scientific focus groups according to area of expertise in various aspects of adolescent health. The study methods are outlined briefly below, with a more comprehensive description available elsewhere⁹. For each survey round, a full research protocol is developed which includes the scientific rationales for topic areas included in the international standard questionnaire. While some items remain from each survey year to the next, others may change and others still may be dropped entirely according to national and international priorities and methodological developments. Items are subject to validation procedures in several countries (e.g.^{10,11,12,13,14}).

The HBSC 2013/14 international mandatory questionnaire comprised 74 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 the mandatory questions required by the HBSC network, optional thematic packages validated internationally are made available.

The Scottish version of the HBSC questionnaire comprised the international mandatory items, selected optional packages and in addition, items of specific interest to national stakeholders such as indicators which are used by Scottish Government to monitor mental health and child poverty.

The questionnaires for the three age groups differ slightly: for example, the questionnaire for Primary 7 pupils is shorter in length than those used in secondary schools, and some questions (such as those about sexual health) are only asked of 15-year olds. The 2014 Scottish questionnaire was designed to take approximately 40 minutes to complete by all age groups and included 116 questions (259 items) for S4 pupils, 102 questions (217 items) for S2 pupils and 84 questions (176 items) for P7 pupils. The Scottish national questionnaire was piloted in the autumn term of 2014.

SAMPLE DESIGN

The HBSC 2014 sample was designed to be nationally representative and produce robust prevalence estimates describing the social context, health and well-being 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 (S2; average age 13.5 and S4; average age 15.5 years, respectively). One regionⁱⁱⁱ did not give permission for the survey and was therefore removed from the sampling frame. This region made up less than 3% of the Scottish population. Within participating authorities, all local authority-funded and independent sector schools were included in the sample frame, with the exception of schools for children with special educational needs.

LOCAL BOOST SAMPLES

In 2014, for the first time, all health boards and local authorities in Scotland were offered the opportunity to commission a boosted local sample of the Scottish HBSC survey, giving local level data on health and well-being and the social context of young people's lives that is directly comparable with national data to use for monitoring, reporting, planning and benchmarking purposes.

In total, 5 local authority areas, contained within 3 Health Boards, participated in the local boost: Shetland, Dumfries & Galloway, Clackmannanshire, Falkirk and Stirling (the latter three within the Forth Valley health board).

Within Shetland, all classes in the three school years were asked to participate (i.e. a census was taken). Within the remaining local areas, a random selection of classes was made (see below). Within Forth Valley Health Board; the required sample was approximately 1000 pupils per local authority (approximately 3000 across this health board), within Dumfries & Galloway, a sample of 3000 pupils was required. Within each area, equal numbers were targeted from each age group. Results for each of the health boards and local authorities are presented in an online supplement to this report available at www.cahru.org.

SAMPLING PROCEDURES

The basic national sample was proportionally stratified by school funding (state-funded or independent) and education authority for state funded schools. Within boost areas, additional pupils were sampled. Samples were selected separately for each school year group. The basic national sample and the boost sample were then combined to form the final national sample.

Within each strata (with the exception of those boost areas where all pupils in P7, S2 and S4 were sampled), schools were selected with probability proportional to the number of classes in the required year group. This meant that larger schools had a higher probability of inclusion in the sample of schools. For each age group, one class from each selected school was included in the sample, so that within those schools selected, individual pupils had a higher probability of inclusion into the sample if they attended smaller schools. This ensured that each pupil (in P7, S2 or S4) within a stratum had the same probability of inclusion in the sample.

The basic national sample size targeted within each of the three age groups was around 2000 students (before addition of boost areas), to allow more scope in subgroup analyses.

RESPONSE RATES

Of the 858 school classes asked to participate in the survey, 626 (73%) took part. The breakdown of response rates is shown in Table 1.1. Pupil responses within classes were good, with approximately 12% of pupils in the class not returning a questionnaire. Response rates were higher among primary classes than secondary (particularly secondary 4 classes and pupils). The main reason for school (class) non-response was that they were too busy. The main reason for pupil non-response was illness or unexplained absence. Questionnaires for pupils not present in the class on the day of the survey were provided for later completion.

WEIGHTING

Pupils from boost areas had a higher probability of inclusion in the survey than their peers in non-boost areas. Design weights were applied to adjust for differences in sampling frequencies between local authorities and school type.

Some local authorities were not represented in the final dataset at all (Perth and Kinross) or in certain age groups (Clackmannanshire, Renfrewshire). Although these represent a small proportion of all pupils in Scotland, it is important to make sure that the impact of this low response rate in some areas on sample representativeness is minimized. Post-stratification weighting of the sample was used to make the sample representative of Scottish P7, S2 and S4 pupils with respect to several characteristics despite the lack of pupils from some local authorities.

The final national sample was post-stratified with respect to school denomination, school Scottish Government 6-point urban-rural classification, and to equal representation of boys and girls using raking weights (for pupils attending state funded schools only). Data for the weighting control variables were obtained from the Scottish Schools Pupil Census 2014.

Table 1.1

RESPONSE RATES BY CLASS

RESPONSE RATES IN 2014	PERCENTAGE	ACHIEVED SAMPLES
Primary 7		
Class response	78%	
Pupil response	89%	
Total response	70%	4091
Secondary 2		
Class response	69%	
Pupil response	90%	
Total response	62%	3765
Secondary 4		
Class response	70%	
Pupil response	83%	
Total response	58%	2983
Whole sample response	64%	10839

ADMINISTRATION OF SURVEY INSTRUMENT

Questionnaires were administered in schools between March and June 2014, with the majority being returned by the end of May. The administration of the questionnaire in schools was conducted by school teachers who were given written instructions on how to carry this out. Teachers were also given a class return form to complete, which detailed how

many pupils completed the questionnaire, how many were absent and reasons for absence. On completion, each pupil placed the questionnaire in an envelope and sealed it. The completed questionnaires were then returned by all schools. Questionnaires were retained by the schools for pupils absent on the day and schools were requested to give absent pupils the opportunity to fill in the questionnaire on another occasion within 2 weeks of the survey. Pre-paid envelopes were supplied to the schools to return the absent pupil questionnaires.

DATA CLEANING AND ACCESS

Coding of responses and data entry was conducted according to protocol guidelines. The final national dataset was subjected to cleaning and data quality checks as required by the HBSC international study. The final national data set (including boost samples) will be deposited in the UK data archive in 2016 for use of researchers external to the HBSC network. The national sample, without the boost data, is available as part of the HBSC international data set for the 2013/14 survey and is available for access at the Norwegian Social Sciences Division (NSD) in Bergen, Norway.

ETHICAL APPROVAL, CONSENT AND RECRUITMENT PROCEDURES

The study, including the proposed design, timetable and intention of use, was first approved 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.

Recruitment of schools differed between Primary and Secondary schools. In Primary schools, the same method was used as in previous HBSC surveys; once permission was granted by Directors of Education, selected primary schools were sent a letter of invitation, information about the HBSC survey, along with an example questionnaire, and details of what is involved in taking part.

In secondary schools, sampling and the first stage of recruitment was carried out in conjunction with the Scottish Schools Adolescent Substance Use Survey (SALSUS) which was recruiting pupils in S2 and S4 schools at the same time as the HBSC survey. The two surveys took place consecutively, SALSUS in Autumn 2013 and HBSC in Spring 2014 and joint sampling was conducted to minimize overlap between schools and classes taking part in the two surveys. Ipsos MORI researchers contacted schools and asked them to participate in one or both surveys (depending on which classes had been selected for which survey in any particular school). Once schools participating in both surveys had completed the SALSUS survey, CAHRU took over liaison with the school and sent HBSC survey materials.

As well as teacher instructions, the survey materials included a letter from the HBSC National team to the parents of pupils in selected classes, requesting consent for their children to be surveyed. Parental consent forms were opt-out, so that only those pupils whose parents signed an opt-out form were not included in the survey. Pupils themselves could also opt out of the survey on the day if they chose not to take part. They were provided with information leaflets about the survey before the survey day.

Completion of surveys in some local authorities was delayed due to other health and well-being surveys being conducted at the same time. This extended the fieldwork period beyond the three month period of previous HBSC surveys. The majority of questionnaires were returned within a 3-month period.

RESULTS

PRESENTATION OF FINDINGS

This chapter, the first of 15, gives a broad introduction and background to the study. Chapters 2 to 5 give a descriptive summary of social factors which are known to be associated with the health behaviour of young people: family life, the school environment, peer relations and neighbourhood environment. The following chapters focus on health and well-being indicators and health and risk behaviours. They present prevalence by age and gender and over time, where data are available. Most of the findings presented in this report are based on collapsing response options to questionnaire items.

SAMPLE SIZE AND PRECISION OF ESTIMATES

The basic national sample size within each age group was set at around 2000 students (before addition of boost areas), to allow more scope in subgroup analyses. The sample was selected using cluster sampling by school class, rather than simple random sampling. If cluster sampling methods are not accounted for in analysis, this can result in underestimation of standard errors, meaning that differences in prevalence may falsely be considered statistically significant. For example, for a prevalence of 19%, the standard error under the assumption of random sampling is 0.8%. The true complex standard error for this proportion, which takes account of the sample design (including clustering), is 1.2%, resulting in 95% confidence intervals of 16.4%-21.0%. This compares with a falsely narrow confidence interval of 17.0%-20.3% under the assumption of random sampling. All analyses in the report take account of sample design.

DATA ANALYSES

Design adjusted chi-square tests were carried out to assess statistical significance of differences between genders and age groups. All differences or changes reported are statistically significant unless otherwise stated. In this report, a 99% level of significance was used in the comparison of proportions. This more conservative measure was used in preference to 95%, as many tests of proportions were carried out. 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 v21 (IBM) was used for all design-adjusted analyses.

Many of the items were collected over a number of surveys in Scotland and trends are reported for these. Where, for example, differences 'between 1990 and 2014' are described, the statistical test carried out was between the proportion in 1990 and the proportion in 2014. In some cases, comparisons were drawn between intervening years and these are highlighted in the text.

Where in some cases, reported data appear not to add up to 100%, this is due to rounding error.

NOTES:

- i <http://www.cahru.org>
- ii <http://www.hbsc.org/>
- iii Perth and Kinross Local Authority

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- 65% of young people in Scotland live with both of their parents, 21% with a single parent and 12% in a stepfamily. The proportion of young people living with both parents has gradually declined since 1990, when the figure was 79%
- Between 1998 and 2014, the proportion of Scottish young people describing their family as 'very well off' has increased from 11% to 21%, whilst the proportion describing their family as 'not at all well off' has remained stable at 2%
- Young people are more likely to find it easy to talk to their mother (82%) than to their father (66%) about things that really bother them
- Since 1990, there has been a steady increase in easy communication with fathers for both boys and girls, but there has been a persistent gender difference over this period, with boys finding it easier than girls to talk to their fathers
- 62% of 11-15 year olds report a high level of family support, but this reduces with age



FAMILY LIFE

INTRODUCTION

For adolescents, the family provides an important context in which many health behaviours are established, allowing for fundamental development during the adolescent years and whose influence continues throughout their adolescence and into adulthood¹. Family composition (e.g. biological parents, stepfamilies or single parents) has changed significantly over recent decades, with young people growing up in increasingly diverse living arrangements. The proportion of young people living in single parent and step-parent families in Britain has increased, while the proportion of young people living with both biological parents has decreased². Previous research has identified that both the family structure and certain processes of family dynamics, specifically communication with parents, have a clear influence on adolescent development, life chances and health behaviours^{3,4}. During adolescence, young people typically start to spend less time with their family, more time with peers⁵, with joint family activities showing a decline⁶. Family socio-economic status can also have an important impact on young people's health and development. The HBSC study uses the Family Affluence Scale^{7,8} to categorise young people as having low, medium or high family affluence. In 2014, in addition to family car and computer ownership, family holidays and own bedroom occupancy, the scale was extended to include two new items: dishwasher ownership and number of bathrooms in the home.

A considerable body of research has linked adolescent outcomes and health with family structure, affluence, cohesion and communication^{8,9,10,11}. However, different cultural and social norms may result in variations in the association between family structure and health¹². It has been suggested that living in a two-parent family facilitates the positive development of children and adolescents, while living in other family compositions, especially those in which multiple family transitions are experienced, are linked with a higher risk of psychological, behavioural, social and academic problems^{13,14,15,16}. Family dynamics based on interpersonal relationships between family members also impact on adolescent health¹⁷. Many studies have suggested healthier behaviours in children and adolescents who have an open communication with their parents¹⁸ and perceive them as emotionally and physically accessible¹⁹. According to previous research, a strong family relationship is evidenced by an adolescent's sharing of parental and societal norms and values, protecting them against taking up specific risk behaviours. For example, time spent with family has been shown to limit excessive drinking in adolescents²⁰ and improve diet quality^{21,22}. Family affluence has been shown to have a strong association with a wide variety of health behaviours and outcomes, for example, self-rated health, life satisfaction, health complaints, injuries, body weight, diet, toothbrushing, physical activity, sedentary behaviour, and substance use^{23,24}.

The important influence that family life has on the many elements of an adolescent's health has been acknowledged by the Scottish Government in the Scottish action framework *Delivering a Healthy Future*²⁵, and in the *National Parenting Strategy*²⁶, which focuses on promoting positive parent-child relationships.

HBSC FINDINGS

A number of aspects of family life are measured by the Scottish HBSC study, including family structure, family affluence, perceived wealth, parent-child communication and family support. Family structure and communication with parents have been recorded since 1990, and perceived wealth since 1998. A new measure of family support was introduced in 2014.

FAMILY STRUCTURE

In 2014, 65% of young people in Scotland reported that they live with both their parents, 21% with a single parent (19% with mother and 2% with father) and 12% in a stepfamily. A minority (2%) reported living in another home environment, such as a foster home, children's home or with members of their extended family (Figure 2.1).

Whilst there was little change in family structure between 2010 and 2014, the proportion of young people living with both parents has gradually declined since 1990, and the proportion living in single parent and stepfamily households has increased (Figure 2.2), as in many other European countries²⁷.

Figure 2.1:
FAMILY STRUCTURE

HBSC Scotland
2014 Survey

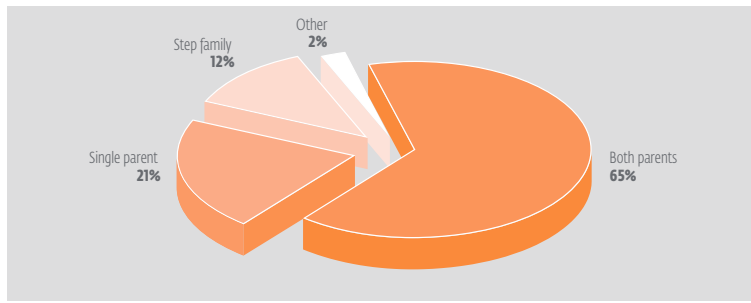


Figure 2.2:
FAMILY STRUCTURE 1990 - 2014

HBSC Scotland
1990 - 2014 Surveys

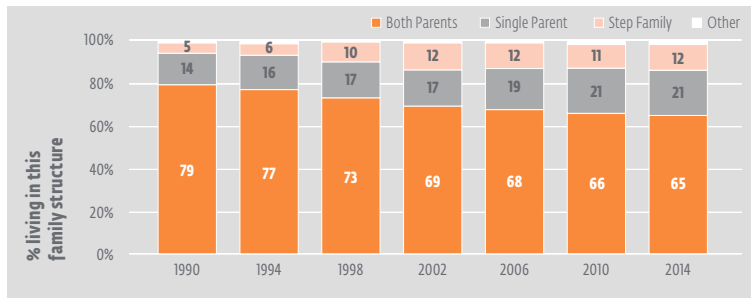


Figure 2.3:
FAMILY AFFLUENCE

HBSC Scotland
2014 Survey

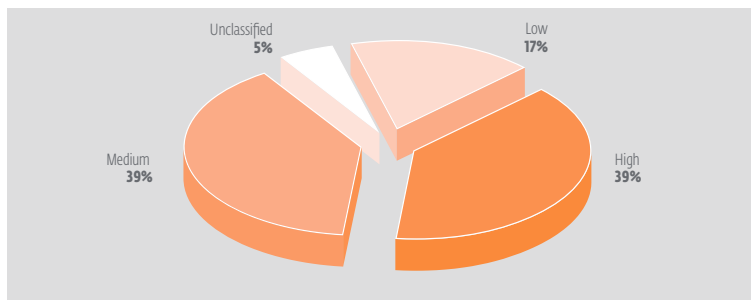


Figure 2.4:
PERCEIVED FAMILY WEALTH BY AGE

HBSC Scotland
2014 Survey

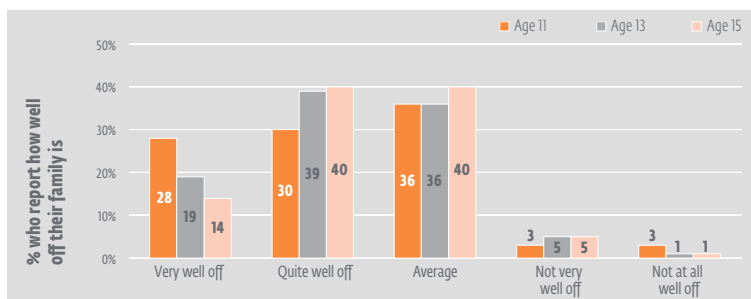
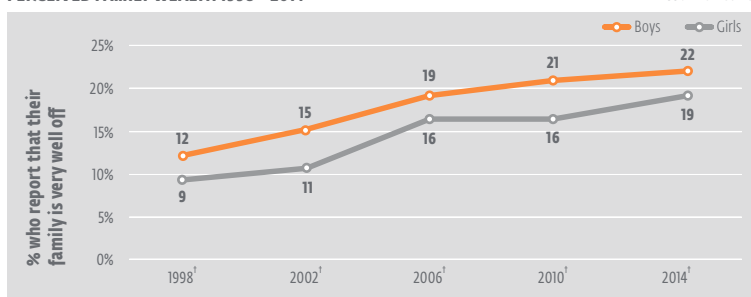


Figure 2.5:
PERCEIVED FAMILY WEALTH 1998 - 2014

HBSC Scotland
1998 - 2014 Surveys



[†] Significant gender difference (p<0.01)

FAMILY AFFLUENCE

Children and young people are often unable to give sufficient information about their parents' occupational status, therefore assigning an SES score can be problematic. Indicators of family affluence can be used as an alternative, allowing approximation of socio-economic status. Young people were asked to report (a) the number of cars in their family, (b) the number of computers at home, (c) the number of family holidays taken abroad in the previous 12 months, (d) if they have their own bedroom, (e) the number of bathrooms in their home and (f) whether their household has a dishwasher. The Family Affluence Score (FAS) is a validated measure derived from these items and children are classified as having low, medium or high affluence^{7,8}.

In 2014, 39% of young people were classified as living in a high affluence family, 39% in a medium affluence family and 17% in a low affluence family (Figure 2.3). Only 5% of children could not be classified. This classification is based on cut-offs devised for international comparisons, where Scotland is relatively affluent.

PERCEIVED WEALTH

Young people were asked 'How well off do you think your family is?' in order to obtain a subjective measure of family wealth. Overall, 37% of young people responded 'average', 37% 'quite well off' and 20% 'very well off'. Only 6% of young people thought that their family was 'not very' or 'not at all well off' (Figure 2.4).

The perception of family wealth changes with age. More 11-year olds describe their family as 'very well off' compared to 13-year olds, and 13-year olds are more likely to describe their family as 'very well off' than 15-year olds. Among 13- and 15-year olds, boys are more likely than girls to describe their family as very well off.

Between 1998 and 2014, Scottish young people have become increasingly likely to describe their family as 'very well off', from 9% to 19% among girls, and from 12% to 22% among boys (Figure 2.5).

COMMUNICATION BETWEEN PARENTS AND ADOLESCENTS

Young people are more likely to find it easy to talk to their mother (82%) than to their father (66%) about things that really bother them. Easy communication with both parents declines with age for both boys and girls (Figures 2.6 and 2.7).

Boys find it easier than girls to talk to their father at all three ages (Figure 2.6). Eleven and 15-year old boys and girls find it equally easy to communicate with their mother, but 13-year old boys are more likely than girls this age to report easy communication with their mother (Figure 2.7). Since 1990, there has been a steady increase in the proportion of boys and girls who find it easy to communicate with their father (Figure 2.8). Since 2010, girls have become more likely to find it easy to talk to their father (from 54% in 2010 to 59% in 2014), but boys have changed little over this period.

There has been less change since 1990 in the proportion of young people finding it easy to talk to their mother (Figure 2.9). However, between 2010 and 2014, there was a slight increase in easy communication with mothers among boys (from 81% to 84%). Since 1990, there has been a persistent gender difference in ease of communication with fathers, but for communication with mothers, the gender difference is only present in 2014.

FAMILY SUPPORT

Pupils were asked four questions pertaining to family support, including items on emotional support, problem solving and decision making. The maximum family support score is 7 and the minimum 1. Figure 2.10 presents those with an average score of over 5.5 across these four items.

Overall, 62% of 11-15 year olds report high family support. A gender difference is evident among 13-year olds only, such that boys this age are more likely to report high family support (66% versus 59% of girls). Perceived family support reduces with age. Whereas 72% of 11-year olds report high family support, this reduces to 51% among 15-year olds.

Figure 2.6:
EASY TO TALK TO FATHER

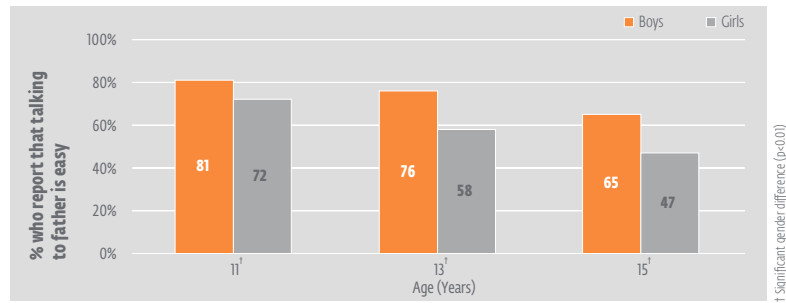


Figure 2.7:
EASY TO TALK TO MOTHER

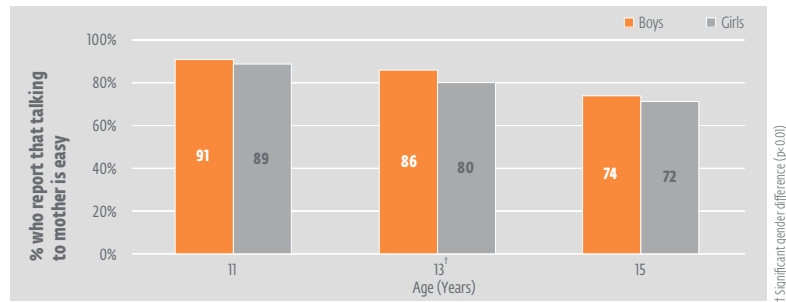


Figure 2.8:
EASY TO TALK TO FATHER 1990-2014

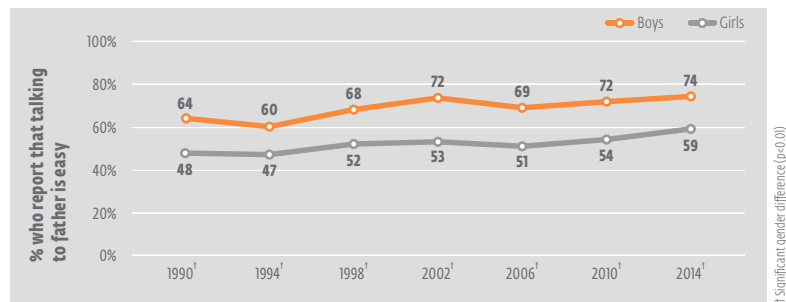


Figure 2.9:
EASY TO TALK TO MOTHER 1990-2014

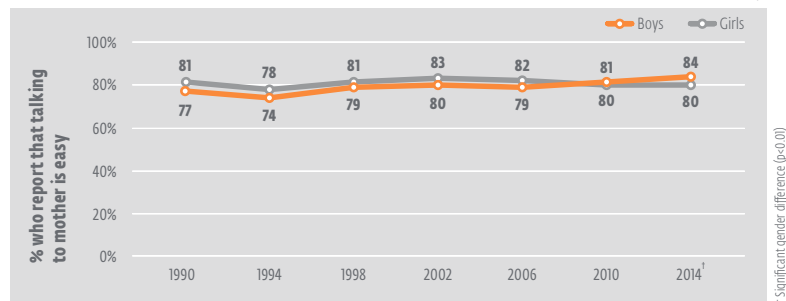
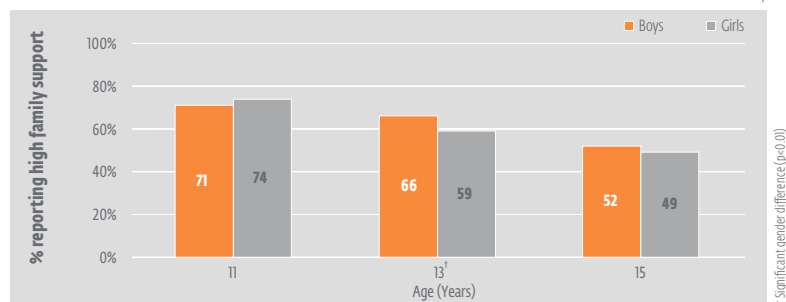


Figure 2.10:
FAMILY SUPPORT



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3

SCHOOL ENVIRONMENT

- Approximately one quarter of young people in Scotland (23%) report that they like school 'a lot', but this proportion reduces with age, especially for girls
- Girls at primary school are more likely than their male peers to like school 'a lot' (44% versus 29%). There is no gender difference in liking school among those at secondary school
- 62% of boys and 69% of girls feel their academic performance is 'good' or 'very good', although perceived performance is lower among older pupils
- 41% of 11-15 year olds report that they feel 'some' or 'a lot' of pressure from schoolwork. This proportion increases steeply with age
- 80% of 15-year old girls report feeling pressured by schoolwork, compared to 60% of boys this age
- The proportion of young people feeling pressured by schoolwork has been rising since 2006, especially among girls. The gender gap in perceived pressure is wider than at any point over the last 20 years
- 62% of young people report high classmate support, but the proportion is smaller among secondary school pupils. The proportion of boys and girls perceiving high classmate support has gradually declined since 2002
- 30% of 11-15 year olds report high teacher support, however this proportion is substantially lower among secondary school pupils compared to primary



SCHOOL ENVIRONMENT

INTRODUCTION

Adolescents spend a significant proportion of their time at school. It is therefore no surprise that an adolescent's perception of their school environment is a strong indicator of both academic success¹, and physical, emotional and mental health^{2,3}. A sense of belonging to the school community, fostered by peers, friends and school staff, is a very important element of school life for adolescents⁴. Previous studies predict that school environment has a stronger effect on girls' perceptions of their health and overall life satisfaction than boys⁵.

Young people who perceive that staff and peers at their school are supportive, are more likely to engage in health-promoting behaviours⁶, and have measurably better health and well-being⁷. Children who report a positive perception of their school, have higher levels of academic achievement, lower levels of truancy and bullying, and better mental well-being¹.

Within the Scottish context, schools have been identified as the ideal setting for health promotion initiatives¹. For example, a strong link exists between school sport facilities and organisations, and girls' overall participation in vigorous exercise⁸. However, schools can also influence adolescent health negatively; for example substance abuse is more likely among Scottish adolescents who are disengaged from school and/or perceive that their school is characterised by poor pupil-teacher relationships⁹.

The Scottish Government identifies schools as an important setting to influence young people's physical, mental and emotional health as indicated in *Delivering a Healthy Future: An Action Framework for Children and Young People's Health in Scotland*¹⁰. The school curriculum in Scotland underwent major revision with the implementation of a unified *Curriculum for Excellence* for all learners aged 3-18 introduced in 2010¹¹. Health and well-being is one of the eight curriculum areas within *Curriculum for Excellence*¹². The 2013 *Curriculum Impact Report* from Education Scotland highlighted that "Schools must make sure that all children and young people learn about health and well-being but also that their health and well-being, and all the things that can affect that, are understood. Poor health and well-being may mean that children and young people cannot make the best of the opportunities that schools provide"¹³.

HBSC FINDINGS

The HBSC survey collects information on a number of aspects of the school environment: how much pupils enjoy school (since 1990), perceived academic performance (since 1998), pressure from schoolwork (since 1994), support from classmates (since 2002) and teacher support (introduced in 2014).

ENJOYMENT OF SCHOOL

Approximately one quarter of young people (23%) report that they like school a lot. However, this figure is lower amongst older pupils (Figure 3.1). Thirty seven percent (37%) of 11-year olds, 21% of 13-year olds and 12% of 15-year olds say they like school a lot. At age 11, boys are less likely than girls to report liking school a lot, however there is no gender difference at ages 13 and 15.

Figure 3.2 shows a consistent gender difference over time between boys and girls in liking school a lot (except in 2002), although this is largely driven by differences at age 11. There has been little change since 1994 in the proportion of boys or girls who report they like school a lot.

PERFORMANCE AT SCHOOL

Young people were asked how they thought their teachers rated their academic performance relative to their classmates. Sixty two percent (62%) of boys and 69% of girls feel their performance is 'good' or 'very good', although perceived performance is lower among older pupils. Seventy two percent (72%) of 11-year olds, 66% of 13-year olds and 59% of 15-year olds report good academic performance (Figure 3.3). At age 11, girls tend to rate their performance higher than boys. This

Figure 3.1: LIKE SCHOOL A LOT

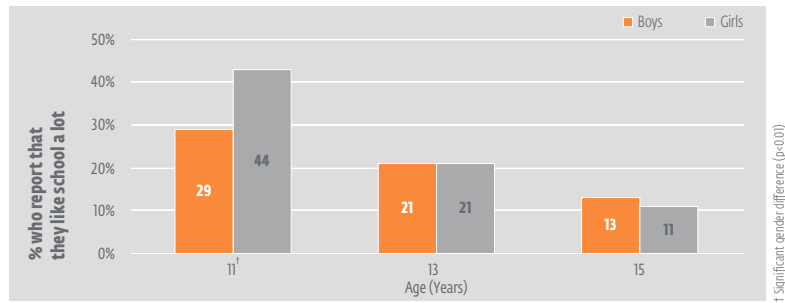


Figure 3.2: LIKE SCHOOL A LOT 1990 - 2014

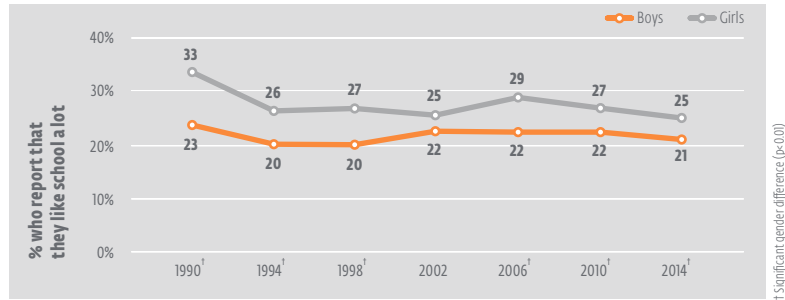


Figure 3.3: GOOD ACADEMIC PERFORMANCE AT SCHOOL

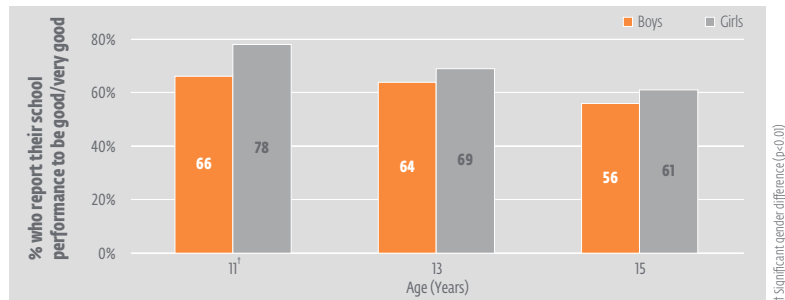


Figure 3.4: GOOD ACADEMIC PERFORMANCE AT SCHOOL 1998 - 2014

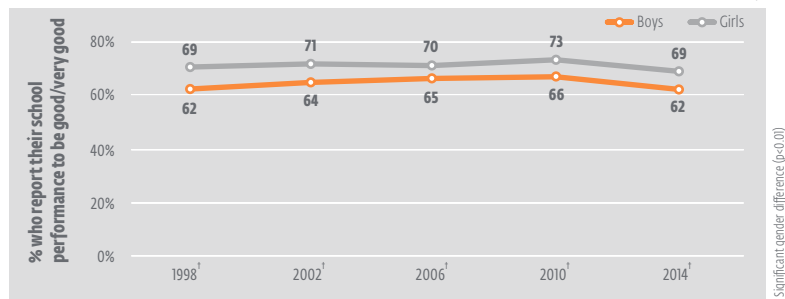
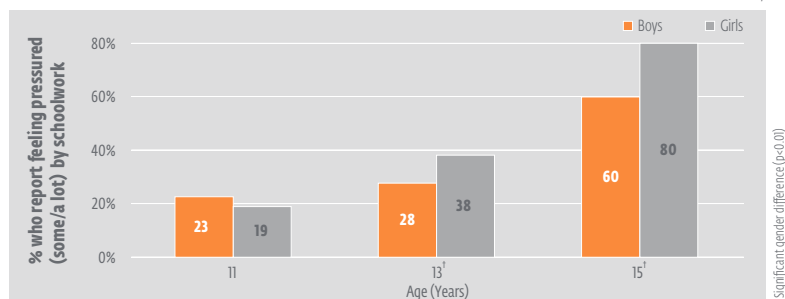


Figure 3.5: FEEL PRESSURED BY SCHOOLWORK



gender difference does not exist for older pupils. There has been little change in perceived academic performance since 1998 (Figure 3.4). However, a gender difference has been apparent throughout this 16-year period, with a higher proportion of girls than boys reporting good or very good performance.

PRESSURE OF SCHOOL WORK

Forty one percent (41%), of young people report that they feel 'some' or 'a lot' of pressure from schoolwork (Figure 3.5). Feeling pressured by school work is much more likely among older pupils; 70% of 15-year olds compared with 33% of 13-year olds and 21% of 11-year olds. Among 15-year olds, there is a substantial gender difference, with more girls than boys reporting feeling pressured (80% versus 60%, respectively). There is a smaller gender difference in this direction among 13-year olds (38% versus 28%, respectively), but no gender difference among 11-year olds. The proportions of girls and boys feeling pressured by school work in 2014 (45% and 37%, respectively) are higher than in 2010 for both genders, continuing an upward trend since 2006. For boys, school work pressure in 2014 is at a level similar to the previous peak in 2002. However, for girls, perceived school work pressure now exceeds any previous level over the past 20 years (Figure 3.6).

CLASSMATE SUPPORT

Sixty two percent (62%) of young people report that 'most of the pupils in my class(es) are kind and helpful', but the proportion is smaller for secondary school pupils; 74% of 11-year olds versus 57% of 13-year olds and 54% of 15-year olds. No gender difference in classmate support is seen in any age group (Figure 3.7). In 2014, fewer pupils report that their classmates are kind and helpful compared with 2002 (Figure 3.8). Whereas in 2002, 70% of both boys and girls reported their classmates in this way, in 2014 this declined to 62% of girls and 61% of boys. Since 2010, there has been no change in boys' perception of classmate support, but for girls there has been a slight decrease from 65% to 61%.

TEACHER SUPPORT

Pupils were asked three questions pertaining to teacher support, including items on acceptance, trust and caring. The maximum teacher support score is 12, and the minimum 0. Those scoring 10 or above on this scale are considered to perceive high teacher support.

Overall, 30% of 11-15 year olds report high teacher support, however this proportion differs substantially between primary and secondary school pupils (Figure 3.9). Whilst 53% of 11-year olds perceive high teacher support, this drops to 21% of 13-year olds and 15% of 15-year olds. Among primary school pupils, girls are more likely than boys to report high teacher support (58% versus 47%, respectively), however there is no significant gender difference among secondary school pupils.

Figure 3.6:
FEEL PRESSURED BY SCHOOLWORK 1994 – 2014

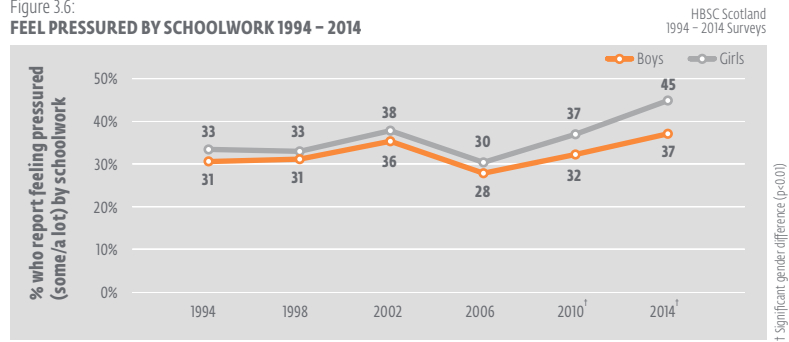


Figure 3.7:
CLASSMATES KIND AND HELPFUL

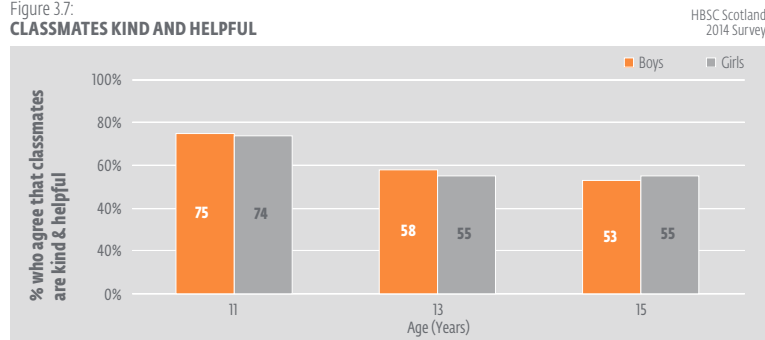


Figure 3.8:
CLASSMATES KIND AND HELPFUL 2002 – 2014

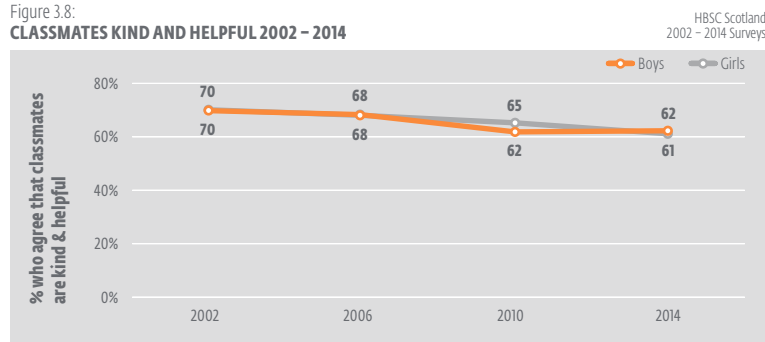
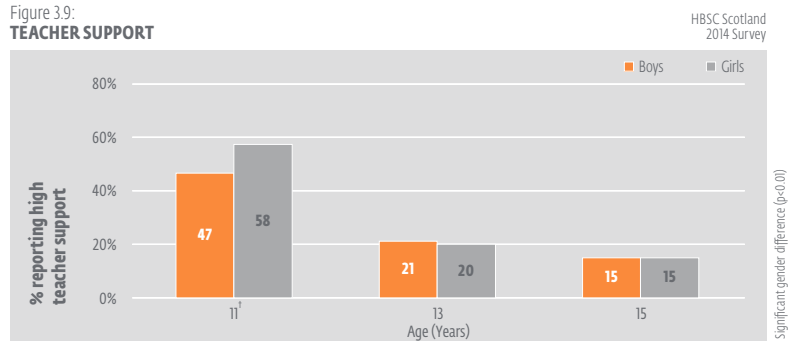


Figure 3.9:
TEACHER SUPPORT



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- 95% of Scottish 13- and 15-year olds have three or more close friends
- 21% of young people meet their friends every day after school before 8pm
- Daily contact with peers before 8pm decreases with age (25% of 11-year olds, versus 18% of 15-year olds) whereas daily contact with peers after 8pm becomes more likely (9% of 11-year olds, versus 14% of 15-year olds)
- Most 13- and 15-year olds (88%) say they find it easy to talk to their best friend about things that really bother them
- 61% of young people report daily contact with their friends by phone, texting, email, instant messenger or other social media
- Daily electronic media contact with friends is more likely among girls than boys (66% versus 56%)
- 48% of 11-year olds speak to their friends daily via electronic media, rising to 72% among 15-year olds
- 57% of 11-15 year olds report high levels of support from their peers (65% of girls versus 49% of boys)

4

PEER RELATIONS



PEER RELATIONS

INTRODUCTION

Whilst peer relationships are important for all life stages, during adolescence they can take on increased prominence as young people begin spending more time with peers¹. Peers can offer alternative attitudes, norms and behaviours than those conveyed by family². Moreover, during adolescence, young people have to cope with changes in their bodies, emotions, social relationships and school environment. Consequently, support from peers becomes crucial in shaping subjective well-being³, health attitudes and behaviours, which can then track into adulthood^{4,5,6}.

Peer relationships can have positive influences upon health determinants and outcomes. For example, social support from peers can encourage adolescent physical activity^{7,8}, and better peer communication and integration into school friendship groups is associated with fewer negative mental health outcomes^{9,10}. Adolescents who report having no friends use alcohol and illicit drugs more frequently, are more likely to smoke and perceive themselves as unhappy and lonely^{11,12}. Similarly, isolation from peer friendship groups can lead to depressive symptoms, low self-esteem and even suicide attempts¹³.

Peer relationships can also be predictive of participation in risky health behaviours such as early onset of alcohol consumption and binge-drinking^{14,15,16}, smoking¹⁷, risky sexual behaviour¹⁸, eating disorders¹⁹ and snacking and sugary drink consumption²⁰. The impact of peer group identification upon risky health behaviours is moderated by the relevant social norms of that peer group²¹. However, the direction of influence between peer relationships and health behaviour is not always clear; whilst peer norms can influence behaviour, there is evidence that young people can choose their friends based upon pre-existing shared behaviours (e.g. smoking²² or disordered eating²³).

In recent years, electronic media communication (EMC) has become an increasingly common method of connection amongst young people²⁴. This form of communication has shown to facilitate face-to-face interaction rather than replace it or lead to seclusion or loneliness^{25,24}. There is some evidence to suggest that EMC is positively associated with adolescent substance abuse over and above face-to-face peer influence²⁶.

Scottish Government policy on peer relations operates in relation to their *Curriculum for Excellence*²⁷. This highlights the importance of secure peer relationships for personal development and community belonging.

HBS FINDINGS

Young people are asked about several aspects of their relationships with peers within the HBS survey including the number of friends and time spent with them, use of electronic communication, ease of talking to best friend and peer support.

NUMBER OF CLOSE FRIENDS

Most young people report that they have several close friends. One percent (1%) of 13 and 15-year olds say they have no close friends, 1% have just one, 3% have two and 95% have three or more close friends. The majority of boys (87%) and girls (86%) have three or more close friends of the same gender. For girls, this does not vary with age, however 15-year old boys are less likely to have three or more close male friends than 13-year old boys (84% versus 89% respectively; [Figure 4.1](#)).

Opposite gender friendships do not vary between the ages of 13 and 15, with 60% of 13-year olds and 58% of 15-year olds having three or more close friends of the opposite gender.

PEER CONTACT FREQUENCY

Twenty one percent (21%) of young people meet their friends daily after school before 8pm ([Figure 4.2](#)), and 12% have daily contact with friends after 8pm ([Figure 4.3](#)).

Figure 4.1:
THREE OR MORE CLOSE FRIENDS OF SAME GENDER HBSC Scotland
2014 Survey

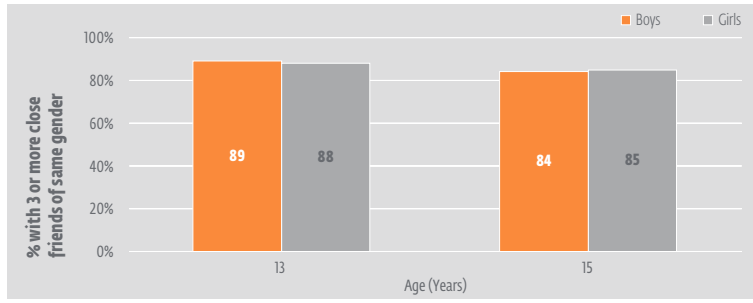


Figure 4.2:
SPEND TIME WITH FRIENDS AFTER SCHOOL DAILY BEFORE 8PM HBSC Scotland
2014 Survey

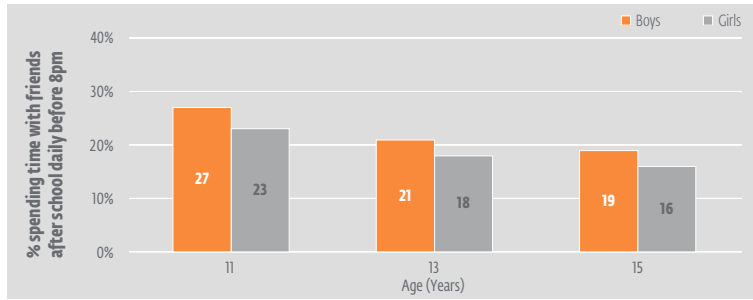
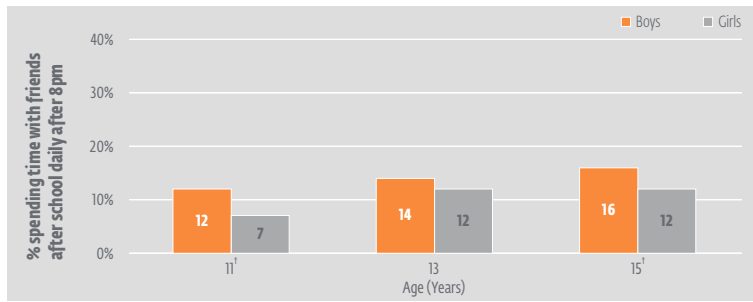


Figure 4.3:
SPEND TIME WITH FRIENDS AFTER SCHOOL DAILY AFTER 8PM HBSC Scotland
2014 Survey



Boys are more likely than girls to have daily contact with their friends both before 8pm (23% vs 19%, respectively) and after 8pm (14% vs 10%, respectively).

Daily contact with peers before 8pm decreases with age (25% of 11 year-olds, versus 18% of 15-year olds), whereas daily contact with peers after 8pm becomes more likely as young people get older (9% of 11-year olds, versus 14% of 15-year olds). These age differences are most pronounced between 11 and 13 years, coinciding with the transition to secondary school.

COMMUNICATION WITH BEST FRIEND

The majority of 13- and 15-year olds (88%) say they find it easy ('easy' or 'very easy') to talk to their best friend about things that really bother them (92% of girls and 85% of boys). A small proportion of young people say they do not have a best friend (1% of girls and 3% of boys). At 13 and 15 years, girls find it easier to talk to their best friend than boys do (Figure 4.4).

ELECTRONIC MEDIA CONTACT

Sixty one percent (61%) of young people report daily contact with their friends using either the phone, texting, email, instant messenger or other social media (Figure 4.5).

Overall, daily electronic media contact is more likely among girls (66% versus 56% among boys). This gender difference is most pronounced at the ages of 13 (71% for girls versus 55% for boys) and 15 (78% for girls versus 66% for boys).

Daily electronic media contact increases with age among boys and girls. Whilst nearly half (48%) of 11-year olds speak to their friends daily via electronic media, this figure rises to 72% among 15-year olds.

PEER SUPPORT

Pupils were asked four questions pertaining to peer support, including items on emotional support, problem solving and decision making. The maximum peer support score is 7 and the minimum 1. Figure 4.6 presents the proportion of young people with an average score above 5.5 across these four items. Overall, 57% of 11-15 year olds report high levels of support from their peers. Girls at all ages are more likely than boys to report high peer support (65% versus 49%, respectively). There is little difference in perceived peer support between the ages of 11 and 13, however 15-year old boys and girls report lower peer support than their 11- and 13-year old counterparts.

Figure 4.4:
EASY TO TALK TO BEST FRIEND

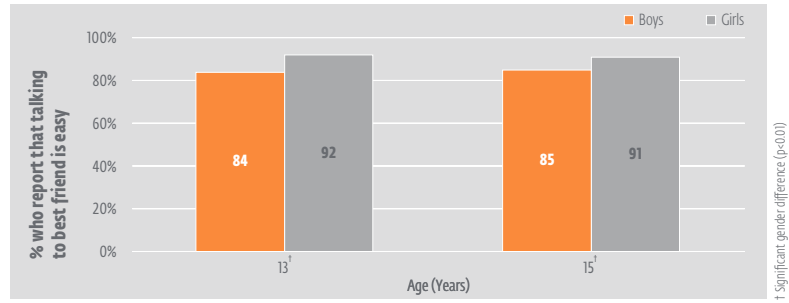


Figure 4.5:
ELECTRONIC MEDIA CONTACT WITH FRIENDS EVERY DAY

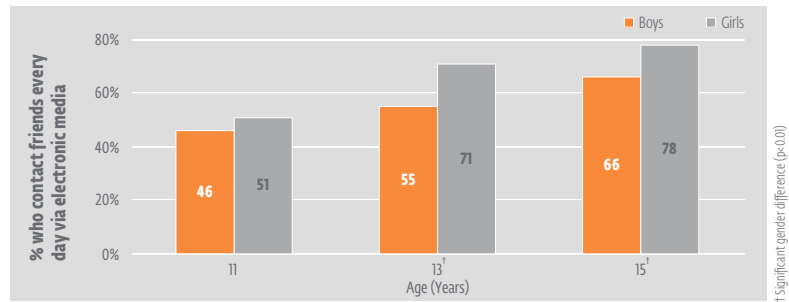
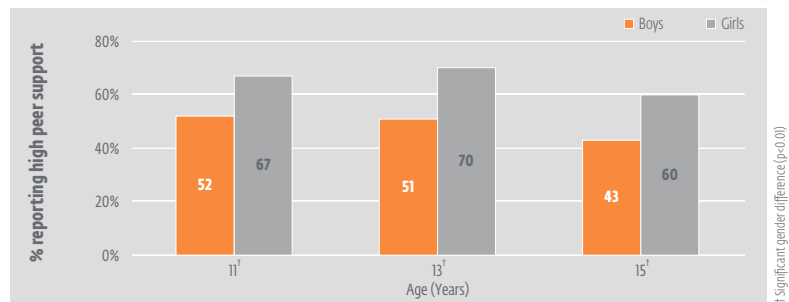


Figure 4.6:
PEER SUPPORT



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- 59% of 13- and 15-year olds in Scotland 'always' feel safe in their local area, with a further 30% feeling safe 'most of the time'. One in ten (9%) feel safe only 'sometimes'
- 42% think their local area is a 'really good' place to live. This perception becomes less common with age among girls
- 22% have a favourable perception of their local area's safety and sociability
- 15% report that they use local greenspace less than once a month during the summertime

5

NEIGHBOURHOOD ENVIRONMENT



NEIGHBOURHOOD ENVIRONMENT

INTRODUCTION

Neighbourhood environment can impact the health of young people over and above individual factors^{1,2}. This includes aspects of both the social environment such as socio-economic status (SES), and social capital stemming from networks of relationships; and the physical environment such as crowding, pollutants, safety, access to facilities and greenspace^{3,4}. The relationship between health and neighbourhood environment may vary for different population subgroups according to, for example, gender, age and deprivation⁵.

Neighbourhood SES has an impact on health determinants and outcomes. Less affluent areas are often associated with high levels of traffic and crime, poor local services, physical dilapidation, and unsafe recreation spaces compared to more prosperous neighbourhoods⁶. These factors in turn adversely affect health outcomes in young people⁷.

One important link between neighbourhood environment and health outcomes is participation in physical activity. For example, greater availability and safety of recreational facilities are associated with child and adolescent physical activity^{8,9}. Likewise, young people with a greater sense of social capital are more physically active¹⁰, and thus less likely to be physically obese¹¹. Access to green space may provide opportunities for social interaction leading to social support and a decrease in loneliness for adolescents¹². However, even where there is good access to greenspace in low SES neighbourhoods, negative perceptions of the area (e.g. high crime rate) can lead to low use^{13,14}.

In Scotland, the onset of poor health is reported at an earlier age among residents of more deprived neighbourhoods than among those in affluent areas¹⁵. In *Good Places, Better Health for Scotland's Children*¹⁶, the Scottish Government acknowledges the impact that neighbourhood environment has on multiple health outcomes including obesity, unintentional injury, asthma, and mental health and well-being.

In order to address these, the Scottish Government notes the importance of ensuring that neighbourhoods have a sense of community, are well-maintained, support healthy food choices and that children make regular positive use of greenspaces¹⁶. Moreover, in their *Equally Well Review 2010*¹⁷, the Ministerial Task Force on Health Inequalities argues for a collaborative approach between community planning partners in order to understand and tackle inequalities and poor health.

HBSC FINDINGS

HBSC collects data on 13- and 15-year olds' perceptions of their neighbourhood environment and includes questions on neighbourhood safety and social relations. Young people are also asked to report on their frequency and duration of local greenspace use.

FEEL SAFE IN LOCAL AREA

Fifty nine percent (59%) of young people 'always' feel safe in their local area – 60% of boys and 57% of girls (Figure 5.1). A further 30% feel safe 'most of the time', with 9% feeling safe only 'sometimes'. The proportion of girls who always feel safe in their local area declines between age 13 and 15 (61% to 52%), while there is little age difference for boys (62% at age 13 and 58% at age 15).

LOCAL AREA IS A GOOD PLACE TO LIVE

Forty two percent (42%) of young people think that their local area is a 'really good' place to live (Figure 5.2); 43% of boys and 41% of girls. For girls, this proportion decreases between the ages of 13 and 15 from 46% to 37%, but it does not change significantly for boys (46% at age 13 and 40% at age 15). Seven percent (7%) of boys and girls think that their local area is not a good place to live.

Figure 5.1:
FEELING SAFE IN LOCAL AREA HBSC Scotland
2014 Survey

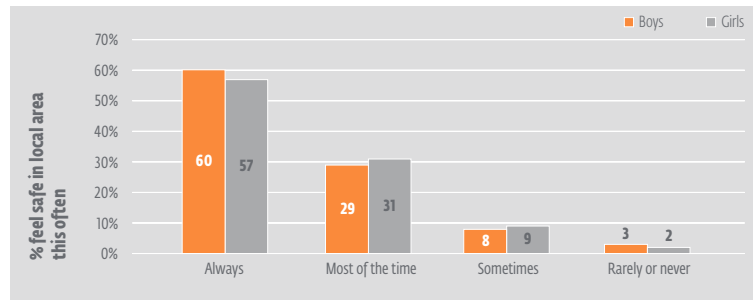


Figure 5.2:
LOCAL AREA IS A GOOD PLACE TO LIVE BY AGE HBSC Scotland
2014 Survey

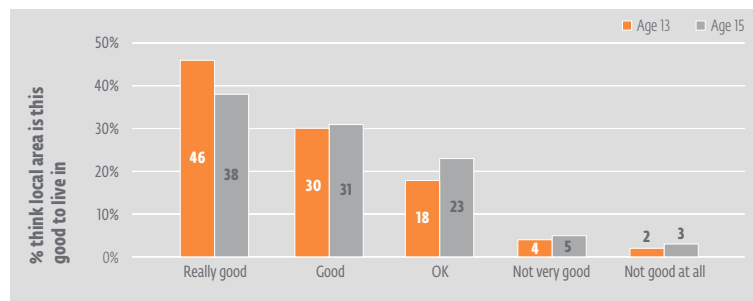


Figure 5.3:
PEOPLE SAY HELLO AND STOP TO TALK IN THE STREET HBSC Scotland
2014 Survey

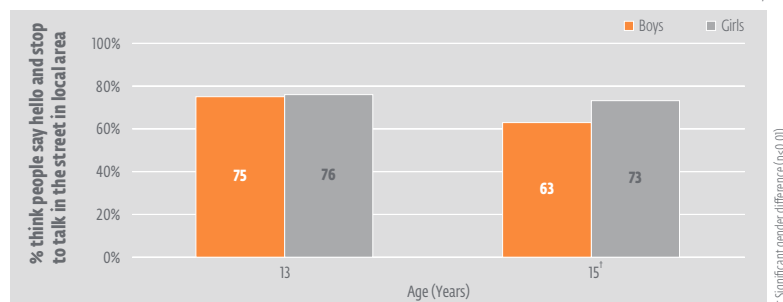


Figure 5.4:
SAFE FOR CHILDREN TO PLAY OUTSIDE HBSC Scotland
2014 Survey

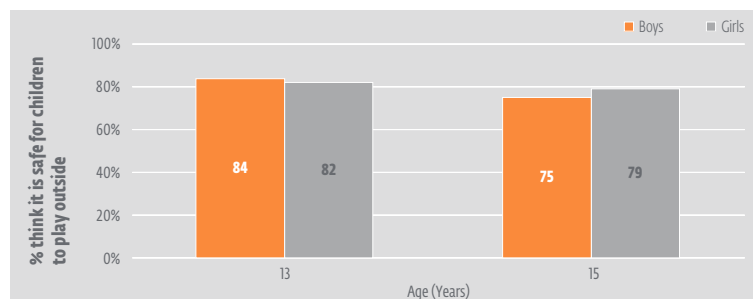
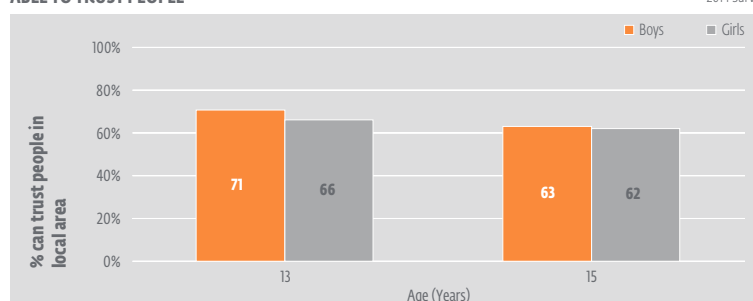


Figure 5.5:
ABLE TO TRUST PEOPLE HBSC Scotland
2014 Survey



GENERAL PERCEPTIONS OF LOCAL AREA

Young people were asked to respond to a variety of statements regarding their local area and asked whether they agreed with each.

Seventy two percent (72%) of 13- and 15-year olds agree that people say hello and talk to each other in the street, (69% of boys and 74% of girls). A gender difference is only seen at age 15, where 63% of boys agree compared with 73% of girls (Figure 5.3).

Eighty percent (80%) of 13- and 15-year olds feel it is safe for children to play outside, an equivalent proportion of boys and girls (Figure 5.4). Fifteen year old boys are less likely to agree with this statement than 13-year old boys (75% versus 84%).

Sixty six percent (66%) of 13- and 15-year olds agree that they can trust people in their local area; 67% of boys and 64% of girls. This proportion is greater at age 13 for boys (71% compared with 63% at age 15), but not girls (Figure 5.5).

Over half of 13- and 15-year olds (59%) agree that there are good places to spend their free time locally, with no gender differences in responses. Proportions are greater at age 13 than age 15 among both boys and girls (Figure 5.6). At age 13, 17% of boys and 20% of girls disagree with this statement, while at age 15, 26% of boys and 28% of girls do so. Eighteen percent neither agree nor disagree with the statement.

More than two thirds (68%) of 13- and 15-year olds agree that they can ask for help from neighbours, an equal proportion of boys and girls. The proportion of young people that feel they can ask for help reduces with age (72% among 13-year olds compared to 64% among 15-year olds) (Figure 5.7). Eighteen percent (18%) neither agree nor disagree with the statement, and a further 14% disagree.

Fifty seven percent (57%) of 13- and 15-year olds disagree that most people in their neighbourhood would try to take advantage of them if they got the chance; 20% agree; 23% neither agree nor disagree. These proportions do not differ by age group or gender (Figure 5.8).

When responses to the above six items were combined, a favourable perception of the local area was defined as agreement with the first five statements and disagreement with the sixth. Twenty two percent of young people have a favourable perception of their local area, an equal proportion of boys and girls (Figure 5.9). A greater proportion of 13-year olds have a favourable perception of their local area (26% compared with 19% of 15-year olds).

USE OF LOCAL GREENSPACE

When asked how often they use their local greenspace in the summertime, 15% of 13- and 15-year olds report that they do so less than once a month. Nineteen percent (19%) use local greenspace between one and three times a month and 64% do so at least weekly. Sixty eight percent (68%) of 13-year olds and 61% of 15-year olds are weekly users of greenspace with more boys than girls at age 15 (Figure 5.10).

When asked how many hours a week they spent in their local greenspace during the summertime, 22% were classified as non/light users, 24% as moderate users and 54% as heavy users (see appendix for classifications). At age 13, no gender difference was seen, but at age 15, girls were less likely than boys to be heavy users (46% compared with 56%, respectively) and more likely to be moderate users (27% compared with 21%, respectively) (Figure 5.11).

Figure 5.6: **GOOD PLACES TO SPEND FREE TIME** HBSC Scotland 2014 Survey

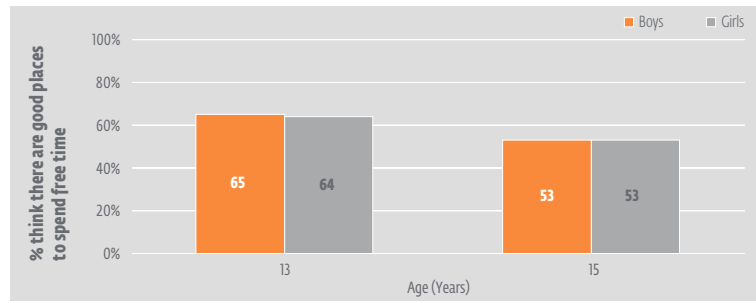


Figure 5.7: **ABLE TO ASK FOR HELP FROM NEIGHBOURS** HBSC Scotland 2014 Survey

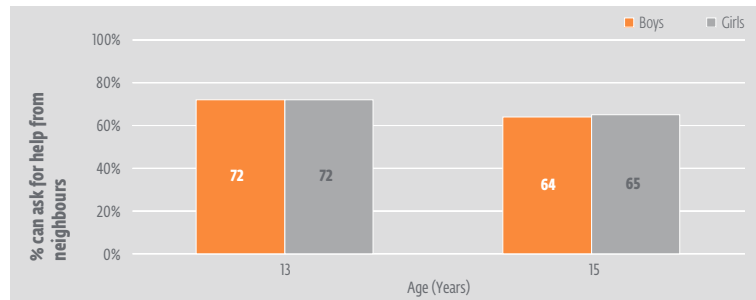


Figure 5.8: **MOST PEOPLE WOULD NOT TRY TO TAKE ADVANTAGE OF YOU** HBSC Scotland 2014 Survey

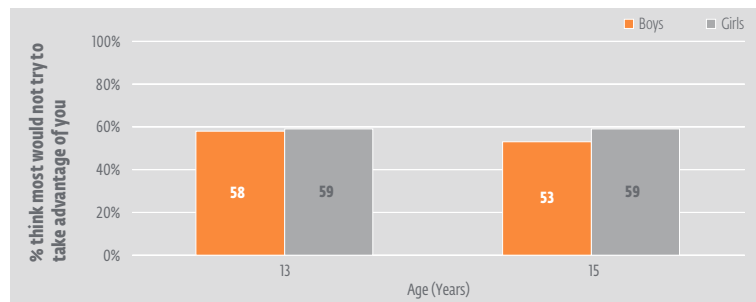


Figure 5.9: **POSITIVE OVERALL PERCEPTION OF LOCAL AREA** HBSC Scotland 2014 Survey

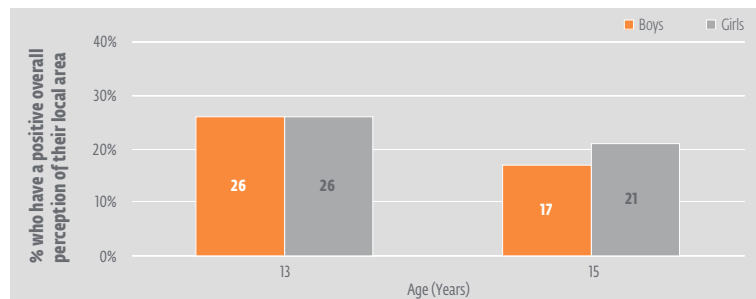
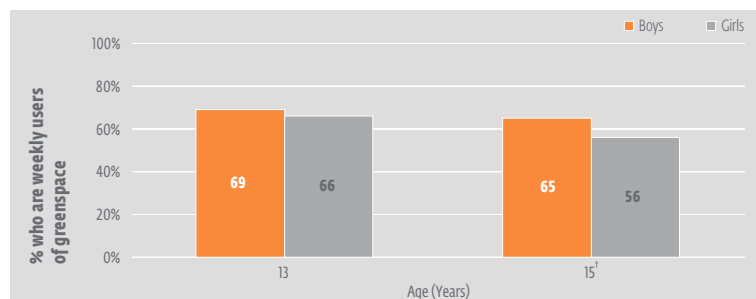


Figure 5.10: **WEEKLY USER OF LOCAL GREENSPACE** HBSC Scotland 2014 Survey

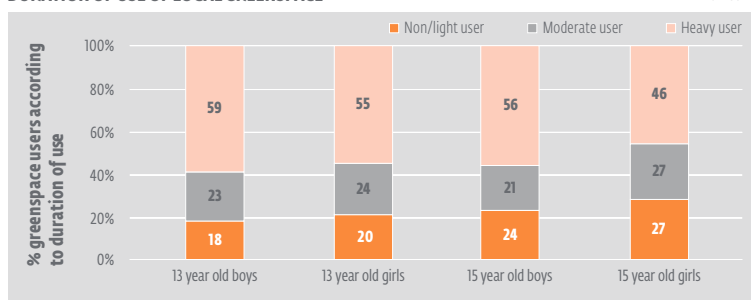


¹ Significant gender difference (p<0.01)

Figure 5.11:

DURATION OF USE OF LOCAL GREENSPACE

HBSC Scotland
2014 Survey



NOTES

* Parks, play areas, public gardens, woods, playing fields or sports pitches, golf courses, beaches, canals, rivers or lochs, and other types of natural open space.

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6

EATING HABITS

- 58% of 11-year olds in Scotland eat an evening meal with their family every day, compared to 42% of 15-year olds
- 7% of young people never eat an evening meal with their family
- Since 2002, there has been an increase in the proportion of girls eating a daily family evening meal
- 62% of young people eat breakfast every weekday
- Fruit and vegetables are both consumed daily by 38% of young people. Daily consumption of fruit decreases with age
- Since 2002, there has been an increase in daily fruit and vegetable consumption for both boys and girls
- 35% of young people eat sweets or chocolate every day
- 18% of young people eat crisps every day
- Eating crisps daily has declined since 2002 and in 2014 is approximately half as common
- In 2014, cola or other sugary drinks are consumed every day by one in four young people (24%)



EATING HABITS

INTRODUCTION

Good eating habits are highly beneficial to health and well-being at all ages. Adolescence is a critical period in the development of good eating habits for two key reasons. Firstly, eating habits formed at this time can persist into adulthood, influencing risk of major chronic diseases¹. Secondly, as children move into adolescence, they tend to be given greater control over eating choices, in particular through increased opportunity to buy their own food and drink outside of the home and without adult supervision². Although there have been improvements in recent years, many young people in Scotland are still not meeting dietary recommendations³. Rates of breakfast consumption are also low compared to many other developed nations^{4,5}. As in many other countries across Europe and North America, less than 50% of young people report eating fresh fruit and vegetables daily³.

Breakfast consumption is widely seen as an important component of a healthy diet and lifestyle, that can positively impact on children's health and well-being⁶. Skipping breakfast is associated with increased consumption of (often unhealthy) snacks later in the day⁷. Common snack foods amongst children include sugary drinks, crisps and sweets; a high intake of which is associated with increased risk of dental caries⁸ and excessive body weight⁹. With respect to being overweight, there is the additional risk factor of sedentary activities such as TV watching, which are associated with consumption of sugary drinks and sweets¹⁰; so high calorific intake can often be combined with high levels of inactivity. School meals can be an important vehicle for raising awareness of healthy eating and directly providing healthy eating choices. The provision of free school meals may be particularly important in this regard. However, in adolescence, many children switch to having their lunch away from school. This occurs for a variety of reasons including peer influence, the attraction of being out of school, feelings of independence, and issues such as preferences, choice and value for money of the alternatives to school lunches¹¹. Parents can have a strong impact on adolescent eating habits¹². Regularly eating together as a family during childhood has been linked to many benefits related to eating habits and emotional well-being in childhood and later in life¹³. Family meals encourage regularity in eating patterns, which is associated with both better health and well-being¹⁴, and also reduced risk of unhealthy weight control methods¹⁵. In Scotland, as in other industrialised countries, there has been a trend over time for increased consumption of fruit and vegetables and less consumption of sugary snacks³. Healthier diets are reported by children living in rural areas of Scotland compared to urban¹⁶, and by children living in more affluent families³. Unhealthy eating behaviour is associated with depression, anxiety and stress in adolescents¹⁷.

Promoting healthy eating has been a policy priority in Scotland for many years^{18,19,20,21}. *Scottish Dietary Goals* were set by the Scottish Government in 2013²² and these describe, in nutritional terms, the diet that will improve and support the health of the Scottish population. They continue to underpin diet and health policy in Scotland and are used for monitoring purposes. The Schools (Health Promotion and Nutrition) (Scotland) Act (2007)¹⁹ requires schools to promote school lunches and to ensure that these meet agreed standards of nutrition. The foods available to children who leave school at lunchtimes are addressed in the Scottish Government publication *Beyond the School Gate*, which was launched in 2014. It provides recommendations for local authorities, schools, retailers, caterers and other food providers on action they can take to influence the food environment around schools and how they can help children and young people to make healthier choices^{23,24}.

HBS-C FINDINGS

Since 2002, the HBS-C study has measured the frequency with which a range of food and drink items are consumed by young people. The survey also collects data relating to young people's experience of eating family meals, breakfast and school meals.

FAMILY MEALS

Half (50%) of young people eat an evening meal with their family (mother or father) every day. There is no gender difference in the reported frequency of family meals, but the likelihood of eating a family meal decreases with age: 58% of 11-year olds

Figure 6.1:
FREQUENCY OF FAMILY MEALS BY AGE

HBSC Scotland
2014 Survey

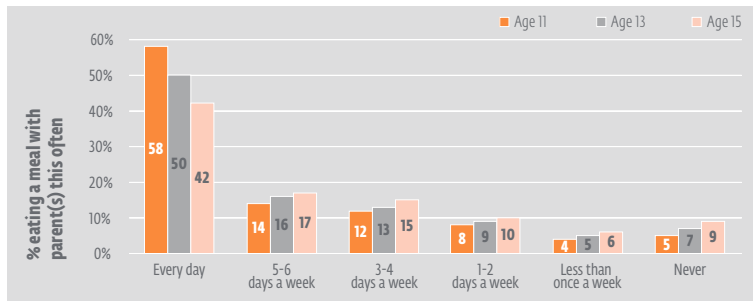
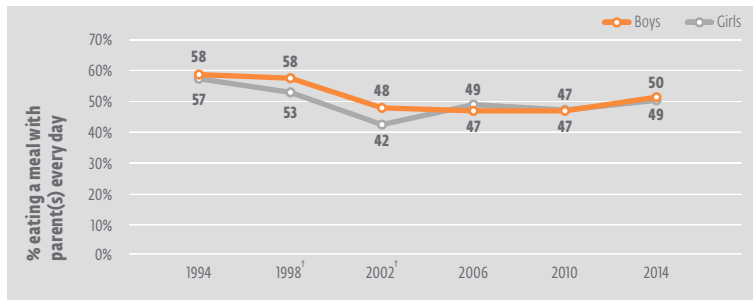


Figure 6.2:
DAILY FAMILY EVENING MEALS 1994 - 2014

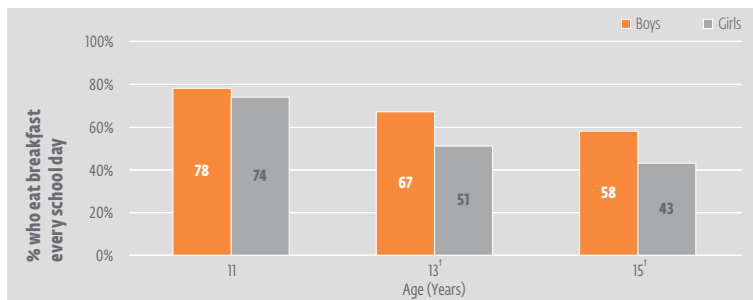
HBSC Scotland
1994 - 2014 Surveys



¹ Significant gender difference (p<0.01)

Figure 6.3:
EAT BREAKFAST EVERY MORNING ON SCHOOL DAYS

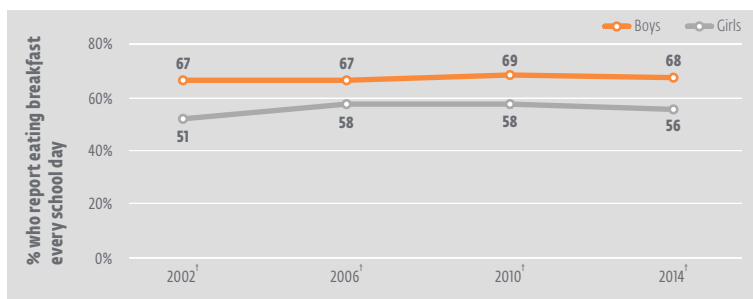
HBSC Scotland
2014 Survey



¹ Significant gender difference (p<0.01)

Figure 6.4:
BREAKFAST CONSUMPTION EVERY SCHOOL DAY 2002 - 2014

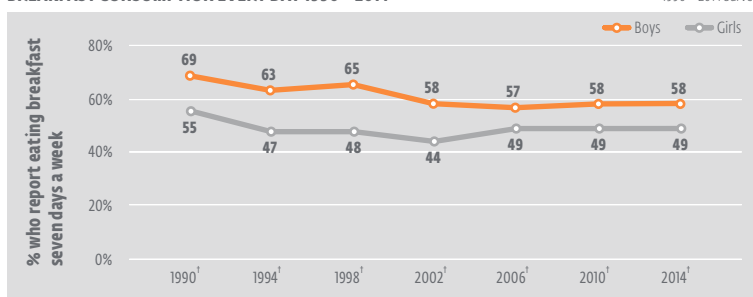
HBSC Scotland
2002 - 2014 Surveys



¹ Significant gender difference (p<0.01)

Figure 6.5:
BREAKFAST CONSUMPTION EVERY DAY 1990 - 2014²

HBSC Scotland
1990 - 2014 Surveys



¹ Significant gender difference (p<0.01)

² Young people were asked about weekday and weekend breakfast consumption separately from 2002 onwards.

compared to 42% of 15-year olds (Figure 6.1). Seven percent (7%) of young people never eat with their family. The frequency with which young people eat family evening meals has been measured by the Scottish HBS survey since 1994, when 58% of young people ate an evening meal with their parents every day. This figure fell to 42% of girls and 48% of boys in 2002 (Figure 6.2). Since then, there has been an increase in the proportion of girls reporting daily family evening meals but this is still lower than in 1994. The prevalence of daily family evening meals among boys has not changed since 2002.

BREAKFAST CONSUMPTION

On school days

Almost two thirds (62%) of 11- to 15-year olds eat breakfast every school day. Younger adolescents are more likely to eat breakfast every school day; 76% of 11-year olds do so compared with 50% of 15-year olds. Whilst there is no gender difference at age 11, at ages 13 and 15 girls are less likely than boys to eat breakfast on school days (Figure 6.3).

Between 2002 and 2014, there has been little change in daily weekday breakfast consumption among boys (Figure 6.4), whereas for girls there has been an increase (from 51% to 56%), the largest increase being between 2002 and 2006 (from 51% to 58%). A persistent gender difference is evident over the last 12 years, with girls less likely to eat breakfast on school days than boys.

Seven days a week

Between 1990 and 2002, there was a decline in the proportion of young people eating breakfast seven days a week (Figure 6.5). Between 2002 and 2006, there was an increase for girls, but little change for either girls or boys between 2006 and 2014. In 2014, rates are lower than in 1990 for both boys and girls. Over time, girls have been consistently less likely than boys to eat breakfast every day of the week.

LUNCH ON SCHOOL DAYS

The majority of 11-year olds (93%) report that they eat either a packed lunch or a school lunch on school days, and 4% go home for lunch (Figure 6.6). Among 13- and 15-year olds, the most common option for lunch is buying it outside school from a local shop, café or van (40% and 46%, respectively), followed by eating school lunches (31% and 25%, respectively). Eating a packed lunch is less common among secondary pupils (20%). Four percent (4%) of 15-year olds report not eating lunch at all and a further 4% go home for lunch.

At ages 13 and 15, girls are more likely than boys to eat a school lunch (34% versus 22%) and are less likely to buy lunch outside school (33% versus 53%). Girls aged 15 are also more likely than boys at this age to eat a packed lunch (24% versus 17%). Compared with survey results of 2006, there has been little change in school lunch choices among all three age groups.

FRUIT AND VEGETABLE CONSUMPTION

Overall, 38% of young people eat fruit daily. Daily fruit consumption reduces with age and is lower among 13-year olds than it is at age 11 (37% compared with 46%). A higher proportion of girls than boys consume fruit daily at age 11, but not at ages 13 or 15 (Figure 6.7). Since 2002, there has been an increase in daily fruit consumption for both boys and girls (Figure 6.8). Over this period, girls have been consistently more likely than boys to consume fruit daily, when combining 11-, 13- and 15-year old age groups.

Thirty-eight percent (38%) of young people eat vegetables daily. Girls are more likely than boys to eat vegetables every day (42% versus 34%). Unlike fruit consumption, daily consumption of vegetables is equivalent across all age groups (Figure 6.9). As with daily fruit consumption, there has been an increase in daily vegetable consumption for both boys and girls between 2002 and 2014 (Figure 6.10) and girls have been more likely to consume vegetables daily since 2002.

Figure 6.6:
WHAT PUPILS DO FOR LUNCH ON SCHOOL DAYS BY AGE

HBSC Scotland
2014 Survey

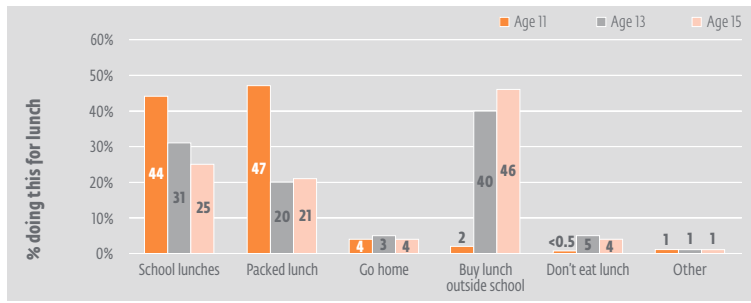


Figure 6.7:
DAILY FRUIT CONSUMPTION

HBSC Scotland
2014 Survey

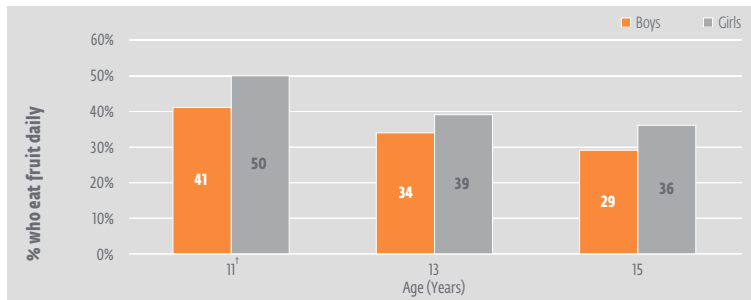


Figure 6.8:
DAILY FRUIT CONSUMPTION 2002 – 2014

HBSC Scotland
2002 – 2014 Surveys

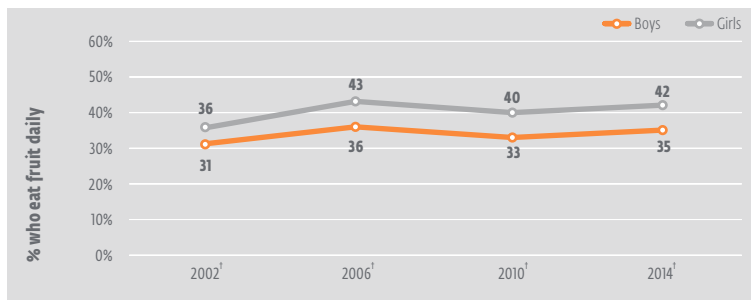


Figure 6.9:
DAILY VEGETABLE CONSUMPTION

HBSC Scotland
2014 Survey

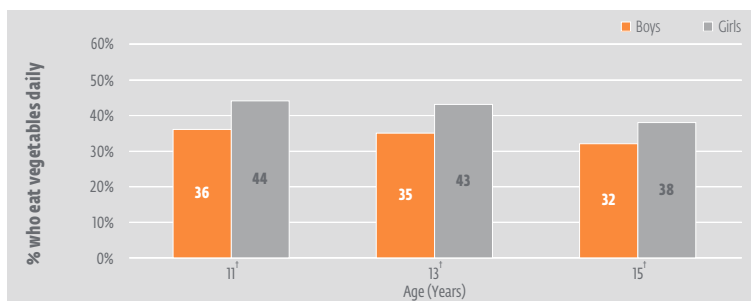
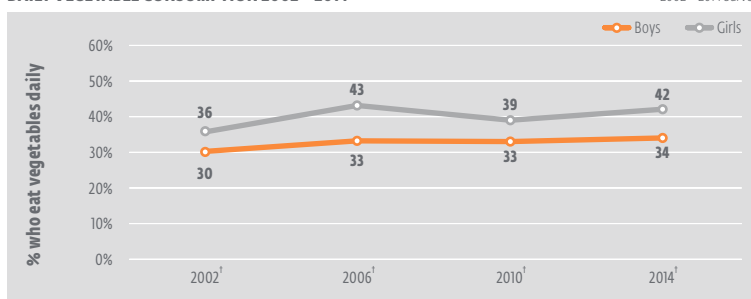


Figure 6.10:
DAILY VEGETABLE CONSUMPTION 2002 – 2014

HBSC Scotland
2002 – 2014 Surveys



CONSUMPTION OF SWEETS, CRISPS AND CHIPS

Thirty-five percent (35%) of young people eat sweets every day with similar proportions of boys and girls at each age (Figure 6.11). There is no difference in daily consumption of sweets between ages 11 and 15. Daily consumption of sweets declined between 2002 and 2010 (Figure 6.12), however between 2010 and 2014 consumption of sweets rose again among girls (29% to 36%) and boys (30% to 33%). Levels of daily consumption of sweets in 2014 among boys and girls remain lower than in 2002.

Eighteen percent (18%) of young people eat crisps every day. Consumption of crisps is approximately the same for boys and girls and does not differ by age (Figure 6.13). The prevalence of daily consumption of crisps has been declining since the early 2000s and in 2014 is approximately half of that in 2002 (Figure 6.14). This reduction is seen across all three age groups but is particularly great among 11-year olds (from 44% to 20%) and 13-year olds (from 40% to 17%).

Nine percent (9%) of young people eat chips every day. There are no gender or age differences in daily consumption (Figure 6.15). Daily consumption of chips halved between 2002 and 2010 from 22% to 9% among boys, and from 16% to 7% among girls (Figure 6.16), but has not changed significantly since.

CONSUMPTION OF SUGARY DRINKS

Cola or other sugary drinks are consumed daily by around one quarter (24%) of young people (27% of boys; 20% of girls). A gender difference is found among 13- and 15-year olds, such that boys are more likely than girls to drink sugary drinks daily (Figure 6.17). Daily consumption of sugary drinks increases between ages 11 and 13 for boys, and the prevalence of soft drink consumption at age 15 is higher than at age 11 for both boys and girls. Little change is seen between the ages of 13 and 15 for either boys or girls.

The proportion reporting drinking sugary drinks every day decreased between 2006 and 2010 (from 32% to 25% of boys and from 25% to 18% of girls), but has not changed significantly since 2010 (Figure 6.18).

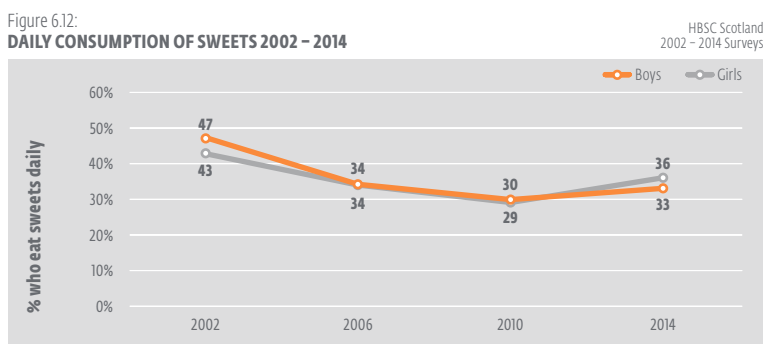
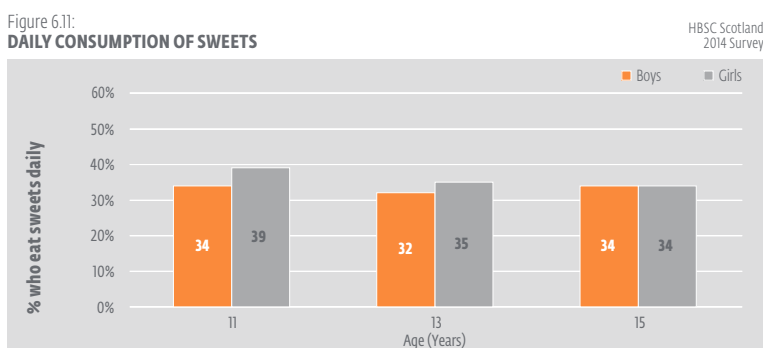


Figure 6.13:
DAILY CONSUMPTION OF CRISPS HBSC Scotland
2014 Survey

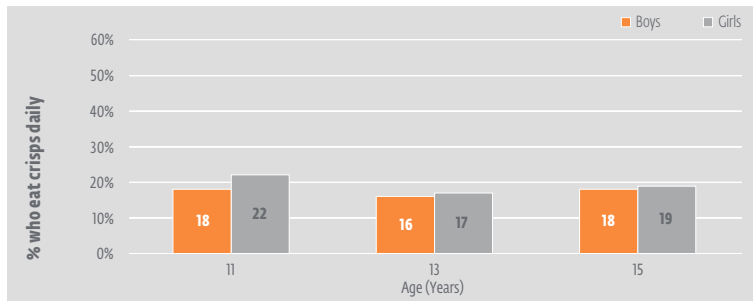


Figure 6.14:
DAILY CONSUMPTION OF CRISPS 2002 – 2014 HBSC Scotland
2002 – 2014 Surveys

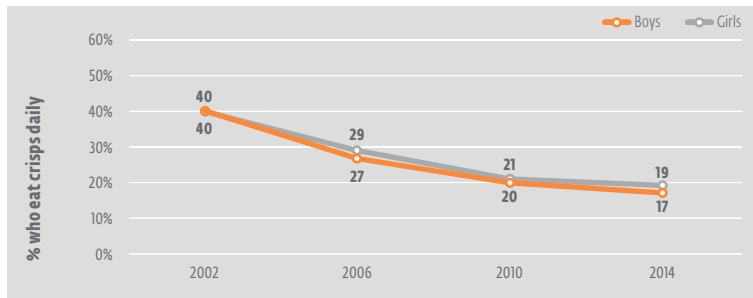


Figure 6.15:
DAILY CONSUMPTION OF CHIPS HBSC Scotland
2014 Survey

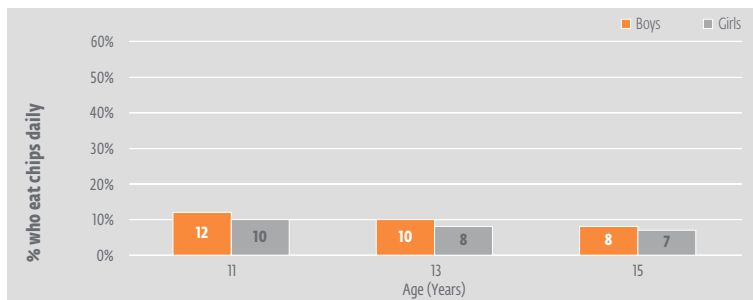


Figure 6.16:
DAILY CONSUMPTION OF CHIPS 2002 – 2014 HBSC Scotland
2002 – 2014 Surveys

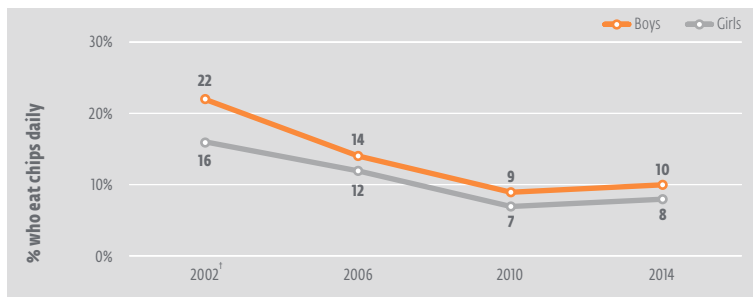


Figure 6.17:
DAILY CONSUMPTION OF COLA/OTHER SUGARY DRINKS HBSC Scotland
2014 Survey

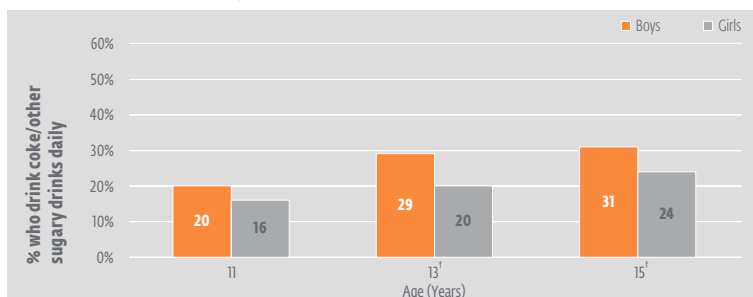
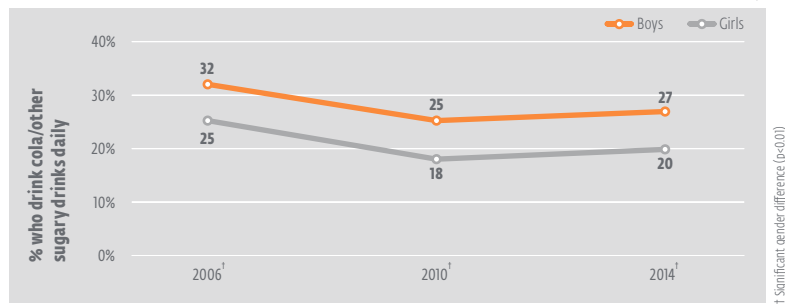


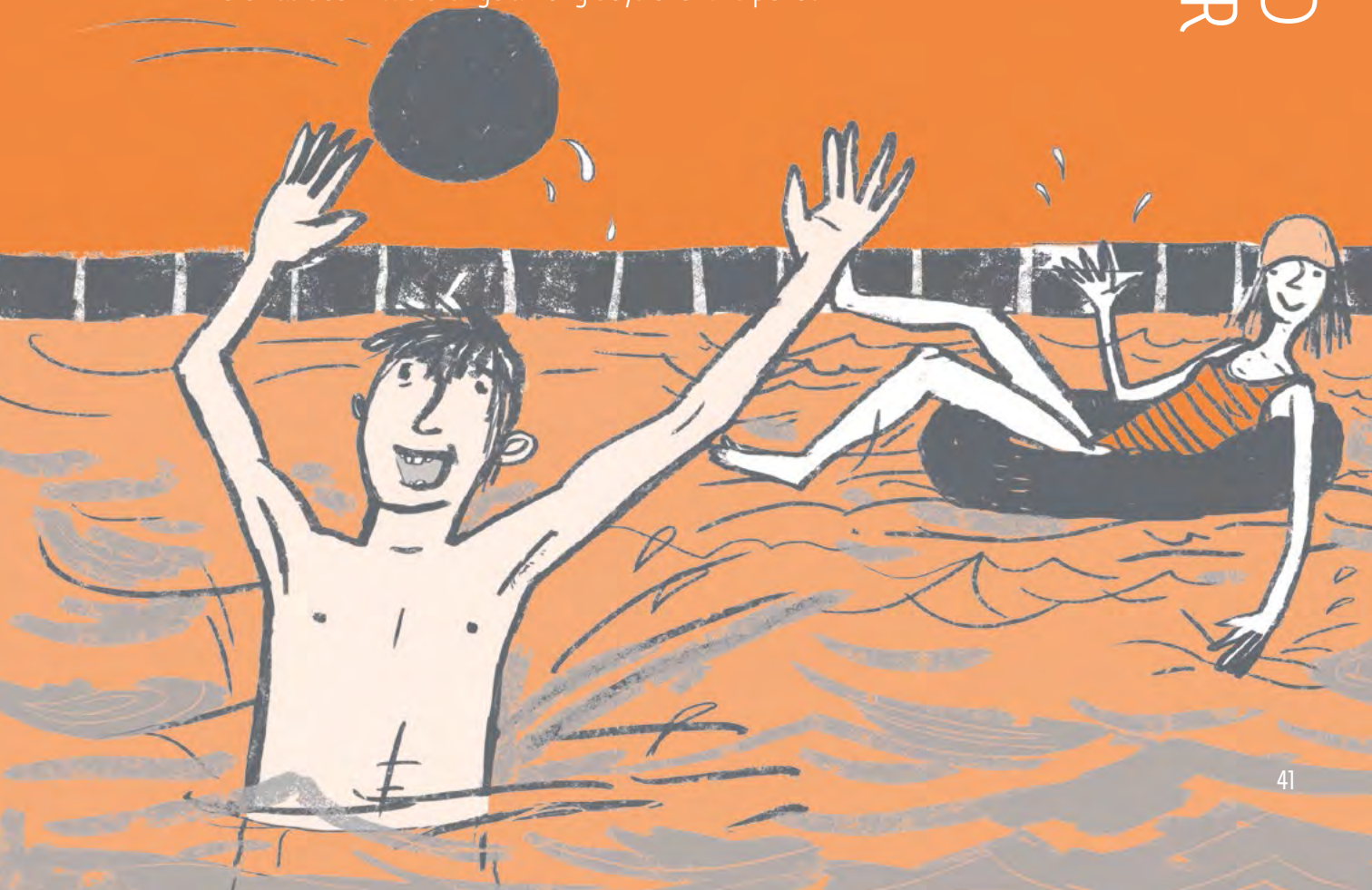
Figure 6.18:
DAILY COLA/OTHER SUGARY DRINK CONSUMPTION 2006 – 2014



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- Fewer than one in 5 (18%) Scottish young people meet government physical activity guidelines which recommend at least 60 minutes of moderate to vigorous physical activity (MVPA) every day
- In 2014, relative to 2010, there has been a small improvement in the proportion of boys and girls meeting these physical activity guidelines, however rates have not improved relative to 2002
- Boys are more likely than girls to meet the physical activity guidelines, with this gender gap largest among 11-year olds
- The percentage of girls participating in regular vigorous physical activity has gradually increased since 1990, but there has been little change among boys
- 46% of young people report that they usually walk to school
- Only 4% of boys and 1% of girls report that they travel to school by bicycle
- 64% of young people watch television for two or more hours every day during the school week
- Weekday TV viewing has decreased steadily since 2002
- 65% of boys and 46% of girls play computer games for at least 2 hours every weekday
- The proportion of girls playing computer games has increased steeply since 2010. There has been little change among boys over this period



PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOUR

INTRODUCTION

Regular physical activity can improve physical and psychological health, and quality of life¹. Sedentary behaviour refers to participation in low energy activities requiring minimal physical movement^{2,3}. Levels of sedentary behaviour are not strongly correlated with how active a young person is. Adolescence is a crucial time to establish an active lifestyle that will continue into adulthood^{4,5}.

Participation in physical activity amongst children and adolescents has been linked to multiple positive health outcomes, including increased cardiovascular and musculoskeletal health, increased self-esteem and reduced depression and anxiety^{6,7}. Girls generally participate in physical activity less than boys, and physical activity decreases with age for both genders^{8,9}. In addition to gender and age, physical activity participation among adolescents can vary in relation to ethnicity, previous physical activity, intentions to be active, opportunities to exercise, perceived competence and social support^{10,11}.

Sedentary behaviours have a negative effect on health outcomes independent of physical activity^{12,13}. Time spent being sedentary (e.g. watching television or playing computer games) does not necessarily displace time spent engaging in physical activity^{14,15}. Sedentary behaviour is independently associated with higher levels of obesity^{15,16}, as well as consumption of sugary drinks¹⁷ and energy-dense snacks¹⁸, and poorer mental health⁸.

There is a significant decrease in physical activity from primary to secondary school, which continues throughout secondary school^{19,21}. With regards to sedentary behaviours, watching television for two or more hours a day on weekdays is common amongst young people in Scotland, as it is for many children and adolescents globally. In Northern and Western Europe, this behaviour is particularly prevalent in comparatively deprived households²¹.

The Scottish Government has a National strategy, *Let's Make Scotland more Active*, to encourage participation in physical activity²⁰. This aims to increase the proportion of young people under 16 meeting the minimum recommended level of physical activity (one hour of daily moderate activity) to 80% by 2022. The strategy has a particular focus on those deemed least active, including teenage girls. Moreover, in 2011, increasing physical activity became a Scottish Government National Indicator and a legacy aspiration of the 2014 Glasgow Commonwealth Games²¹.

HBSC FINDINGS

Participation in physical activity and sedentary behaviour are assessed using various measures. Frequency and duration of vigorous physical activity (outside school hours) have been included in HBSC since 1990. A standardised measure of moderate to vigorous physical activity (MVPA)²² has been used since 2002, allowing for analysis of a twelve-year time trend in the proportion of adolescents meeting current physical activity guidelines. Information on mode of transport to school and the time taken for this journey are also collected. Screen time is included as an indicator of sedentary behaviour; TV watching since 2002 and computer use since 2006.

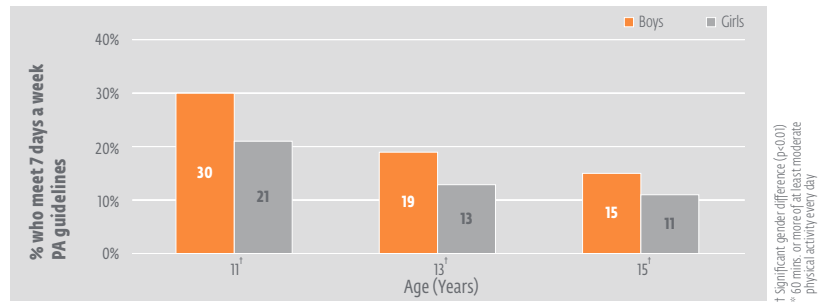
MEETING SCOTTISH GOVERNMENT PHYSICAL ACTIVITY GUIDELINES

In Scotland, 18% of young people take part in MVPA for at least 60 minutes every day. There is a gender difference with 21% of boys compared to 15% of girls reporting this level of physical activity. Boys are more likely than girls to meet the physical activity guidelines at all three ages (Figure 7.1). Daily MPVA is more frequent amongst 11-year olds, with a marked decrease between the ages of 11 and 13, especially among boys.

There was an increase in the proportion of girls meeting physical activity guidelines between 2010 and 2014; from 11% to 15% (Figure 7.2). The proportion of boys also rose significantly from 19% in 2010 to 21% in 2014. Despite this increase since 2010, the proportion of boys and girls meeting physical activity guidelines in 2014 has not improved relative to that in 2002.

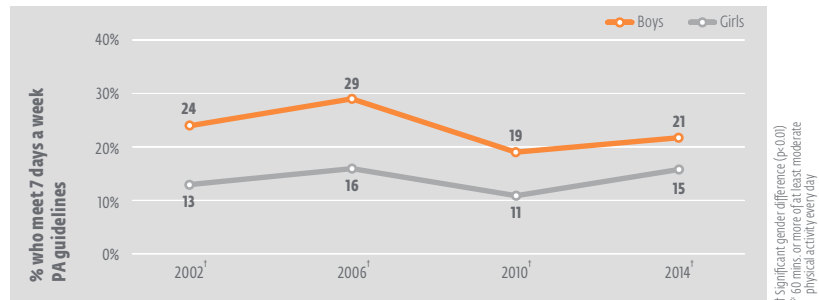
7 PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOUR

Figure 7.1: MEETING PHYSICAL ACTIVITY GUIDELINES^o HBSC Scotland 2014 Survey



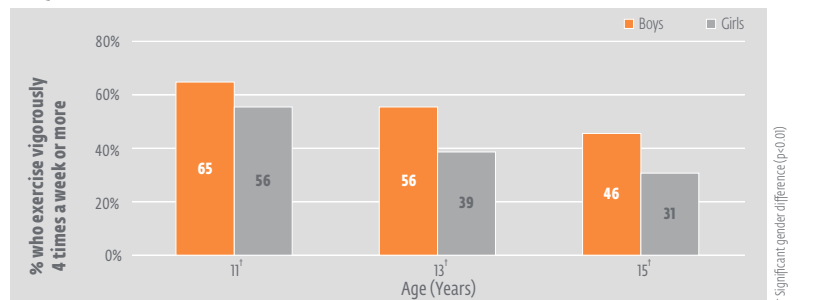
¹ Significant gender difference (p<0.01)
^o 60 mins. or more of at least moderate physical activity every day

Figure 7.2: MEETING PHYSICAL ACTIVITY GUIDELINES 2002 – 2014^o HBSC Scotland 2002 – 2014 Surveys



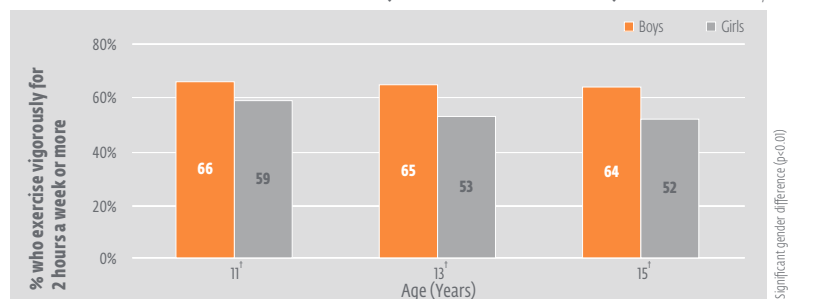
¹ Significant gender difference (p<0.01)
^o 60 mins. or more of at least moderate physical activity every day

Figure 7.3: FREQUENCY OF LEISURE TIME VIGOROUS EXERCISE (4 OR MORE TIMES PER WEEK) HBSC Scotland 2014 Survey



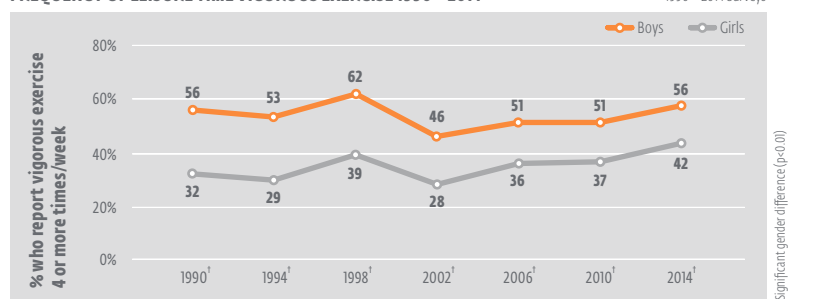
¹ Significant gender difference (p<0.01)

Figure 7.4: DURATION OF LEISURE TIME VIGOROUS EXERCISE (2 OR MORE HOURS PER WEEK) HBSC Scotland 2014 Survey



¹ Significant gender difference (p<0.01)

Figure 7.5: FREQUENCY OF LEISURE TIME VIGOROUS EXERCISE 1990 – 2014 HBSC Scotland 1990 – 2014 Surveys



¹ Significant gender difference (p<0.01)

LEISURE TIME VIGOROUS PHYSICAL ACTIVITY (OUTSIDE SCHOOL HOURS)

As for MVPA, participation in vigorous physical activity is higher among boys than girls. Over half of boys (56%) and 42% of girls take part in vigorous exercise four times or more per week in their free time (Figure 7.3). Frequency of vigorous activity is highest at age 11 (65% of boys and 56% of girls), particularly compared with 15-year olds, when 46% of boys and 31% of girls are vigorously active four or more times a week.

While the frequency of participation decreases with age, the amount of time that young people spend doing vigorous activity shows a different relationship with age. Duration of vigorous exercise remains stable with age amongst boys, but declines between the ages of 11 and 15 for girls (Figure 7.4). In 2014, 65% of boys and 55% of girls exercise vigorously for two or more hours a week in their free time.

Overall, the proportion of girls participating in vigorous physical activity outside school has increased since 1990, but there has been little change among boys (Figures 7.5 and 7.6). The gender difference in vigorous physical activity has remained since 1990, with a greater frequency and duration of participation among boys than girls in each survey year.

TRAVEL TO SCHOOL

Approximately half (46%) of young people in Scotland report that they usually walk to school (Figure 7.7). Cycling to school is rare with only 4% of boys and 1% of girls reporting that they travel this way. Twenty six percent (26%) usually travel to school by bus or train and 25% by car. Walking to school is more common among primary school children compared to those from secondary school (Figure 7.8). In relation to passive forms of transport, a higher proportion of primary school pupils travel to school by car whereas secondary pupils are more likely to travel to school by bus or train.

TRAVEL TIME TO SCHOOL

Most young people (91%) report that it takes 30 minutes or less to travel to school from home (Figure 7.9). One quarter (23%) travel 15-30 minutes to get to school, less than half (43%) travel for 5-15 minutes and about a quarter (25%) travel for less than five minutes. For around one in ten pupils (9%), the journey time to school is over 30 minutes. Pupils aged 13 and 15 years are less likely than those aged 11 to have a journey of less than five minutes but more likely to have a journey of over 15 minutes. These age-related differences are likely to be due to the increased catchment area of secondary schools.

TIME SPENT WATCHING TELEVISION

Around two-thirds of young people (64%) watch television for two or more hours daily during the school week and this figure is greater at ages 13 and 15 (both 68%) compared with age 11 (57%; Figure 7.10). Boys are significantly more likely than girls to watch television for two or more hours daily in all three age groups. The proportion of young people watching TV is higher at weekends than on weekdays, with 79% watching two or more hours of TV per day at the weekend. TV viewing at the weekend is lower among 11-year olds than among the older age groups.

TV viewing on school days has decreased since 2002 (Figure 7.11). The proportion of young people watching TV for two hours or more on weekdays fell from 75% to 64%. However, TV viewing at the weekend has increased slightly since 2006, when 75% of young people reported watching TV for 2 or more hours at the weekend, to 79% in 2014.

TIME SPENT PLAYING COMPUTER GAMES

During the school week, boys are more likely to play computer games for at least two hours a day (65% compared with 46% of girls) (Figure 7.12). This gender difference is seen within each age group.

Playing computer games on weekdays has increased among girls since 2010. In 2014, 46% of girls played computer games for at least two hours a day, compared to 29% in 2010. No change was seen in the proportion of boys playing computer games during weekdays.

Figure 7.6: DURATION OF LEISURE TIME VIGOROUS EXERCISE 1990 – 2014

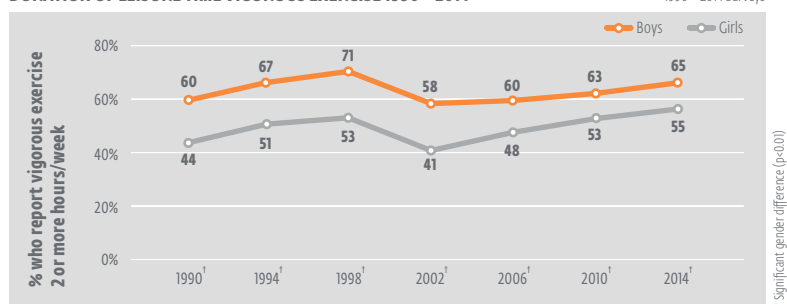


Figure 7.7: MODE OF TRAVEL TO SCHOOL

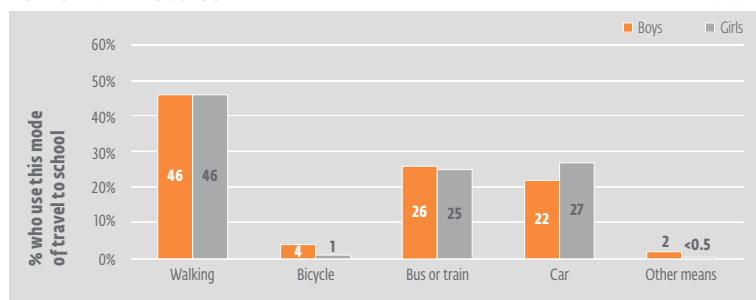


Figure 7.8: MODE OF TRAVEL TO SCHOOL BY AGE

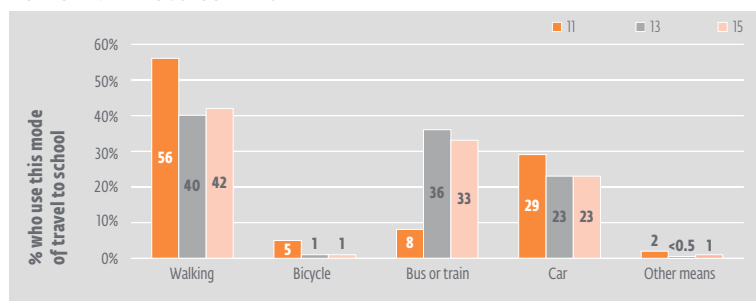


Figure 7.9: TRAVEL TIME TO SCHOOL BY AGE

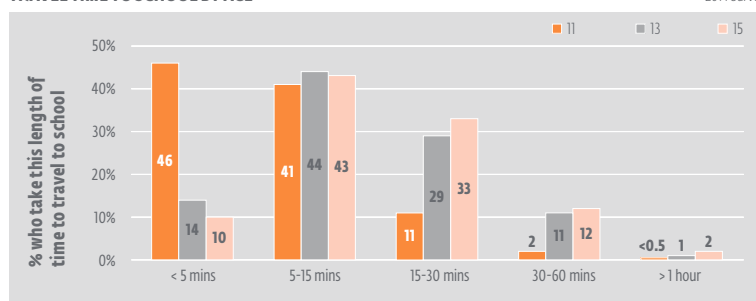
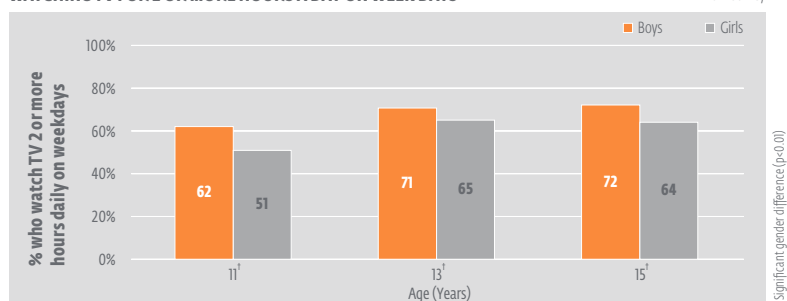


Figure 7.10: WATCHING TV FOR 2 OR MORE HOURS A DAY ON WEEK DAYS



The proportion of young people who spend two or more hours a day playing computer games is greater at the weekends than on weekdays. This is observed among all three age groups. At the weekend, 78% of boys and 57% of girls play computer games for two or more hours a day (Figure 7.13). Playing computer games at the weekend has increased among girls since 2010; in 2014, 57% of girls played computer games for at least two hours a day, compared with 37% in 2010. No changes in the prevalence of weekend computer gaming was seen for boys over this time period.

USING A COMPUTER FOR PURPOSES OTHER THAN PLAYING GAMES

Sixty six percent (66%) of girls use a computer for chatting online, internet, emailing, homework etc. for at least two hours every day during the school week, compared with 60% of boys (Figure 7.14). There is no gender difference among 11-year olds; however, girls are more likely than boys to use the computer for non-gaming activities at ages 13 and 15. Use of computers for non-gaming activities is higher at weekends than on weekdays and increases with age (Figure 7.15). Again, at ages 13 and 15, girls are more likely than boys to use the computer for this purpose at the weekend.

The proportion of young people who use a computer for purposes other than games on weekdays has increased, from 51% in 2010 to 63% in 2014. Similarly, weekend use has increased from 57% in 2010 to 71% in 2014. Whilst the proportion playing computer games is similar across age groups, the prevalence of non-gaming computer use increases with age. It is likely that higher schoolwork demand at secondary school is partly responsible for increased non-gaming computer use. This age-related increase in non-gaming computer use also concurs with the finding in Chapter 4 that electronic media communication becomes more popular with age.

Figure 7.11: WATCHING TV FOR 2 OR MORE HOURS A DAY ON WEEK DAYS 2002 – 2014

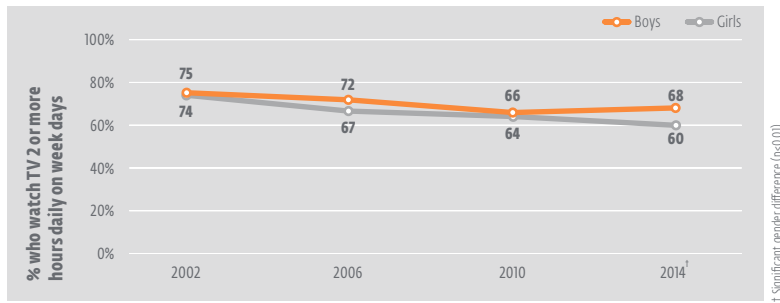


Figure 7.12: PLAYING COMPUTER GAMES FOR 2 OR MORE HOURS A DAY ON WEEK DAYS

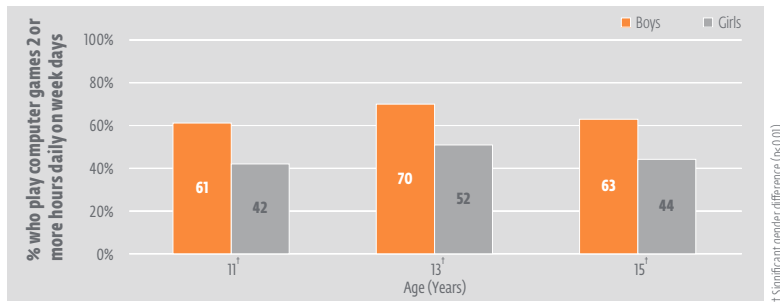


Figure 7.13: PLAYING COMPUTER GAMES FOR 2 OR MORE HOURS A DAY AT THE WEEKEND

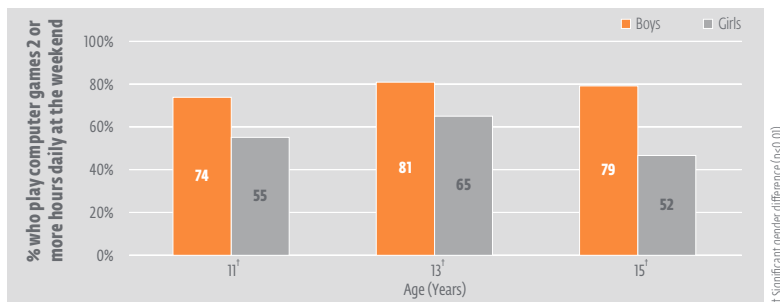


Figure 7.14: USING COMPUTERS (NOT GAMES) FOR 2 OR MORE HOURS A DAY ON WEEK DAYS

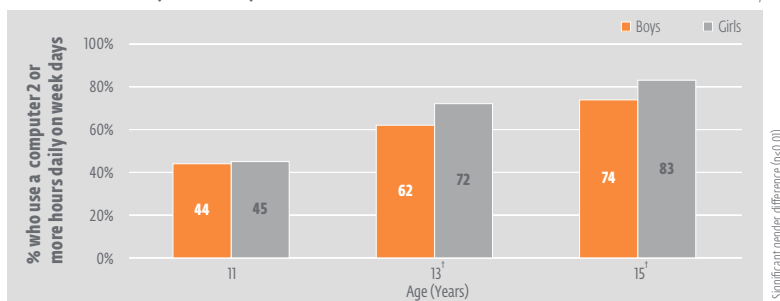
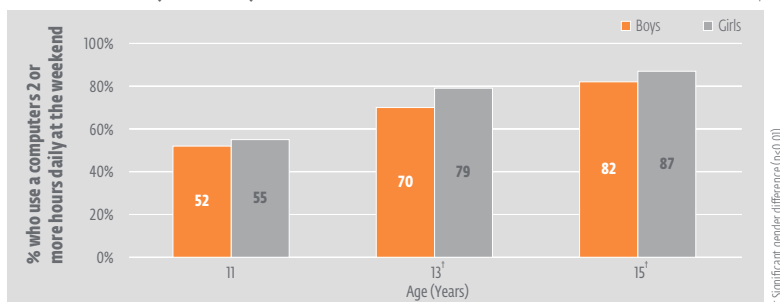


Figure 7.15: USING COMPUTERS (NOT GAMES) FOR 2 OR MORE HOURS A DAY AT THE WEEKEND



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- Girls in Scotland are twice as likely as boys to be actively trying to lose weight (22% of girls versus 10% of boys)
- Among girls, weight control behaviour increases with age, such that almost one third (31%) of 15-year old girls are trying to lose weight
- There has been little change since 2002 in the proportion of boys and girls trying to lose weight

8

WEIGHT CONTROL BEHAVIOUR



WEIGHT CONTROL BEHAVIOUR

INTRODUCTION

Dieting and weight control behaviours are typically common among adolescents^{1,2}, and are more widespread amongst girls than boys¹. Girls generally feel pressure (likely stemming from the media and desire for popularity amongst peers) to be slim; whereas boys feel pressure to be muscular^{3,4}. Hence girls primarily focus on dieting to attain their desired body shape, whereas exercise is often more important to boys^{5,6}.

Many adolescents demonstrate healthy weight control behaviours⁷. However, some adolescents (particularly girls)¹ rely on unsafe methods^{8,19}. While attempting to reduce excess weight through healthy eating habits (reducing sugar intake, for example) may be considered a safe form of dieting, unsafe methods may be associated with unrealistic or distorted body image. These include skipping meals¹⁰, using food substitutes, self-induced vomiting, compulsive exercise and diet pills^{11,12,13}. These unsafe methods are damaging to health and are associated with poor physiological well-being, low self-esteem and depression^{14,15,16}. They are also linked to risk of being overweight and binge-eating¹⁷ or purging¹⁸; and greater use of alcohol and tobacco¹⁹. Some may be counterproductive, leading to weight gain through, for example, increased propensity for binge eating¹² and this can lead to a spiralling problem for the child concerned. Previous research in Scotland suggests that overweight young people have higher levels of emotional and mental health issues and report higher frequencies of unsafe weight control behaviours²⁰. However, risky weight control behaviours may also be practiced by non-overweight schoolchildren and are associated with considerable risk to physical and emotional well-being²¹.

As a result of a Scottish Government initiative, adolescents are encouraged to adopt healthy and safe approaches to weight control, based around maintaining a healthy diet and appropriate levels of exercise²². In January 2015, the Scottish Government launched the *Eat Better Feel Better* programme, to encourage and support people to make healthier choices to the way they shop, cook and eat.²³ As well as promoting healthy approaches to diet²⁴ and exercise²⁵, it is vital that children are encouraged to have a positive and realistic self-perception of their weight and body shape, since risky behaviours can often be linked to distortion in these perceptions^{2,8}.

HBS FINDINGS

Comparable measures of weight control behaviour have been included in the Scottish HBS survey since 2002.

CURRENT WEIGHT CONTROL BEHAVIOUR IN SCOTLAND

Girls aged 11-15 in Scotland are twice as likely as their male peers to be on a diet or doing something else to lose weight (22% compared with 10% of boys). This behaviour increases steeply with age among girls, but remains constant for boys (Figure 8.1), so gender differences increase with age. Three times as many girls as boys are trying to lose weight at age 15 (31% of girls compared with 10% of boys). There was little change in the proportions of boys or girls who report being on a diet between 2002 and 2014 (Figure 8.2).

Figure 8.1:
CURRENTLY TRYING TO LOSE WEIGHT

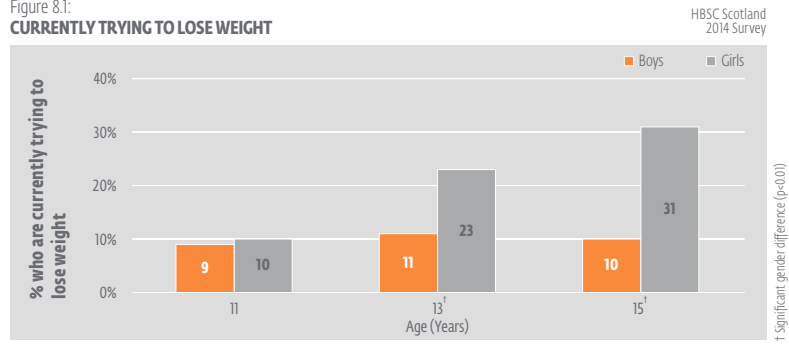
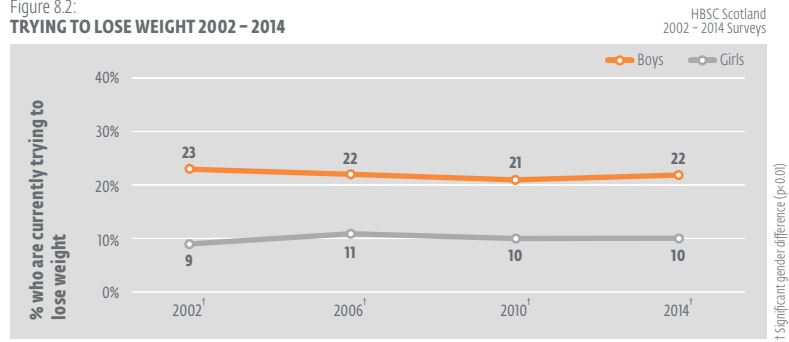


Figure 8.2:
TRYING TO LOSE WEIGHT 2002 - 2014



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- 25% of boys and 41% of girls in Scotland report that they are 'too fat'
- Perception of being too fat increases with age and at 15, over half (55%) of girls compared to 28% of boys report feeling too fat
- Among girls, the prevalence of overweight perceptions in 2014 (41%) is equivalent to that in 1990 (42%). Boys have gradually become more likely to report that their body is overweight since 1990 (from 20% in 1990 to 25% in 2014)
- In terms of perceived looks, boys aged 13 and 15 are around three times more likely than girls to report that they are 'quite' or 'very' good looking
- Girls' perception of their looks at ages 13 and 15 has declined since 2006, while remaining fairly stable for boys. The gender gap in perceived looks is now at its widest since 1990
- Three quarters (74%) of 15-year olds are classified as having a normal BMI according to self-reported height and weight

9

BODY IMAGE AND
BODY MASS INDEX



BODY IMAGE AND BODY MASS INDEX

INTRODUCTION

Adolescence is a time of significant and rapid physical development, and an individual's weight and body shape can change quite dramatically. It is also a time of heightened scrutiny and evaluation of these physical attributes – both by the individual themselves and by others¹. The HBSC survey asks about both height and weight (from which age appropriate Body Mass Index (BMI) is derived as an indicator of fatness), and perceptions of body size and appearance. Perceived and actual body weights are associated: those with a higher BMI are more likely to report dissatisfaction with their body image². Body weight dissatisfaction is more common in girls than boys with many normal-weight girls perceiving themselves to be overweight³, and is more common in older than younger adolescents^{4,5}.

Body image plays a strong role in young people's mental well-being including their self-esteem.^{6,7} Negative body image has also been linked to eating disturbances, depression, mood disorders and self-harming, as well as affecting general eating behaviour and physical activity^{8,9}.

In Scotland, the percentage of children with a BMI outside the healthy range has remained at around 30% since the turn of the century. It is consistently, but only slightly, lower for girls than boys and not strongly different among age groups¹⁰. A number of health policies, including *Overweight and Obesity in Scotland: A Route Map Towards Healthy Weight* (2010), are focussed on reducing childhood obesity¹¹. Current Scottish Government initiatives include the *Child Healthy Weight Intervention Programme* (including HEAT targets set in conjunction with NHS Boards and schools¹²), *The Healthier Scotland Cooking Bus* and *Good Places, Better Health* (2011)¹³. Because of the link between healthy body weight and positive body image, policy measures generally address both.

HBSC FINDINGS

The HBSC survey asks young people questions relating to perceived body size and looks, both of which have been collected since 1990. Data on self-reported good looks were collected from 13- and 15-year olds only, in 2014. Body mass index (BMI) is calculated based on self-reported height and weight (kg/m²).

BODY SIZE

Twenty-five percent (25%) of boys and 41% of girls report that they are 'too fat'. There are large differences between 11 and 13-year olds, particularly among girls, with higher proportions of older adolescents describing themselves as too fat (Figure 9.1). At all ages, girls are more likely than boys to report that they are too fat.

The prevalence of overweight perceptions among girls in 2014 (41%) is equivalent to that in 1990 (42%), following a peak in 1998 (48%). Boys have gradually become more likely to report that their body is overweight since 1990 (from 20% in 1990 to 25% in 2014) (Figure 9.2).

REPORTING GOOD LOOKS

Boys are approximately three times more likely than girls to report that they are 'quite' or 'very' good looking (32% and 33% of 13- and 15- year old boys, respectively, compared with 13% and 10% of girls at these ages; Figure 9.3). There is little difference between 13- and 15-year olds for either boys or girls.

Across all seven surveys between 1990 and 2014, boys reported their looks more favourably than girls (Figure 9.4). Since 2006, the proportion of boys reporting good looks has remained consistent; however girls have become increasingly less likely to report good looks over this period. As such, the gender gap in perceived looks is now at its widest in the past 24 years.

Figure 9.1:
REPORT BODY IS TOO FAT

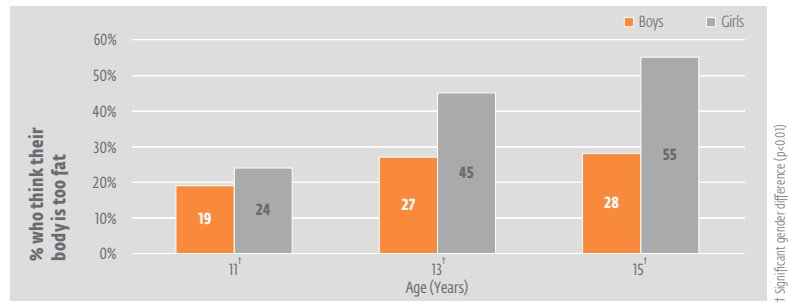


Figure 9.2:
REPORT BODY IS TOO FAT 1990 - 2014

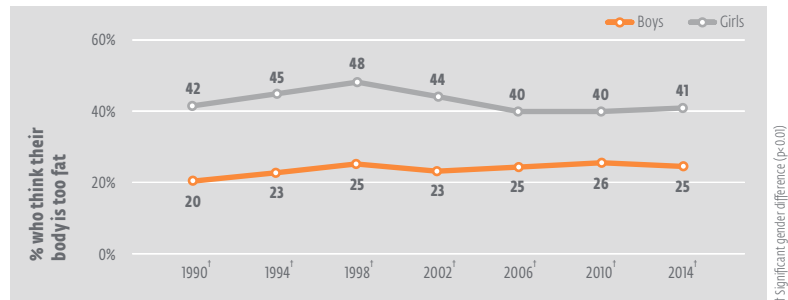


Figure 9.3:
REPORT GOOD LOOKS

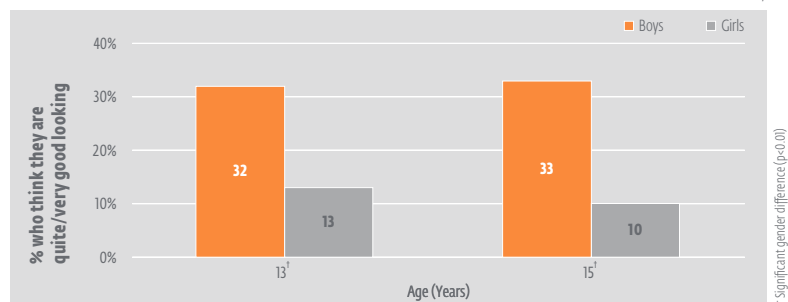


Figure 9.4:
REPORT GOOD LOOKS 1990 - 2014: 13- AND 15-YEAR OLDS

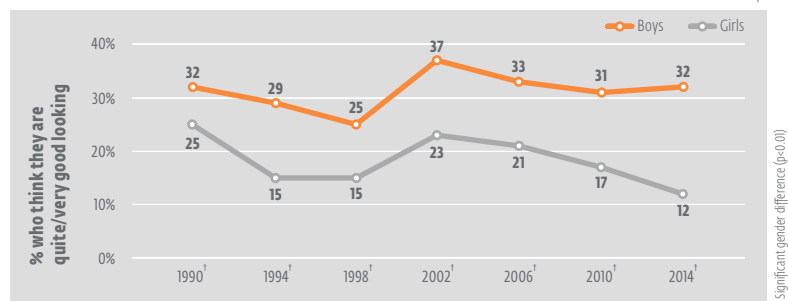
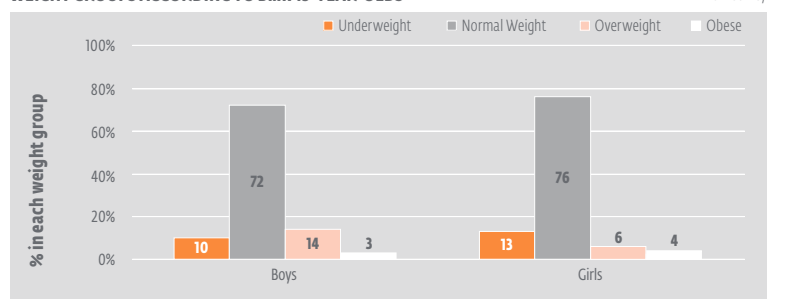


Figure 9.5:
WEIGHT GROUPS ACCORDING TO BMI: 15-YEAR-OLDS



BODY MASS INDEX (BMI)

Standardised BMI cut-offs are used to create the following four categories: underweight, normal weight, overweight and obese^{14,15}. Self-reported BMI tends to be lower than that obtained via objective examination, hence the proportion of obese and overweight individuals may be underestimated here¹⁶. In the 2014 Scottish HBSC survey, only a minority of young people gave valid responses for both their height and weight: 21% of 11-year olds, 28% of 13-year olds and 39% of 15-year olds. Therefore, the results shown are based on data from 15-year old pupils only.

Of those 15-year olds who reported height and weight data, three out of four (74%) are classified as having a normal weight (Figure 9.5). More boys than girls are classified as overweight (14% of boys compared with 6% of girls). A similar percentage of boys (10%) and girls (13%) are classified as underweight, yet this is a relatively neglected public health issue. The distribution of weight groups according to BMI has not changed relative to 2010, when 48% of 15-year olds gave valid height and weight responses.

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- 77% of young people in Scotland brush their teeth at least twice a day
- There has been a gradual increase in the proportion of boys and girls that brush their teeth two or more times a day since 1990
- Since 1990, boys have been less likely than girls to brush their teeth two or more times a day
- This gender difference in tooth brushing has been gradually reducing since 1990
- Marked improvement in tooth brushing was seen among 15-year old boys between 2010 and 2014

10 TOOTH BRUSHING



TOOTH BRUSHING

INTRODUCTION

Oral diseases represent a global public health concern owing to their high prevalence in all regions of the world¹. Oral disease can detrimentally impact on a person's health and well-being. The most common types of oral disease, dental caries and gum disease are largely preventable².

The Scottish Government recommends tooth brushing at least twice a day³ and this has been shown to reduce levels of both tooth decay and gum disease.⁴ Adolescents who brush their teeth at least twice daily by the age of 15, tend to continue this throughout their teens⁵ and have more favourable oral hygiene⁶.

Tooth brushing behaviour is associated with other health behaviours among adolescents. For example, young people who consume high quantities of sugary-drinks are less likely to brush their teeth regularly, whereas those who eat a lot of fruit and vegetables are more likely to brush their teeth regularly⁷. High family affluence, living with both parents, and regularly eating together as a family (particularly at breakfast) are all also associated with regular tooth brushing⁸. Inequalities in dental health have largely persisted in recent decades despite public health efforts focused on the social determinants of health⁹. Poor and unequal access to dental care contributes to dental health inequalities, with those from more deprived backgrounds disproportionately affected by dental disease¹⁰.

A large proportion of children across the UK continue to be affected by gum disease and tooth decay¹¹. Traditionally, Scottish adolescents have compared unfavourably with other school children within the UK when it comes to oral health¹². This may also be connected to high sugar intake among young people in Scotland combined with low levels of oral care, including tooth brushing¹³.

Adolescence is an important period for interventions aimed at the establishment of healthy habits for promoting general and oral health. Following a government consultation, the need for improvement in oral health was identified as a HEAT target directed at early years⁹. In Scotland, population-based approaches designed specifically to improve children's dental health are delivered within the Childsmile programme⁹ – a national programme designed to improve the oral health of children, and to reduce inequalities in both dental health and access to dental health services.

HBSC FINDINGS

HBSC has collected data on tooth brushing frequency in Scotland since 1990, allowing for examination of trends across a 24-year period.

TOOTH BRUSHING AT LEAST TWICE A DAY

Most young people in Scotland brush their teeth at least twice a day (77%) (Figure 10.1). Girls are more likely than boys to brush their teeth at least twice a day (84% compared with 71%, respectively). Among boys there is no change in the prevalence of tooth brushing between the ages of 11 and 15, highlighting the importance of establishing boys' good oral health habits early in life. Amongst girls, an increase in tooth brushing is seen between the ages of 11 and 13, with no change between 13- and 15-year old girls.

Since 1990, there has been a steady increase in the proportion of boys and girls that brush their teeth two or more times a day. Among boys, the proportion has risen from 48% in 1990 to 71% in 2014. Among girls, the proportion has increased from 70% in 1990 to 84% in 2014 (Figure 10.2). The observed gender difference in tooth brushing has existed since 1990, however this has gradually reduced with time. Substantial improvement has been seen since 2010 for 15-year old boys, among whom the proportion brushing their teeth at least twice daily has risen from 63% in 2010 to 71% in 2014.

Figure 10.1:
BRUSH TEETH AT LEAST TWICE A DAY

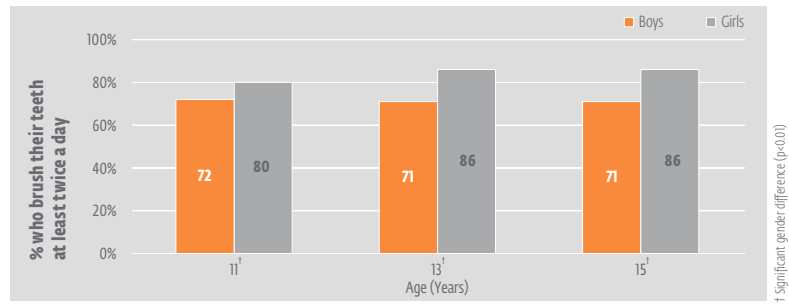
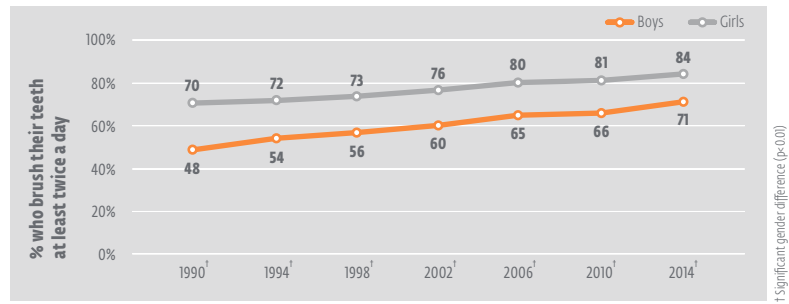


Figure 10.2:
BRUSH TEETH AT LEAST TWICE A DAY 1990 - 2014



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- Most Scottish young people report high life satisfaction (87%), but the prevalence reduces with age, especially for girls
- The proportion of young people who feel 'very happy' reduces steeply with age, from 59% of 11-year olds to 27% of 15-year olds
- Feeling confident 'always' is more common among boys (21%) than girls (11%). This gender difference is especially pronounced at the ages of 13 and 15
- The proportion of boys and girls 'always' feeling confident has been gradually declining since a peak in the mid-2000s
- Boys (21%) are more likely than girls (13%) to report that they 'never' feel left out of things
- 26% of young people report their health as 'excellent' and a further 56% describe their health as 'good'
- At ages 13 and 15, more boys (27%) than girls (16%) report excellent health
- The proportion of 11-15 year olds reporting excellent health increased between 2010 (21%) and 2014 (26%)
- 31% of young people report having two or more health complaints at least once a week, with a steep age-related increase in girls
- The gender gap in multiple health complaints is now at its widest in the past 20 years, with 39% of girls and 23% of boys reporting two or more weekly complaints
- 59% of 13- and 15-year olds report using medicine in the previous month, with substantially more girls than boys using medicine at age 15
- Girls report higher levels of psychological stress than boys, and 15-year olds are more likely to report feeling stressed than 13-year olds



WELL-BEING

INTRODUCTION

Mortality and morbidity are limited indicators of adolescent health due to low rates of death and serious illness during this time¹. Consequently, measures of subjective well-being take on particular importance during this life period. Self-appraisal of adolescent health is informed by an overall sense of functioning, which includes both physical and non-physical aspects of health². Adolescence is a critical period of physical and emotional development with long-term impact on well-being and health. Positive physical and emotional well-being can facilitate young people to tackle the numerous challenges they face during adolescence^{3,4}.

Subjective health complaints can be common during this time, and may include both psychological (e.g. irritability or nervousness) and somatic symptoms (e.g. backaches or headaches)⁵. Symptoms can cluster, meaning that adolescents show a high prevalence of multiple health complaints^{6,7}, which may be associated with health problems during adulthood^{8,9,10}.

Important protective factors for positive mental health and life satisfaction include school connectedness, and familial social support and communication from at least one adult carer¹¹. Supportive peer relations also protect against depression and isolation¹², and contribute to self-esteem by helping young people overcome the challenges and stresses associated with adolescence^{13,14}.

Mental and emotional health problems during adolescence have been linked with poor diet¹⁵, lack of exercise¹⁶, eating disorders¹⁷, substance abuse¹⁸ and a weakened immune system¹⁹, which may contribute to physical health problems. Moreover, stress during adolescence has been associated with various health determinants and outcomes including neighbourhood disadvantage²⁰, school connectedness and teacher support²¹, dysfunctional body image²² and tobacco use²³. Poor subjective health during adolescence has also been linked with depression, anxiety and sleep problems which may extend to adulthood²⁴, as well as negative school experiences, academic performance and absenteeism^{25,26,27}.

Adolescent mental well-being and subjective health are related to socio-economic inequalities, gender differences²⁸ and geographic location²⁹. Subjective health is also negatively related to medicine use³⁰, which is commonly taken by young people for ailments including headache, sleep difficulties, nervousness and stomachache^{31,32,33}. Medicine use during adolescence may then continue into adulthood³⁴.

*The Getting It Right For Every Child (GIRFEC)*³⁵ initiative is the Scottish Government approach to improving services to support holistic well-being in young people. The approach encourages early intervention, and is the basis for the *Curriculum for Excellence*³⁶ and the *Children and Young People (Scotland) Act 2014*³⁷. Moreover, NHS Scotland has established a set of national mental health indicators for children and young people, which cover both mental health and contextual factors^{38,39}. This will enable the development of a national mental health profile for children and young people in Scotland.

HBSC FINDINGS

The HBSC survey collects several indicators of young people's physical and mental well-being. These include life satisfaction, happiness, self-confidence, feeling left out, self-rated health, medicine use and the frequency of somatic and psychological symptoms. Since 2006, HBSC has also administered the Kidscreen⁴⁰ scale, which is an instrument measuring health-related quality of life. In 2014, Kidscreen was completed by 15-year old pupils only. HBSC also introduced a measure of psychological stress among 13- and 15-year olds in 2014⁴¹.

LIFE SATISFACTION

Young people scored their life satisfaction using the Cantril Ladder (adapted version for children)⁴². A picture of a ladder was shown with a description and question (see Appendix). A score of six or greater (on a scale of 0-10) was defined as high life satisfaction. Eighty seven percent (87%) of young people are highly satisfied with their life (90% of boys; 84% of

Figure 11.1:
REPORT HIGH LIFE SATISFACTION

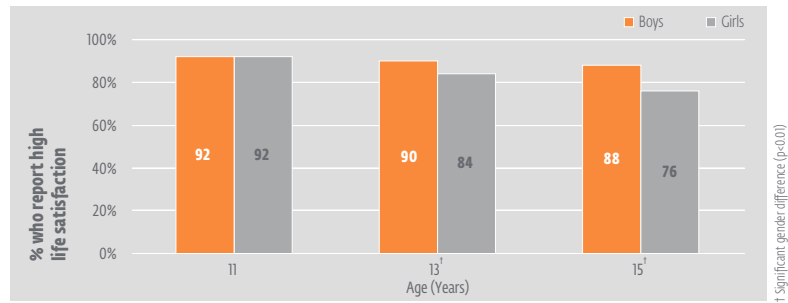


Figure 11.2:
REPORT HIGH LIFE SATISFACTION 2002 – 2014

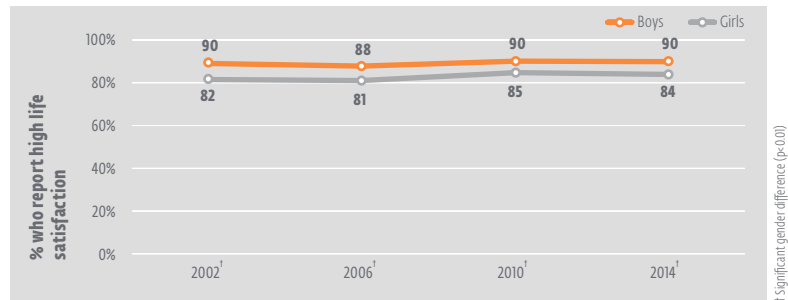


Figure 11.3:
FEEL VERY HAPPY

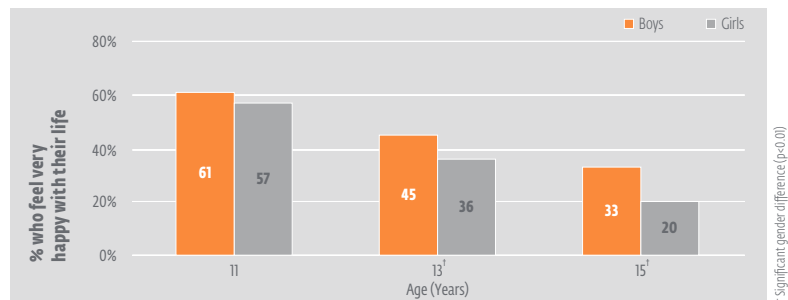


Figure 11.4:
FEEL VERY HAPPY 1994 – 2014

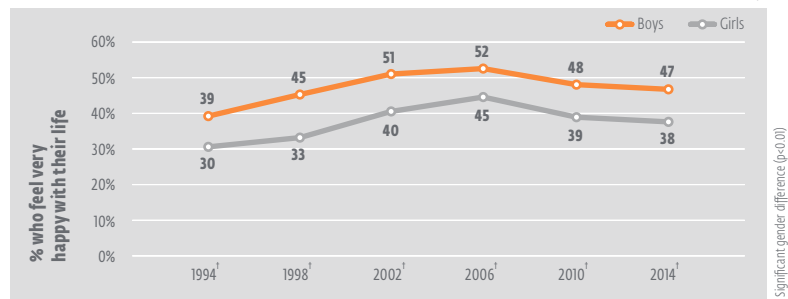
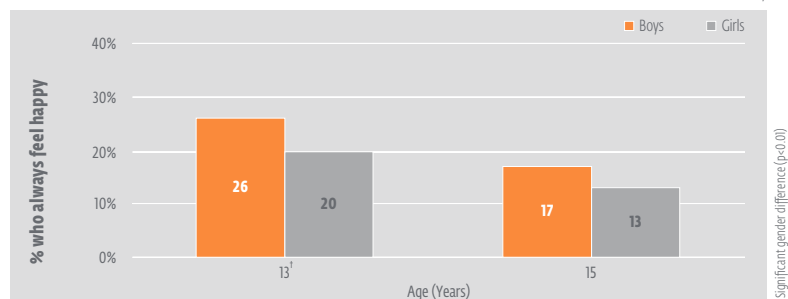


Figure 11.5:
ALWAYS FEEL HAPPY



girls). There is a decrease in life satisfaction with age. Among girls, high life satisfaction is less common among 13-year olds than 11-year olds (84% versus 92%, respectively), and less common among 15-year olds than 13-year olds (76% versus 84%, respectively).

Among boys, there is no difference in life satisfaction between ages 11 and 13, but rates are slightly lower among 15-year olds compared to 11-year olds (88% versus 92%, respectively). Gender differences exist at 13 and 15 years, with boys exhibiting higher levels of life satisfaction at these ages, but not at 11 years (Figure 11.1). No change in life satisfaction was observed for either boys or girls between 2002 and 2014 (Figure 11.2).

HAPPINESS

Two measures of happiness are used, how happy young people feel about their lives; and how often they feel happy. Forty two percent (42%) of young people feel "very happy" about their lives. The proportion of young people who feel very happy reduces with age (Figure 11.3), from 59% of 11-year olds to 41% of 13-year olds and 27% of 15-year olds. Overall, boys are more likely than girls to report feeling very happy (47% versus 38%, respectively) with the difference most pronounced at the ages of 13 and 15. This gender gap has been approximately equivalent at each survey since 1994.

The proportion of young people who are happy with their lives increased between 1994 and 2006, and subsequently decreased between 2006 and 2010 for both boys and girls. There was no change in happiness for either gender between 2010 and 2014 (Figure 11.4).

Nineteen percent (19%) of 13- and 15-year olds report always feeling happy. As with the extent of happiness, the frequency of feeling happy decreases between the ages of 13 and 15 (from 23% to 15%, respectively; Figure 11.5) and is higher among boys (21% versus 17% of girls).

SELF-CONFIDENCE

Sixteen percent (16%) of young people 'always' feel confident in themselves, with twice as many boys (21%) as girls (11%) reporting this. Confidence decreases with age. Among 11-year olds, 25% always feel confident, whereas only 9% of 15-year olds do so.

The gender difference is widest at age 13, with more than three times as many boys as girls always feeling confident (Figure 11.6). Although only a minority of young people always feel confident, a further 34% report that they 'often' feel confident (38% of 11-year olds, 34% of 13-year olds and 28% of 15-year olds).

The Scottish HBSC study has included a measure of confidence since 1994. Whilst there was a peak in confidence amongst boys and girls in the mid-2000s, rates fell gradually from 2006 onwards (Figure 11.7). In 2014 the proportion reporting that they are always confident is similar to that seen in the early 1990s. A similar gender difference in confidence has been seen at each survey over the past 20 years.

FEELING LEFT OUT

Seventeen percent (17%) of young people report that they 'never' feel left out of things. At all ages, boys are more likely than girls to never feel left out (21% of boys; 13% of girls). The likelihood of never feeling left out decreases with age, but the pattern of decline is slightly different for boys and girls. Among girls, a decrease is most prominent between the ages of 11 and 13 (18% versus 10%, respectively), whereas for boys, the greatest change in the likelihood of never feeling left out occurs between the ages of 13 and 15 (22% versus 16%, respectively; Figure 11.8).

Feeling left out was first included as an item in the Scottish HBSC questionnaire in 1998. The proportion of young people who never feel left out increased between 1998 and 2010; however rates have subsequently declined, with rates in 2014 matching those in 1998 (Figure 11.9).

Figure 11.6: ALWAYS FEEL CONFIDENT

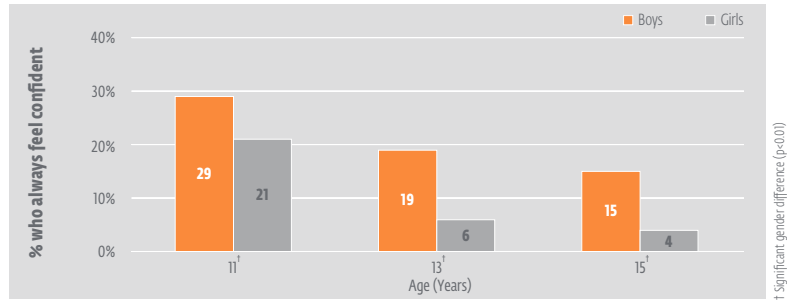


Figure 11.7: ALWAYS FEEL CONFIDENT 1994 – 2014

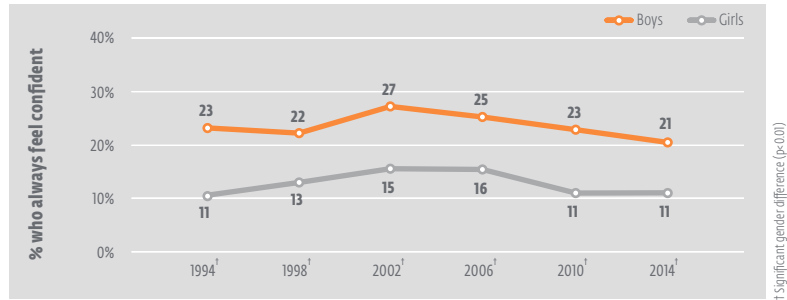


Figure 11.8: NEVER FEEL LEFT OUT

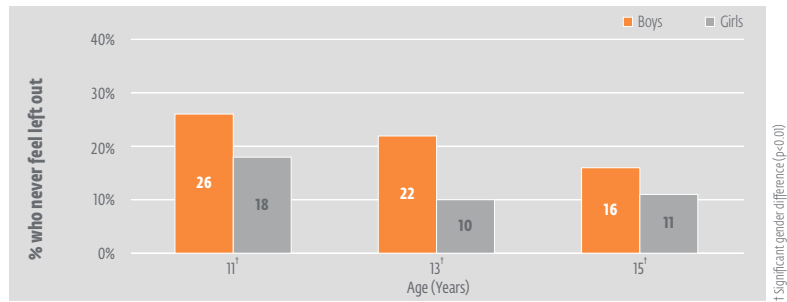


Figure 11.9: NEVER FEEL LEFT OUT 1998 – 2014

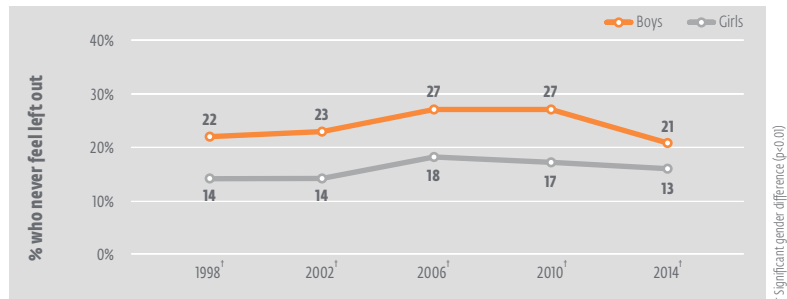
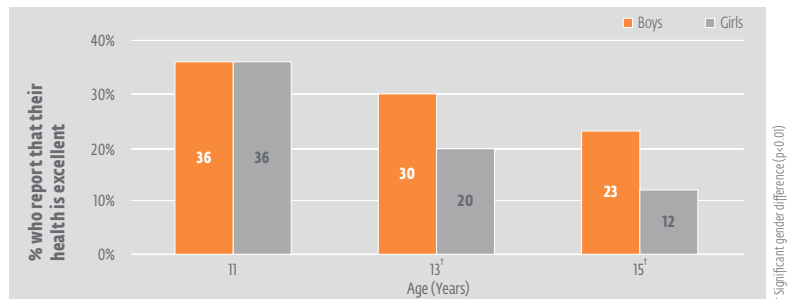


Figure 11.10: REPORT EXCELLENT HEALTH



SELF-RATED HEALTH

HBSC Scotland asks young people to report their general health, which encompasses both physical and non-physical aspects of health².

In 2014, over a quarter of young people (26%) in Scotland report their health as 'excellent' (30% of boys and 23% of girls). A further 56% describe their health as 'good', with 16% reporting 'fair' health. Only 2% describe their health as 'poor'.

Excellent health is most likely to be reported at younger ages, with 36% of 11-year olds reporting this, compared to 18% of 15-year olds. There is no gender difference among 11-year olds, but among 13- and 15-year olds, boys are more likely than girls to report excellent health (Figure 11.10).

There was little change in self-rated health between 2002 and 2010, however in 2014, both boys and girls are more likely to report excellent health than in 2010 (Figure 11.11).

HEALTH COMPLAINTS

Young people were asked how often in the past six months they had suffered from a number of symptoms. Fifteen percent (15%) report experiencing headaches, 11% dizziness, 9% stomachache and 10% backache more than weekly, while 17% feel low, 24% are irritable, 20% are nervous and 23% have difficulty getting to sleep.

Overall, the likelihood of experiencing each of these symptoms increases with age (Figure 11.12). These age-related differences are mostly driven by sharp increases for each symptom among older girls. For boys, the likelihood of experiencing backache, low mood, irritability or nervousness increases with age, but to a lesser extent than seen for girls. The likelihood of headaches, feeling dizzy, stomachaches and sleep difficulties does not change with age among boys.

Among 11-year olds, there only exists a gender difference for stomachaches (9% of girls versus 5% of boys experience this complaint more than once a week). However, among 15-year olds there are substantial gender differences in the prevalence of each of the health complaints, with girls approximately twice as likely as boys to experience each complaint more than once a week at this age. At age 15, 30% of girls report at least weekly headaches compared to only 11% of boys; 21% of girls, versus 9% of boys report at least weekly dizziness; 16% of girls versus 6% of boys report at least weekly stomachache; 21% of girls versus 11% of boys report at least weekly backache; 40% of girls versus 23% of boys report at least weekly irritability; 38% of girls versus 16% of boys report at least weekly nervousness; 36% of girls versus 22% of boys report at least weekly sleep difficulties; and 36% of girls compared to only 15% of boys report at least weekly low mood.

Having multiple health complaints is defined as having two or more symptoms more than once a week. Thirty-one percent (31%) of young people report multiple health complaints. The proportion is greatest for 15-year olds (41%) and smallest for 11-year olds (22%) for both boys and girls.

The rise in multiple health complaints with age is much steeper for girls than boys, such that the gender gap increases with age (Figure 11.13). Over half of 15-year old girls (54%) report multiple health complaints, compared to 29% of boys this age.

The proportion of boys reporting multiple health complaints has been subject to a small decline since 1994. Whilst girls showed a steady decline between 1994 and 2006, there has been a subsequent increase, most substantially between 2010 (33%) and 2014 (39%). As such, the proportion of girls with multiple health complaints is now similar to that in 1994 and the gender gap in multiple health complaints is at its widest in the past two decades (Figure 11.14).

MEDICINE USE

Thirteen and 15-year olds were asked about their use of medicine or tablets for: headache, stomachache, nervousness, sleeping difficulties and 'other' symptoms. Fifty nine percent (59%) of young people had used medicine in the previous

Figure 11.11: REPORT EXCELLENT HEALTH 2002 – 2014

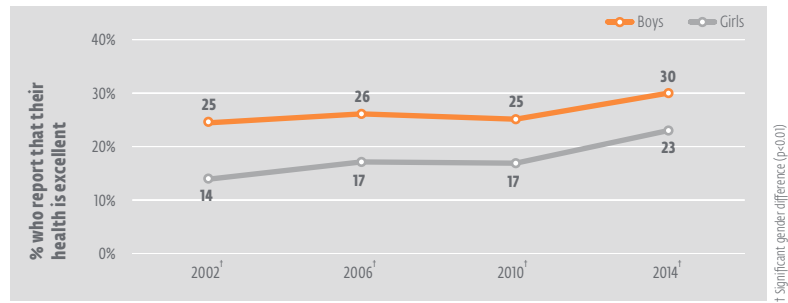


Figure 11.12: HEALTH COMPLAINTS

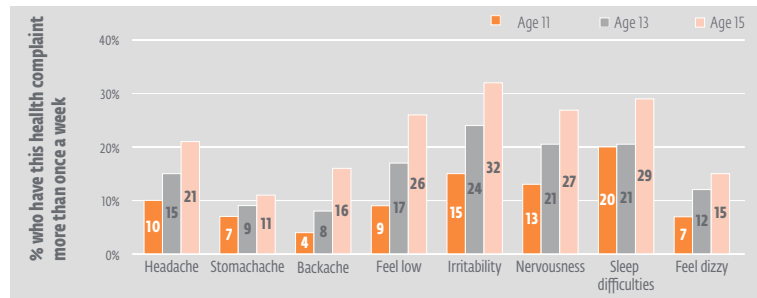


Figure 11.13: MULTIPLE HEALTH COMPLAINTS

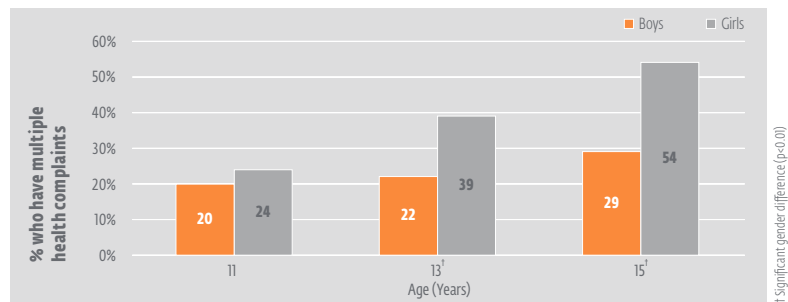
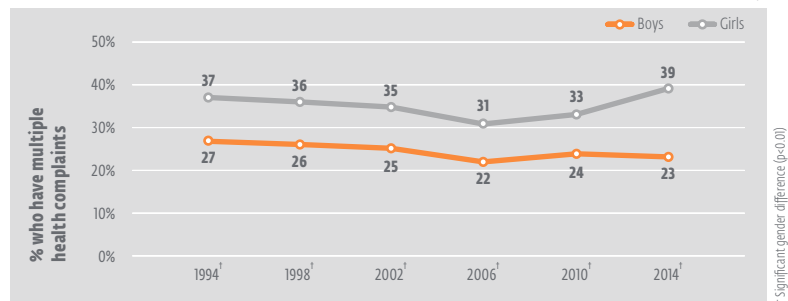


Figure 11.14: MULTIPLE HEALTH COMPLAINTS 1994 – 2014



month. The most common symptom for which young people took medicine in the last month was headaches (48% of 13-year olds and 59% of 15-year olds) (Figure 11.15).

Girls are more likely than boys to have taken medicine in the last month (72% versus 48%). Gender differences exist for each of the different medicine types: headaches (42% of boys; 64% of girls), stomachache (14% of boys; 47% of girls), nervousness (2% of boys; 6% of girls), sleep difficulties (4% of boys; 7% of girls), 'another symptom not listed' (14% of boys; 18% of girls).

The gender differences in medicine use are particularly great at age 15, with 71% of girls this age using headache medicine compared to 46% of boys. Around half (51%) of girls this age report using medicine for stomachache in the past month compared to only 15% of boys.

Reported medicine use in 2014 is similar to that in 2010, except for headache medicine amongst 15-year olds which increased from 54% to 59%. The increase in the use of headache medication was greatest among 15-year old girls which changed from 64% in 2010 to 71% in 2014.

HEALTH-RELATED QUALITY OF LIFE

Pupils aged 15 have completed the Kidscreen health-related quality of life scale as part of the HBSC Scotland survey since 2006. This scale includes 10 questions pertaining to psychological well-being, autonomy, relationships with parents, peer support and perceived cognitive capacity. Figure 11.16 presents the standardised score combining these 10 questions for boys and girls (scores in the data ranged from -3.54 to 83.81), with higher scores reflecting greater health-related quality of life.

Since 2006, boys have exhibited higher health-related quality of life than girls. Over this period, health-related quality of life has been subject to steady decline, meaning that in 2014, it is lower than it was in 2006 for both boys and girls.

PERCEIVED STRESS

Thirteen and 15-year old pupils completed the perceived stress scale⁴⁰ in 2014. This scale includes four questions which are combined into the scale score presented in Figure 11.17. The maximum score on this scale is 16, with high scores reflecting higher levels of perceived stress. Girls report higher levels of stress than boys, and 15-year old boys and girls each report greater stress than their 13-year old counterparts.

Figure 11.15:
MEDICINE USE

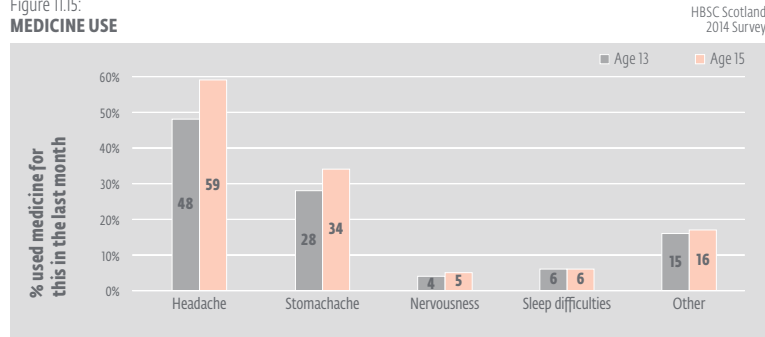


Figure 11.16:
KIDSCREEN SCORE: 15-YEAR OLDS 2006 – 2014

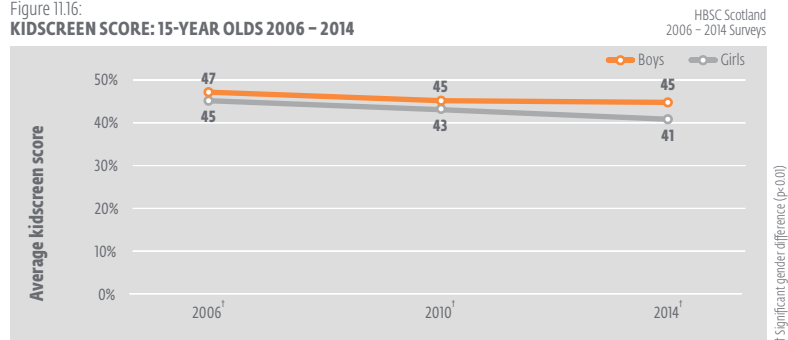
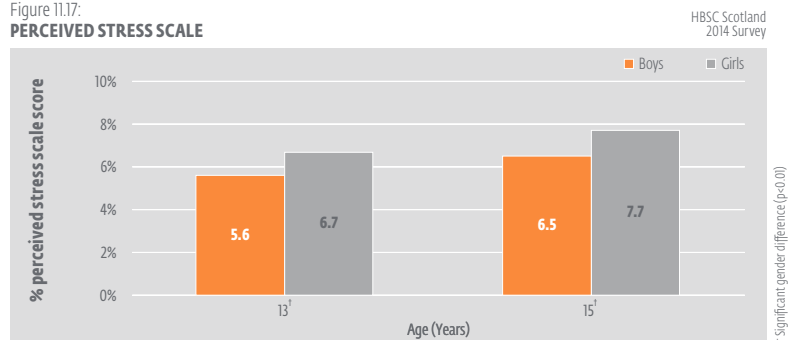


Figure 11.17:
PERCEIVED STRESS SCALE



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- 28% of Scottish 15-year olds have tried smoking. At age 13, girls are more likely than boys to have ever smoked (11% versus 6%)
- 14% of 15-year olds report that they currently smoke, and 57% of these smokers do so at least once a day
- 8% of all 15-year olds report smoking at least once a day
- The prevalence of smoking among 15-year olds has decreased substantially since the late 1990s
- 14% of 15-year olds report consuming an alcoholic drink at least once a week (17% of boys and 11% of girls)
- Weekly drinking among 15-year olds has decreased substantially since 1998, with 2014 levels now below those reported in 1990
- 34% of 15-year olds report that they have been drunk at least twice, with rates of drunkenness decreasing since 1998 for boys and girls
- 18% of 15-year olds have used cannabis at least once in their lives, with the prevalence reducing between 2002 and 2014

12

SUBSTANCE USE



SUBSTANCE USE

INTRODUCTION

The most recent Scottish report on substance use (tobacco, alcohol and illicit drugs) among young people showed the lowest levels ever recorded¹. However, substance use among young people is still a significant public health concern in Scotland. For instance, rates of weekly alcohol use and drunkenness in Scotland are among the highest in Europe². Smoking, alcohol and drug use are often viewed as separate issues, but research has shown that these are often inter-related^{3,4}. Furthermore, adolescent substance use has been shown to carry over into adulthood and can lead to problems of dependence⁵. Not only is substance use associated with health risks (e.g. risky sexual behaviour⁶ and poor mental health⁷) and lower academic achievement⁸, it can also have a wider impact on society (e.g. increased healthcare costs, risk of infectious diseases, crime and antisocial behaviour). Family life can influence substance use, with positive family relationships, communication⁹ and parental monitoring¹⁰ acting as protective effects, and substance use by family members increasing the likelihood of substance use among adolescents.

TOBACCO

Most smokers start their habit before the age of 18¹¹. Duration (years of smoking) and intensity of use (amount smoked) are associated with a wide range of health problems¹². Consequently, stopping adolescents from taking up smoking is extremely important. Tobacco use is a leading cause of preventable death and disease in Scotland, with 13,000 deaths and approximately 46,000 hospital admissions related to tobacco use in 2009¹³. Smoking also affects short-term health in young people such as physical fitness, and increases asthmatic problems, coughing, wheezing and shortness of breath^{12,14}.

The Scottish Government has introduced a number of policy and legislative initiatives to tackle tobacco use: *A Breath of Fresh Air for Scotland – Improving Scotland's Health: The Challenge – Tobacco Control Action Plan*¹⁵, *Smoking, Health and Social Care (Scotland) Act 2005*¹⁶, *Scotland's Future is Smoke Free: A Smoking Prevention Action Plan*¹⁷, and *The Tobacco and Primary Medical (Scotland) Act 2010*¹⁸. In addition, in 2013 the Scottish Government introduced the *Tobacco Control Strategy – Creating a Tobacco-Free Generation*¹⁹, which sets out a five-year plan for action across the key themes of health inequalities, prevention, protection and cessation, with one of the main aims to reduce smoking prevalence to 5% in 2034. Associations between mandatory national bans on smoking and lower smoking prevalence has been shown in previous research²⁰.

ALCOHOL

Alcohol use in most industrialized countries starts in adolescence^{21,22,23} and prevalence and frequency of drinking and drunkenness increase dramatically from early to late adolescence². Excessive and frequent drinking have been associated with physical, emotional²⁴ and academic problems²⁵, unplanned and risky sex^{26,27} and unintentional injuries²⁸. Family norms, peer influences, personal preferences, environmental factors^{4,29} and sensation seeking³⁰ have been shown to influence alcohol use.

In 2009, the Scottish Government introduced the national strategy *Changing Scotland's Relationship with Alcohol: A Framework for Action*³¹ in acknowledgement of the harm caused by alcohol in Scotland. This framework incorporates the legislative measure the *Licensing (Scotland) Act 2005*³². Since 2009, two new legislative measures to tackle alcohol use have been introduced: the *Alcohol etc. (Scotland) Act (2010)*³³ and the *Alcohol Minimum Pricing (Scotland) Act 2012*³⁴, which is yet to be implemented.

CANNABIS

After tobacco and alcohol, cannabis is the most widely used substance among adolescents in Scotland³⁵. Several health concerns are associated with cannabis use by young people, including increased risk of injuries, chronic diseases, depression and other mental health problems³⁶. What is more, several studies suggest that cannabis use may trigger psychosis and depression, particularly among those who are prone to these disorders^{37,38,39,40}. Several social factors have been associated with cannabis use such as high levels of neighbourhood instability and economic deprivation⁴¹, increased time spent with substance-using peers⁴² and low parental supervision⁴³.

Figure 12.1: EVER SMOKED TOBACCO

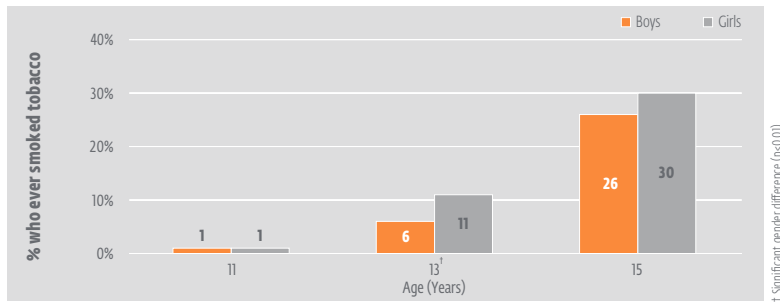


Figure 12.2: EVER SMOKED TOBACCO: 15-YEAR OLDS 1990 – 2014

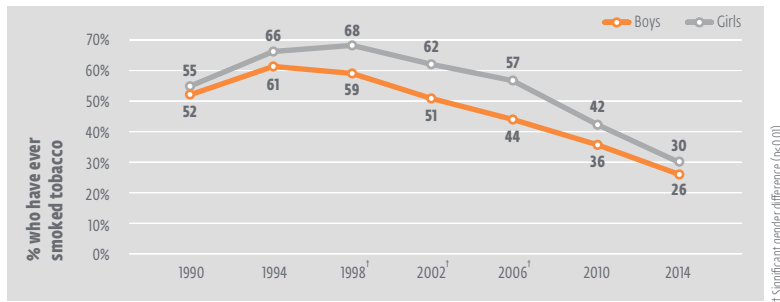


Figure 12.3: CURRENT SMOKING

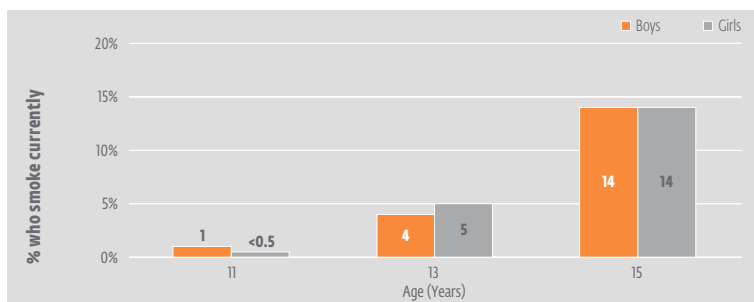


Figure 12.4: CURRENT SMOKING: 15-YEAR OLDS 1990 – 2014

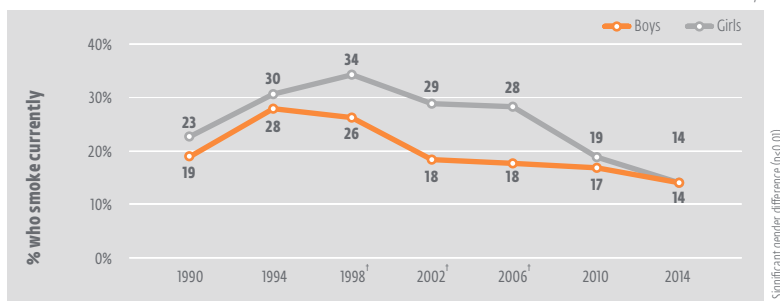
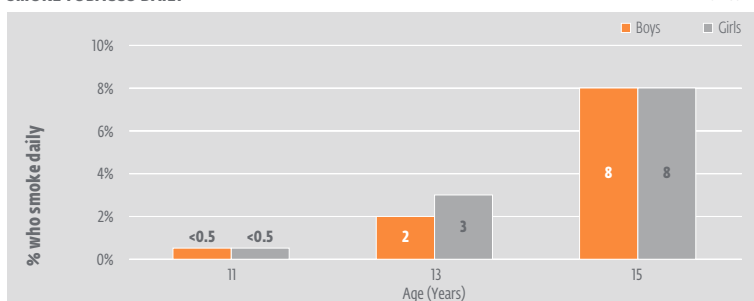


Figure 12.5: SMOKE TOBACCO DAILY



In 2008, the Scottish Government introduced its strategy to address drug use: *The Road to Recovery: A New Approach to Tackling Scotland's Drug Problem*⁴⁴. The strategy focusses on prevention of drug use in the longer term, specifically through education for young people in schools.

HBSC FINDINGS

Data on smoking, alcohol consumption and cannabis use are collected by the HBSC survey. Young people are asked about whether they have ever used these substances in their lifetime and if so, how frequently. Young people are also asked about the types of alcohol they drink, the age at which they first consumed alcohol and whether they have been drunk. Many of these items have been included in HBSC Scotland since 1990.

EVER SMOKED

Around one in ten young people (12%) have tried smoking (11% of boys and 13% of girls), and proportions are greater among older age groups; 1% of 11-year olds report they have ever smoked compared with 8% of 13-year olds and 28% of 15-year olds (Figure 12.1). Boys and girls are equally likely to report having ever smoked at 11 and 15 years, however 13-year old girls are more likely to have ever smoked than boys this age. The proportion of 15-year olds that have ever smoked has reduced among boys and girls after increasing prevalence during the 1990s (Figure 12.2).

CURRENT SMOKING

Six percent (6%) of young people smoke at present, with older age groups being more likely to be current smokers; 1% of 11-year olds are current smokers compared with 4% of 13-year olds and 14% of 15-year olds (Figure 12.3). There are no gender differences in prevalence of current smoking between the ages of 11 and 15. In 2014, fewer 15-year old boys and girls are current smokers compared with 2010 (14% of boys and girls in 2014 versus 17% of boys and 19% of girls in 2010). The proportion of boys and girls that currently smoke is now lower than in 1990 (Figure 12.4).

DAILY SMOKING

Daily smoking is often used as a definition of regular smoking among adults. Among 11 to 15-year olds, 3% are daily smokers. This proportion is greater at older ages (Figure 12.5). At age 15, 8% smoke daily. Over half (57%) of 15-year olds who are classified as 'current smokers' report smoking at least once a day. There is no gender difference in daily smoking at any age. The proportion of boys and girls that smoke daily is now lower than in 1990 (Figure 12.6).

WEEKLY DRINKING

Weekly drinking is reported among even the youngest children in the survey. At age 11, 1% of young people report drinking alcohol every week (2% of boys and 1% of girls) (Figure 12.7). Three percent (3%) of 13-year olds and 14% of 15-year olds are weekly drinkers. Among 11- and 13-year olds, there is no gender difference in weekly drinking, but 15-year old boys are more likely to drink weekly than girls at this age (17% versus 11%).

In all seven surveys since 1990, young people have been asked about their alcohol consumption frequency. The highest rates of weekly drinking were seen in 1998 (45% of girls and 44% of boys aged 15). Rates of weekly drinking have been declining since 1998. Reporting of weekly drinking amongst 15-year olds in 2014 is now lower than that in 1990, with rates approximately halving since the last survey in 2010 (17% of boys compared with 29% in 2010 and 11% of girls compared with 25% in 2010) (Figure 12.8).

TYPES OF ALCOHOLIC DRINKS

Young people were asked to indicate how frequently they drink each of seven different alcoholic drinks. They were asked to include in their estimation those times when they only drink a small amount. Beer is the alcoholic beverage most commonly consumed at least once a week by 15-year old boys, whereas, for 15-year old girls, spirits are the preferred drinks (Figure 12.9). Fifteen year old boys are more likely than girls this age to report weekly consumption of beer, cider and fortified wine.

Figure 12.6:
DAILY SMOKING: 15-YEAR OLDS 1990 – 2014

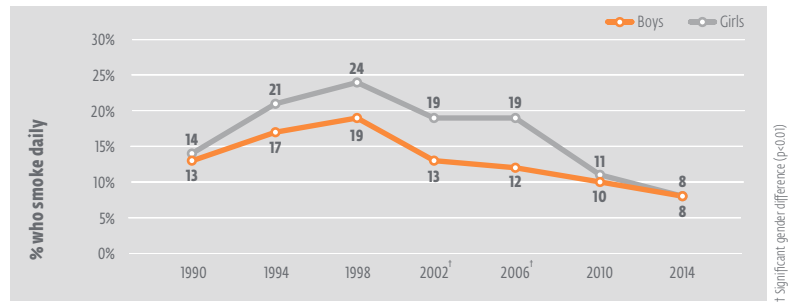


Figure 12.7:
WEEKLY DRINKING

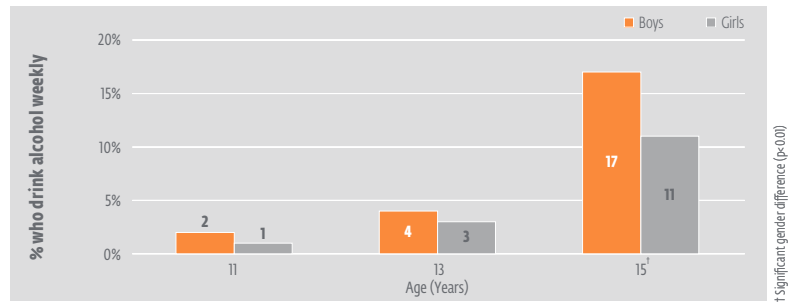


Figure 12.8:
WEEKLY DRINKING: 15-YEAR OLDS 1990 – 2014

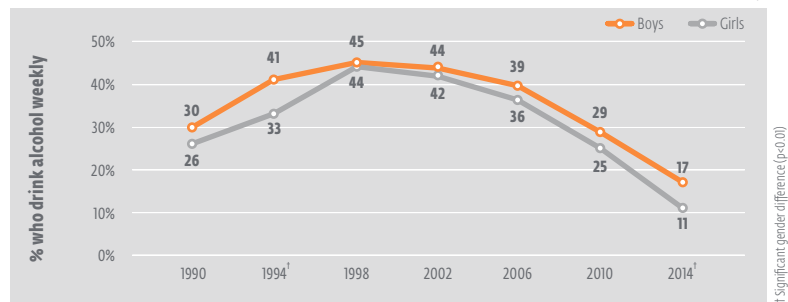


Figure 12.9:
TYPES OF ALCOHOL DRUNK WEEKLY BY 15-YEAR OLDS

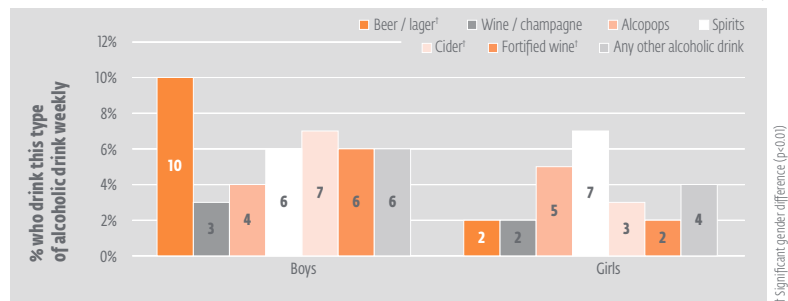
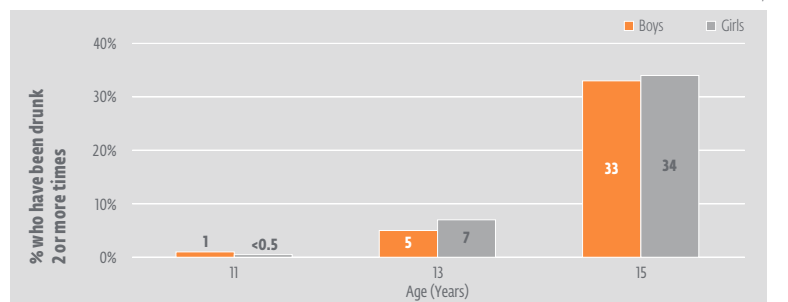


Figure 12.10:
BEEN DRUNK 2 OR MORE TIMES



DRUNKENNESS

Overall, thirteen percent (13%) of young people have been drunk on at least two occasions. Prevalence of drunkenness is much higher among older adolescents; 34% of 15-year olds report having been drunk at least twice compared with 6% of 13-year olds. Less than 1% of 11-year olds have been drunk this often (Figure 12.10). There are no gender differences in reports of drunkenness at any age.

Reporting of drunkenness among 15-year olds increased in the 1990s and has subsequently declined (Figure 12.11). Fifteen-year old girls showed a marked decrease in drunkenness over the past four years (from 47% to 34%), bringing the level in 2014 in line with rates for girls this age in 1990 (36%). Among boys, there was also a decrease in drunkenness from 40% in 2010 to 33% in 2014, meaning that the prevalence in 2014 is now lower than in 1990 (44%).

FREQUENCY OF CANNABIS USE AMONG 13- AND 15-YEAR OLDS

Eighteen percent (18%) of 15-year olds and 4% of 13-year olds have used cannabis at least once in their lives (Figure 12.12). There is no gender difference in lifetime use of cannabis at either 13 or 15 years.

Ten percent (10%) of 15-year olds and 2% of 13-year olds reported cannabis use within the previous month (Figure 12.13), with 15-year old boys being more likely to have used cannabis in the previous month than 15-year old girls (13% versus 8%, respectively). Between 2002 and 2010, there was a decrease in lifetime cannabis use among 15-year olds, however the prevalence has not changed since 2010 (Figure 12.14).

Use of cannabis in the past month has changed little amongst 15-year old boys since 2002, but there has been a slight decrease among 15-year old girls from 12% in 2002 to 8% in 2014 (Figure 12.15).

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Figure 12.11: **BEEN DRUNK 2 OR MORE TIMES: 15-YEAR OLDS 1990 – 2014** HBSC Scotland 1990 – 2014 Surveys

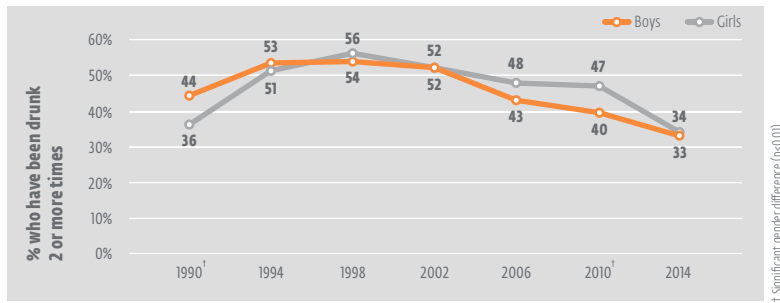


Figure 12.12: **EVER USED CANNABIS** HBSC Scotland 2014 Survey

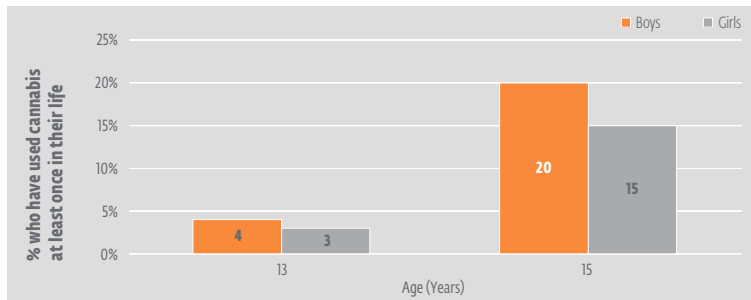


Figure 12.13: **USED CANNABIS IN PAST MONTH** HBSC Scotland 2014 Survey

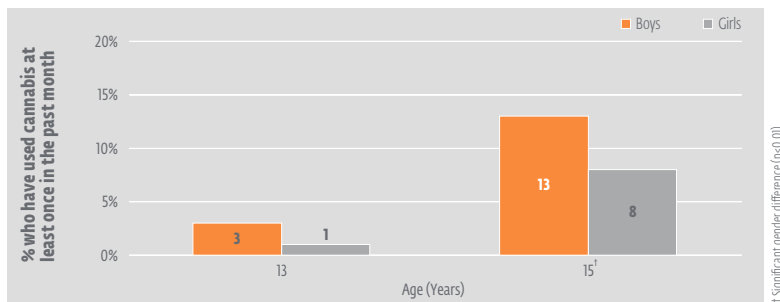


Figure 12.14: **EVER USED CANNABIS: 15-YEAR OLDS 2002 – 2014** HBSC Scotland 2002 – 2014 Surveys

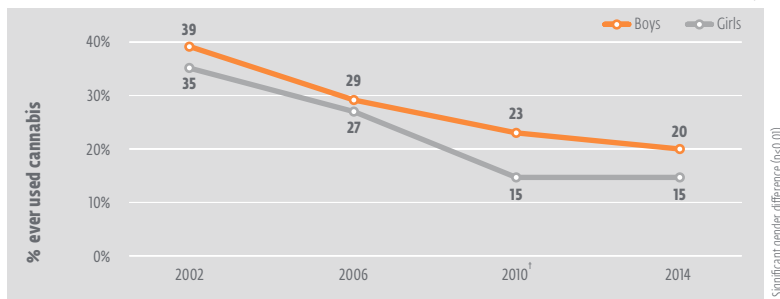


Figure 12.15: **USED CANNABIS IN PAST MONTH: 15-YEAR OLDS 2006 – 2014** HBSC Scotland 2006 – 2014 Surveys



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- At age 15, 27% of girls and 24% of boys in Scotland report that they have had sexual intercourse
- Between 2010 and 2014, there was a decline in the proportion of girls that report having had sex (from 35% to 27%)
- Of those 15-year olds that report having had sexual intercourse, 24% report having first intercourse at the age of 13 or younger
- Boys are more likely than girls to report that they first had sexual intercourse at the age of 13 or younger (34% versus 16%, respectively)
- 29% used neither a condom nor birth control pills the last time they had sexual intercourse. 42% used a condom without birth control pills. 13% used birth control pills without a condom. 16% used both a condom and birth control pills

13

SEXUAL HEALTH



SEXUAL HEALTH

INTRODUCTION

Sexual health is not simply the absence of sexual disease or dysfunction, but rather a state of emotional, social, physical and mental well-being in relation to sexuality¹. Adolescence is a key period for the development of sexual attitudes and experiences of sexual behaviour². Between 2006-2008, approximately 18% of UK 15-year-olds reported having engaged in sexual activity during the previous year³. Of these, a third were not considered ready for this experience because they were either coerced, felt regret, lacked autonomy or did not use contraception³. The HBSC study found that overall prevalence of early sexual intercourse was stable in Europe between 2002 and 2010⁴. Precursors of sexual activity can occur at earlier ages; with 19% of UK 11-12 year olds and 34% of 12-13 year olds reporting having being kissed on the mouth by a peer⁵. The nature of sexual activity can be driven by an individual's own curiosity, peers, the mass-media (especially the internet and social media) and by information and discussion in the family setting, in school, and through public health and well-being initiatives⁶.

Information sources and access to information are important elements in adolescents' understanding of and engagement in sexual activity. Family and peers are both strong influencers of intention to have sex, early sexual initiation and the frequency and nature of sexual behaviour^{7,8}. Age of first sexual experience is further influenced by macro-level cultural norms⁹, and infrequency of eating together as a family has also been identified as good predictor of early onset of sexual activity¹⁰. There are also differences between adolescent heterosexual and same-sex sexual activity, with, for example, greater risk-taking behaviours reported amongst teenagers with same-sex partners¹¹.

Early sexual activity has been strongly linked to adverse health outcomes such as sexually-transmitted infections (STIs)¹², unplanned pregnancies,¹³ poor mental health¹⁴ and reduced academic performance¹⁴. In addition, high numbers of sexual partners¹⁵ and inconsistent contraception¹⁶ can be health risk factors for young people. Low socio-economic status has been identified as a risk factor for higher rates of sexual activity amongst young people³.

Scotland has one of the highest rates of sexual activity among adolescents in the developed world¹⁷, in conjunction with relatively low condom and contraceptive pill use¹⁸. Moreover, STI prevalence has risen in Scotland this century¹⁹.

The Scottish Government's first strategy for improving sexual health – *Respect and Responsibility*^{20,21} – in conjunction with the more recent *Sexual Health and Blood Borne Virus Framework (2011-2015)*²², identifies the priorities and methods for improving sexual health amongst young people in Scotland. These include improving the range and quality of sexual health services available to young people regardless of gender, sexuality or socio-economic background, and to positively influence the social and cultural factors that shape sexual health behaviours. Since the launch of the strategy, the Scottish Government has noted improved availability of sexual health education in schools and other contexts²³. This has been achieved in part through the launch of the *Sexual Health Scotland*²³ website, which aims to provide non-judgemental information regarding sexual health and relationships, and highlight available services.

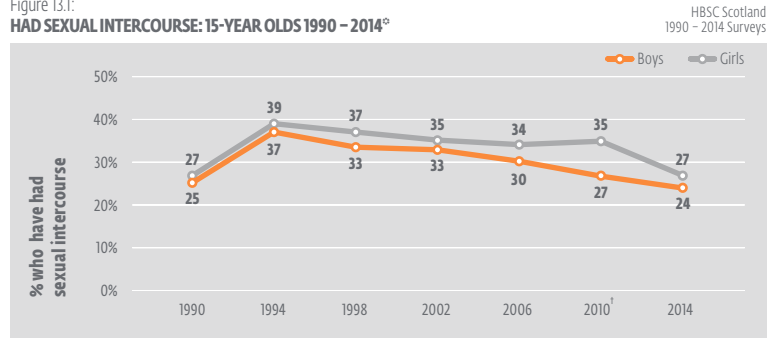
HBSC FINDINGS

HBSC Scotland has collected data from 15-year olds about sexual intercourse in some schools since 1990, and across the whole sample since 1998. Information on 15-year olds' condom and contraceptive use has been collected since 2002, and in 2014, questions are included to examine the age at sexual initiation amongst those that report having had sexual intercourse.

SEXUAL INTERCOURSE

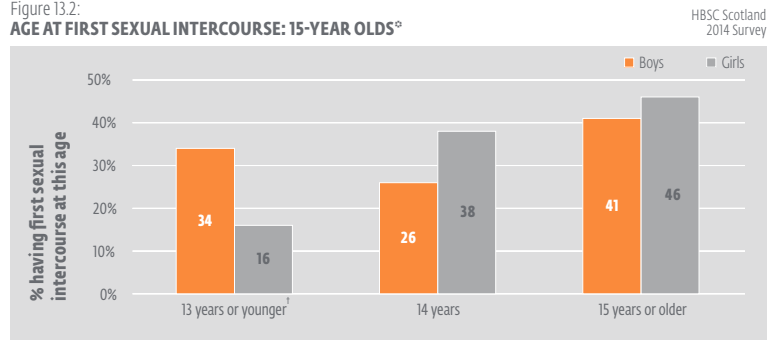
The proportion of 15-year olds who have had sexual intercourse remained stable between 1998 and 2010, however between 2010 and 2014 there was a decline in the proportion of girls that report having had sex (from 35% to 27%). Little change was seen among boys over this period, therefore, the gender difference that emerged in 2010 (that girls were more likely to report having had sexual intercourse) is no longer evident (Figure 13.1).

Figure 13.1:
HAD SEXUAL INTERCOURSE: 15-YEAR OLDS 1990 – 2014^a



† Significant gender difference (p<0.01)
* NB 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 the question (44%) due to one of the 12 regional authorities at this time wishing not to include sexual health items.

Figure 13.2:
AGE AT FIRST SEXUAL INTERCOURSE: 15-YEAR OLDS^a



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

Table 13.1:
CONTRACEPTION USE: 15-YEAR OLDS^a

Contraceptive used	2002			2006			2010			2014		
	Boy (n=165)	Girl (n=178)	Total (n=343)	Boy (n=253)	Girl (n=304)	Total (n=557)	Boy (n=246)	Girl (n=360)	Total (n=606)	Boy (n=253)	Girl (n=347)	Total (n=600)
Condom only	65%	48%	56%	73%	58%	65%	69%	59%	63%	44%	41%	42%
Contraceptive pill only	4%	7%	6%	2%	10%	7%	7%	11%	9%	9%	16%	13%
Condom & pill	12%	16%	14%	12%	16%	14%	6%	11%	9%	15%	17%	16%
Neither condom nor pill	19%	28%	24%	13%	15%	14%	19%	20%	19%	32%	27%	29%

* Of 15-year olds who have had sexual intercourse. Between 2002 and 2010, condom use was assessed by two different questionnaire items, whereas in 2014, only one question was asked.

AGE AT FIRST INTERCOURSE

Amongst those 15-year olds that report having had sexual intercourse, 24% report having sex at the age of 13 or younger, 32% at the age of 14 and 44% at 15 or older.

Boys are more likely than girls to report having had sexual intercourse at the age of 13 or younger (34% versus 16%, respectively) (Figure 13.2). Boys are less likely than girls to report that they first had intercourse at 14 years (26% versus 38%, respectively). There is no significant gender difference in the proportion reporting first having sex at 15 years or older.

CONTRACEPTION

Of those 15-year olds that report having had sexual intercourse, 58% used a condom (with or without the contraceptive pill) on the last occasion (Table 13.1). Around one third of girls (32%) and a quarter of boys (24%) report the use of birth control pills (with or without a condom). Sixteen percent (16%) used both a condom and birth control pills at last intercourse (17% of girls and 15% of boys). Almost one in three (29%) report using neither a condom nor birth control pills at last intercourse (27% of girls and 32% of boys). A minority reported using other methods such as withdrawal or a contraceptive implant.

Fifteen-year olds in 2014 are less likely to use a condom than in 2010 when 74% of boys and 70% of girls reported using one on the last occasion that they had intercourse (compared to 58% of boys and girls in 2014). Also, there was an increase in the proportion of those using neither the contraceptive pill nor a condom when they last had sex, from 19% in 2010 to 29% in 2014.*

NOTES

*Between 2002 and 2010, condom use was assessed by two different questionnaire items, whereas in 2014, only one question was asked.

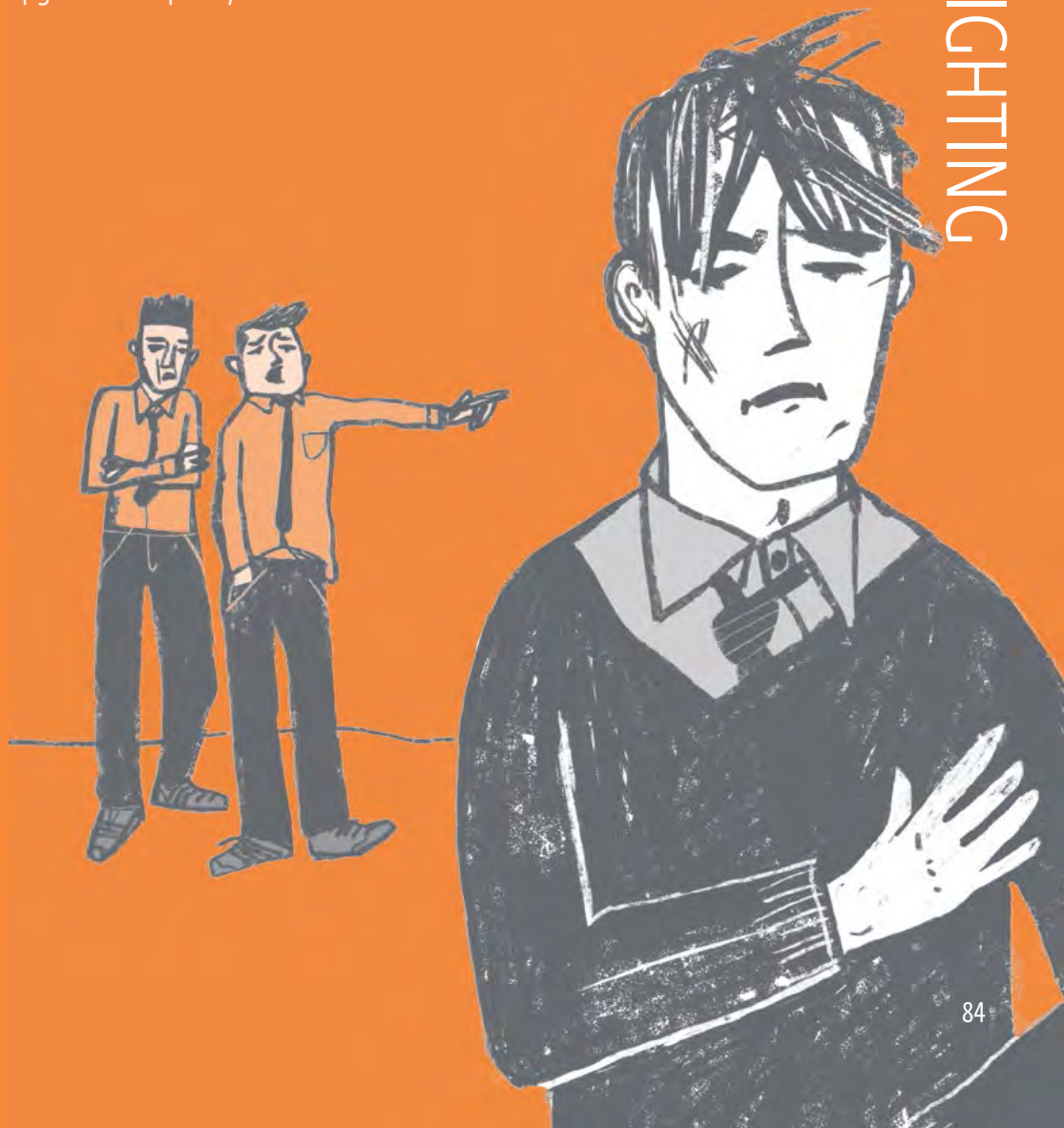
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- 14% of young people in Scotland report having been bullied at school at least twice a month in the past two months
- At age 15, rates of being bullied are lower than among 11- and 13-year olds
- The proportion of young people that report being bullied increased between 2010 and 2014, especially among girls
- 24% of 13-year old girls report being bullied at least once via electronic media messages in the past couple of months
- 18% of 13-year old girls report being bullied via electronic media pictures at least once over the past couple of months
- 5% of girls and 15% of boys report that they have been involved in a physical fight three or more times in the previous year
- Among boys, the prevalence of fighting decreases with age
- Since 2002, boys have gradually become less likely to have been involved in three or more physical fights in the past year

14

BULLYING AND FIGHTING



BULLYING AND FIGHTING

INTRODUCTION

Bullying involves deliberate and repeated aggression targeted towards a specific victim. It can entail use of physical force, and can also involve abuse, defamation, threats or intimidation delivered verbally or by electronic media (cyber-bullying^{1,2}). Bullying is more common amongst boys than girls and is most common among pre-teen adolescents³. Victim and perpetrator roles in a bullying relationship tend to be persistent and can begin at any age. Bullying is a particular problem among children and adolescents and, given its high prevalence as well as seriousness, is considered to be an important adolescent health concern⁴.

Fighting is a related but distinct activity to bullying. Whilst bullying necessarily involves a power imbalance between perpetrators and victims, fighting need not. Physical fighting is the most visible form of violent behaviour among adolescents, and is also associated with participation in other activities that pose serious health risks, such as substance misuse⁵. In extreme cases, fighting involving weapons is a significant cause of serious injury and death among young people worldwide⁶.

The high prevalence of these behaviours is a cause for concern as there are many short and long-term negative consequences for youth development^{7,8}. For instance, adolescent victims of bullying show reduced attendance and performance at school, poor social adjustment, increased medicine use, increased physical injury, and higher levels of both physical and psychological health problems^{9,10,11}.

Schools are an important focus for control of bullying, and family life and parental support are also strong correlates of bullying. Both bullies and victims tend to report low levels of school attachment¹². Supportive parental attitudes have been shown to protect children from being both victims and perpetrators of bullying¹³; whereas problems in family communication are associated with increased risk of becoming a bully. Attitudes within a young person's peer group are also strong determinants of the prevalence of bullying, and interventions against bullying often seek to target raised awareness and attitudinal change within the wider peer group context rather than focusing only on perpetrators and victims^{14,15}.

In 2010, the Scottish Government and the Scottish Anti-Bullying Steering Group published a new policy: *A National Approach to Anti-Bullying for Scotland's Children and Young People* to raise awareness, provide leadership and implement policies and practice to prevent or respond to bullying¹⁶. This is intended to promote a common vision and to ensure that work across all agencies and communities consistently and coherently contributes to reducing bullying in Scotland. *Respectme* (Scotland's anti-bullying campaign service) has been working in conjunction with the Scottish Association for Mental Health and operates in partnership with LGBT Youth Scotland; their aim is to work with all adults involved in the lives of children and young people to give them the practical skills and confidence to deal with those children who are bullied and those who bully others. Likewise, the emphasis on health and well-being in the Curriculum for Excellence¹⁷ and the principles of *Getting it Right For Every Child (GIRFEC)*¹⁸ emphasise the importance of a safe learning environment and attention to robust anti-bullying policy and practice.

HBSC FINDINGS

The HBSC survey asks young people to report how often they have been bullied at school and how often they have taken part in bullying others. Bullying is defined as when another individual or group of individuals says or does nasty things, when an individual is teased repeatedly in a way that they do not like, or when they are deliberately left out of activities¹⁹. Fighting is defined as being involved in a physical fight, but is not restricted to the school setting. Bullying and fighting data have been collected since 2002. In 2014, HBSC Scotland also started collecting data on the prevalence of cyberbullying via electronic media.

Figure 14.1: **BEEN BULLIED AT LEAST 2-3 TIMES A MONTH IN PAST COUPLE OF MONTHS** HBSC Scotland 2014 Survey

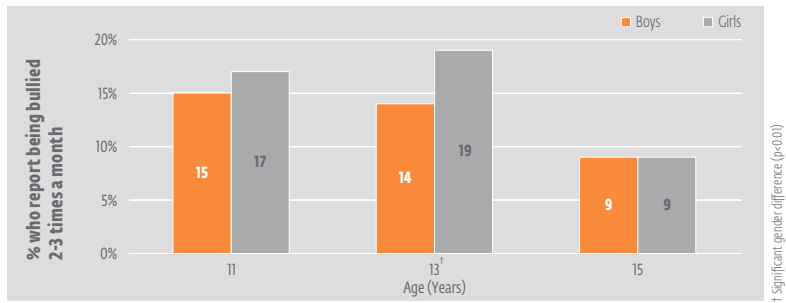


Figure 14.2: **BEEN BULLIED 2-3 TIMES A MONTH IN PAST COUPLE OF MONTHS 2002 - 2014** HBSC Scotland 2002 - 2014 Surveys

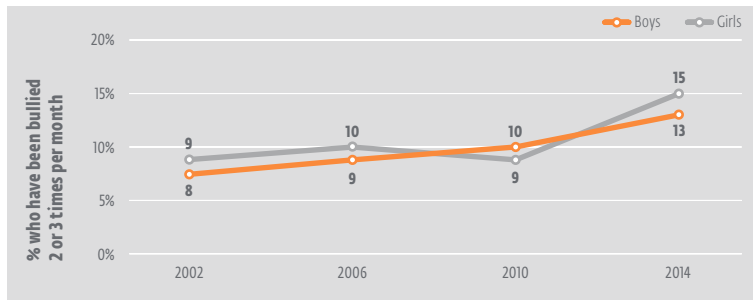
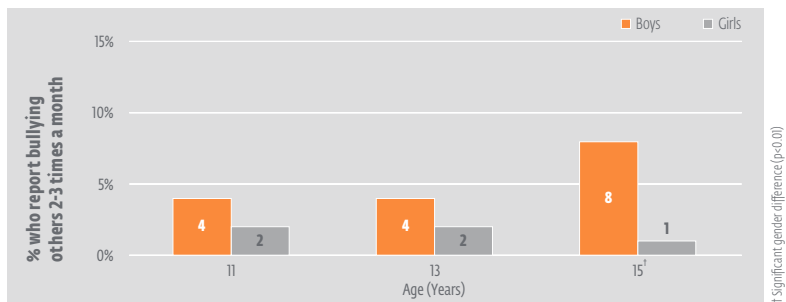


Figure 14.3: **BULLIED OTHERS AT LEAST 2-3 TIMES A MONTH IN PAST COUPLE OF MONTHS** HBSC Scotland 2014 Survey



BULLYING AND BEING BULLIED

Thirteen percent (13%) of boys and 15% of girls (aged 11-15 years) report having been bullied at school at least two times a month in the past two months (Figure 14.1). Girls and boys report similar exposure to frequent bullying at ages 11 and 15. However, at age 13, girls are more likely than boys to report being bullied.

There is little difference in the prevalence of being bullied between the ages of 11 and 13 for both boys and girls, however, at age 15, rates of being bullied are lower for both genders.

There was little change in the prevalence of being bullied between 2002 and 2010, however there was an increase between 2010 and 2014 (Figure 14.2). Among girls, bullying increased from 9% in 2010 to 15% in 2014. A smaller increase was also seen over this period for boys, from 10% to 13%.

The proportion of young people who report bullying others at least twice a month (4%) is considerably lower than the proportion who report being bullied this often (14%). More boys than girls report frequently bullying others at 15 years and the proportion of bullies increases between the ages of 13 and 15 among boys, but not among girls (Figure 14.3). The prevalence of bullying others has changed very little between 2002 and 2014 for both boys and girls (Figure 14.4).

Five percent (5%) of 11-15 year olds in Scotland report being bullied in writing via electronic media at least twice a month (Figure 14.5). There is little variation with age for boys, but 13-year old girls are more likely than their younger and older peers to be bullied via electronic media messages (9% of 13-year old girls, versus 4% of 11 and 15-year-olds). Almost a quarter (24%) of 13-year old girls report being bullied at least once in this way over the past couple of months.

Young people were also asked to report how often they feel they had been bullied by someone posting unflattering or inappropriate pictures of them online. A small proportion (3%) report being bullied in this way at least twice a month. Among boys there is a slight increase in the likelihood of being bullied in this way between the ages of 11 and 15 (from 1% to 4%, respectively). Among girls, the prevalence is lower at 11 years than at 13 (2% and 6%, respectively) (Figure 14.6). Eighteen percent (18%) of 13-year old girls report being bullied via electronic media pictures at least once over the past couple of months.

FIGHTING

Five percent (5%) of girls and 15% of boys report that they have been involved in a physical fight three or more times in the previous 12 months. For boys, this decreases from 21% at age 11, to 11% at ages 13 and 15 (Figure 14.7). Girls at age 11 are also more likely than 15-year old girls to have been involved in three or more fights (7% versus 3%, respectively). Between 2002 and 2014, fighting prevalence declined among boys (from 23% to 15%) but has changed very little among girls (Figure 14.8).

Figure 14.4: BULLIED OTHERS AT LEAST 2-3 TIMES A MONTH 2002 – 2014

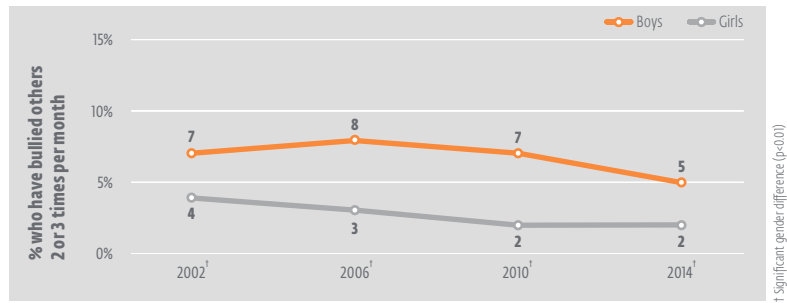


Figure 14.5: BULLIED VIA ELECTRONIC MEDIA MESSAGES AT LEAST TWICE A MONTH

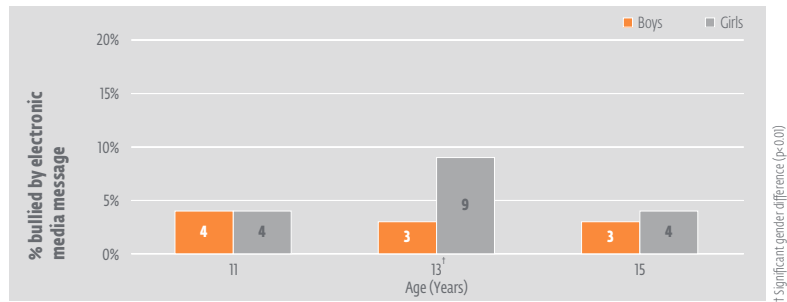


Figure 14.6: BULLIED VIA ELECTRONIC MEDIA PICTURES AT LEAST TWICE A MONTH

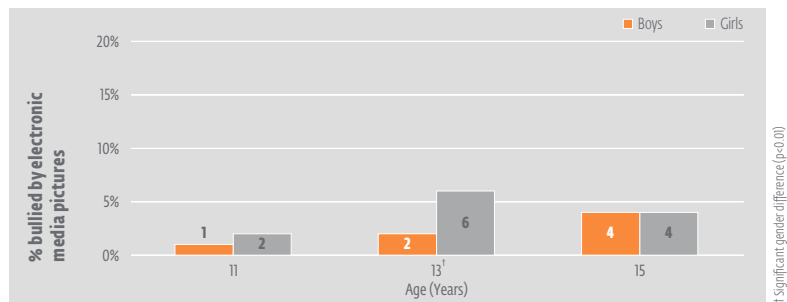


Figure 14.7: INVOLVED IN A PHYSICAL FIGHT 3 TIMES OR MORE LAST YEAR

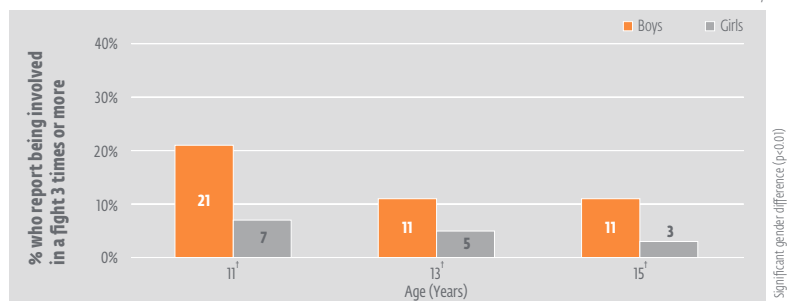
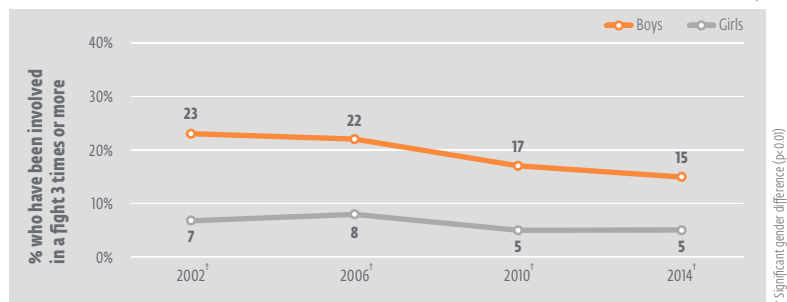


Figure 14.8: INVOLVED IN A PHYSICAL FIGHT 3 TIMES OR MORE LAST YEAR 2002 – 2014



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- Nearly half of young people in Scotland (45%) suffered at least one medically-treated injury in the past 12 months (50% of boys and 40% of girls)
- Among boys, there has been a gradual decrease in the likelihood of injury since 2002
- 46% of boys report that they were doing a sports or recreational activity when their most serious injury happened
- Most commonly, girls that have been injured report that they were at home when their most serious injury happened (29%)
- Nearly half (46%) of those that report being injured in the past year, required hospital treatment for their most serious injury
- At age 15, injured boys are more likely than injured girls to have required hospital treatment (51% versus 38%)

15

INJURIES



INJURIES

INTRODUCTION

Any physical damage to the body can be considered an injury; here we are concerned with injury that is sufficiently severe to require medical treatment. In industrialised countries, injury is the single greatest cause of death in young people, although prevalence of injury-related deaths is higher in low and middle-income countries¹. The high frequency of non-fatal injury (with around 50% of adolescents reporting a serious injury in the last year) makes injury a very important factor in adolescent health². Unintentional injuries accounted for approximately 1 in 7 emergency hospital admissions for children in Scotland in 2011/2012³.

There is a link between socio-economic status (SES) and type of adolescent injury: low SES is associated with higher risk of being injured through fighting and increased risk of being so severely injured as to require hospitalisation; high SES is associated with higher risk of injury through sport or other recreational activity⁴.

Globally, the leading causes of injury among children are road traffic accidents, drowning, fire-related burns, self-harm and violence¹. Most non-fatal injuries occur in the home or at a sporting facility. Boys report higher levels of injury than girls⁵, which is likely related to higher levels of risk-taking behaviours in boys. Early engagement in risky behaviours is considered to be a marker for a trajectory that places young people at higher risk for physical injury⁶. Such behaviours are the strongest predictor of risk of injury in adolescents².

At the start of the period between 2005 and 2011, injury rate due to maltreatment and violence was twice as high in Scotland as in England among 11-18 year olds. Over this six-year period, the disparity declined and the overall rate of such injuries reduced, as did the rate of injuries in young people through causes unrelated to maltreatment or violence⁷. Scottish data from the period 1982-2006 on death through injury in children 14 years and younger, followed the international trend of higher rates in males. This was true for poisoning, falls, suicide, drowning, suffocation and road-traffic accidents. However, this male excess declined markedly during the same time period⁸. Furthermore, it was found that children residing in less affluent areas were at relatively greater risk of deaths related to head injury and this effect was strongest in 10-14 year olds⁹.

A supportive social environment has been shown to reduce adolescent participation in risk-taking behaviours (such as drunkenness, drug-use, non-use of seatbelts) and hence in risk of injury¹⁰. Societies that introduced initiatives to improve safety for adolescents, appear to have succeeded in reducing injury morbidity¹¹. In May 2011, NHS Health Scotland produced a briefing on the prevention of unintentional injuries for children and young people¹². This supplements the 2007 *Child Safety Strategy*¹³, which outlines the Scottish Government's framework for delivering improvements in healthcare for children and young people in Scotland for the next ten years. Preventative health care proposals aimed at front-line practitioners, clinical leaders and others involved in the planning and delivery of health services to children and their families are set out in *A New Look At Hall 4: The Early Years Good Health for Every Child*¹⁴. The *Child Safety Report Card* was prepared in 2012 as a means of measuring progress towards, and setting targets for reducing unintentional injury-related death and disability amongst European children and adolescents¹⁵.

HBSC FINDINGS

Since 2002, the HBS study has asked young people about injuries requiring medical attention during the previous 12 months. In 2014, young people were also asked where the most serious injury happened and what they were doing when it occurred. Those that were injured were asked whether their most serious injury required hospital treatment.

MEDICALLY ATTENDED INJURIES

Almost half of young people (45%) suffered at least one medically-treated injury in the past 12 months. There is little variation in the prevalence of injuries across the three age groups (Figure 15.1). However, at all three ages, more boys than girls have

Figure 15.1:
INJURED AT LEAST ONCE IN PAST 12 MONTHS

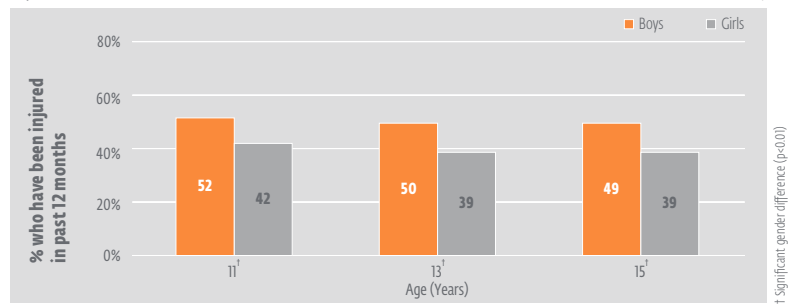


Figure 15.2:
INJURED AT LEAST ONCE IN PAST 12 MONTHS 2002 – 2014

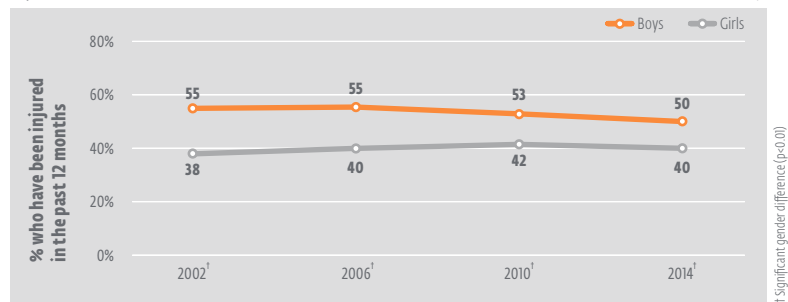


Figure 15.3:
PLACE WHERE MOST SERIOUS INJURY HAPPENED

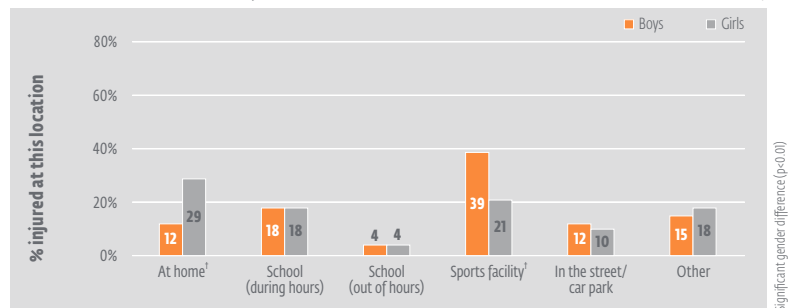


Figure 15.4:
ACTIVITY DURING MOST SERIOUS INJURY

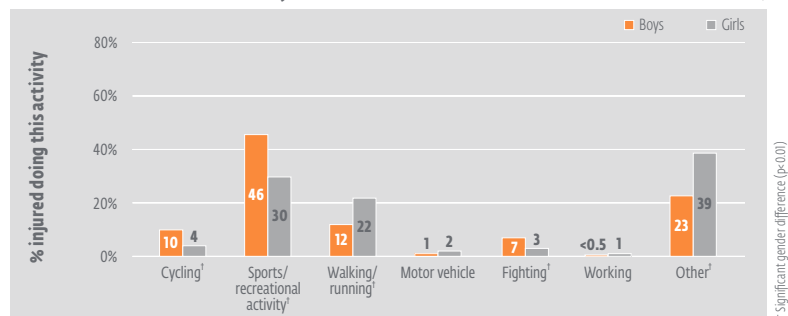
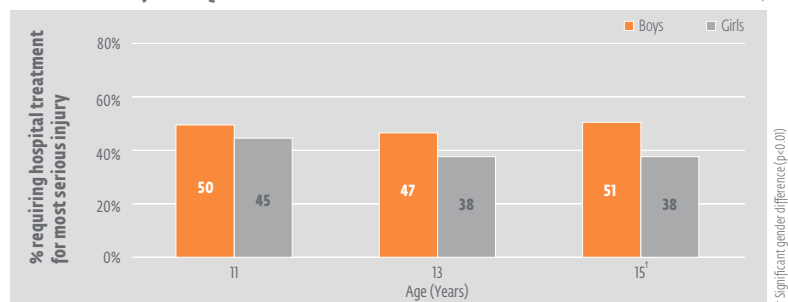


Figure 15.5:
MOST SERIOUS INJURY REQUIRED HOSPITAL TREATMENT



been injured (50% of boys and 40% of girls). Whilst there has been little change in the prevalence of injuries among girls between 2002 and 2014, there has been a small but steady decline among boys from 55% in 2002 to 50% in 2014 (Figure 15.2).

INJURY LOCATION AND ACTIVITY

Those that report being injured at least once in the past 12 months were asked to identify the place where their most serious injury over this period happened (Figure 15.3), as well as what they were doing when it happened (Figure 15.4).

The majority of boys report that their injury happened at a sports facility, and more boys than girls report that their most serious injury happened at this type of location (39% versus 21%, respectively). Correspondingly, the majority of boys report that their most serious injury happened whilst engaging in a sports or recreational activity, with more boys than girls reporting this activity whilst getting injured (46% versus 30%, respectively). Boys are also more likely than girls to have been injured whilst cycling (10% versus 4%, respectively) or fighting (7% versus 3%, respectively).

Girls were most likely to report that their most serious injury happened at home, with more girls than boys reporting that their injury happened at this location (29% versus 12%, respectively). More girls than boys report being injured whilst walking or running (22% versus 12%, respectively) or engaging in an activity other than those listed (39% versus 23%, respectively).

INJURY HOSPITAL TREATMENT

Amongst those that report being injured in the past 12 months, 46% report that the most serious injury required hospital treatment, such as placement of a cast, stitches, surgery or an overnight hospital stay (Figure 15.5).

Overall, boys are more likely than girls to have received hospital treatment if injured (49% versus 41%, respectively). This gender difference is most pronounced among 15-year olds, with 51% of injured boys and 38% of girls requiring hospital treatment. There is little age difference in the likelihood of requiring hospital treatment if injured.

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A

APPENDIX

The following Appendix describes the questions included in the 2014 HBSC survey in Scotland. This does not replicate the full survey but lists only items presented in the 2014 HBSC Scotland National Report.

APPENDIX

CHAPTER 2: FAMILY LIFE

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 partner) / Stepfather (or mother's partner) / Grandmother / Grandfather / I live in a foster home or children's home / Someone or somewhere else*)

FAMILY AFFLUENCE

Scores were calculated by summing the responses to the following survey items:

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)*)

The children surveyed were assigned low, medium or high FAS classification where FAS 1 (score = 0-6) indicates low affluence; FAS 2 (score = 7-9) indicates middle affluence; and FAS 3 (score = 10-13) indicates high affluence.

PERCEIVED WEALTH

How well off do you think your family is? (*Very well off / Quite well off / Average / Not very well off / Not at all well off*)

COMMUNICATION BETWEEN PARENTS AND ADOLESCENTS

How easy is it for you to talk to the following person about things that really bother you? Mother / Father. (*Very easy / Easy / Difficult / Very difficult / Don't have or don't see this person*)

FAMILY SUPPORT

Scores were calculated by taking the mean of the responses to the following survey items:

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*)

CHAPTER 3: THE SCHOOL ENVIRONMENT

SATISFACTION WITH SCHOOL

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*)

ACADEMIC ACHIEVEMENT

In your opinion, what does your class teacher(s) think about your school performance compared to your classmates? (*Very good / Good / Average / Below average*)

PRESSURE OF SCHOOLWORK

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

CLASSMATE SUPPORT

Most of the pupils in my class(es) are kind and helpful. (*Strongly agree / Agree / Neither agree nor disagree / Disagree / Strongly disagree*)

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*)

CHAPTER 4: PEER RELATIONS

NUMBER OF CLOSE FRIENDS

At present, how many close male and female friends do you have? Males / Females. (*None / One / Two / Three or more*)

PEER CONTACT FREQUENCY

How often do you meet your friends outside school time...? Before 8pm? / After 8pm? (*Hardly ever or never / Less than weekly / Weekly / Daily, how often?*)

COMMUNICATION WITH BEST FRIEND

How easy is it for you to talk to the following person about things that really bother you? Best friend. (*Very easy / Easy / Difficult / Very difficult / Don't have or don't see this person*)

ELECTRONIC MEDIA CONTACT

How often do you...? Talk to your friends on the phone or internet-based programmes such as FaceTime or Skype / Contact your friends using texting/SMS / Contact your friends using email / Actively contact your friends using instant messaging (e.g. BBM, Facebook chat) / Contact your friends using other social media, such as Facebook (posting on wall, not chat), Myspace, Twitter, Apps (e.g. Instagram), games (e.g. Xbox), YouTube, etc. (*Hardly ever or never / Less than weekly / Weekly / Daily, how often during a day?*)

PEER SUPPORT

Scores were calculated by taking the mean of the responses to the following survey items:

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: NEIGHBOURHOOD ENVIRONMENT

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*)

LOCAL AREA IS A GOODPLACE 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*)

GENERAL PERCEPTIONS 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 by 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 by 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 categorised as: Infrequent user (<once a month), occasional user (1 to 3 times a month), frequent 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 6: EATING HABITS

FAMILY MEALS

How often do you have an evening meal together with your mother or father? (*Never / Less than once a week / 1-2 days a week / 3-4 days a week / 5-6 days a week / Every day*)

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*)

* Question also used for weekend days

LUNCH ON SCHOOLDAYS

On most school days, what do you do for lunch? (*School lunches in the dining room or canteen / Packed lunch in school / Go home for lunch / Buy lunch from local shop, café or van / I don't eat lunch / Other*)

CONSUMPTION OF FOODS

How many **times a week** do you usually eat or drink...? Fruit / Vegetables / Sweets or chocolate / Potato crisps / Chips or fried potatoes / Coke or other soft drinks that contain sugar (**not** diet coke or diet soft drinks). (*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: PHYSICAL ACTIVITY & 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 / 4-6 times a week / 2 to 3 times a week / Once a week / Once a month / Less than once a month / Never*)

OUTSIDE SCHOOL HOURS: How many **hours a week** do you usually exercise in your free time so much that you get out of breath or sweat? (*None / About half an hour / About 1 hour / About 2 to 3 hours / About 4 to 6 hours / 7 hours or more*)

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)

TRAVEL TIME TO SCHOOL

How long does it usually take you to travel to school from your home?
(Less than 5 minutes / 5-15 minutes / 15-30 minutes / 30 minutes to 1 hour /
More than 1 hour)

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)

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)

USING A 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 8: WEIGHT CONTROL BEHAVIOUR

At present are you on a diet or doing something else to lose weight?
(No, my weight is fine / No, but I should lose some weight / No, because I need
to put on weight / Yes)

CHAPTER 9: BODY IMAGE AND BODY MASS INDEX

BODY SIZE

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

REPORTING GOOD LOOKS

Do you think you are.... (Very good looking / Quite good looking / About
average / Not very good looking / Not at all good looking / I don't think about
my looks)

BODY MASS INDEX (BMI)

How much do you weigh? (I weighkilograms / I weighstones
pounds / I don't know what I weigh)

How tall are you? (I ammetrecentimetres tall / I amfeet
inches tall / I don't know what height I am)

CHAPTER 10: TOOTH BRUSHING

TOOTH BRUSHING AT LEAST TWICE A DAY

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)

CHAPTER 11: WELL-BEING

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. 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.

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)

How often do you feel happy? (Never / Hardly ever / Sometimes / Often
/ Always)

SELF-CONFIDENCE

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)

SELF-RATED HEALTH

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

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.

MEDICINE USE

During the **last month** have you taken any **medicine or tablets** for
the following? Headache / Stomachache / Difficulties in getting to
sleep / Nervousness / Something else (please say what) (No / Yes, once
/ Yes, more than once)

KIDSCREEN

Thinking about the **last week...** Have you felt fit and well? (*Not at all / Slightly / Moderately / Very / Extremely*) / Have you felt full of energy? / Have you felt sad? / Have you felt lonely? / Have you had enough time for yourself? / Have you been able to do things that you wanted to do in your free time? / Have your parent(s) treated you fairly? / Have you had fun with your friends? (*Never / Not often / Quite often / Very often / Always*) / Have you got on well at school? (*Not at all / Slightly / Moderately / Very / Extremely*) / Have you been able to pay attention? (*Never / Not often / Quite often / Very often / Always*)

The KidScreen scale was calculated according to www.kidscreen.org/english. The copyright for KIDSCREEN belongs to Prof. Ravens-Sieberer. The KIDSCREEN Group Europe. (2006). *The KIDSCREEN Questionnaires – Quality of life questionnaires for children and adolescents*. Handbook. Lengerich: Pabst Science Publishers.

PERCEIVED STRESS

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*)

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

CHAPTER 12: SUBSTANCE USE

TOBACCO

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*)

How often do you smoke tobacco at present? (*Every day / At least once a week, but not every day / Less than once a week / I do not smoke*)

ALCOHOL

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, Bacardi 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 / Hardly ever / Never*)

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

Have you ever taken cannabis... In your life / 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: 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 SEXUAL INTERCOURSE

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

CONTRACEPTION

The last time you had sexual intercourse, did you or your partner... Use a condom? / Use birth control pills? (*Yes / No / Don't Know*)

CHAPTER 14: BULLYING AND FIGHTING

BULLYING AND BEING BULLIED

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

How often have you been bullied at school in the **past couple of months**? (*I haven't been bullied at school in the past couple of months / It has only 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 pupil(s) at school in the **past couple of months**? (*I haven't bullied another pupil(s) at school in the past couple of months / It has only happened once or twice / 2 or 3 times a month / About once a week / Several times a week*)

ELECTRONIC BULLYING

How often have you been bullied in the following ways in the **past couple of months**?

Someone sent mean instant messages, wall postings, emails and text messages, or created a website that made fun of me / Someone took unflattering or inappropriate pictures of me without my permission and posted them online (*I have not been bullied in this way / Only once or twice / 2 or 3 times a month / About once a week / Several times a week*)

FIGHTING

During the **past 12 months**, how many times were you in a physical fight? (*I have not been in a physical fight in the past 12 months / 1 time / 2 times / 3 times / 4 times or more*)

CHAPTER 15: INJURIES

MEDICALLY-ATTENDED INJURY

Many young people get hurt or injured from activities such as playing sports or fighting with others at different places such as the street or home. Injuries can include being poisoned or burned. Injuries do not include illnesses such as Measles or the Flu. The following question is about injuries you may have had during the past 12 months.

During the **past 12 months**, how many times were you injured and had to be treated by a doctor or nurse? (*I was not injured in the past 12 months / 1 time / 2 times / 3 times / 4 times or more*)

Did **the most serious injury** need medical treatment such as the placement of a cast, stitches, surgery, or staying in a hospital overnight? (*I was not injured in the past 12 months / Yes / No*)

PLACE WHERE INJURY HAPPENED

Where were you when the **most serious injury** happened? (*I was not injured in the past 12 months / A home/in garden (yours or someone else's) / School, including school grounds, during school hours / School, including school grounds, after school hours / At a sports facility or field (not at school) / In the street/road/car park / Other location*)

ACTIVITY WHEN INJURY HAPPENED

What were you doing when **the most serious** injury happened? (*I was not injured in the past 12 months / Biking/cycling / Playing or training for sports/recreational activity / Walking/running (not for a sports team or exercise) / Riding/driving in a car or other motor vehicle / Fighting / Paid or unpaid work / Other activity*)