The Scottish Government
Riaghaltas na h-Alba

Tobacco use among adolescents in Scotland: profile and trends

An Official Statistics publication for Scotland

HEALTH AND SOCIAL CARE

Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) Series

Publication title: Tobacco use among adolescents in Scotland: profile and trends

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EXECUTIVE SUMMARY

The Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) has been running regularly since 1982, surveying S2 and S4 pupils on their tobacco, alcohol and drug use, which is contextualised alongside other data on lifestyle, health and social factors. The length of time the survey has been conducted and the consistency of its aims and structure provide a unique resource for gaining insight into how adolescent substance use and lifestyles have changed over time. The survey data from 1990 to 2013 has been combined to allow more detailed analysis and the identification of trends in substance. This report is one of the first uses of this dataset, exploring how adolescent smoking and factors associated with it have changed over time.

PREVALENCE

- The proportion of 13 and 15 year olds who regularly smoke has decreased over time and is now at its lowest level since the survey began. In 2013, 2% of 13 year olds smoked regularly, down from a peak of 8% in 1998, and 9% of 15 year olds, from a peak of 29% in 1996.
- The percentage of pupils who do not smoke has risen steadily, over most waves of the survey.
- Girls had consistently reported higher rates of regular smoking than boys of the same age over most of the survey, although the gap has narrowed to the point where there is no difference between the genders in 2013.
- Smoking has decreased steadily in most at risk groups, including those living in deprived areas, those with mental health problems and pupils living with a single parent, but pupils in these groups are still more likely to be regular smokers.

SOURCES OF CIGARETTES

- The percentage of regular smokers who directly purchase cigarettes from primary sources remained relatively stable until 2008 then decreased sharply in the 2008 and 2010 surveys. In 1990, 94% of 15 year old regular smokers had obtained cigarettes from any primary source compared to 33% in 2013; and in 1990, 87% had purchased cigarettes from a newsagent, tobacconist or sweetshop compared to 22% in 2013. The age of sale for tobacco was increased from 16 to 18 in 2007 and the Tobacco Retailer Register was introduced in 2010.
- The overall proportion of regular smokers obtaining cigarettes from secondary sources, such as asking an adult to buy them or being given them by others, has remained comparatively stable since 1990.

FAMILY, FRIENDS, SOCIETY AND HEALTH

- Across the whole time series, pupils who report that at least one parent, at least one sibling, their boy/girlfriend or their best friend smokes are all much more likely to be regular smokers.
- Smokers are most likely to say that 'all' or 'mostly all' of their friends smoke; non-smokers are very unlikely to have many friends who smoke.
- Regular smokers are less likely to be living with both parents than in some other family structure.
- Pupils who report that both parents know little about of how they spend their time are more likely to be smokers.
- Activities associated with increased probability of being a regular smoker include regularly hanging out on the street, going to concerts or gigs and being out most evenings. Pupils who play sports at least weekly are less likely to be regular smokers.
- Pupils who do not like school are more likely to be regular smokers than those that do. Additionally, those who have been excluded or have truanted from school are far more likely to smoke than those who have not.
- There is no clear link between feeling stressed by school work and smoking.
- Pupils who report having physical health or mental wellbeing issues are consistently far more likely to be regular smokers than others.

ATTITUDES TO SMOKING

- Across the time series, most regular smokers report that their family knows that they smoke, but this is not the case with occasional smokers. The responses of families to their smoking – or how the child thinks they would respond – has not substantially changed over time: most would try to stop them smoking or try to persuade them to stop.
- The proportion of pupils who think it is ok to try a cigarette to see what it is like has declined steadily with time.
- Almost all pupils (regular, occasional and non-smokers) agree that smoking can cause lung cancer and heart disease.
- A minority of pupils do, however, think that smoking helps people to cope with life or gives people confidence, and a majority believe that smoking helps people relax if they are nervous.
- Regular and occasional smokers are more likely than non-smokers to agree with statements about "positive" aspects of smoking.
- Over time, the proportion of regular smokers wishing to give up has remained constant; the proportion saying they do not want to stop has increased, while 'don't knows' have fallen.

EQUALITIES

- Pupils who live in deprived areas, receive free school meals, or describe their family as being ‘not well off at all’, are more likely to be regular smokers.
- The gap between female and males regular smoking rates has decreased over time, but girls are still more likely than boys to have tried at least one cigarette and are more likely to smoke if they have characteristics which place them at higher risk of substance use, especially those who have poor mental wellbeing.

PREDICTORS OF SMOKING

- The strongest predictors of regular smoking from the logistic regression model are truancy and exclusion, playing sports at least weekly, hanging around on the street at least weekly, parental knowledge of the child’s activities, the age of their friend group, the number of evenings spent out, and what the pupil thinks they will do after leaving school.

- In the logistic regression poor mental wellbeing is only a weak predictor of smoking for both genders, but has a larger effect for girls who have poorer mental wellbeing.

1. BACKGROUND AND METHODOLOGY

This report uses data from the 1990-1998 *Smoking Among Secondary Schoolchildren Survey* series and the 2000-2013 *Scottish Schools Adolescent Lifestyle and Substance Use Survey* (SALSUS) to investigate the factors associated with tobacco use in 13 and 15 year old school pupils in Scotland and changes in these over time.

POLICY CONTEXT

Tobacco remains the primary preventable cause of ill health and premature death in Scotland. Tobacco control has been a population health priority of the Scottish Government since its establishment and policy milestones since 1999 have been:

- Legislation banning tobacco advertising in 2002[1]
- A complete ban on smoking in all enclosed public spaces in 2006[2]
- An increase in the age for tobacco sales from 16 to 18 in 2007
- An overhaul of tobacco sale and display law, including a ban on automatic tobacco vending machines and the display of smoking-related products in shops[3]
- The establishment of the first Tobacco Retailer Register in the UK
- The creation of an offence of 'proxy purchase'
- Comprehensive awareness-raising campaigns
- Record investment in NHS smoking cessation services.

In March 2013, the Scottish Government published its current tobacco control strategy, *Creating a Tobacco-Free Generation: A Tobacco Control Strategy for Scotland,*[4] which set a target for adult smoking prevalence to be reduced to 5% or lower by 2034. Progress towards this target is measured using data on smoking from the Scottish Household Survey. As most smokers start as teenagers and almost none after the age of 25, key to the Strategy's success is reducing smoking in young people by creating an environment where they choose not to smoke and where it is harder for under-18s to access cigarettes through limiting supply.

[1] http://www.legislation.gov.uk/ukpga/2002/36/contents

[2] http://www.legislation.gov.uk/ssi/2006/90/contents/made

[3] http://www.legislation.gov.uk/asp/2010/3/contents

[4] http://www.gov.scot/Publications/2013/03/3766/0

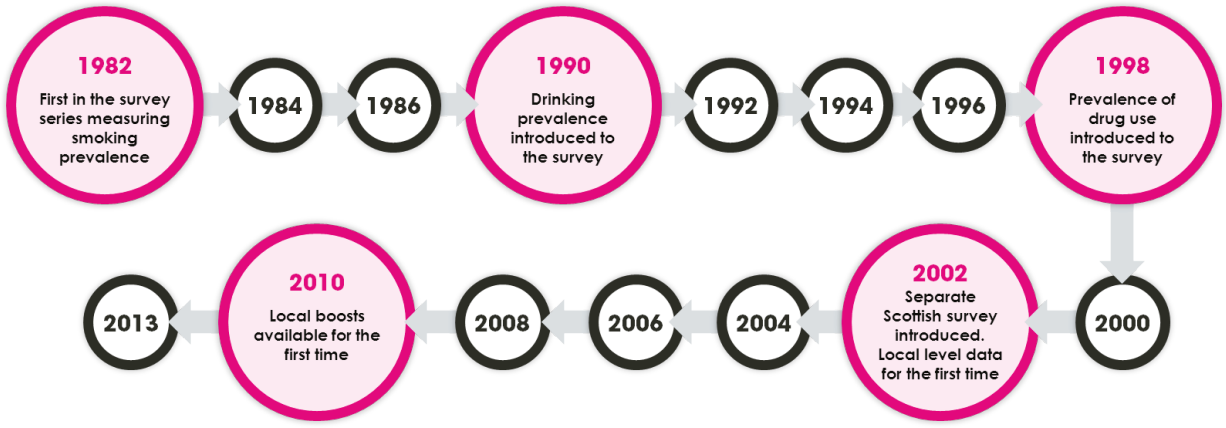
SURVEY BACKGROUND AND PURPOSE

The Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS**)** is the Scottish Government's main source of data on adolescent substance use. SALSUS is a continuation of a long established series of national surveys on smoking, drinking and drug use (Figure 1.1). These were carried out jointly in Scotland and England between 1982 and 2000 to provide a picture of young people's smoking, drinking, and drug use behaviours.

Since 2002, SALSUS has measured progress towards Scottish Government targets for smoking and drug use, and is used to inform the Scottish Government priority of addressing harmful drinking among young people. The survey series also provides local prevalence rates for smoking, drinking and drug use across Alcohol and Drug Partnerships (ADPs), local authorities and NHS Boards. SALSUS data are used in a number of the ADP national core indicators, which allows them to monitor their progress against a common set of outcomes. ADPs and their community planning partners make extensive use of SALSUS data in local needs assessments and in developing their strategic priorities.

Reports from the 2013 survey, include a detailed smoking topic report, can be found here: http://www.isdscotland.org/Health-Topics/Public-Health/SALSUS/Latest-Report/.

Figure 1.1 – History of SALSUS and its predecessors



METHODOLOGY

SALSUS is a confidential, self-completion questionnaire that is currently completed by S2 and S4 pupils (average age 13 and 15 years) in school (previous waves surveyed S1-S4). The survey covers items on smoking, drinking and drug use, as well as a number of contextual questions about lifestyle, health and wellbeing, and social circumstances.

The sample size has increased over time. Until 1998, the sample size was between 2,000 and 3,000 interviews per wave, increasing to 3,538 in 1998 and to 4,774 in 2000. In 2002, the sample size was increased to 23,090 to allow robust estimates at local authority, NHS Health Board, and ADP levels. After 2002, it was decided that alternate waves would have a sample size large enough to provide robust estimates at sub-Scotland level and this happened until the large 2010 wave. There was no survey undertaken in 2012, and the 2013 wave was designed as a large rather than a small wave, with an achieved sample size of 33,685.

Since 1990, the datasets from SALSUS and its predecessors have been deposited in the UK Data Archive. [5] In 2015, the Scottish Government commissioned Ipsos MORI to examine the feasibility of combining these datasets into one to facilitate greater use of this resource, and, if it were deemed feasible, to create a unified dataset together with accompanying documentation. After examining changes in the methodology and questionnaire coverage, the feasibility study concluded that the data were consistent enough that a combined dataset would allow meaningful analysis of trends over time.[6] This combined dataset has now been constructed and this report is one of the first uses of this.

The analysis in this report is primarily descriptive, apart from the logistic regression reported on in chapter 6. It was undertaken by an Aberdeen University PhD student intern who was based in the Scottish Government's Health Analytical Services Division. Information about how the analysis was undertaken can be found in Appendix A.1. Analysis was undertaken using SPSS for Windows v.16.01.1 and R was also used for the generation of figures. The dataset, and the individual survey data from 1990 to 2013 used to create it, are available from the UK Data Archive and a user guide has been published on the Scottish Government's website.[7]

Low rates of regular and occasional smoking by 13 year olds place preclude meaningful analysis for that age group in relation to a number of topics, therefore, several chapters only discuss response data collected from 15 year old pupils and also focus on regular smoking. Due to question changes in different waves of the survey series, the analysis often does not include data from the entire time series. Numbers in tables and graphics in the body of the report may vary from numbers in tables in the appendices due to weighting.

The infographics used in this report were taken from the Noun Project.[8] Credits for individual images are provided in Appendix D.

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[5] http://discover.ukdataservice.ac.uk/

[6] Scottish Government (2015) *Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) Data Over Time - Stage 1: Feasibility Report* - http://www.gov.scot/Publications/2015/05/3602.

[7] http://www.gov.scot/Topics/Research/by-topic/health-community-care/social-research/SALSUS/SALSUSuserguide

[8] https://thenounproject.com/

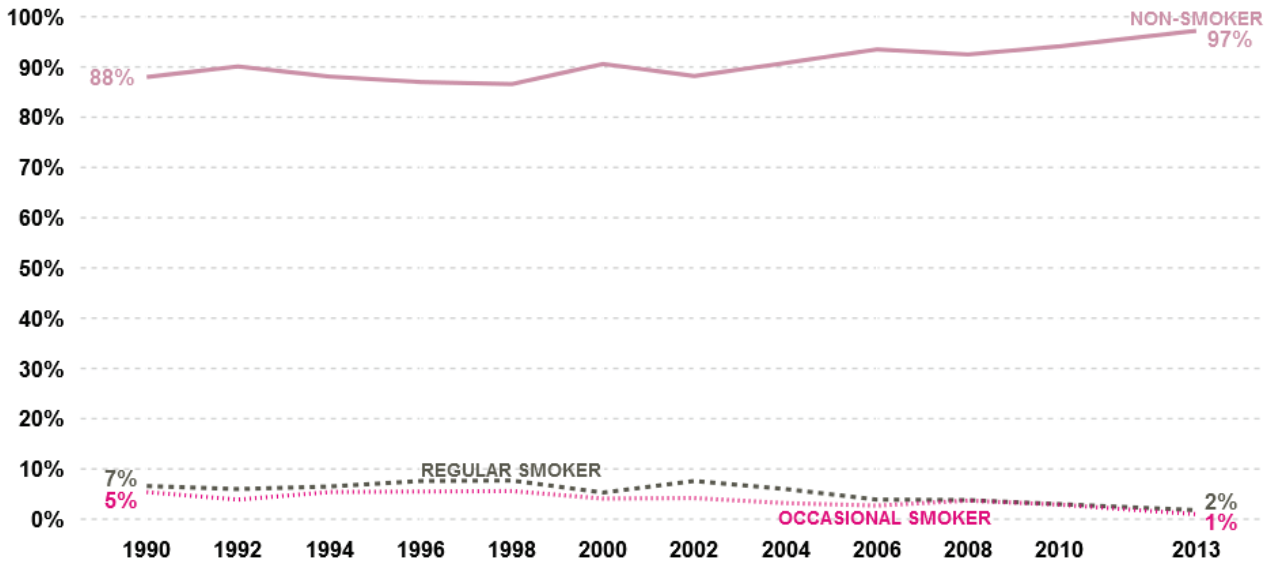
2. SMOKING OVER TIME

SMOKING PREVALENCE

Adult smoking prevalence in Scotland has fallen from 31% in 1999 to 20% in 2014.[9] The main source of data on adult smoking is the Scottish Household Survey. Since 1982, SALSUS and its predecessors have provided comparable data on smoking by S2 and S4 (roughly 13 and 15 year olds) in mainstream schools in Scotland. Smoking among adolescents is currently at its lowest level since surveys began and a detailed report on the tobacco data gathered in the 2013 wave of SALSUS is available on the ISD website.[10]

On the basis of question options about whether they have ever smoked and how often they smoke, pupils can be categorised as 'non-smokers', 'occasional smokers' (less than 1 cigarette a week) or 'regular smokers' (smokes at least 1 cigarette a week). The proportion of 13 and 15 year olds who smoke regularly has decreased over time and is now at its lowest level since the survey began. It is now 2% of 13 year olds, down from a peak of 8% in 1998 (Figure 2.1), and 9% of 15 year olds, from a peak of 29% in 1996 (Figure 2.2).

Figure 2.1 – Smoking status in 13 year olds



Base: all 13 year olds (full bases in Appendix A, Table A.1)

[9] Scottish Government (2015) *Scotland's People Annual Report from 2014 Scottish Household Survey* - http://www.gov.scot/Publications/2015/08/3720

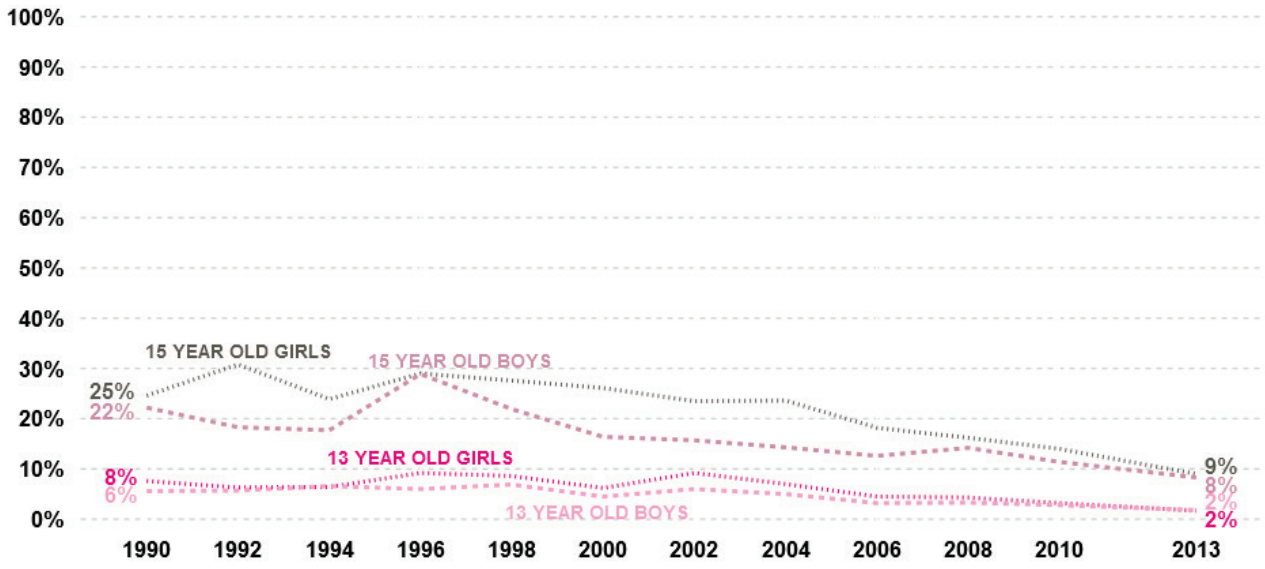
[10] http://www.isdscotland.org/Health-Topics/Public-Health/SALSUS/Latest-Report/

Figure 2.2 – Smoking status in 15 year olds

Base: all 15 year olds (full bases in Appendix A, Table A.1)

Girls had consistently been more likely to smoke regularly than boys of the same age but the difference between the genders has narrowed over time, with little difference by 2013 (Figure 2.3).

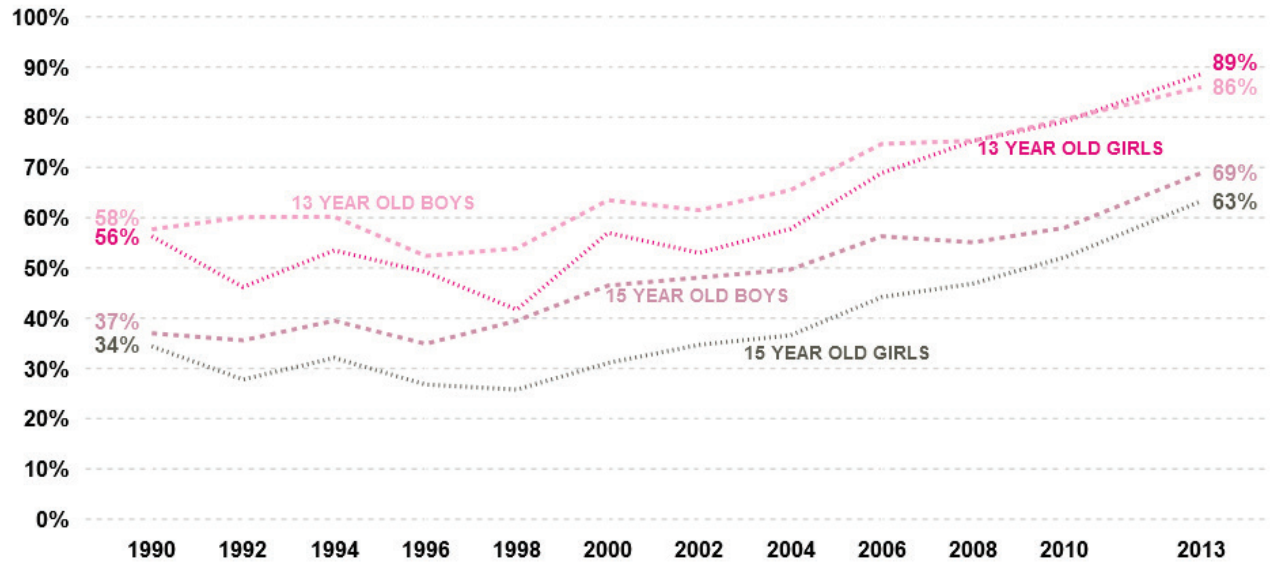
Figure 2.3 – Pupils who regularly smoke: both age groups and genders



Base: all 13 and 15 year olds (full bases in Appendix A, Table A.2)

The proportion of pupils who have never smoked has also increased to a peak in 2013 (Figure 2.4).

Figure 2.4 – Pupils who have never smoked: both age groups and genders



Base: all 13 and 15 year olds (full bases in Appendix A, Table A.2)

SMOKING CONSUMPTION LEVELS

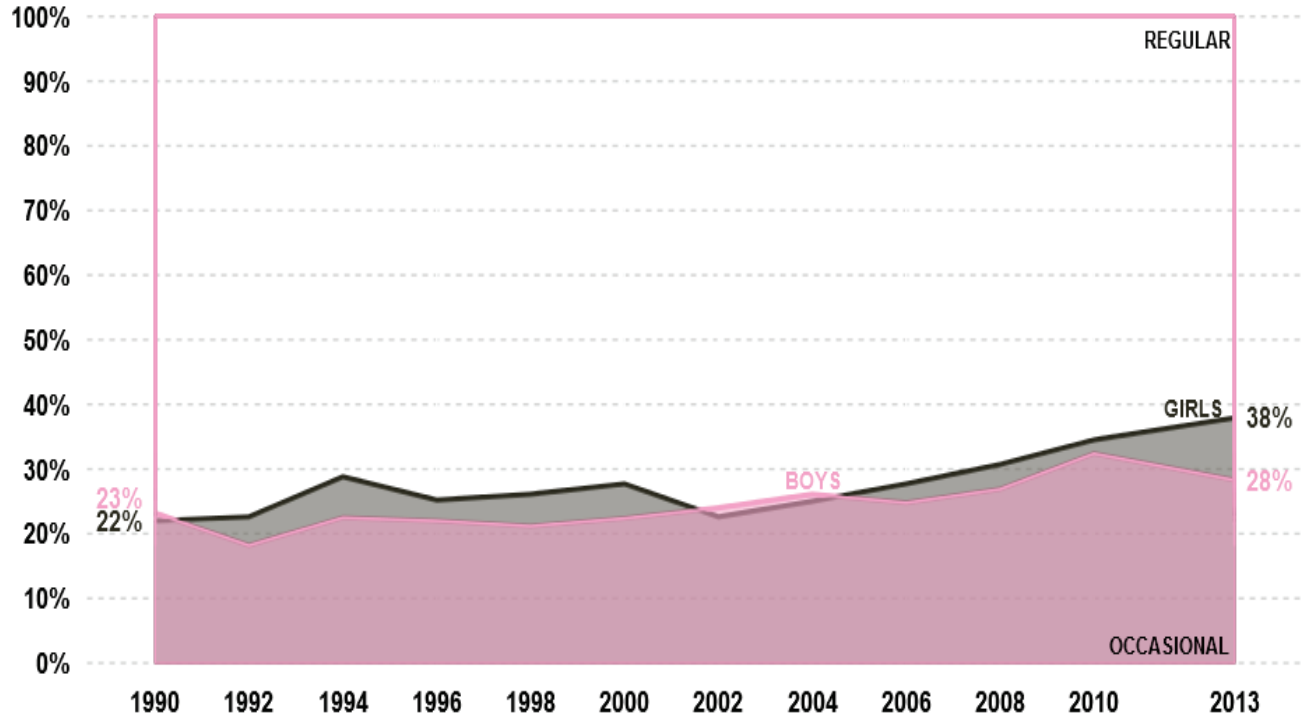
While there is no safe level of tobacco smoking, smoking more cigarettes proportionally increases the risk of health serious conditions such as lung cancer, heart disease and chronic obstructive pulmonary disease (COPD).[11] It is therefore important to have good data on how many cigarettes individuals smoke.

Of all 15 year olds who smoke, there has been a slight shift towards occasional smoking away from regular smoking.[12] This shift has been more substantial for girls than boys, which may partly explain the recent decline in female regular smoking numbers despite girls still being more likely to have ever tried a cigarette than boys (Figure 2.5).

[11] Information on the health risks associated with smoking can be found at http://www.ashscotland.org.uk/what-we-do/supply-information-about-tobacco-and-health/tobacco-and-health/

[12] 13 year olds have seen little change, but the low number of smokers precludes meaningful analysis.

Figure 2.5 – Smoking consumption: proportion who smoke occasionally



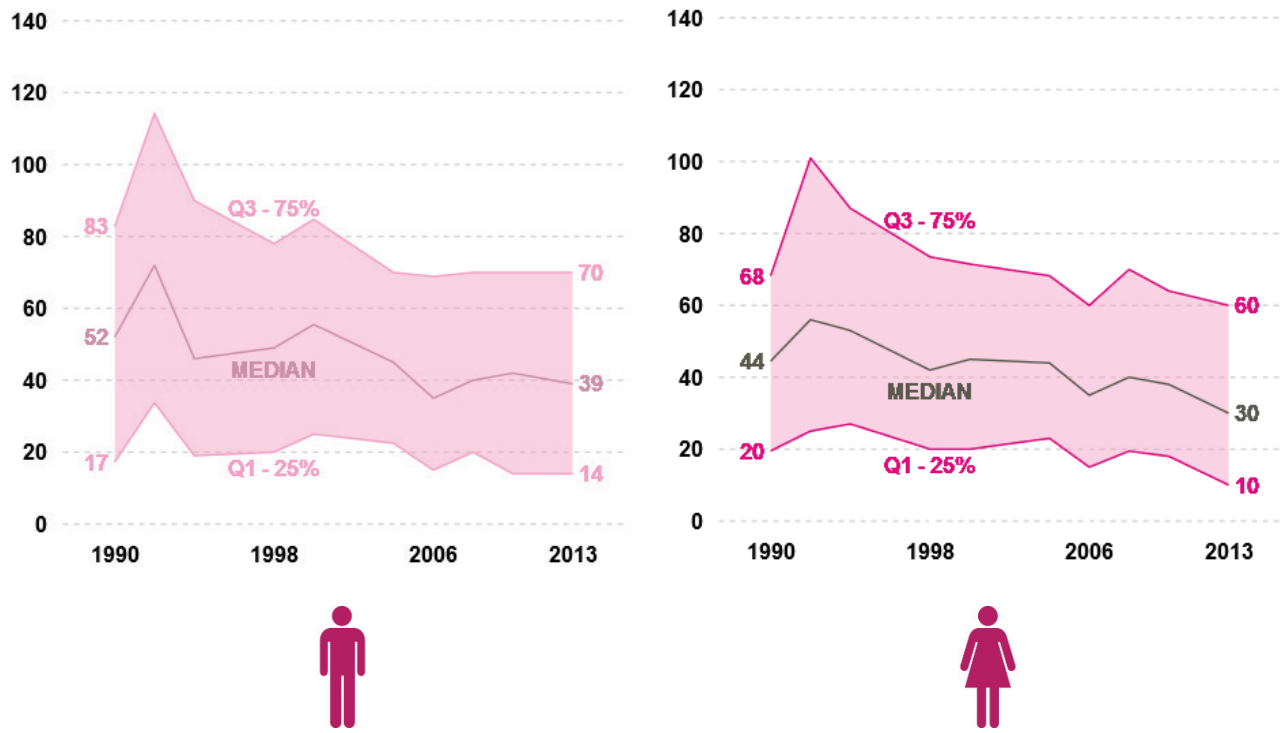
Base: 15 year old boys and girls who smoke (occasional and regular) - 1990 (199); 1992 (200); 1994 (182); 1996 (225); 1998 (363); 2000 (331); 2002 (2798); 2004 (850); 2006 (2486); 2008 (1090); 2010 (3558); 2013 (2230).

SALSUS asks regular smokers how many cigarettes they smoke per week.[13] The median number of cigarettes smoked by regular smokers has decreased slightly over time, mirroring a decline since 1999 in the average number of cigarettes smoked by adults.[14] Girls have consistently smoked fewer cigarettes than boys, though the difference is small (Figure 2.6).

[13] From 1990 to 2000 respondents were asked to complete a smoking diary; in 2004-2013 they were asked how many cigarettes they smoked each day of last week. From these, the number of cigarettes smoked each week by the child was calculated.

[14] Scottish Government (2015) *Scotland's People Annual Report from 2014 Scottish Household Survey* - http://www.gov.scot/Publications/2015/08/3720

Figure 2.6 – Median number of cigarettes smoked per week[15]



Base: 15 year old regular smokers (boys, girls) – 1990 (99, 100); 1992 (66,133); 1994 (71, 111); 1998 (156, 207); 2000 (123, 204); 2004 (265, 471); 2006 (1319, 525); 2008 (433, 525); 2010 (1433, 1768); 2013 (799, 976)

WHERE PUPILS OBTAIN CIGARETTES

Preventing young people from accessing cigarettes has been a key target of legislation, including the increase in age for sales from 16 to 18, creating a register of tobacco retailers, and the tobacco display ban. These measures directly target primary market sources – buying tobacco directly from a retailer. In comparison, secondary markets are when tobacco is bought or obtained from someone else as a middleman rather than from a shop. The creation of an offence of proxy purchase aimed to tackle one secondary source. SALSUS asks where and how smokers obtain their cigarettes by presenting respondents with a range of primary and secondary sources.

The most common primary market for regular smokers in both age groups has consistently been the category 'newsagents, tobacconists and sweetshops' but the percentage of pupils accessing cigarettes in this way has declined markedly over time. Secondary markets – such as buying cigarettes from other people or being

[15] Medians and interquartile ranges were used due to the skewing effect of individuals who smoked more than 140 cigarettes a week.

given cigarettes by friends – have remained generally constant through this time period (Table 2.1).

When grouped together, the percentage of 13 year old regular smokers purchasing from any primary market has fallen from 80% in 1990 to 16% in 2013[16]. Similarly, the percentage of 15 year olds doing so has fallen from 94% to 33% over the same time period. Secondary sources, on the other hand, have remained relatively constant, decreasing from 64% to 56% and from 58% to 48% for 13 and 15 year olds respectively (Figures 2.7 and 2.8). In 1990, 87% of 15 year old regular smokers obtained cigarettes from newsagents, tobacconists and sweetshops; by 2013, this figure had decreased to 22%. Other primary sources (supermarkets, garages, markets and other shops) were not such significant sources when the question was first asked but have also declined.

The likely explanation for the marked decline in primary market sources is the introduction of legislation to raise the age for sales from 16 to 18, as the largest single decrease for purchasing cigarettes from primary sources was between 2006 and 2008, which coincides with the age increase in 2007. Similarly, a second decline occurs between 2010 and 2013, coinciding with the Tobacco and Primary Medical Services (Scotland) Act 2010 which required businesses to be on the national Tobacco Retailers Register to legitimately sell tobacco.

SALSUS only started to ask about proxy purchase in 2010 so it is too early to identify any trend. Targeting secondary markets demands more complex responses than for primary sources as it requires behavioural, attitudinal and cultural change so that adults and adolescents do not supply children with cigarettes.

[16] Only questions asked for the entire time series were used in this analysis: vans, markets, internet and machine purchases were not included in the primary markets; buy from friends, someone else and the three categories about asking someone to buy cigarettes for them were excluded from the secondary market analysis. These variables are included in the full time series shown in Appendix A.3 and A.4.

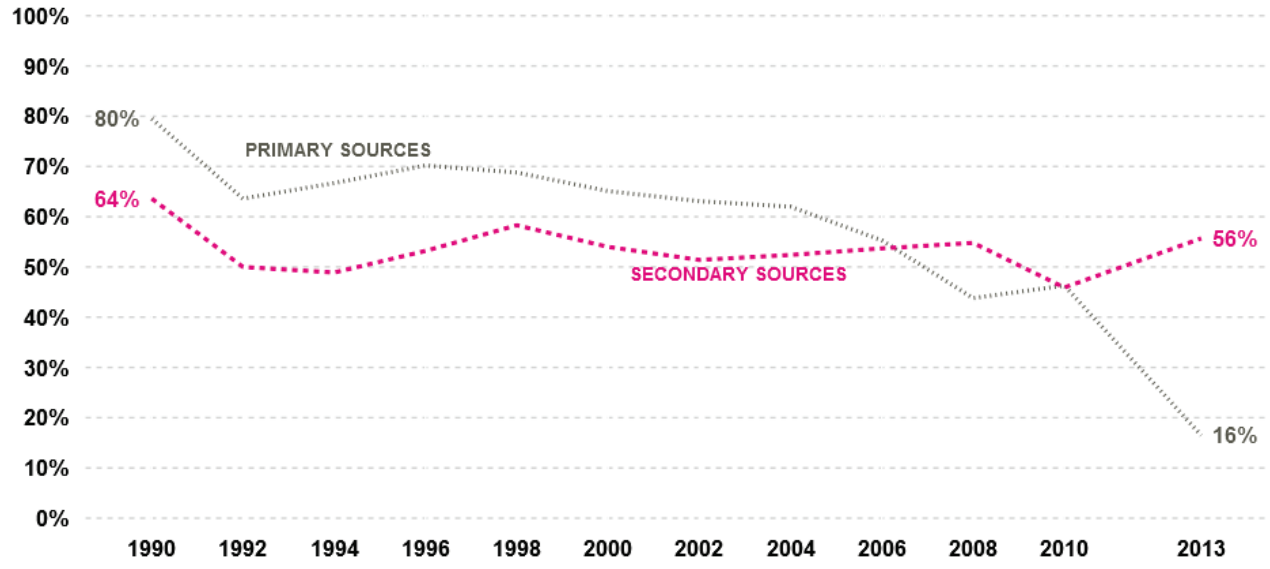
Table 2.1 – Purchasing behaviour: 15 year old regular smokers[17]

PRIMARY SOURCES	START (1990)	END (2013)	CHANGE
NEWSAGENTS, TOBACCONISTS AND SWEETSHOPS	87%	22%	-65%
SUPERMARKETS	20%	7%	-13%
GARAGES	33%	3%	-30%
VANS	16% (2008)	10%	-6%
OTHER SHOPS	20%	4%	-16%
MARKETS	4% (2006)	2%	-2%
MACHINES	21%	6% (2010)	-15%
INTERNET	1% (2004)	2%	+1%
SECONDARY SOURCES			
GET FROM FRIENDS	53%	37%	-16%
GET FROM BROTHER OR SISTER	13%	8%	-5%
GET FROM PARENTS	7%	9%	+2%
TAKE WITHOUT ASKING	4%	9%	+5%
BUY FROM FRIENDS	26% (1998)	18%	-8%
BUY FROM SOMEONE ELSE	13% (1998)	12%	-1%
ASK ADULT I KNOW TO BUY THEM	32% (2010)	32%	±0%
ASK ADULT I DON'T KNOW TO BUY THEM	30% (2010)	27%	-3%
ASK SOMEONE ELSE UNDER 18	16% (2010)	12%	-4%

Base: 15 year old regular smokers - 1990 (154), 1992 (157), 1994 (134), 1996 (172), 1998 (276), 2000 (246), 2002 (2006), 2004 (634), 2006 (1667), 2008 (685), 2010 (2292), 2013 (1362)

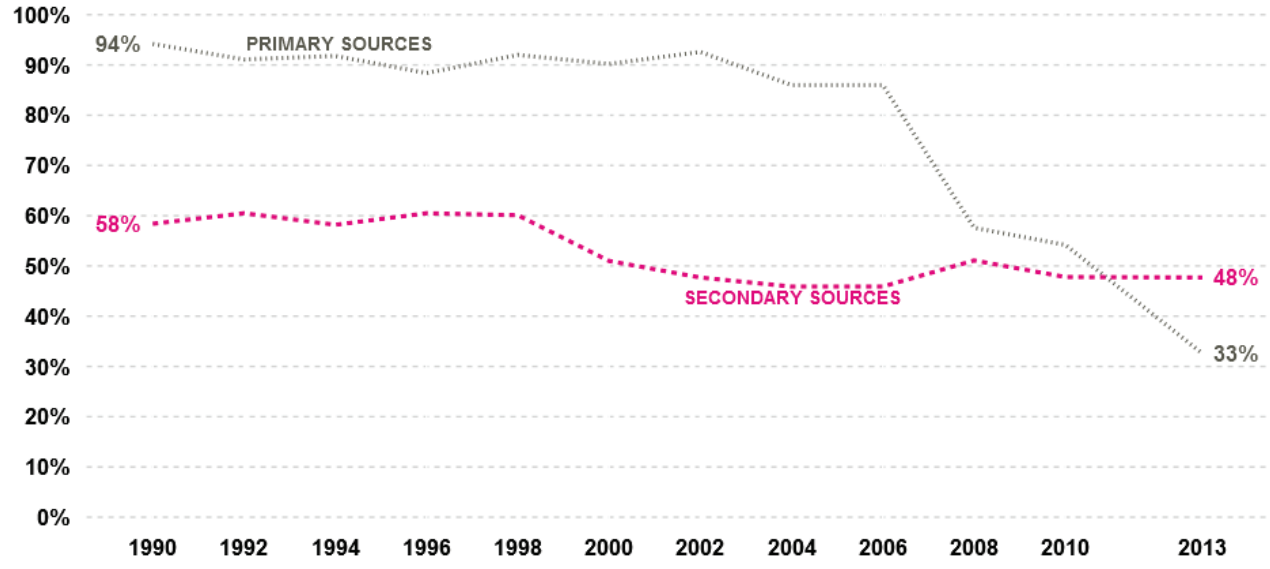
[17] See Appendix Tables B.3 and B.4 for full table of changes for each source in each year for 13 and 15 year old regular smokers.

Figure 2.7 – Primary and secondary sources: purchases by 13 year olds



Base: 13 year old regular smokers – 1990 (44); 1992 (44); 1994 (45); 1996 (47); 1998 (48); 2000 (63); 2002 (943); 2004 (208); 2006 (421); 2008 (202); 2010 (572); 2013 (288)

Figure 2.8 – Primary and secondary sources: purchases by 15 year olds

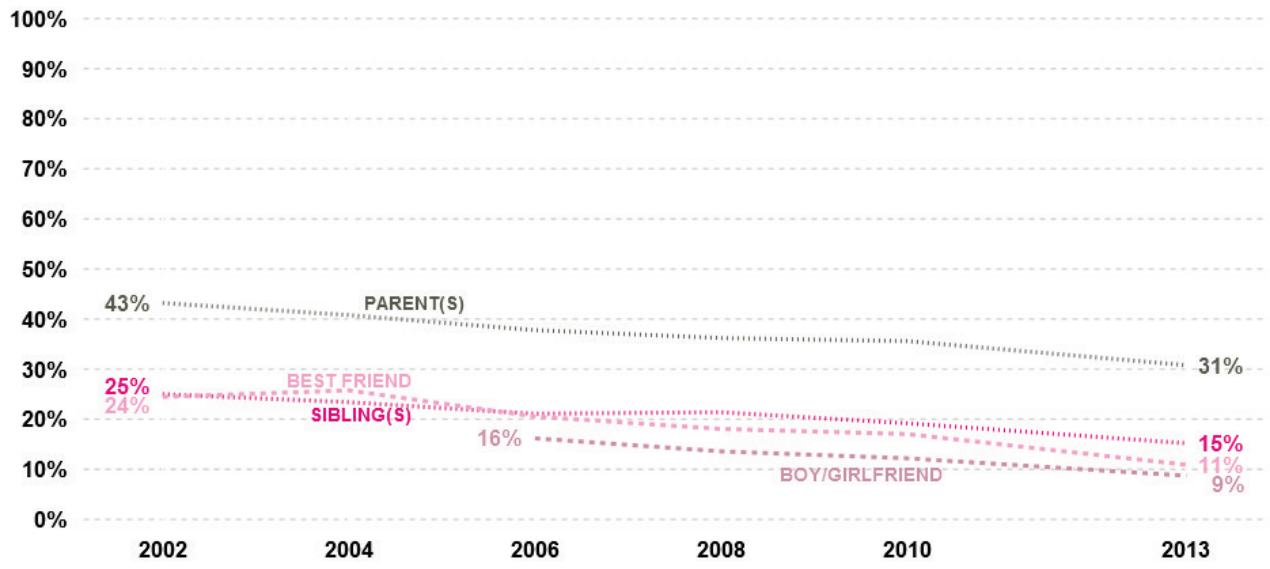


Base: 15 year old regular smokers - 1990 (154), 1992 (157), 1994 (134), 1996 (172), 1998 (276), 2000 (245), 2002 (2006), 2004 (634), 2006 (1612), 2008 (679), 2010 (2272), 2013 (1307)

FAMILY AND FRIENDS' SMOKING BEHAVIOUR

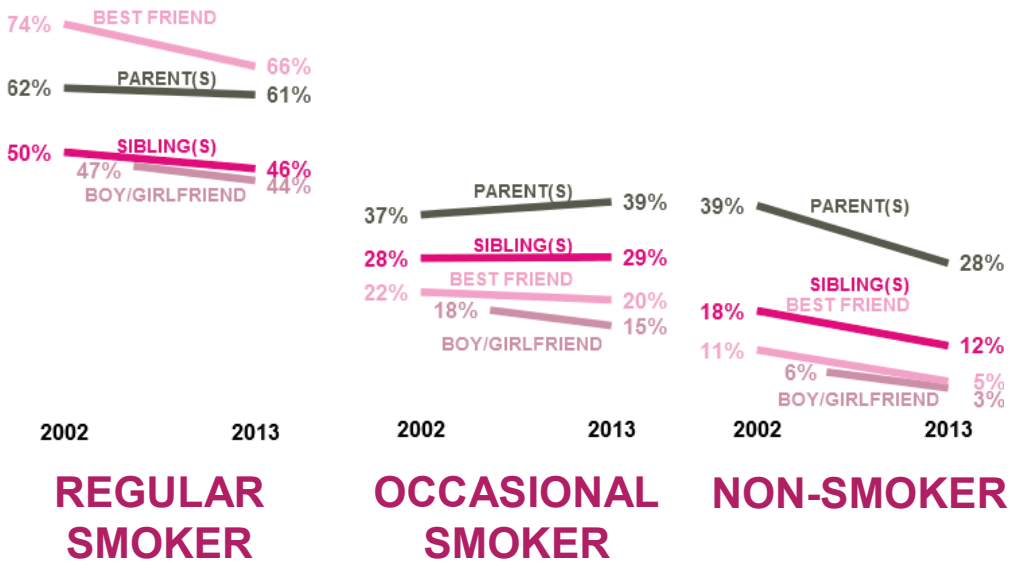
Having family members or friends who smoke is associated with adolescent smoking and SALSUS has data on this from 2002. The percentage of 15 year old pupils reporting that their parents, siblings, girl/boyfriend or best friend smokes daily has fallen over time, as smoking prevalence has declined amongst both adult and adolescent populations. Across the entire time series, regular smokers are the group who are most likely to have at least one parent or sibling who smokes and have a best friend or boy/girlfriend who smokes (Figure 2.9 and 2.10).

Figure 2.9 – Parent(s), sibling(s), best friend or boy/girlfriend daily smoking



Base: all 15 year olds that see these people (full bases Appendix A, Table A.3)

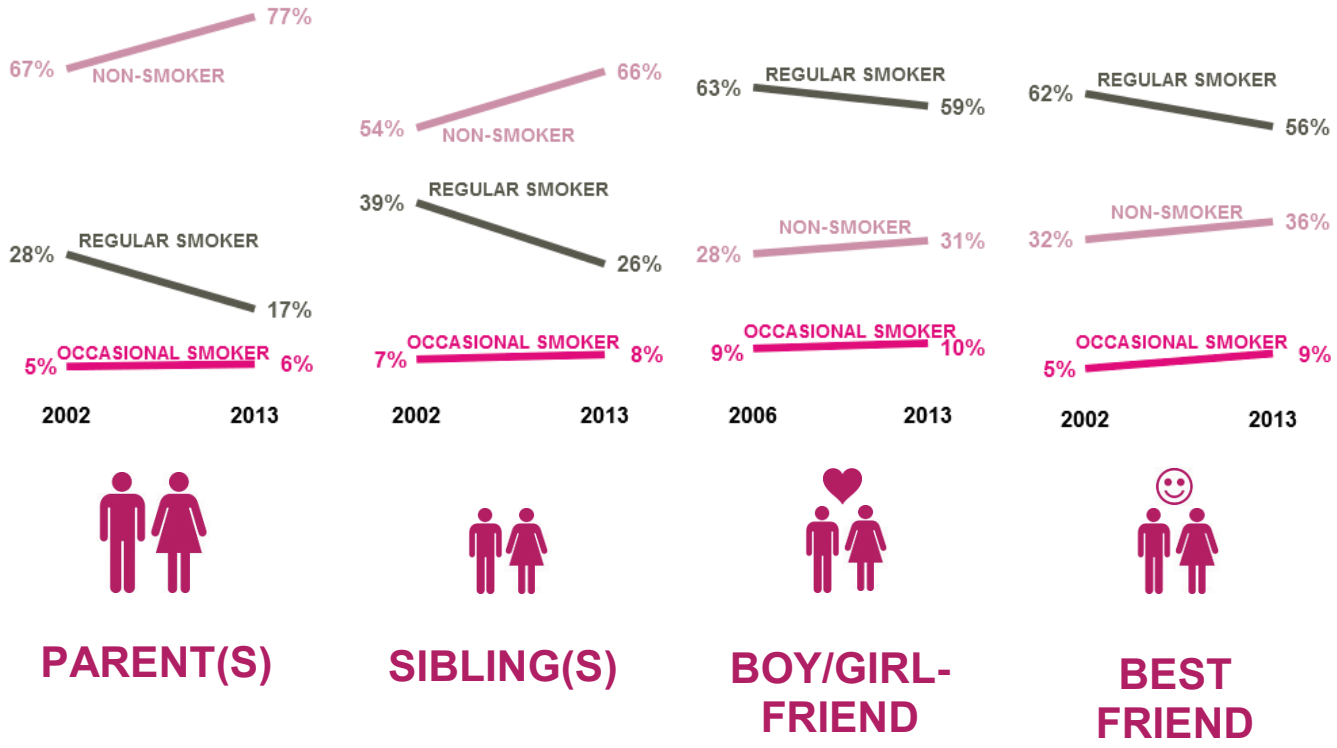
Figure 2.10 – Smoking prevalence: Parent(s), sibling(s), best friend or boy/girlfriend daily smoking within prevalence groups



Base: all 15 year old regular smokers (full bases in Appendix A, Table A.3)

Figure 2.11 shows that the majority of those whose best friend or boy/girlfriend smoke are also smokers themselves, 56% of those whose best friend smokes being regular smokers in 2013, compared to the SALSUS average of only 9%. An association with parental or sibling smoking is not as strong, but still contains a much higher percentage of regular smokers than average, though for all groups it is still going down as overall smoking rates fall (Figure 2.11).

Figure 2.11 - Parent(s), sibling(s), best friend or boy/girlfriend daily smoking: smoking prevalence of respondents

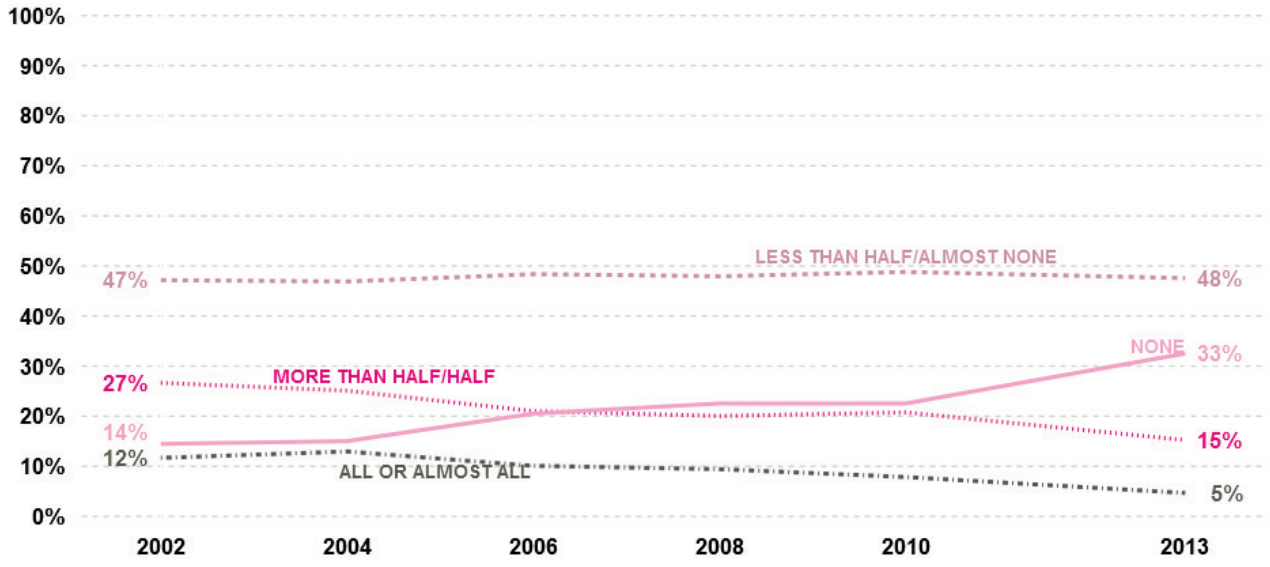


Base: all 15 year old regular smokers that have this person who smokes (2002, 2013) – parent(s) (4195, 4709); sibling(s) (1785, 1702); boy/girlfriend (790, 530); best friend (2275, 1483)

The boy/girlfriend and best friend results suggest that smokers are mostly friends with other smokers and non-smokers are mostly friends with non-smokers. This is supported by another question from SALSUS asking how many of the pupil's friends smoke.

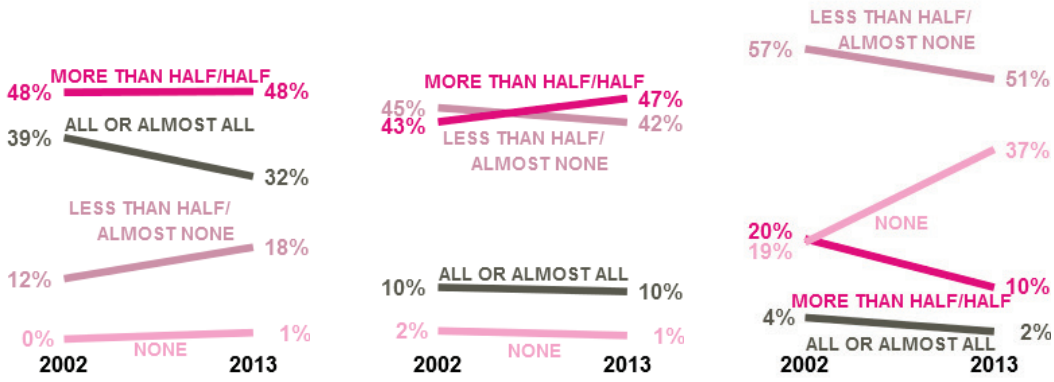
Taking all 15 year olds, there has been a general increase in the number of respondents who have no friends that smoke and a decrease in pupils reporting that half or more of their friends smoke (Figure 2.12). This has largely been driven by an increase in non-smokers reporting that none of their friends smoke – regular smokers are still very likely to say that half or more of their friends smoke. Respondents are most likely to have friends with similar smoking behaviours (Figure 2.13).

Figure 2.12 – Pupil's friends who smoke: change over time



Base: all 15 year olds surveyed

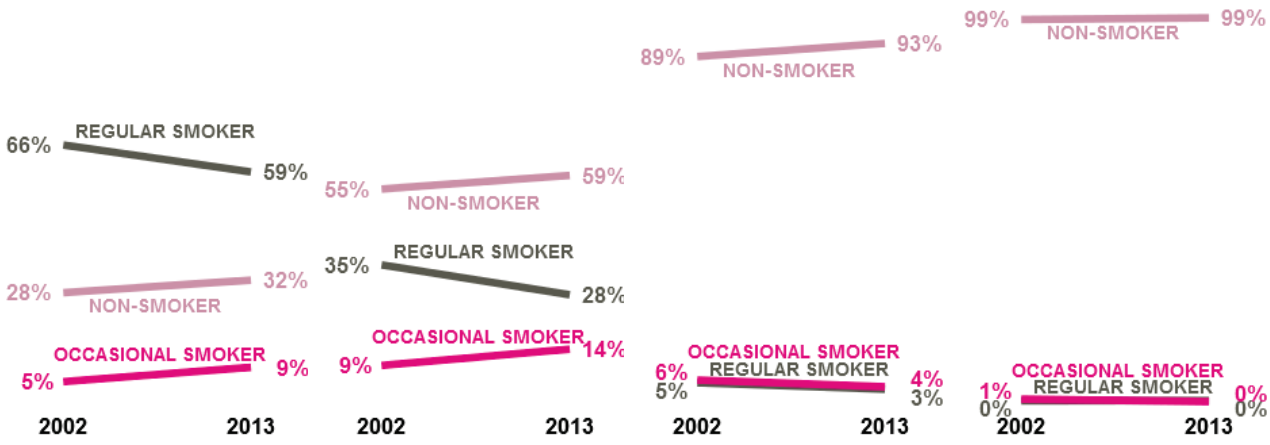
Figure 2.13 – Smoking status: proportion of friends who smoke, 2002-2013



Base: all 15 year olds in each smoking group

As would be expected, respondents who reported that all or almost all of their friends smoke are much more likely to be regular smokers. This decreases as the number of friends who smoke does, with 99% of those who have no friends that smoke being non-smokers. There was little large change between 2002 and 2013 in any group (Figure 2.14).

Figure 2.14 – Pupil's friends who smoke: smoking status of respondents



Base: all 15 year old regular smokers in each friend category (2002, 2013) – all or almost all (1151, 739); more than half/half (2762, 2324); less than half/almost none (4888, 7622); none (1380, 5235)

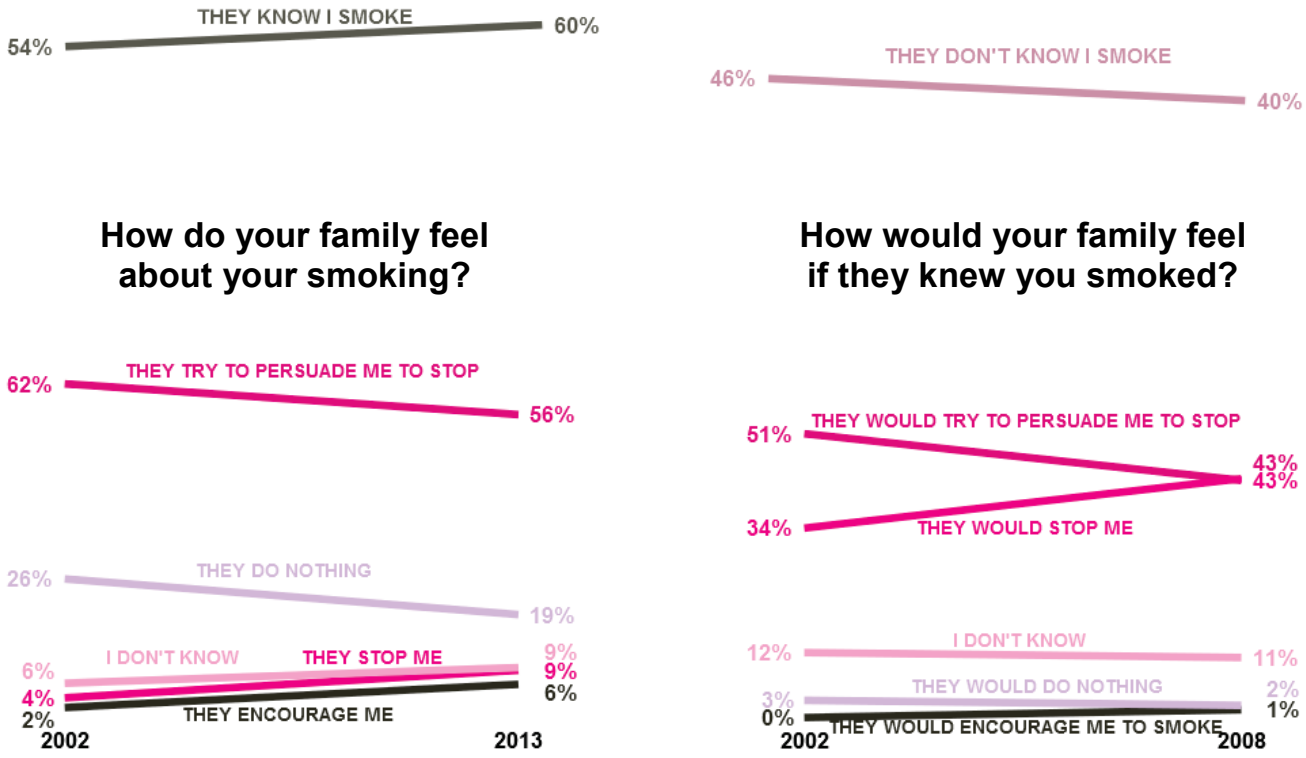
3. ATTITUDES TO SMOKING

FAMILY ATTITUDES TO PUPIL SMOKING

There is strong evidence that the children of smokers are more likely to be smokers themselves due to a number of factors, such as their family's attitudes towards smoking, particularly if they are aware of and tolerate their child smoking.

Since 2002 SALSUS has asked all smokers whether their family know that they smoke and their attitude to this. Most regular smokers report that their families know they smoke, but this is not the case with occasional smokers. The attitudes of families of pupils who know they smoke have not changed appreciably over time: their most common reaction is to try and persuade the child to stop (Figure 3.1).[18]

Figure 3.1 – Regular smokers: family awareness and attitudes[19]



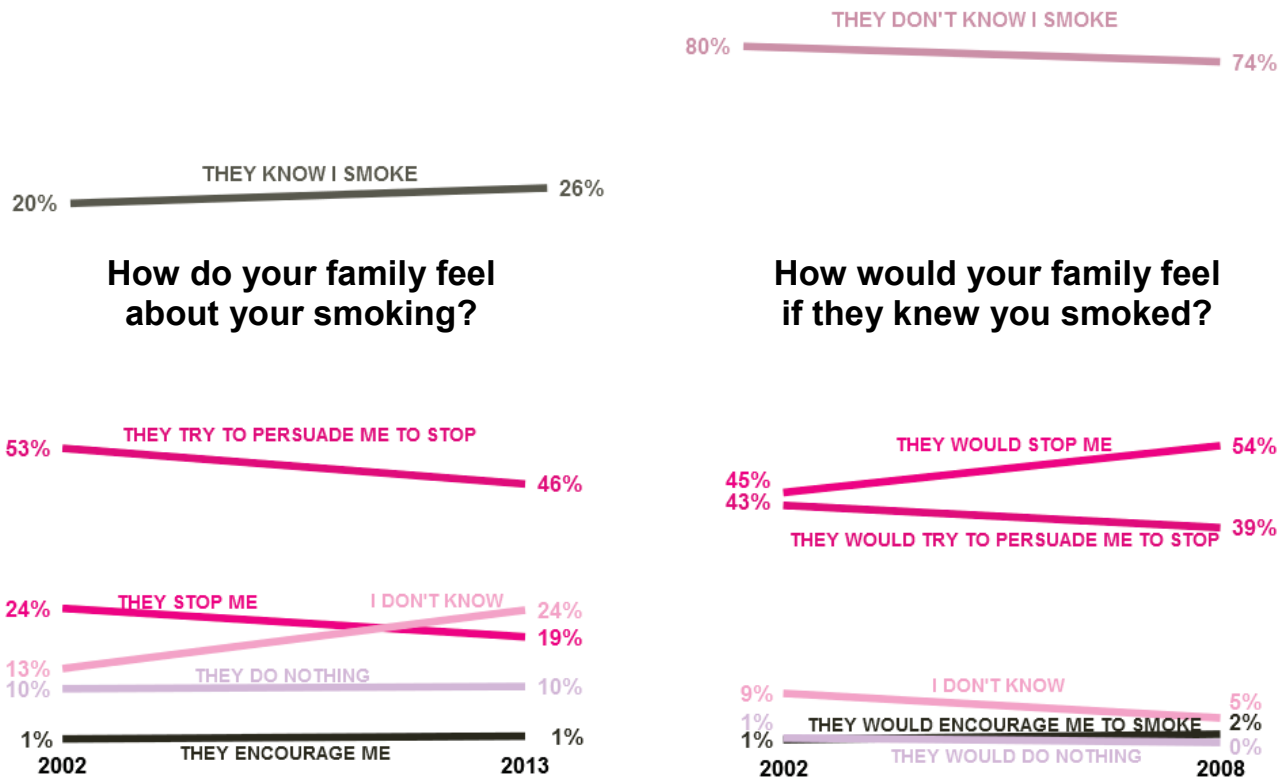
Base: 15 year old regular smokers

[18] 1994 to 2000 removed from analysis due to very small sample sizes.

[19] The question 'How would your family feel if they knew you smoked?' was removed after 2008.

As one might expect, the families of occasional smokers are less likely to be aware of their smoking. (Figure 3.2)

Figure 3.2 – Occasional smokers: family awareness and attitudes



Base: all 15 year old occasional smokers (2002, 2013/2008); total (456, 689); know (160, 174); don't know (293, 173)

If at least one parent smokes, the child is slightly less likely to hide their smoking, but the family response to it does not change appreciably in any area.

PUPILS' ATTITUDES TO SMOKING

Denormalisation of smoking has been a central theme in tobacco control. Improving understanding of the dangers of smoking and shifting opinion across the whole population about the social acceptability of smoking have been key policy aims. Since 2006, SALSUS has included a number of questions about the respondent's knowledge of and attitudes to smoking, allowing us to gauge how understanding and opinions on smoking have changed over time.

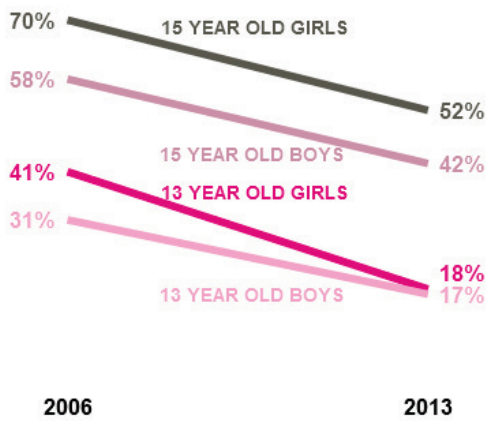


Figure 3.3 – Ok to try a cigarette? – change over time, 2006-2013

The proportion of 13 and 15 year olds who think it is ok for someone their age to try smoking once to see what it is like has fallen. While there is not much difference between 13 year olds of either gender, 15 year old girls were more likely to say trying smoking once is ok than boys their age.

Base: all pupils surveyed

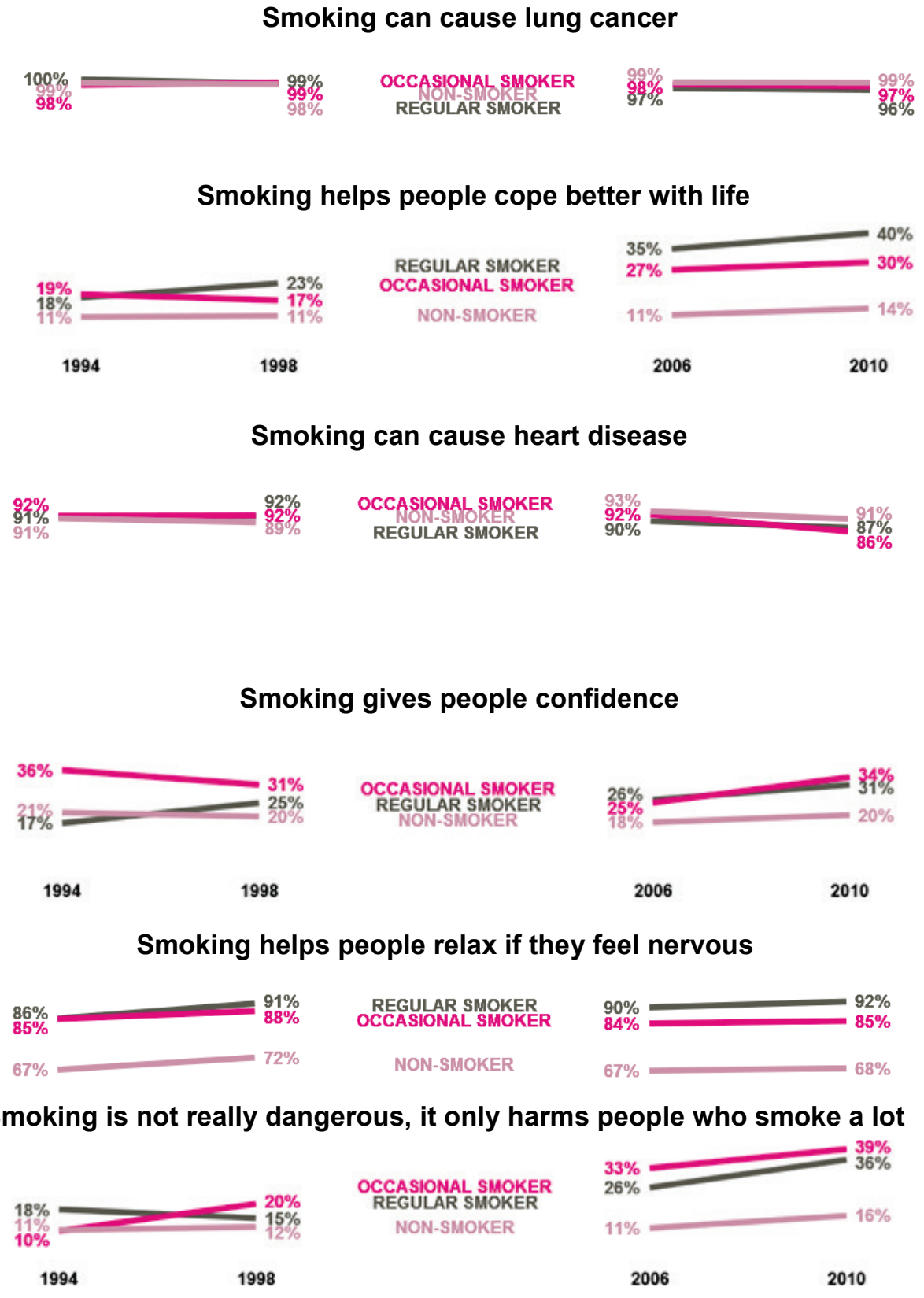
SALSUS also asks pupils to read a set of knowledge and attitudinal statements about smoking and say if they think they are true or false (1994-1998) or if they agree or disagree (2006-2010).[20]

Responses to most questions, including all of those about the health effects of smoking, have remained relatively constant over time (Figure 3.4). However, there has been a small upward trend for pupils to agree with some popular myths about more "positive effects" of smoking, such as that it helps people relax, is not dangerous unless you smoke a lot, or it can help people cope. Non-smokers remain less likely to agree with these statements than regular and occasional smokers.[21] There has also been an increase in the proportion who think that smoking only harms people who smoke a lot.

[20] 2013 survey asked if respondents strongly or tended to agree/disagree, meaning the results are not directly comparable and could not be included in this time series.

[21] The full time data for all 13 questions can be found in Appendix A.

Figure 3.4 – Changes in knowledge and attitudes towards smoking[22]



Base: varies from question to question (full bases in Appendix A, Table A.4; full data in Appendix B, Table B.5)

[22] 1994-1998 and from 2006-2010 are presented separately due to question changes.

GIVING UP SMOKING

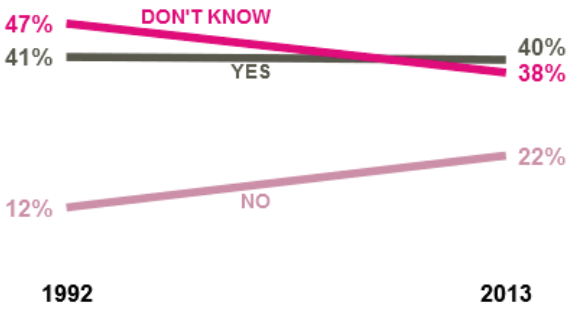
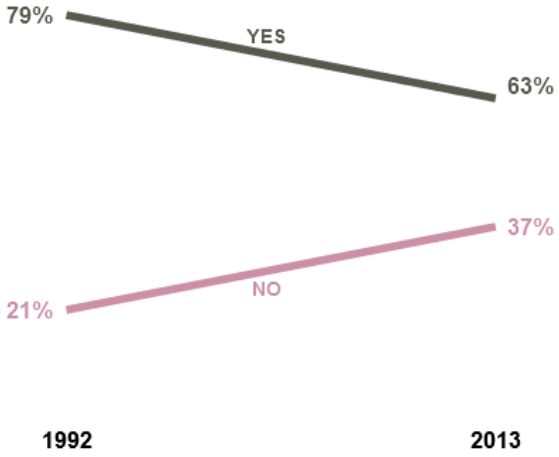


Figure 3.5 – Regular smokers who want to give up, 1992-2013

The number of 15 year old regular smokers saying they would like to give up has stayed relatively constant, though there has been a shift from “don’t know” to “no” over time

Fig 3.6 – Have those who want to give up tried?

The percentage of regular smokers who want to give up and have tried to do so has decreased over time, but the data cannot explain why this might be the case.



Base: all 15 year old regular smokers (1992-2013)

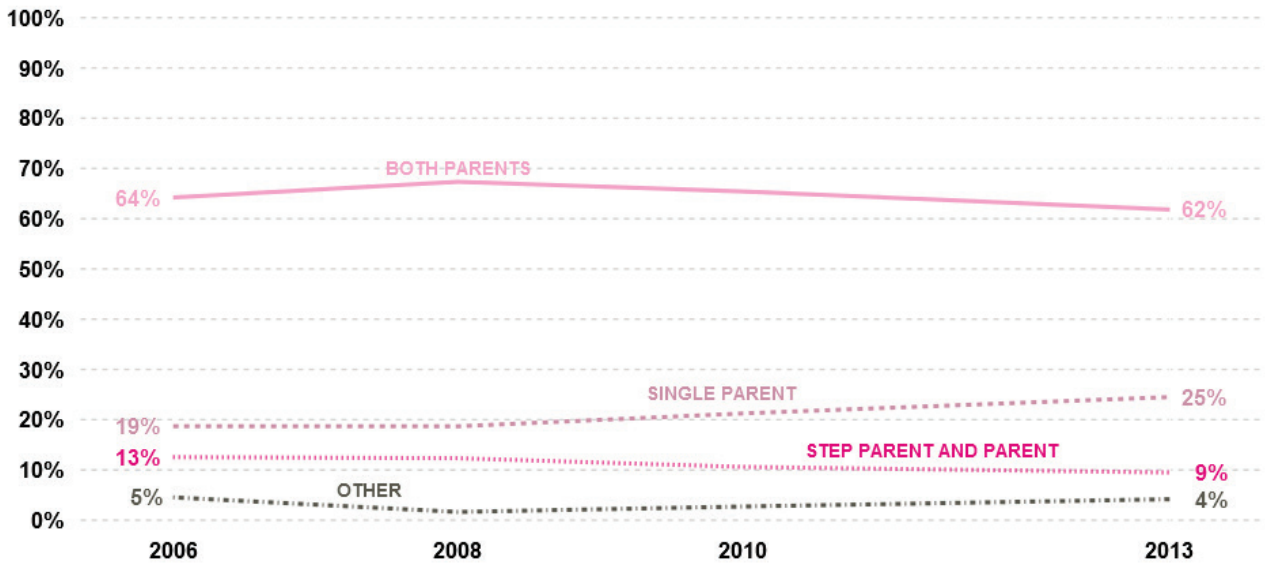
4. FAMILY, FRIENDS, SOCIETY AND HEALTH

SALSUS asks a number of questions about the circumstances and lifestyles of the respondents. Responses to these questions have been used to explore whether certain characteristics are more or less associated with smoking behaviours. Note that this section deals with 15 year olds, except where noted.

FAMILY STRUCTURE

There were no major changes in the proportion of respondents living in any family structure between 2006 and 2013, apart from an increase in the percentage living with single parents (Figure 4.1).[23]

Figure 4.1: Family structure: change over time

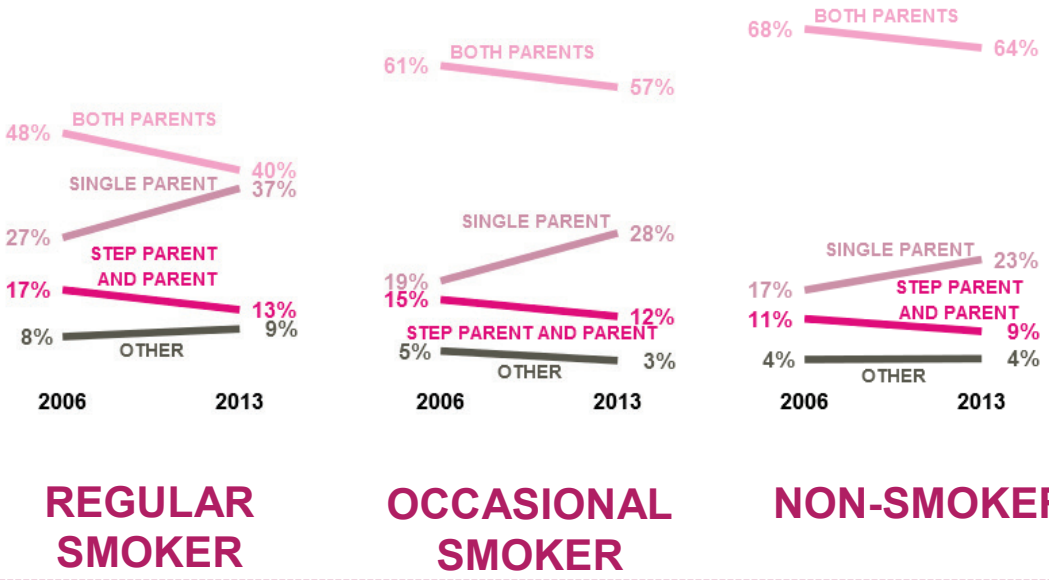


Base: all 15 year olds, 2006 -2013

Regular smokers are more likely to be living in a family structure other than with both parents than occasional or non-smokers (Figure 4.2).

[23] The "other" grouping from 2008-2010 encompasses: both foster parents, single step parent, single foster parent, grandparents(s). In 2013 this was extend to include with a sibling and care home. Of these, children living in care homes are most likely to be regular smokers. However, the sample size is too low for meaningful statistical analysis of these separate categories.

Figure 4.2 - Different family structure within smoking status groups



Base: all 15 year olds in each smoking group (2006, 2013) – regular (1667, 1306); occasional (647, 694); non-smoker (8758, 13658)

Pupils who live with both of their parents are less likely to be regular smokers than those living in single parent or step parent families. Pupils in 'other' family situations – those living with siblings, grandparents, foster parents or in care homes – are consistently most likely to be regular smokers (Figure 4.3).

Figure 4.3 – Family structure: smoking status in each group

Base: 15 year olds, by different family structures and smoking status, 2006-2013

PARENTAL KNOWLEDGE OF CHILD'S ACTIVITIES

Pupils have been asked how much they think their mother/father/carer knows about who their friends are, how they spend their money, where they are after school, where they go at night, and what they do with their free time, in each survey between 2002 and 2013. The responses were combined into a total score and these were banded as below, at or above median knowledge.

Respondents whose mother or father is above or at median knowledge of their activities are much less likely to be regular smokers than those who believe their parents are below median. For girls, in general, a lack of parental knowledge was associated with a much greater likelihood of being a regular smoker and parents knowing about their activities greatly reduced that likelihood (Figure 4.4).

Figure 4.4 - Parental knowledge: change in regular smoking status in boys and girls, 2002 and 2013[24]

MATERNAL KNOWLEDGE	PATERNAL KNOWLEDGE	GIRLS		BOYS	
		2002	2013	2002	2013
BELOW MEDIAN	BELOW MEDIAN	37%	17%	22%	11%
	AT MEDIAN	29%	7%	19%	5%
	ABOVE MEDIAN	30%	9%	18%	14%
AT MEDIAN	BELOW MEDIAN	21%	6%	15%	9%
	AT MEDIAN	13%	3%	9%	2%
	ABOVE MEDIAN	21%	4%	15%	4%
ABOVE MEDIAN	BELOW MEDIAN	22%	6%	16%	7%
	AT MEDIAN	22%	2%	8%	1%
	ABOVE MEDIAN	13%	2%	8%	4%

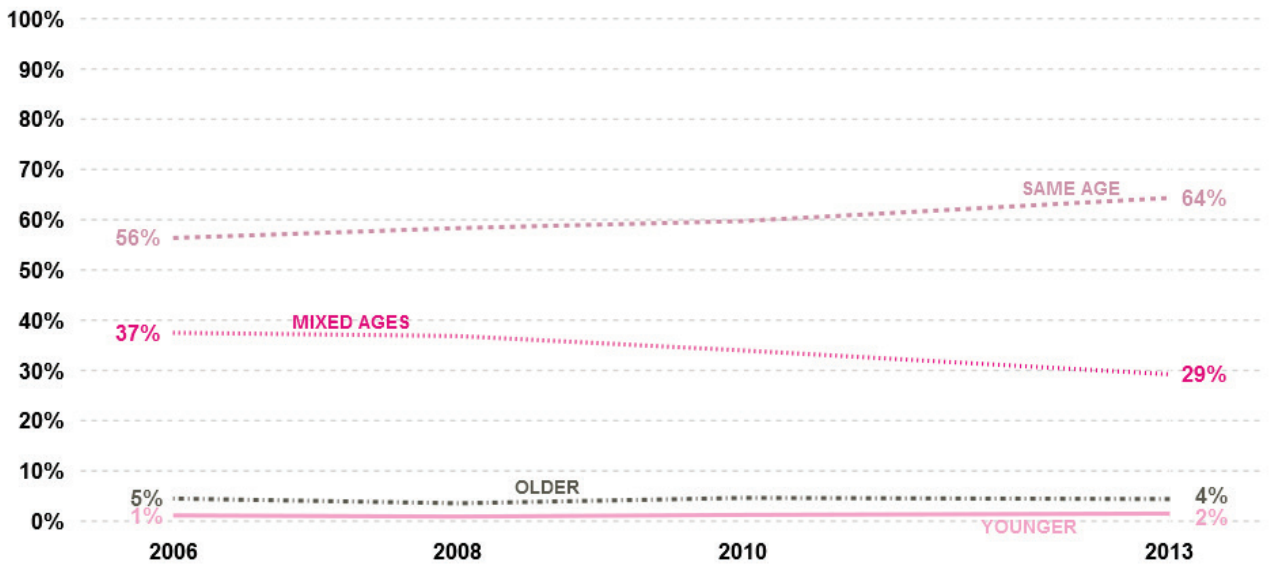
Base: all 15 year olds (full bases in Appendix A, Table A.5; full data in Appendix B, Table B.6)

[24] Data for all years can be found in Appendix B.6.

FRIENDS' AGES AND TIME SPENT WITH FRIENDS

The majority of pupils report that their friends are the same age as them and this has increased slightly between 2006 and 2013. Only a minority of respondents said their friends were mostly older or mostly younger than them and this has not changed over time (Figure 4.5).

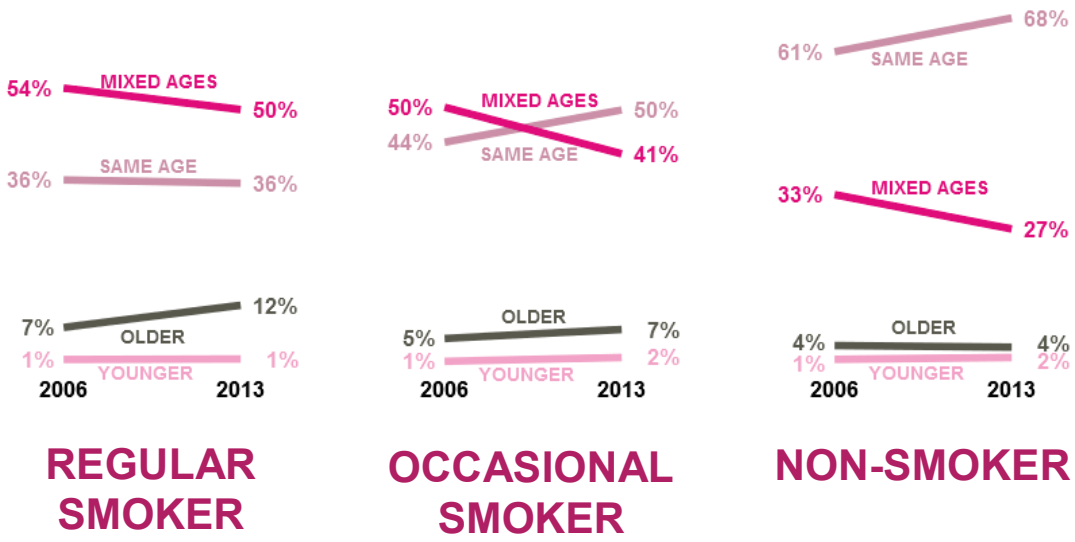
Figure 4.5 – Ages of friends changes over time



Base: 15 year olds who answered this question

Smokers are more likely to say their friends are mixed ages or older than them than non-smokers are (Figure 4.6).

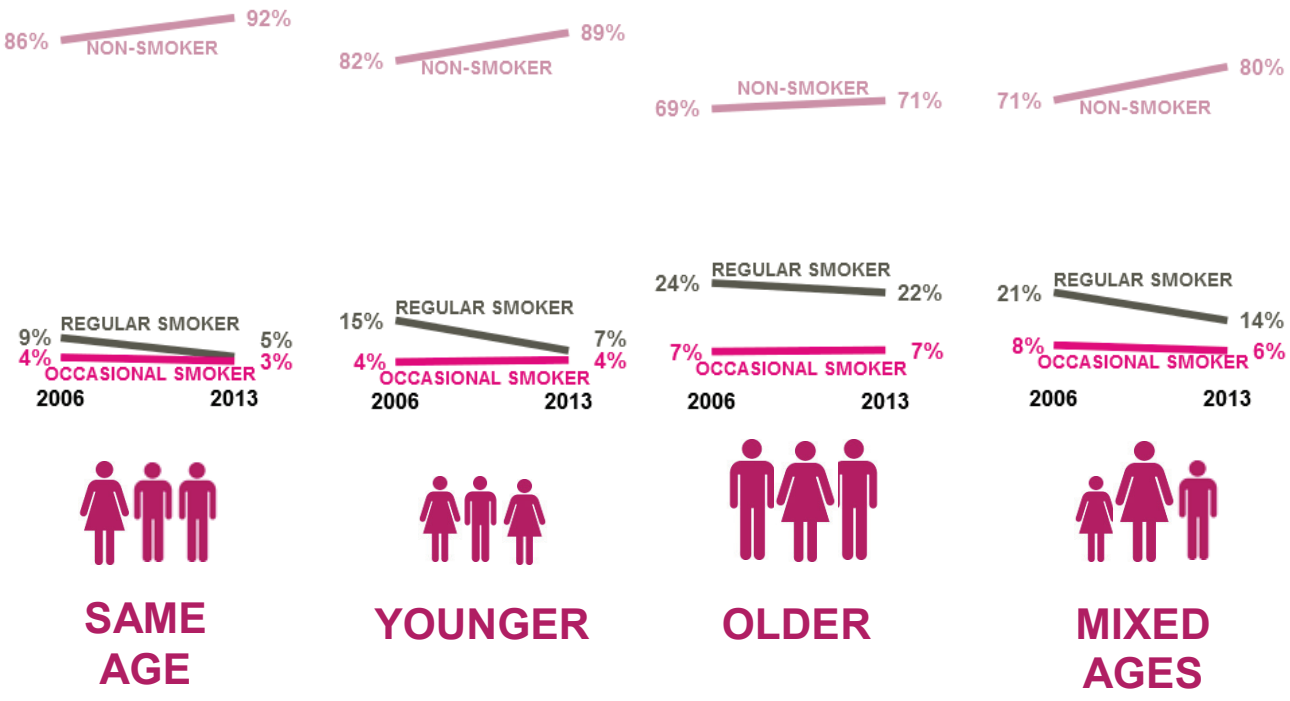
Figure 4.6– Smoking status - friend ages by smoking status



Base: 15 year olds who answered this question

Similarly, respondents whose friends are older than them or of mixed ages are more likely to be regular smokers (Figure 4.7).

Figure 4.7 - Age of friends – smoking status



Base: all 15 year olds, 2006, 2013

The number of evenings spent out with friends has a constant strong association with regular smoking – the greater the number of nights spent out with friends, the increased likelihood that the 15 year old is regularly smoking (Figure 4.8).

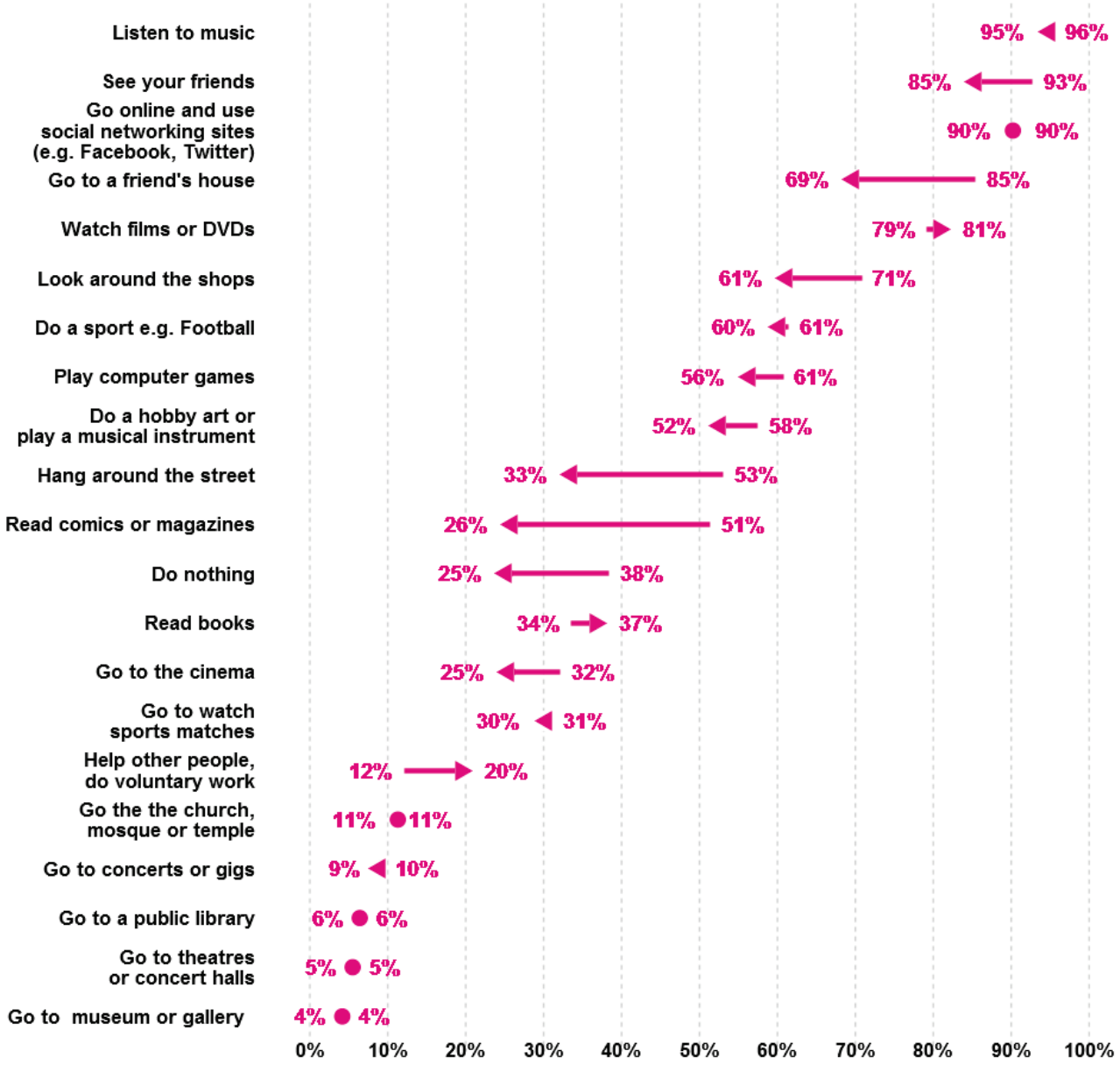
Figure 4.8 – Evenings spent out with friends – smoking status

Base: all 15 year olds, 2002 - 2013

LEISURE ACTIVITIES

SALSUS asks what pupils do in their free time and how often they engage in a range of specific leisure activities, as well as whether they have attended any groups, clubs or organisations in the past 12 months. The activities cover a broad range and include a mix of supervised and less structured activities. Attendance at various types of club has not changed much over time, though there has been a drop in youth group attendance and an increase in 15 year old pupils going to a sports club, gym, exercise or dance group (Figure 4.9). [25]

Figure 4.9 – Leisure activities: changes in percentage of 15 year olds doing activities at least weekly between 2002 and 2013

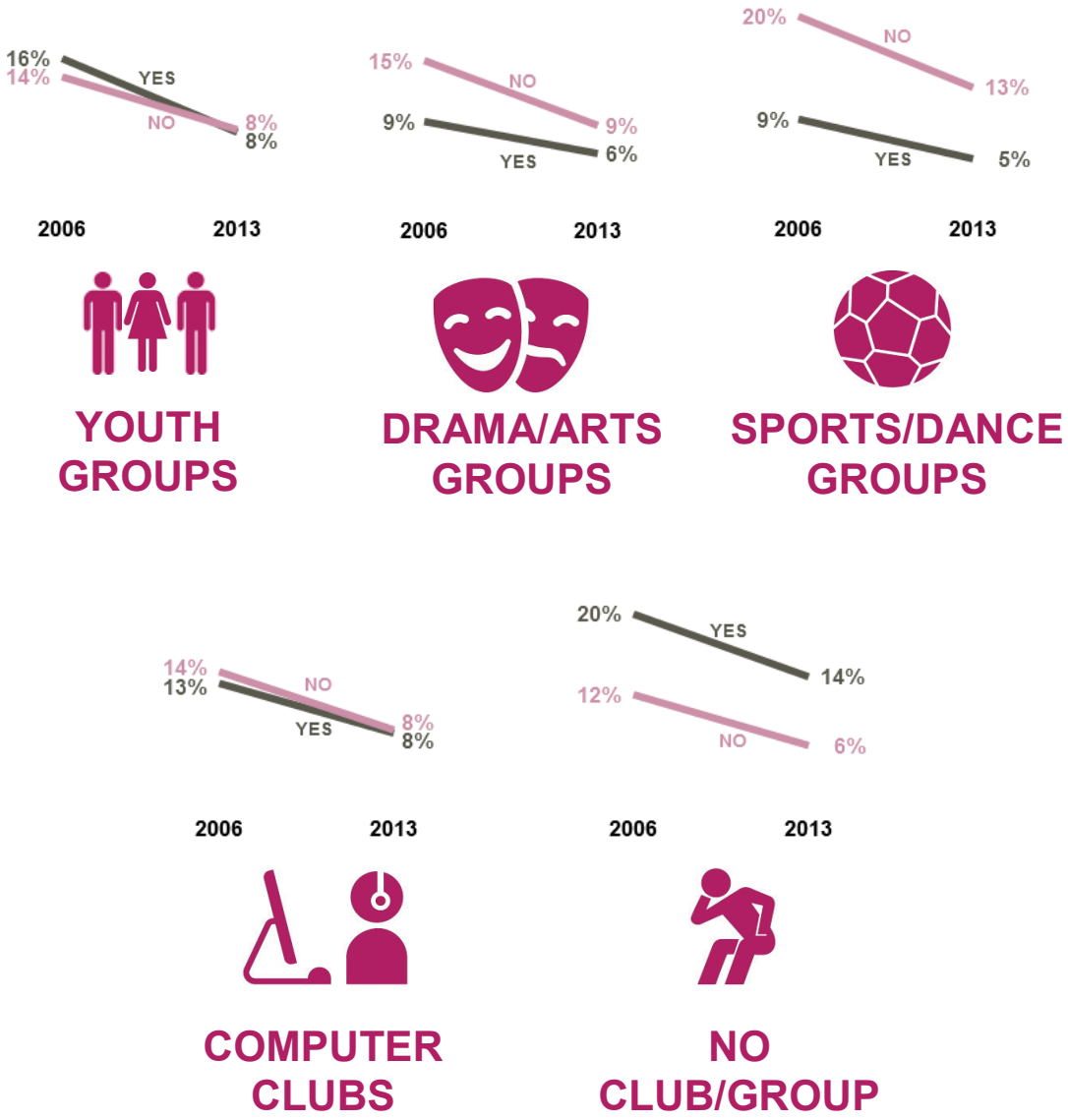


Base: Base: varies from question to question (full bases in Appendix A, Table A.8; full data in Appendix B, Table B.7)

[25] See also Appendix B, Table B7 for full data for variation over time and Appendix A, Table A.8 for relevant bases.

Pupils who do not take part in any club or group are more likely to be regular smokers than those who do – this is consistent over time. Taking part in a sports club, gym, exercise or dance group has the strongest association with whether the child is a regular smoker or not, followed by participation in drama, arts or music groups. Youth group or computer club participation appears to have no association with smoking status (Figure 4.10).

Figure 4.10 – Club/group attendance by regular smoking status



Base: all 15 year olds (full bases in Appendix A, Table A.6)

All of the activities asked about in SALSUS were used in a linear regression model to explore whether carrying any of them out at least weekly was significantly associated with regular smoking. Playing sport was found to have the greatest "protective" association and hanging around on the street had the greatest negative association, closely followed by going to concerts/gigs. Most activities did not significantly impact on the likelihood of being a regular smoker (Figure 4.11). Note that these interactions may be relatively complex and do not necessarily imply that these factors directly cause smoking/non-smoking but that they explain a significant amount of variation in the model. Details of the logistic regression can be found in Appendix C.

Figure 4.11 – Weekly leisure activity: association with being a non-smoker for all 15 year olds[26]

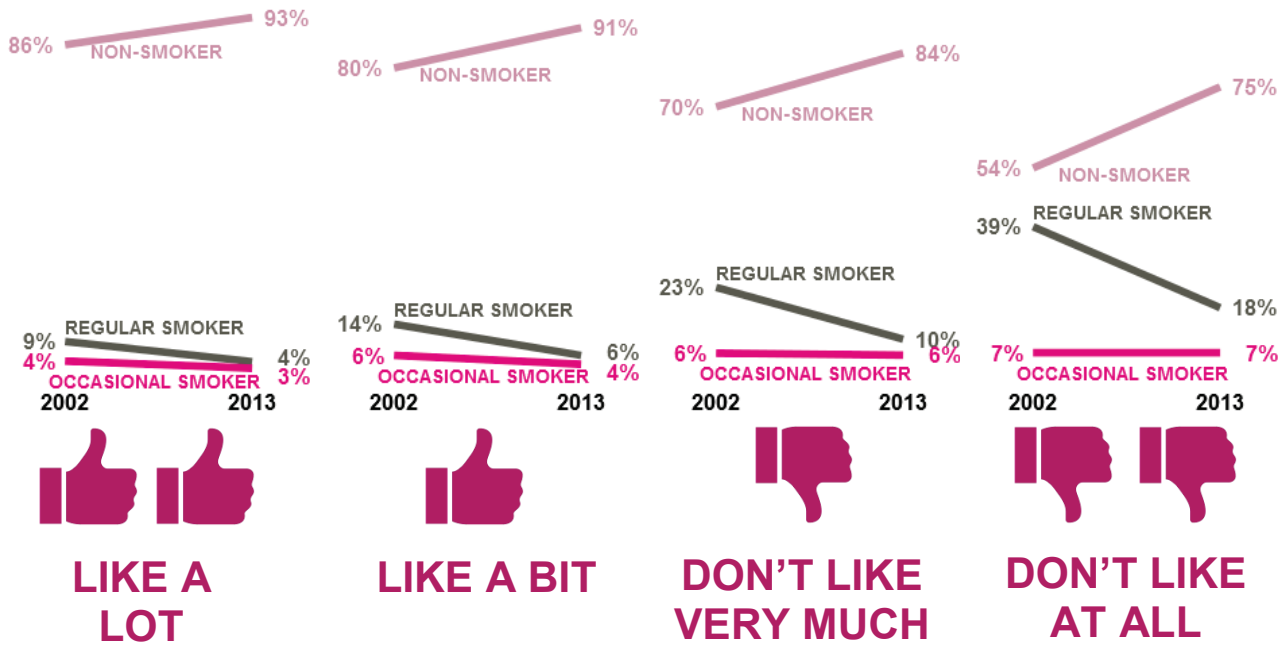
Base: see Appendix C for information on the logistic regression

[26] Full crosstab tables with a full breakdown for each activity can be found in Appendix A.

SCHOOL LIFE

The proportion of 15 year olds who say they like school has stayed fairly constant between 2002 and 2013, with 62-66% saying they like school a bit or a lot. Those who said they did not like school at all were more likely to be regular smokers than those who did like school, though the percentage who smoke has fallen over time for all groups (Figure 4.12).

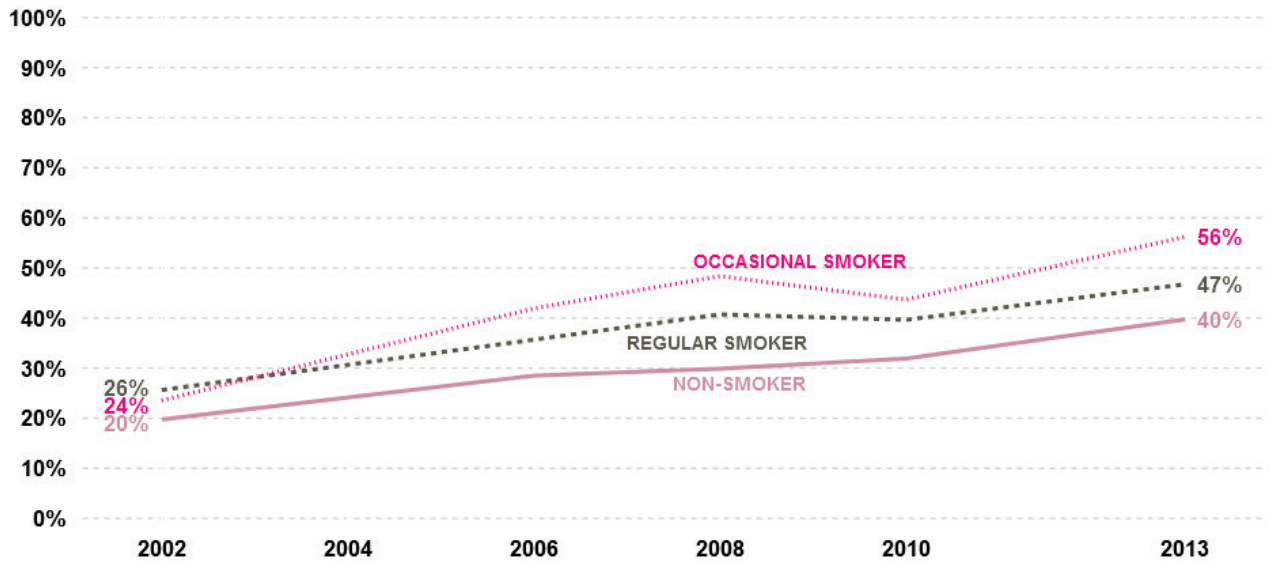
Figure 4.12 – Liking school: pupils in each smoking category



Base: all 15 year olds, 2002-2013

There has been a shift over time in how stressed pupils feel by school, with more pupils feeling stressed by school work a lot of the time rather than just sometimes in 2013 than in any other year. Stress has been increasing for all groups, though non-smokers are the least stressed by school work (Figure 4.13). Regular smokers are slightly more likely to be never stressed by school work, but the percentage who are has not changed over time for them or any other group over time, staying at around 10%.

Figure 4.13 – Stressed a lot of the time by school work - by smoking status

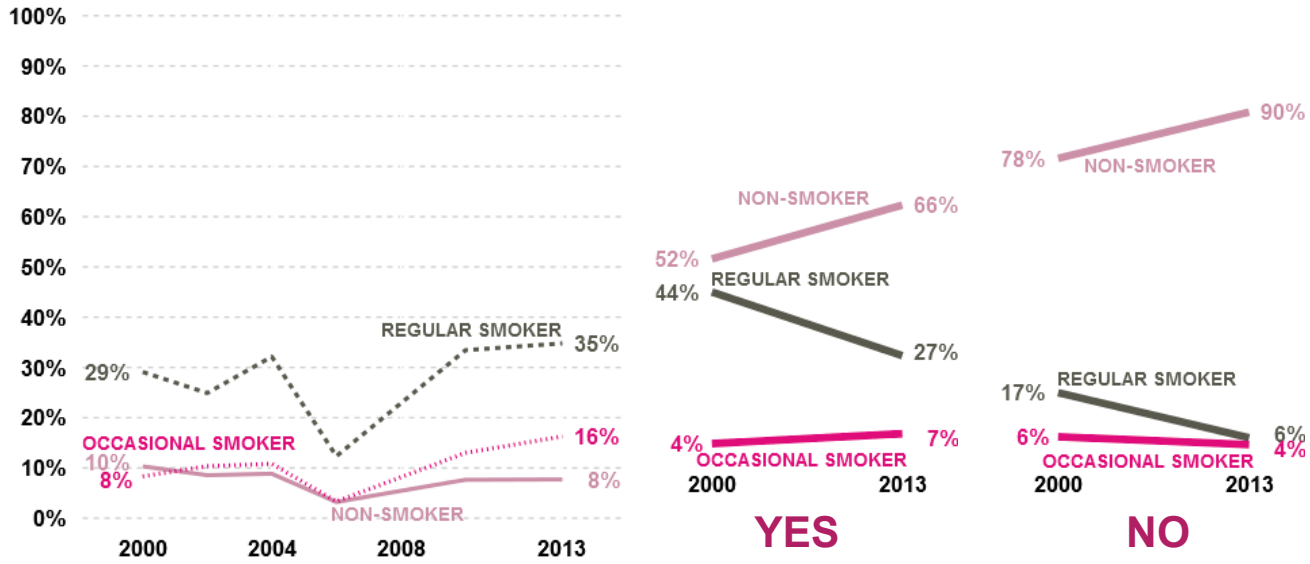


Base: all 15 year olds, 2002-2013

There was no clear association in the data over time between feeling stressed from school work and smoking status.

The proportion of respondents who have been excluded from school varies between 9% to 11% each year investigated by SALSUS, though regular smokers are consistently more likely to have been excluded. Pupils who have been excluded are more likely to be regular smokers, though smoking frequency is decreasing in both groups (Figure 4.14).

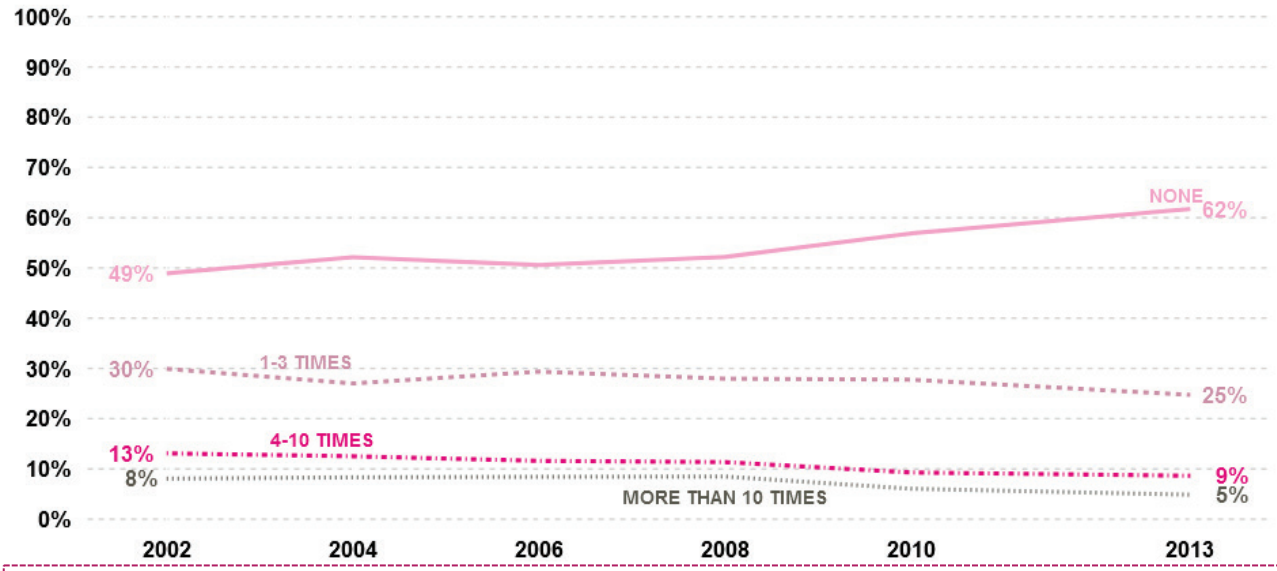
Figure 4.14 – Excluded: change over time (left) and smoking prevalence if excluded or not (right)



Base: all 15 year olds (full bases Appendix A, Table A.7)

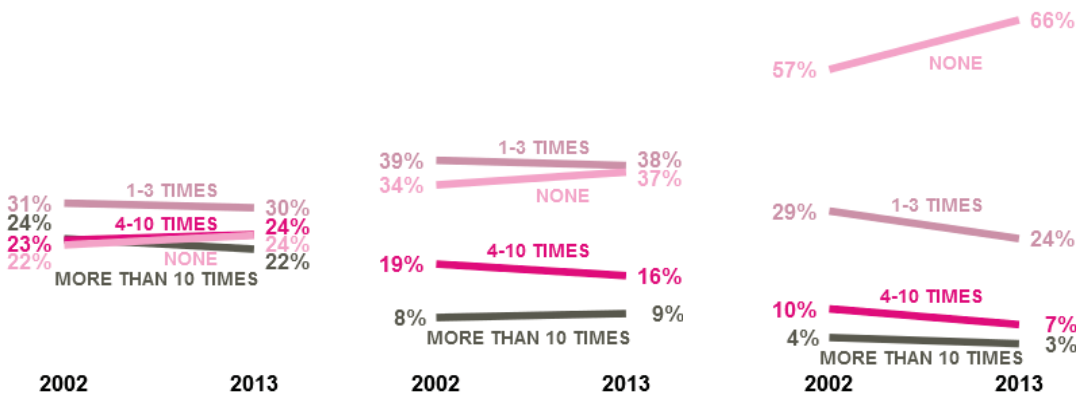
The number of pupils who reported truanting in the last school year has decreased over time (Figure 4.15). Regular smokers are much more likely to have truanted and to have truanted more often than others (Figure 4.16).

Figure 4.15 – Truanting: change over time



Base: all 15 year olds, 2002-2013

Figure 4.16 – Smoking status: number of times truanted



REGULAR SMOKER

OCCASIONAL SMOKER

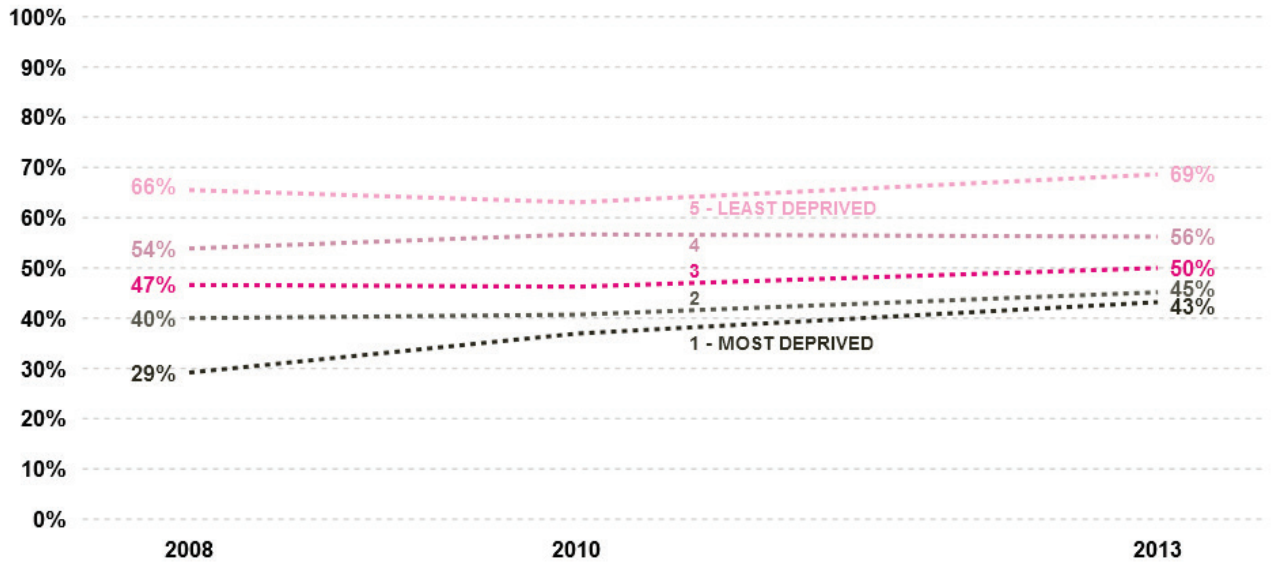
NON-SMOKER

Base: all 15 year olds, 2002- 2013

POST-SCHOOL EXPECTATIONS AND ASPIRATIONS

When 15 year olds are asked what they think they will most likely do after school, the most common answer is go to university which has increased over time from 45% of all 15 year olds in 2002 to 53%. The increase in those wanting to go to university appears to be driven by those in the lowest SIMD quartile, which increased by 14% between 2008 and 2013 (Figure 4.17).[2] Those expecting to go on to FE has changed from 28% to 21% over the same period, to be working from 9% to 8%, to be in an apprenticeship from 7% to 6%, and some other destination or activity has moved from 11% to 12%.

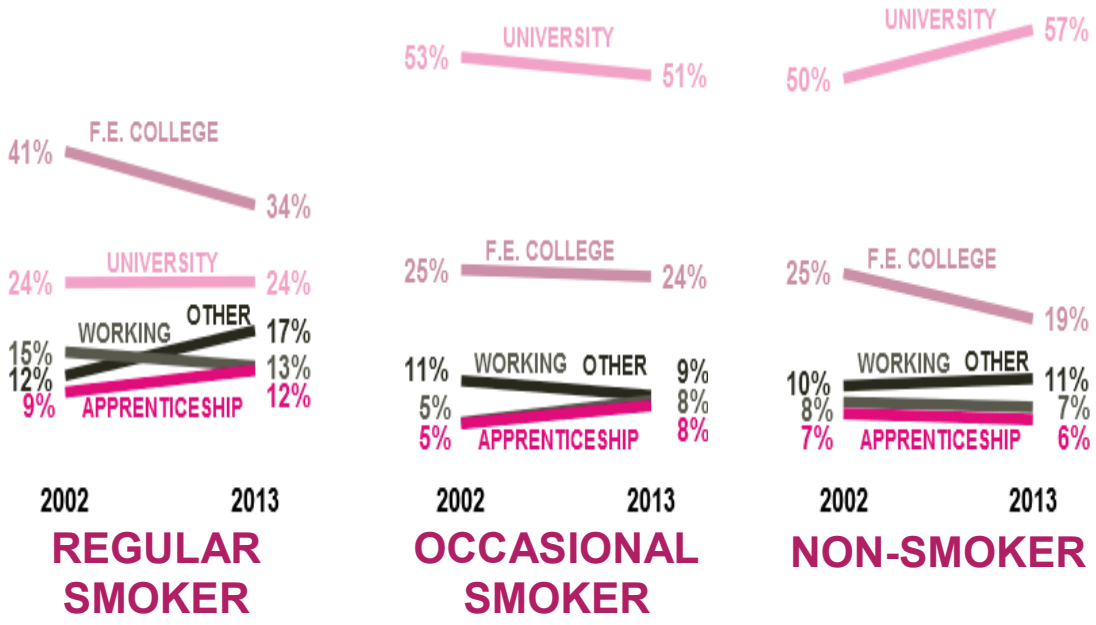
Figure 4.17 – Expecting to go to university by SIMD quartiles



Base: all 15 year olds, 2008-2013

Pupils aspirations are associated with smoking status and this has persisted over time. For example, regular smokers are much less likely to say they will go to university than non-smokers (Figure 4.18).

Figure 4.18 – Post-school expectations within smoking status groups



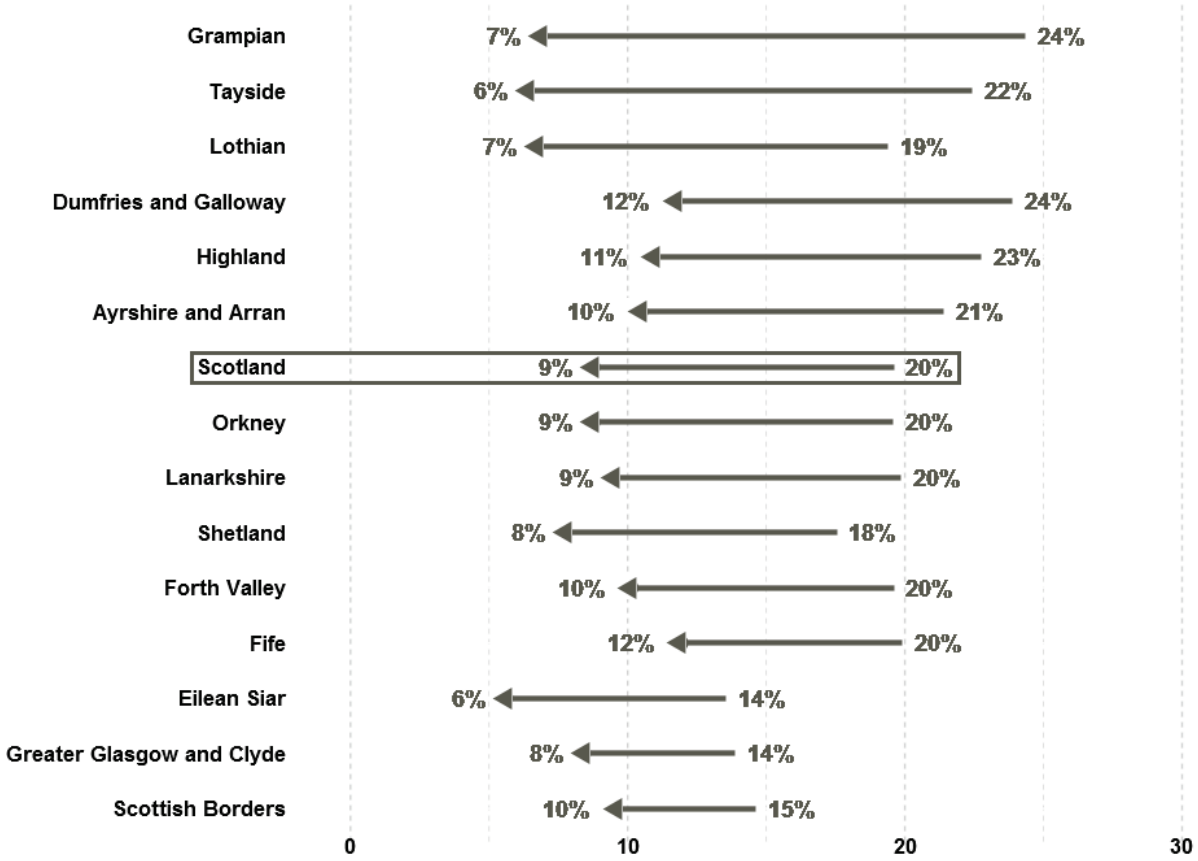
Base: all 15 year olds, 2002, 2013

GEOGRAPHIC VARIATION

Across the 14 Scottish Health Boards, the 15 year old regular smoking rate ranges from 6% to 12%. Fife, Dumfries and Galloway and Highland health boards have the highest smoking rates, while Eilean Siar, Tayside and Lothian boards have the lowest. The greatest declines between 2002 and 2013 were in Grampian, Tayside and Lothian, while Greater Glasgow and Clyde and the Scottish Borders have declined the least (Figure 4.19). Some of the greatest declines were in board areas which started with relatively high rates of smoking and lowest declines in areas that had low prevalence to begin with.

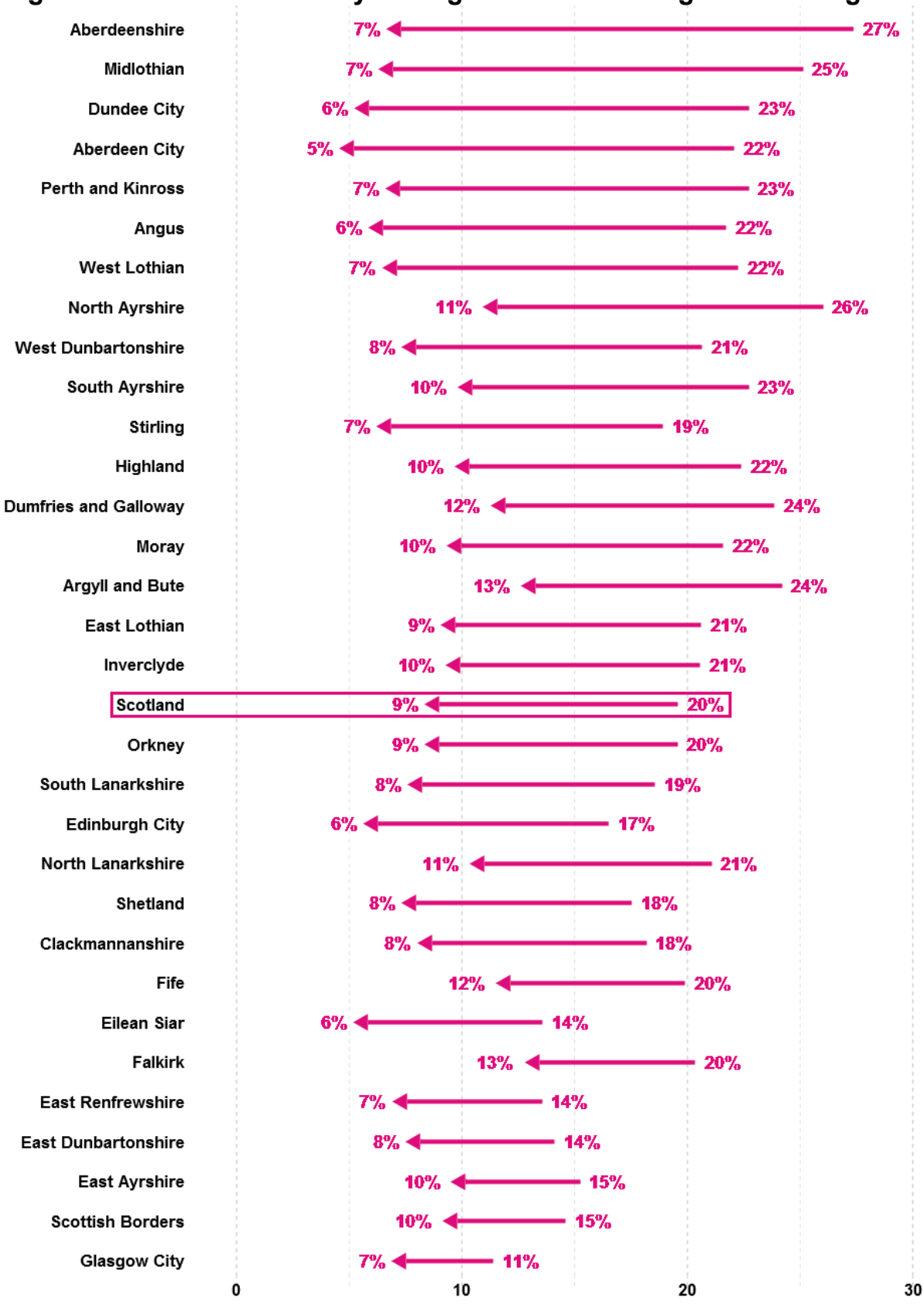
Regular smoking by 15 year olds ranges from 5% to 13% across Scottish local authorities. It is most common in Falkirk, Argyll and Bute, and Fife, and least common in Eilean Siar, Dundee City and Aberdeen City. Local authorities which have seen the largest decline in 15 year olds smoking between 2002 and 2013 are Aberdeenshire, Midlothian and Dundee City and those with the lowest decline are East Ayrshire, Scottish Borders and Glasgow City (Figure 4.20). As with health boards, some of the greatest declines were in areas which started with relatively high rates of smoking and vice versa.

Figure 4.19 – Local health board: change between 2002 and 2013 in regular smoking



Base: all 15 year olds in each local authority and health board area (full bases in Appendix A, Tables A.9 and A.10)

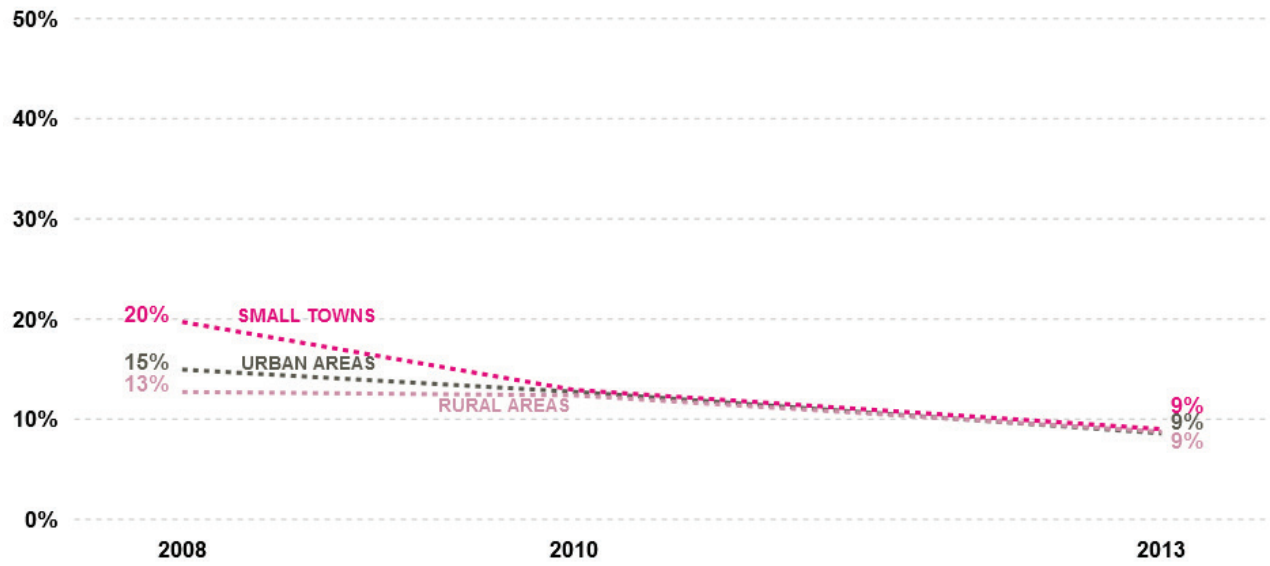
Figure 4.20 – Local authority: change 2002-2013 in regular smoking[27]



[27] Eilean Siar is 2006 to 2013. Renfrewshire is not shown due to low survey uptake in 2013 meaning the sample size is too small for meaningful analysis

Currently, there is no evidence of a rural/urban difference in regular smoking in SALSUS. Rates of smoking in small towns, urban areas and rural areas have converged since 2008 (Figure 4.21).

Figure 4.21 – Rural/urban classification: change in regular smoking over time[28]



Base: all 15 year olds (2008-2013) – urban areas (3023, 11501, 10606); small towns (678, 2265, 2343); rural areas (941, 3945, 3134)

HEALTH AND MENTAL HEALTH

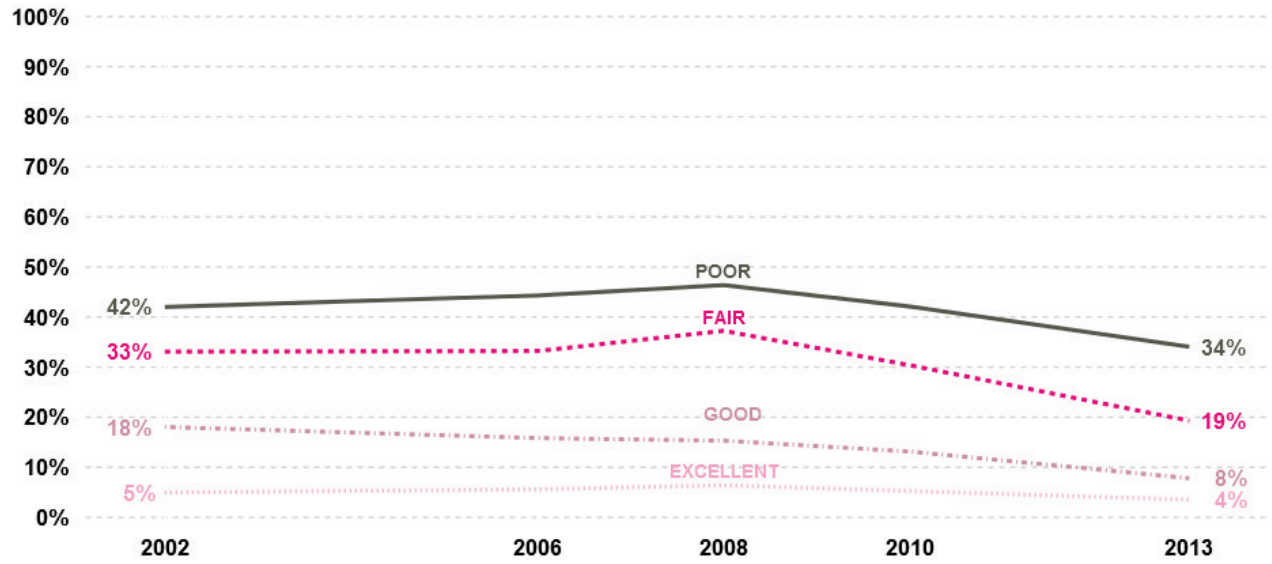
Adolescents who smoke report poorer physical and mental health than those who do not. For example, in 2013, 88% of non-smokers rated their health as 'good' or 'very good' compared just to 60% of regular smokers. Nearly a quarter of regular smokers reported having a physical or mental condition lasting or expecting to last 12 months compared with 13% of non-smokers.[29]

Pupils who report better health in general than their peers are less likely to be regular smokers than those who report their health is poor. This picture has been consistent across the time series. Figure 4.22 shows that 34% of young people reporting poor health in 2013 were regular smokers compared to just 9% of all 15 year olds being regular smokers.

[28] Shown here is a bracketed version by size for ease of visualising the trends. This bracketing does not impact the results – there is still no clear evidence of a rural/urban divide in regular smoking

[29] http://www.isdscotland.org/Health-Topics/Public-Health/SALSUS/Latest-Report/

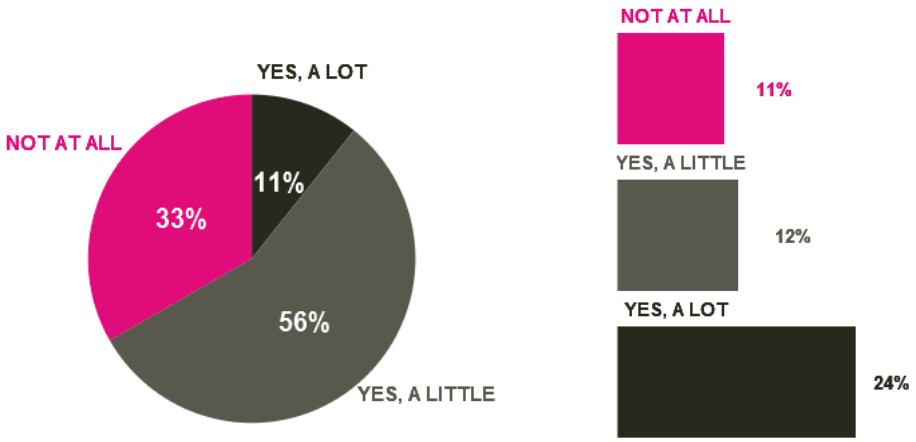
Figure 4.22 - Self-reported health status: regular smoking over time



Base: all 15 year olds, 2002-2013

Respondents with a long standing physical or mental health condition are slightly more likely to be regular smokers, with likelihood increasing in line with the degree to which the condition impacts on daily life (Figures 4.23). Whether the illness or condition impacts on the respondent's day to day life was only asked in 2013 when 13% of those with such a condition reported that it did.[30] Figure 4.23 shows that smokers are more likely to report that their condition impacts more on their daily life than non-smokers with a chronic condition.

Figure 4.23 – Longstanding condition: impact on day to day life (left) and regular smokers in each category of impact (right)



Base: Left – all 15 year olds with a longstanding illness – 2013 (2344)
Right - all 15 year olds with a longstanding (2013), by impact, and who are regular smokers - not at all (258); yes, a little (1307); yes, a lot (756) -

30 http://www.isdscotland.org/Health-Topics/Public-Health/SALSUS/Latest-Report/

Since 2006, SALSUS has included the Strengths and Difficulties Questionnaire (SDQ) which is used to gather data on the pupil's mental wellbeing.[31] This is a self-report behavioural screening questionnaire which is used to identify abnormal behaviour in children in research and clinical environments. Respondents who complete the set of questions are scored on emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems and pro-social behaviour, with each individual scale and their behaviour overall scored as normal, borderline or abnormal. A full discussion of trends in overall in SDQ scores and for SDQ constituents is included in the report *Mental health and wellbeing among adolescents in Scotland: profile and trends*.[32] Since 2006, the proportion of pupils with a borderline or abnormal SDQ score has risen slightly. This has been driven by a large increase in 15 year olds girls with these scores – the percentage of 15 year old boys has always been lower than girls and only rose slightly between 2006 and 2013.

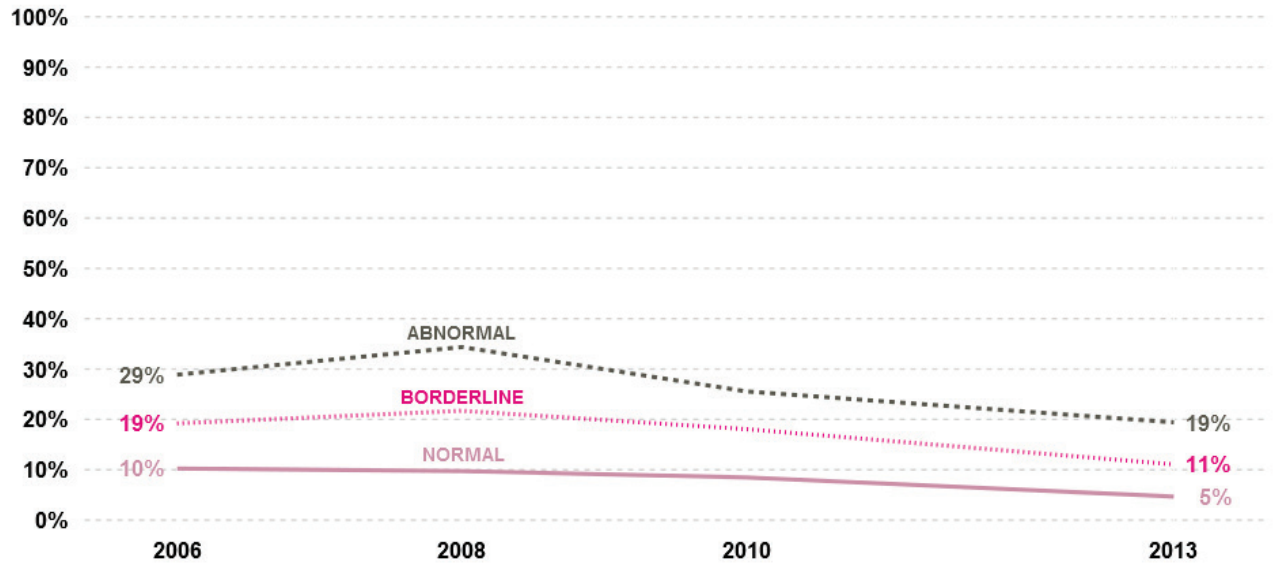
Pupils whose responses generated an abnormal or borderline SDQ score were far more likely to be regular smokers so for example, Figure 4.24 shows that in 2013 19% of those with an abnormal SDQ score were regular smokers while just 9% of 15 year olds who smoke regularly and 14% of all 15 year olds have an abnormal SDQ score. When respondents were classified by individual SDQ scales, those with abnormal or borderline conduct scores, followed by those with hyperactivity or inattention problems, were found to be more likely to smoke regularly. Differences in scores for emotional symptoms, peer problems and pro-social behaviours were all less notable, though scoring abnormally in these categories still has an association.

The coincidence of an abnormal SDQ score and smoking status is more apparent for girls than for boys: girls with abnormal SDQ scores are more likely to regularly smoke and by 2013, normal and borderline scoring girls are slightly less likely to smoke than normal boys (Figure 4.25).

[31] R. Goodman, H. Meltzer and V. Bailey, "The Strengths and Difficulties Questionnaire: A pilot study on the validity of the self-report version," *European Child and Adolescent Psychiatry,* vol. 7, pp. 125-130, 1998

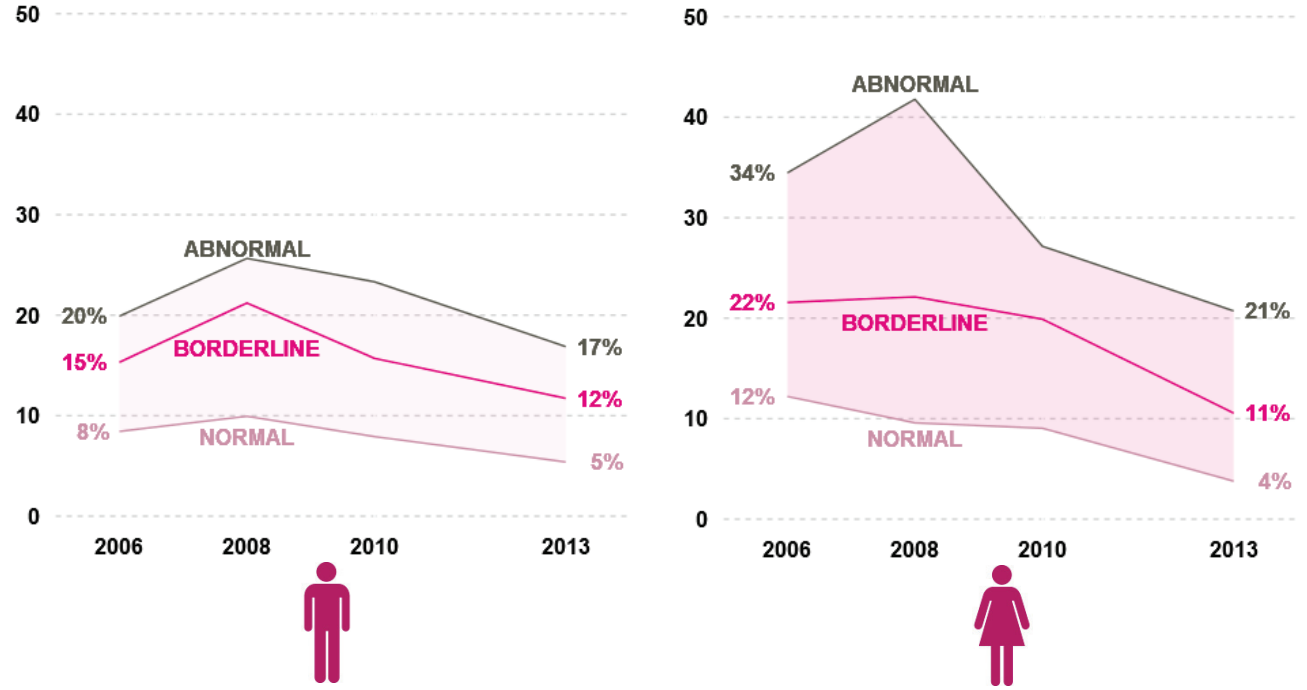
[32] Black, Carolyn and Martin, Chris for the Scottish Government (2015) *Mental health and wellbeing among adolescents in Scotland: profile and trends.* http://www.gov.scot/Publications/2015/11/9339

Figure 4.24 - SDQ score: regular smoking by banded scores



Base: all 15 year olds (2006-2013) – normal (7278, 3263, 12333, 10349); borderline (1604, 687, 2508, 2516); abnormal (1004, 453, 1791, 2249)

Figure 4.25 – Regular smoking by SDQ score and gender

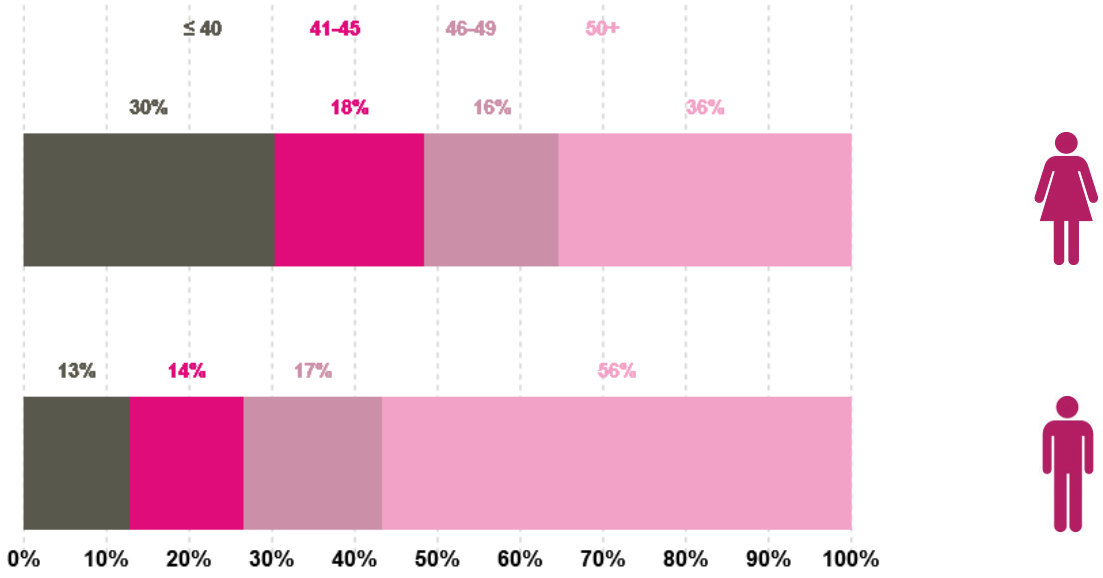


Base: all 15 year olds (full bases in Appendix A, Table A.12)

An additional measure of mental wellbeing – the Warwick-Edinburgh Mental Well-being Scale (WEMWBS)[33] - was added to SALSUS in 2010. Respondents are given 14 positively worded questions and asked to score on a five point scale to best describe their experience over the past 2 weeks. These individual scores are combined and the resulting score (ranging from 14 to 70) is used to determine mental wellbeing. A full discussion of WEMWBS scores are discussed in the report *Mental health and wellbeing among adolescents in Scotland: profile and trends.* [34] A WEMWBS score of 41-45 could indicate high risk of psychological distress and an increased risk of developing depression and 40 or less suggests the respondent could be at high risk of major depression.[35]

As with the SDQ, girls are more likely than boys to have a lower WEMWBS score. Pupils with below average WEMWBS scores are also more likely to be regular smokers than those with average or above average scores, but of those who are below average, the percentage who smoke is roughly the same for both genders (Figure 4.26). Smokers had a lower average WEMWBS score than non-smokers. This is especially the case for girls – the difference is so marked that non-smoking girls have a lower average score than regularly smoking boys (Figure 4.27).

Figure 4.26 - WEMWBS scores in 2013: percentages in score bandings



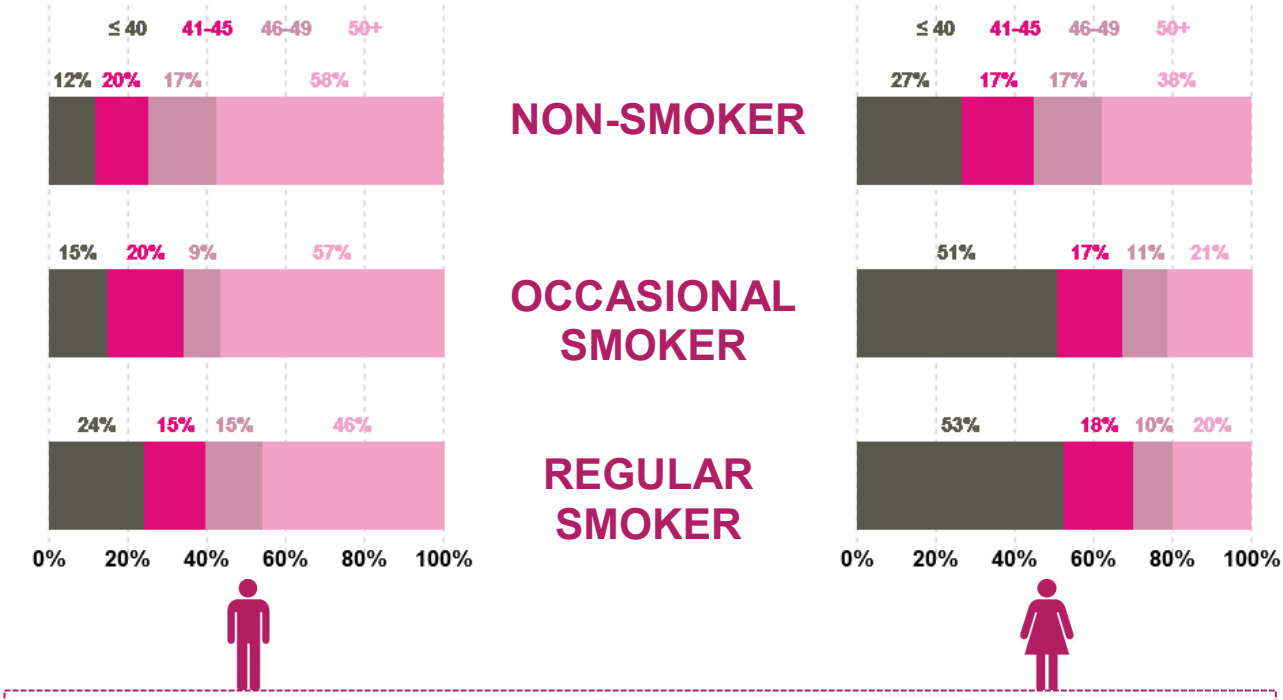
Base: all 15 year olds – boys (7482), girls (7424)

[33] R. Tennant, L. Hiller, R. Fishwich, S. Platt, S. Joseph, S. Weich and S. Stewart-Brown, "The Warwick-Edinburgh mental well-being scale (WEMWBS): development and UK validation," *Health and Quality of Life Outcomes,* vol. 5, no. 1, 2007

[34] http://www.gov.scot/Publications/2015/11/9339

[35] F. Taggart, S. Steward-Brown and J. Parkinson, "Warwick-Edinburgh Mental Well-being Scale: User Guide," 2015

Figure 4.27 – WEMWBS scores in 2013: grouped by gender and smoking category



Base: all 15 year olds (boys, girls) – regular (554, 624); occasional (238, 410); non-smoker (6591, 6328)

5. EQUALITIES

DEPRIVATION

Deprivation is a key predictor of all of substance use, including smoking. In countries with highly developed tobacco control policies, individuals living in poverty and deprivation are disproportionally likely to be smokers. The Scottish Index of Multiple Deprivation (SIMD) is the Scottish Government's tool for classifying geographic areas ('data zones') in terms of deprivation, providing a relative ranking from 1 (most deprived) to 6,505 (least deprived) . These are commonly grouped as deciles or quintiles.[36] Adults in the most deprived SIMD quintile in Scotland are considerably more likely than those in the rest of the country to be current smokers 34 per cent and 18 per cent, respectively, and smoking drops to 9% in the least deprived quintile.[37] SALSUS allows us to investigate if deprivation has a similar association with smoking for adolescents.

Pupils responding to SALSUS are asked for their home postcode and this is used to identify the SIMD quintile they live in. Pupils from the most deprived areas are more likely to be regular smokers than those from the most affluent areas, but the difference is not as great as it is for adults and it has shrunk slightly over time. While 9% of all 15 year olds smoke regularly in 2013, 12% of those in the most deprived quintile smoke regularly. Differences in parental smoking within deprivation quintiles are more stark, as shown in Figure 5.1. For example, 46% of pupils living in the most deprived quintile report that a parent smokes.

SALSUS includes other measures of deprivation – an objective measure by asking if the child is eligible for free school meals and a subjective measure by asking the respondent how well off they feel their family is. These are individual measures of deprivation rather than the area measure provided by SIMD.

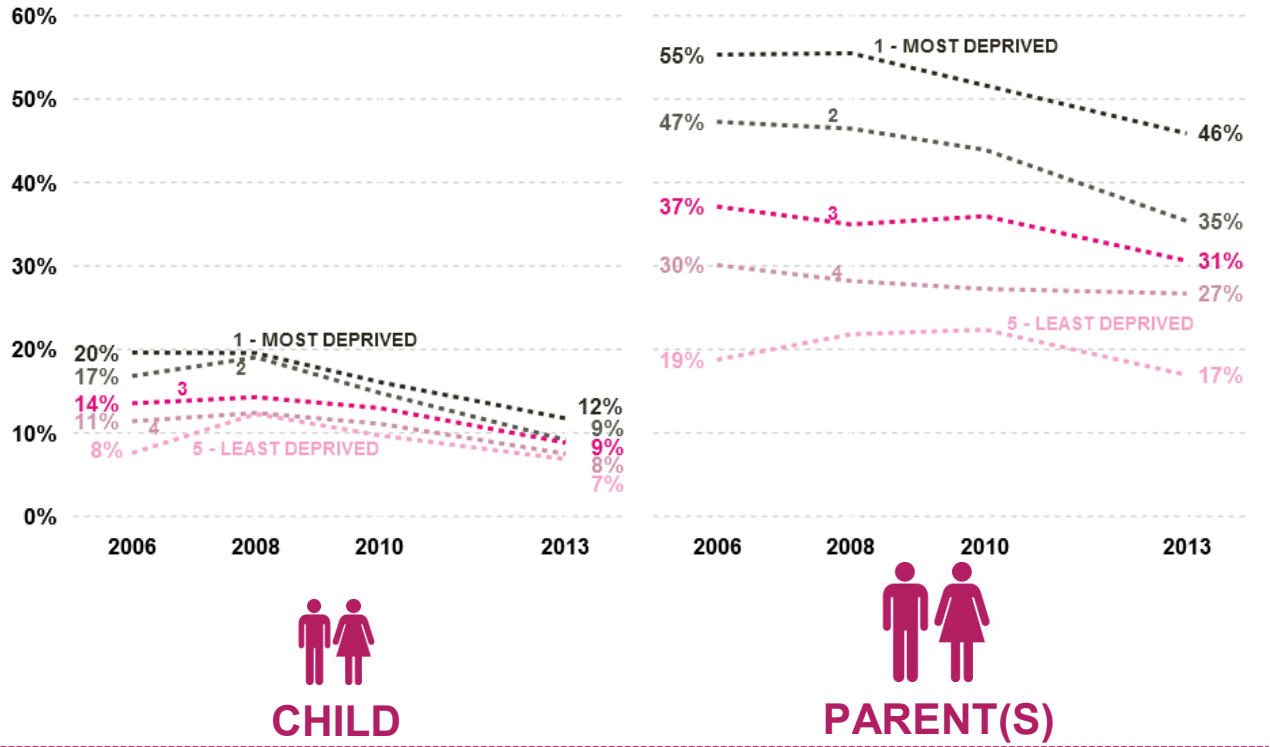
Free school meals are provided to those whose parents receive benefits or incomes fall below a certain threshold.[38] Pupils who receive free school meals are far more likely to be regular smokers than those who do not. The gap between them has remained constant over time at roughly 10% (Figure 5.2) so that by 2013 16% of regular smokers received free school meals compared to just 7% of non-smokers. Pupils in receipt of free school meals are also more likely to have parents who smoke.

[36] For more information on SIMD, see http://simd.scotland.gov.uk/publication-2012/introduction-to-simd-2012/overview-of-the-simd/what-is-the-simd/

[37] Scottish Government (2015) *Scotland's People Annual Report from 2014 Scottish Household Survey* - http://www.gov.scot/Publications/2015/08/3720

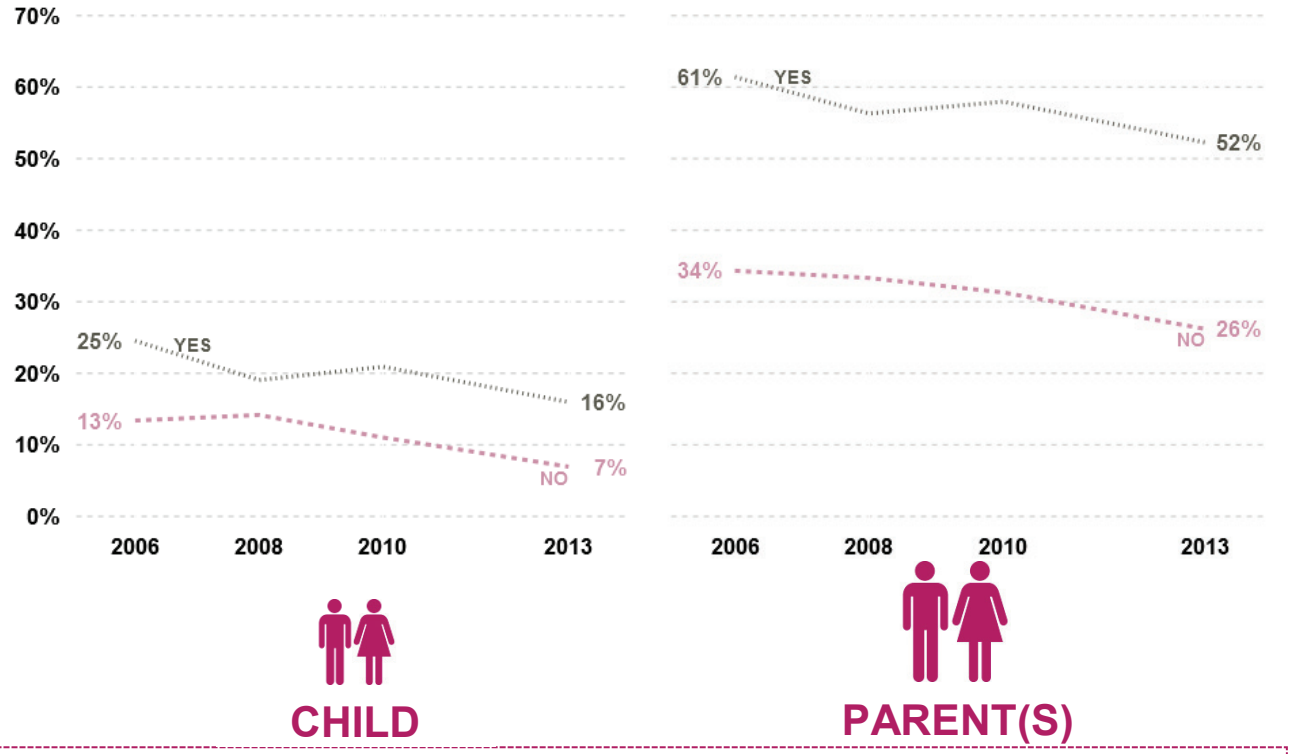
[38] Figures on free school meals entitlement was based on pupil's survey responses and not official records. Official records show 41,744 pupils (15%) were registered for free meals in Scottish secondary schools in 2013. In SALSUS 2013, 12% said they were.

Figure 5.1 –% in SIMD quintile who smoke: respondent and parent(s)



Base: all 15 year olds (full bases in Appendix A, Table A.13)

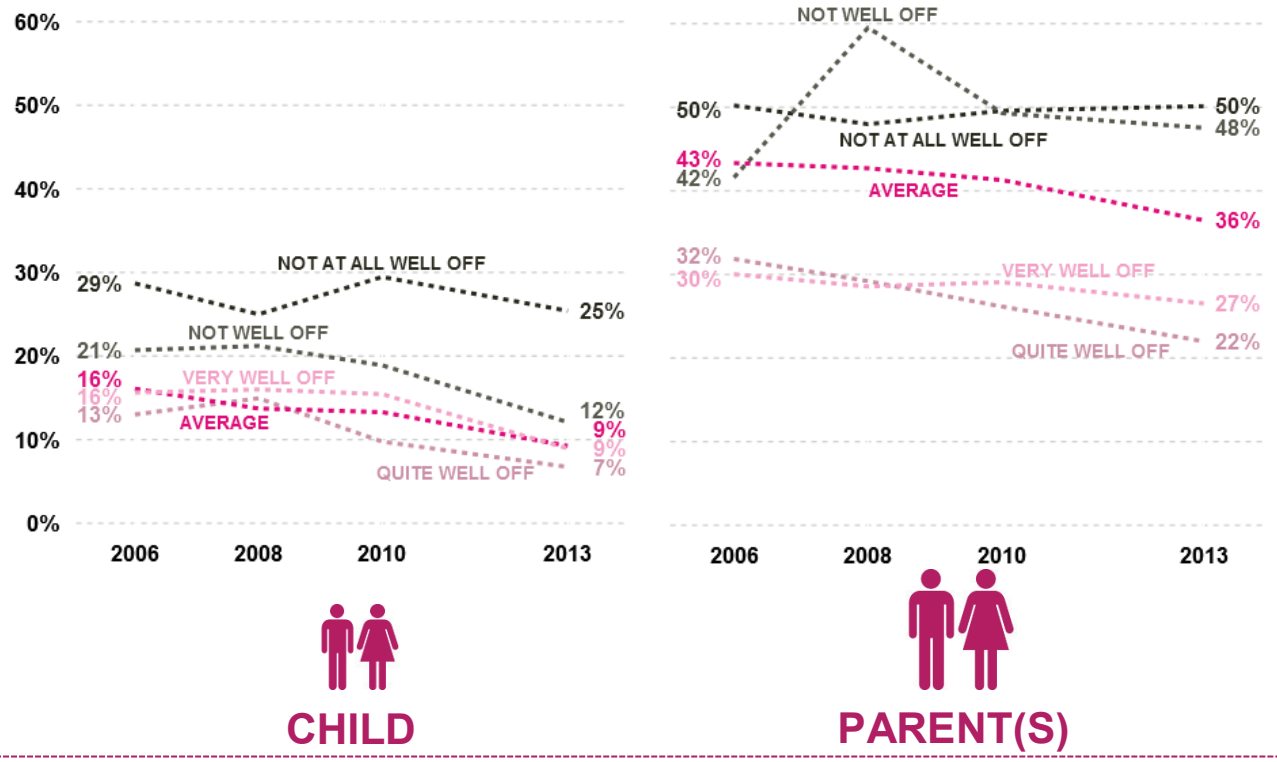
Figure 5.2 – % receiving FSM: by smoking status of respondent and parent(s)



Base: all 15 year olds (full bases in Appendix A, Table A.13)

Pupils are asked how well off they think their family is, ranging from 'very well off' to 'not at all well off'. Those who believe they are 'not well off at all' are more likely to be regular smokers. Similarly, those who responded that they were 'not well off' or 'not at all well off' were more likely to have at least one parent who smokes. Notably, the 'not at all well off' group has remained relatively static between 2006 and 2013 for parental smoking (Figure 5.3).

Figure 5.3 – % in different 'well off' ratings who smoke regularly - pupil and parent(s) smoking



Base: 15 year olds, 2006-2013 (full bases in Appendix A, Table A.13

The variations in the different deprivation measures may be due to various factors – for example, pupils may not be aware of how well off their family is financially and how that compares to other families and are more likely to compare themselves to their peers. However, the three measures all broadly show the same thing – as deprivation increases, the likelihood of the child being a regular smoker also increases.

GENDER

Historically, girls of both age groups have been more likely to be regular smokers than boys, but this gap has decreased over time and is now extremely small (see Figures 2.3 and 2.4). However, girls remain over-represented in several risk groups.

During the logistic regression modelling (see Chapter 6 for more information), it was found that with all the factors considered equally, girls were actually less likely to be regular smokers than boys. While counter-intuitive, what this means is that girls are not intrinsically more likely to smoke, but the factors that lead 15 year olds to become regular smokers have a greater effect on girls than boys, explaining the difference between them.

The regression was therefore carried out on boys and girls separately to identify the factors closely associated with each gender. The results are shown in Figure 5.4 and 5.5[39]. More information on the logistic regression can be found in Appendix C.

For some of the factors, the differences between genders are minor, such as paternal knowledge and going to the cinema and truanting. It should be noted as well that self-reported family wealth and free school meals come up for girls and boys respectively but not for both – this is likely to be because they cover similar areas and one is slightly stronger than the other in each case so that is the one found to be significant.

For others, the difference is quite large: spending evenings out with friends is a much stronger indicator of smoking in girls than boys, for instance, while playing a sport weekly has a much stronger association with non-smoking boys than girls. In particular, SDQ score is a predictor of regular smoking in girls but is not significant at all for boys. Rural/urban classification is also shown as a strong factor for girls, though it is unclear why – it is possible that the variation found in this factor by the model was not adequately explained by any of the other variables and that is why it is reported as significant, even though its effect is not immediately apparent.

The factors presented here do not imply direct causation but an association which may be complex. For instance, the reason pupils who go to the cinema weekly may be less likely to smoke could be that they are likely to be better off than other respondents. The logistic regression does not imply this, however, so we cannot infer reasons for an association, only show that one exists.

[39] Going to theatres and concert halls are the only significant association not shown, as association is unusually strong and in opposite directions for each gender, meaning it is likely an artefact of the small sample size.

Figure 5.4 – Association with being a non-smoker for 15 year old girls

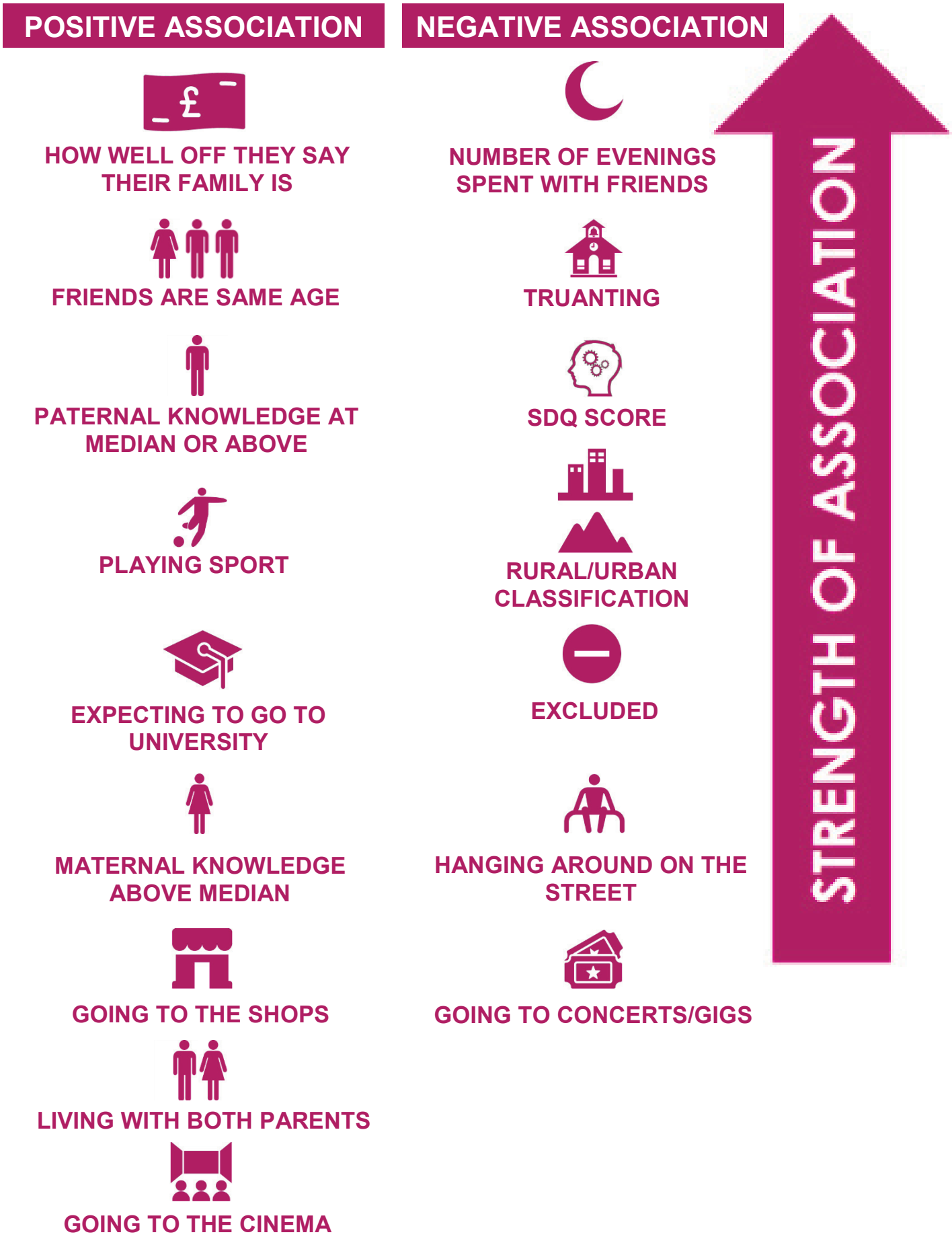
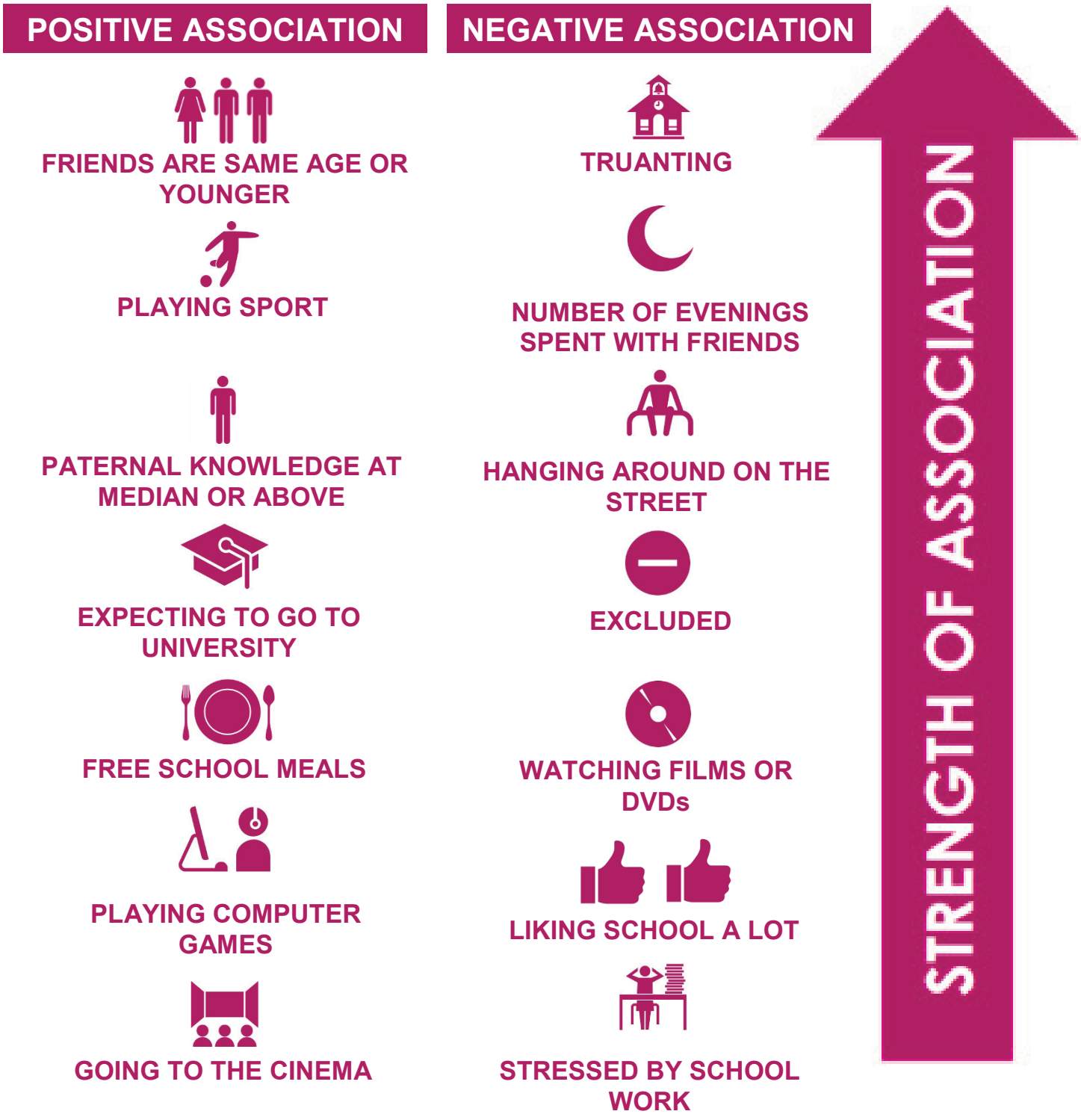


Figure 5.5 – Association with being a non-smoker for 15 year old boys



ETHNICITY

The population of Scotland is predominantly white: across all years when ethnicity data were collected (2002 to 2013), 94% of respondents identified themselves as such. The small sample sizes of other ethnicities means identifying a reliable trend over time is not possible. Across the aggregated data-set for 2002 to 2013, pupils who identified themselves as black or Asian were less likely to be regular smokers than white children. Pupils who said they were mixed race were most likely to be regular smokers (Figure 5.6).

Table 5.6 – Percentage of all pupils who regularly smoke by ethnicity

	REGULAR SMOKER	OCCASIONAL SMOKER	NON-SMOKER
WHITE	9%	4%	87%
ASIAN	5%	4%	91%
BLACK	8%	4%	88%
MIXED	11%	5%	80%

Base: respondents providing their ethnic identity and smoking status (2002-2013) – White (120721); Asian (2651); Black (662); Mixed (3545)

6. PREDICTORS OF SMOKING

Logistic regression is used to predict an outcome using several predictor variables. In this case, it was used to predict factors which influence the likelihood of a 15 year old child being a regular smoker. The potential factors included in each of the logistic regressions were those analysed earlier in this report in Chapters 4 and 5. The factors included are detailed in Figure 6.1.

Figure 6.1 – Factors included in each logistic regression

Family	Friends	Society	Geography	Health and Mental Health	Inequalities	Other
Family status	What they do in their free time	Attended sports groups etc.	Rurality	WEMWBS score	Free school meals	Year
Parental knowledge	Number of close friends	Pressured by school work		SDQ score	Self-reported wealth	
	Friend's ages	Post-school expectat-ionsl			Gender	
	Evenings with friends	Like school			SIMD	
		Excluded				
		Truanting				

The model identified several factors that were associated with regular smoking. Figure 6.2 summarises these results.[40]

Despite clear evidence of a link between deprivation and smoking, SIMD was not a significant predictor of smoking, while free school meal entitlement and how well off the child thought their family is were only weak predictors. However, as with gender, many of these factors are interdependent, such as what the child expects to do after school and if they have been excluded. Thus, these results do not necessarily mean that deprivation is not an important factor in smoking, but that in terms of these results, other factors are more strongly associated with being a regular smoker. As before, it is important to bear in mind that these are potentially complex associations with, rather than direct causes, of smoking.

[40] Details of the regression model are in Appendix C.

Figure 6.2 – Key drivers of smoking among 15 year olds

	SIGNIFICANT FACTOR?
GENDER	YES, SOME
AREA DEPRIVATION	NO
FREE SCHOOL MEALS	YES, SOME
SELF-REPORTED WEALTH	YES, SOME
SDQ SCORE	YES, SOME
WEMWBS SCORE	NO
URBAN/RURAL CLASSIFICATION	YES, SOME
ATTENDED SPORTS GROUP	NO
ATTENDED OTHER GROUPS	NO
EXPECT TO DO AFTER LEAVING SCHOOL	YES, A LOT
PRESSURED BY SCHOOL WORK	NO
TRUANTING	YES, A LOT
EXCLUDED	YES, A LOT
LIKING SCHOOL	NO
NUMBER OF CLOSE FRIENDS	NO
PLAYING SPORTS AT LEAST WEEKLY	YES, A LOT
HANGING AROUND ON THE STREET AT LEAST WEEKLY	YES, A LOT
GOING TO A FRIEND'S HOUSE AT LEAST WEEKLY	YES, SOME
GOING TO CONCERTS AT LEAST WEEKLY	YES, SOME
GOING TO CINEMA AT LEAST WEEKLY	YES, SOME
WATCHING FILMS OR DVDS AT LEAST WEEKLY	YES, SOME
PLAYING COMPUTER GAMES AT LEAST WEEKLY	YES, SOME
OTHER ACTIVITIES	NO
EVENINGS SPENT WITH FRIENDS	YES, A LOT
AGE OF FRIENDS	YES, A LOT
FAMILY STATUS	YES, SOME
MOTHER'S KNOWLEDGE OF ACTIVITIES	YES, SOME
FATHER'S KNOWLEDGE OF ACTIVITIES	YES, A LOT

7. CONCLUSION

Adolescent smoking prevalence has fallen over the lifetime of SALSUS. As most smokers take up the habit in their teens or early twenties, this is encouraging and will help Scotland to make progress towards the aspiration of a 'smoke-free Scotland by 2034 where 5% or less of adults smoke.

The marked decline in 13 and 15 year olds who have purchased from primary sources, especially small independent stores, between 2006 and 2013 shows that legislative measures to control youth access to cigarettes through these sources have been successful. Restricting access to tobacco for under-18s has had a direct impact on smoking rates, complementing other policy changes (such as the ban on smoking in enclosed public spaces) and the reduced social acceptability of smoking in the general population.

The percentage of smokers who have obtained cigarettes through secondary sources has remained relatively constant over time. The percentage who have used 'proxy purchase', that is have asked an adult to buy cigarettes for them, remains at almost a third, despite there being an offence of 'proxy purchase' since 2010. The challenge remains of persuading adults not to buy tobacco for children and young people.

This will likely have to be done by changing attitudes although SALSUS suggests that both family attitudes towards smoking and adolescent smokers' attitudes have not changed radically. It also suggests that more remains to be done to tackle common misconceptions held by many adolescents that smoking helps people cope with the stresses and strains of everyday life. Nevertheless, there has for many years been a steady increase in the proportion of pupils choosing never to smoke.

Reducing smoking prevalence further may require targeting the social contexts and meanings of smoking and the kinds of activities popular with regular smokers. Promoting the benefits of sports and activities to bolster and protect mental wellbeing (particularly for girls) will have wider health and social benefits for young people, as will tackling deprivation and adult smoking.

This report demonstrates the value of the combined SALSUS time series data-set in improving our understanding of the health behaviours of young people in Scotland, identifying factors which have been consistently associated with smoking and where there have been changes, including ones which have followed significant policy measures. It provides a useful example of how analysis can be undertaken with the dataset.

APPENDIX A – EXPLANATORY NOTES AND BASES

A.1 NOTES TO AID INTERPRETATION

The combined SALSUS dataset provides a unique opportunity to investigate trends in tobacco use over a substantial period of time. All statistical analyses for this report were carried out using SPSS v16.0.1[41] with the SPSS Regression Models package to enable logistic regression to be utilised. Graphs were produced using R version 3.1.2[42] and RStudio version 0.98.1103,[43] using the ggplot2 package,[44] although no additional analyses were carried out in R. The majority of the work is descriptive with frequencies and crosstabs. Statistical analyses were carried out as part of the logistic regression.

Most of the report discusses questions which have been asked for at least 3 years - including in the 2013 survey. Any exceptions to this are noted. The majority of data presented is for 15 year olds only, since the small sample size of 13 year old regular smokers precludes meaningful analysis.

A core set of questions has remained constant throughout the entire run of the survey.[45] Others have only been asked in certain years or have had variations in the wording of question or in what answer options were available for the question - for example, one year a child might be asked if a statement was true or false, in another they would be asked if they agreed or disagreed with it. There also may have been issues in how missing/not applicable responses were handled from year to year.

If the changes to the wording or format of a question was thought to impact the responses significantly, the answers were split into separate variables but kept in the data-set for use. A full explanation of how each variable was handled can be found in the user guide for this data set[46] and possible sources of variation between years are noted in this report.

The sample size of the survey has varied over time. Until 1998, the sample size was between 2,000 and 3,000 interviews per wave. This increased to 3,538 and

[41] SPSS Inc., SPSS for Windows, Version 16.0.1, Chicago, 2007

[42] R Development Core Team (2011), R*: A Language and Environment for Statistical Computing. Vienna, Austria : the R Foundation for Statistical Computing* - https://www.r-project.org/

[43] RStudio Team, RStudio: Integrated Development for R, Boston, MA: RStudio Inc., 2015

[44] H. Wickham, ggplot2: elegant graphics for data analysis, New York: Springer, 2009.

[45] The 2013 questionnaire and changes in the questionnaire changes for 2010-2013 are available at: http://www.isdscotland.org/Health-Topics/Public-Health/SALSUS/Latest-Report/

[46] http://www.gov.scot/Topics/Research/by-topic/health-community-care/social-research/SALSUS/SALSUSuserguide

4,774 in 2000. In 2002, to allow robust estimates at sub-Scotland level, the sample size was increased to 23,090. This was followed by sample sizes at similar levels in 2006 and 2010, with smaller samples in 2004 and 2008. There was no survey undertaken in 2012 and the 2013 wave was designed as a large rather than small wave, with a sample size of 33,685. The 2015 survey (currently in the field) is also a large wave.

The different sample sizes are taken into account in this analysis and bases noted where appropriate. The small sample sizes pre-2002 and in 2004/2008 mean only national estimates are possible – for sub-Scotland analysis and where the sample sizes are too small to obtain reliable figures, these data-points have been removed. Bases may vary from question to question due to questions not being answered by all respondents – e.g. some respondents did not say which gender they were, hence the total number of boys and girls does not equal the total number of responses. Total percentages may not always add up to 100% due to rounding.

A final note is that in 2002 and 2004, the questionnaire was answered by pupils in spring rather than autumn, meaning that pupils those years were on average 6 months older than in other years. As age is a key factor in smoking prevalence, this should be taken into account when viewing figures from those years.

A.2 BASES[47]

Table A.1 – Bases for smoking status of 13 and 15 year olds

Year	13 Year Old	15 Year Old
1900	667	660
1992	737	630
1994	691	641
1996	622	594
1998	620	1116
2000	1207	1163
2002	12094	10219
2004	3469	3335
2006	11647	11072
2008	5327	4642
2010	19046	17772
2013	17085	16083

Table A.2 – Bases for smoking of 13 and 15 year olds of each gender

Year	13 Year Old		15 Year Old	
	Boys	Girls	Boys	Girls
1900	324	343	343	317
1992	386	351	295	334
1994	349	342	311	330
1996	317	305	318	276
1998	306	314	562	554
2000	625	582	593	570
2002	5948	6146	5145	5074
2004	1783	1686	1646	1689
2006	5797	5774	5599	5410
2008	2631	2683	2296	2329
2010	9610	9394	9016	8685
2013	8515	8545	8083	7970

[47] All bases are un-weighted and, unless otherwise stated, refer to 15 year old respondents.

Table A.3 – Bases for parent(s), sibling(s), boy/girlfriend and best friend daily smoking

Relation that smokes daily	Classification	2002	2004	2006	2008	2010	2013
Parent(s)	All	10446	3402	11179	4630	17708	16066
	Regular	1988	627	1656	680	2274	1334
	Occasional	635	212	641	273	1152	706
	Non-smoker	7401	2438	8681	3649	14118	13824
Sibling(s)	All	7513	2400	7827	3311	12720	11743
	Regular	1432	463	1228	517	1674	976
	Occasional	445	152	442	205	776	476
	Non-smoker	5361	1700	6031	2579	10170	10169
Boy/girlfriend	All			5187	2168	8091	6363
	Regular			1076	462	1301	714
	Occasional			402	174	633	350
	Non-smoker			3612	1528	6082	5217
Best friend	All	9779	3113	10036	4228	16060	14448
	Regular	1937	612	1619	667	2205	1280
	Occasional	612	251	597	218	842	519
	Non-smoker	6856	2189	7640	3287	12648	12338

Table A.4 – Bases for smoking knowledge and attitudes statements

Statement	Classification	1994	1996	1998	2006	2008	2010
Smoking makes your clothes smell	Regular Smoker	134	172	271	1637	667	2265
	Occasional Smoker	48	53	85	641	265	1137
	Non-Smoker	458	369	750	8653	3577	14105
Smokers are more fun than non-smokers	Regular Smoker	130	169	265	1617	669	2240
	Occasional Smoker	48	52	85	629	262	1135
	Non-Smoker	456	368	748	8600	3568	14021
Smoking can cause lung cancer	Regular Smoker	134	172	273	1636	664	2265
	Occasional Smoker	48	53	85	639	266	1143
	Non-Smoker	457	369	749	8665	3582	14101

Statement	Classification	1994	1996	1998	2006	2008	2010
Smoking gives people confidence	Regular Smoker	132	169	273	1634	669	2242
	Occasional Smoker	47	53	84	635	261	1140
	Non-Smoker	453	367	744	8600	3551	14013
Smoking makes people worse at sport	Regular Smoker	134	171	272	1636	669	2261
	Occasional Smoker	48	53	85	640	265	1149
	Non-Smoker	458	369	749	8656	3575	14099
Smokers stay slimmer than non-smokers	Regular Smoker	130	168	270	1620	662	2238
	Occasional Smoker	46	52	85	634	261	1134
	Non-Smoker	453	366	739	8558	3544	13996
If a woman smokes when she is pregnant, it can harm her unborn baby	Regular Smoker	134	172	275	1641	665	2260
	Occasional Smoker	48	53	85	642	266	1151
	Non-Smoker	457	369	751	8670	3569	14112
Smoking helps people relax if they feel nervous	Regular Smoker	132	170	275	1632	670	2260
	Occasional Smoker	48	53	85	640	264	1145
	Non-Smoker	452	368	744	8598	3565	14032
Smoking can cause heart disease	Regular Smoker	134	171	273	1629	667	2257
	Occasional Smoker	48	53	85	638	260	1141
	Non-Smoker	453	369	750	8629	3559	14060
Smoking is not really dangerous, it only harms people who smoke a lot	Regular Smoker	133	171	274	1634	667	2257
	Occasional Smoker	48	53	85	636	263	1142
	Non-Smoker	457	369	749	8638	3576	14054
Smokers get more coughs and colds than non-smokers	Regular Smoker	134	169	268	1627	669	2250
	Occasional Smoker	58	52	84	634	264	1143
	Non-Smoker	452	366	745	8604	3560	14027
Other people's smoking can harm the health of non-smokers	Regular Smoker	134	170	272	1639	668	2256
	Occasional Smoker	46	50	82	613	250	1052
	Non-Smoker	455	369	748	8657	3570	14072
Smoking helps people cope better with life	Regular Smoker	131	167	269	1619	663	2238
	Occasional Smoker	48	53	84	633	261	1136
	Non-Smoker	455	367	743	8601	3559	14000

Table A.5 – Bases for parental knowledge of child's activities

Mother's Knowledge	Father's Knowledge	Gender	2002	2004	2006	2008	2010	2013
Below Median	Below Median	Male	1261	419	1367	524	1944	2452
		Female	1161	414	1466	570	2356	2057
	At Median	Male	321	94	227	158	373	550
		Female	167	108	294	105	363	317
	Above Median	Male	459	69	228	187	362	318
		Female	259	165	518	106	461	388
At median	Below Median	Male	210	102	354	81	539	358
		Female	318	90	265	112	536	543
	At Median	Male	87	43	127	46	211	254
		Female	106	33	98	78	226	197
	Above Median	Male	442	73	358	215	593	703
		Female	259	131	453	136	553	534
Above median	Below Median	Male	333	141	513	80	756	431
		Female	568	119	369	162	827	668
	At Median	Male	103	66	195	20	298	197
		Female	166	27	81	57	273	238
	Above Median	Male	1385	440	1499	494	2787	1574
		Female	1565	381	1229	525	2077	2077

Table A.6 – Bases for club/group attendance: regular smoking in those who attended or not

Club/group	Attended?	2006	2008	2010	2013
Youth group	Yes	2716	1024	4110	3217
	No	7611	3618	12839	12155
Drama, arts, music or singing group	Yes	2042	855	3284	3056
	No	8285	3787	13665	12316
Sports club, gyms, exercise or dance groups	Yes	5764	2537	9669	9309
	No	4563	2105	7280	6063
Computer clubs/groups	Yes	297	132	469	520
	No	10030	4510	16480	14852
None of these	Yes	7561	3523	12738	11980
	No	2766	1119	4211	3392

Table A.7 – Bases for excluded – change over time (left) and smoking status if excluded or not (right)

Graph	Category	2000	2002	2004	2006	2010	2013
Left	Regular	245	1805	591	1499	2054	1197
	Occasional	85	613	203	619	1083	668
	Non-Smoker	830	7266	2430	8405	13689	13463
Right	Yes	163	1073	401	1318	1365	802
	No	740	8611	2797	10070	14983	13803

Table A.8 – Bases for leisure activities: changes in proportion of respondents doing activities weekly between 2002 and 2013

Activity	2002	2004	2006	2008	2010	2013
See your friends	10095	3338	10549	4495	17242	15656
Listen to music	10096	3348	10536	4498	17250	15661
Look around the shops	10082	3329	10438	4479	17196	15632
Read comics or magazines	10069	3334	10428	4478	17193	15586
Read books	10045	3333	10366	4468	17163	15566
Go to watch sports matches	10057	3328	10399	4461	17161	15562
Go to the cinema	10053	3329	10390	4467	17157	15578
Hang around the street	10061	3334	10389	4465	17130	15537
Do a hobby, art or play a musical instrument	10045	3324	10365	4450	17119	15524
Go to a friend's house	10065	3332	10464	4465	17167	15575
Go to concerts or gigs	10047	3324	10366	4459	17126	15548
Go to the church, mosque or temple	10033	3319	10368	4459	17121	15503
Do nothing	10014	3298	10137	4355	16692	15065
Watch films or DVDs			10484	4496	17216	15628
Play computer games			10448	4470	17205	15565
Do a sport e.g. football etc		3329	10432	4466	17174	15580
Help other people, do voluntary work			10359	4446	17078	15481
Go online and use social networking sites (e.g. Facebook, Twitter)						15670
Go to a public library						15540
Go to a museum or gallery						15534
Go to theatres or concert halls						15514

Table A.9 – Bases for smoking frequency in 15 year olds by local authority

Local Authority	2002	2006	2008	2010	2013
Aberdeen City	413	633	140	493	399
Aberdeenshire	410	529	114	1293	681
Angus	363	179	116	286	415
Argyll and Bute	108	399	126	270	260
Clackmannanshire	174		22	115	508
Dumfries and Galloway	356	282	128	509	359
Dundee City	362	259	94	456	427
East Ayrshire	303	302	24	333	540
East Dunbartonshire	329	128	30	857	533
East Lothian	208	502	285	277	324
East Renfrewshire	342	385	56	416	797
Edinburgh City	538	531	235	1299	811
Eilean Saar		97	49	294	149
Falkirk	200	388	136	331	601
Fife	813	324	377	1081	804
Glasgow City	675	534	470	1024	1662
Highland	453	650	253	743	656
Inverclyde	219	490	103	287	175
Midlothian	271	228	45	542	318
Moray	302	244	69	293	395
North Ayrshire	212	269	160	412	443
North Lanarkshire	688	433	254	1160	791
Orkney	170	70	13	197	164
Perth and Kinross	305	485	134	359	297
Renfrewshire		266	206	652	79
Scottish Borders	345	281	89	338	672
Shetland	222	173	16	149	222
South Ayrshire	226	357	110	445	270
South Lanarkshire	511	568	347	1259	1087
Stirling	248	85	112	250	406
West Dunbartonshire	233	312	83	832	378
West Lothian	220	689	246	519	460
Scotland	10219	11072	4642	17772	16083

Table A.10 – Bases for smoking frequency in 15 year olds by health board

Local Authority	2002	2006	2008	2010	2013
Ayrshire and Arran	741	928	294	1190	1253
Dumfries and Galloway	356	282	128	509	359
Fife	813	324	377	1081	804
Forth Valley	622	473	270	696	1515
Grampian	1125	1406	323	2079	1475
Greater Glasgow and Clyde	1798	2115	948	4068	3624
Highland	561	1049	379	1013	916
Lanarkshire	1199	1001	601	2419	1878
Lothian	1237	1950	811	2637	1913
Orkney	170	70	13	197	164
Scottish Borders	345	281	89	338	672
Shetland	222	173	16	149	222
Tayside	1030	923	344	1101	1139
Eilean Siar	97	49	294	149	589
Scotland	10219	11072	4642	17772	16083

Table A.11 – Bases for Individual SDQ scores: regular smoker status in each banded score

SDQ Area	Banded Score	2006	2008	2010	2013
Emotional	Normal	8258	3595	13505	11033
	Borderline	674	330	1279	1354
	Abnormal	985	487	1876	2755
Conduct	Normal	6976	3217	12660	11829
	Borderline	1179	489	163	1425
	Abnormal	1773	708	2346	1910
Hyperactivity/ inattention	Normal	6459	2800	11108	10168
	Borderline	1310	589	2082	1981
	Abnormal	2129	1016	3459	2981
Peer Problems	Normal	8546	3896	14263	12097
	Borderline	1044	388	1795	2271
	Abnormal	321	124	601	779
Pro-social	Normal	6723	3100	11741	10942
	Borderline	1560	640	2429	2076
	Abnormal	1687	684	2520	2171

Table A.12 – Bases for regular smoking status range by SDQ score and gender

Gender	Banded Score	2006	2008	2010	2013
Male	Normal	3782	1654	6402	5651
	Borderline	665	274	1069	998
	Abnormal	415	210	763	827
Female	Normal	3462	1598	5895	4687
	Borderline	638	283	1003	1234
	Abnormal	583	243	1009	1413

Table A.13 – Bases for all deprivation graphs

Measure of Deprivation	Group Smoking	Category	2006	2008	2010	2013
SIMD	Child	1 – most deprived	1002	813	2390	2596
		2	1431	865	3817	2867
		3	1727	975	3770	3207
		4	1803	964	3727	3889
		5	1745	1025	4023	3524
	Parent(s)	1 – most deprived	1019	822	2418	2640
		2	1454	867	3856	2901
		3	1757	983	3802	3249
		4	1829	970	3753	3942
		5 – least deprived	1764	1029	4062	3556
Free school meals	Child	Yes	868	414	1713	1683
		No	9404	3962	14106	12598
	Parent(s)	Yes	886	415	1728	1706
		No	9550	3978	14226	12734
How well off would you say your family is?	Child	Very well off	1112	544	1499	1910
		Quite well off	4662	1904	6746	6175
		Average	4399	1863	7814	6721
		Not well off	439	192	831	707
		Not well off at all	99	39	202	165
	Parent(s)	Very well off	1140	545	1514	1930
		Quite well off	4722	1911	6806	6238
		Average	4472	1874	7881	6813
		Not well off	447	192	837	710
		Not well off at all	103	40	206	168

APPENDIX B – FULL DATA TABLES

Table B.1: Smoking status by age and gender over time

Age Group	Gender	Classification	1990	1992	1994	1996	1998	2000	2002	2004	2006	2008	2010	2013
S2	Male	Regular Smoker	5.6%	5.7%	6.6%	6.0%	6.9%	4.5%	6.0%	5.0%	3.2%	3.3%	2.8%	1.8%
		Occasional Smoker	4.3%	1.6%	3.4%	5.4%	3.3%	2.9%	2.9%	2.1%	1.7%	3.4%	2.7%	0.9%
		Non-Smoker	90.1%	92.7%	90.0%	88.6%	89.9%	92.6%	91.1%	92.9%	95.1%	93.4%	94.5%	97.3%
		Bases	*324*	*386*	*349*	*317*	*306*	*625*	*5948*	*1783*	*5797*	*2631*	*9610*	*8515*
	Female	Regular Smoker	7.6%	6.3%	6.4%	9.2%	8.6%	6.2%	9.2%	7.0%	4.5%	4.3%	3.2%	1.7%
		Occasional Smoker	6.4%	6.6%	7.3%	5.6%	8.0%	5.5%	5.4%	4.3%	3.7%	4.0%	3.0%	1.2%
		Non-Smoker	86.0%	87.2%	86.3%	85.2%	83.4%	88.3%	85.4%	88.7%	91.9%	91.7%	93.7%	97.1%
		Bases	*343*	*351*	*342*	*305*	*314*	*582*	*6146*	*1686*	*5774*	*2683*	*9394*	*8545*
S4	Male	Regular Smoker	22.2%	18.3%	17.7%	28.9%	21.9%	16.4%	15.7%	14.3%	12.6%	14.2%	11.4%	8.3%
		Occasional Smoker	6.7%	4.1%	5.1%	8.2%	5.9%	4.7%	5.0%	5.0%	4.1%	5.2%	5.5%	3.3%
		Non-Smoker	71.1%	77.6%	77.2%	62.9%	72.2%	78.9%	79.3%	80.7%	83.3%	80.6%	83.1%	88.4%
		Bases	*343*	*295*	*311*	*318*	*562*	*593*	*5145*	*1646*	*5599*	*2296*	*9016*	*8083*
	Female	Regular Smoker	24.6%	30.8%	23.9%	29.0%	27.6%	26.1%	23.5%	23.6%	18.2%	16.2%	14.0%	9.0%
		Occasional Smoker	6.9%	9.0%	9.7%	9.8%	9.7%	10.0%	6.9%	7.9%	7.0%	7.1%	7.4%	5.5%
		Non-Smoker	68.5%	60.2%	66.4%	61.2%	62.6%	63.9%	69.6%	68.5%	74.8%	76.7%	78.6%	85.5%
		Bases	*317*	*334*	*330*	*276*	*554*	*570*	*5074*	*1689*	*5410*	*2329*	*8685*	*7970*

Table B.2 - Smoking status by age group and gender over time - extended

Age Group	Gender	Classification	1990	1992	1994	1996	1998	2000	2002	2004	2006	2008	2010	2013
S2	Male	Smoker	9.9%	7.3%	10.0%	11.4%	10.1%	7.4%	8.9%	7.1%	4.9%	6.6%	5.5%	2.7%
		Used to smoke	11.4%	11.1%	9.7%	9.1%	10.8%	9.3%	9.7%	9.0%	5.8%	4.4%	3.5%	2.4%
		Tried once	21.0%	21.5%	20.1%	27.1%	25.2%	19.8%	19.9%	18.4%	14.6%	13.7%	11.4%	8.9%
		Never Smoked	57.7%	60.1%	60.2%	52.4%	53.9%	63.5%	61.5%	65.5%	74.7%	75.3%	79.6%	86.0%
		Bases	*324*	*386*	*349*	*317*	*306*	*625*	*5948*	*1783*	*5797*	*2631*	*9610*	*8515*
	Female	Smoker	14.0%	12.8%	13.7%	14.8%	16.6%	11.7%	14.6%	11.3%	8.1%	8.3%	6.3%	2.9%
		Used to smoke	11.7%	18.5%	13.7%	14.4%	16.9%	13.1%	13.7%	11.4%	7.6%	5.1%	4.1%	2.1%
		Tried once	18.1%	22.5%	19.0%	21.6%	24.8%	18.2%	18.7%	19.4%	15.3%	11.2%	10.6%	6.4%
		Never smoked	56.3%	46.2%	53.5%	49.2%	41.7%	57.0%	53.0%	57.8%	68.9%	75.3%	79.1%	88.6%
		Bases	*343*	*351*	*342*	*305*	*314*	*582*	*6146*	*1686*	*5774*	*2683*	*9394*	*8545*
S4	Male	Smoker	28.9%	22.4%	22.8%	37.1%	27.8%	21.1%	20.7%	19.3%	16.7%	19.4%	16.9%	11.6%
		Used to smoke	12.5%	14.2%	14.5%	9.1%	10.5%	11.6%	12.6%	10.4%	9.0%	7.5%	7.3%	5.9%
		Tried once	21.6%	27.8%	23.2%	18.9%	22.2%	20.7%	18.7%	20.6%	18.0%	18.0%	17.7%	13.6%
		Never smoked	37.0%	35.6%	39.5%	34.9%	39.5%	46.5%	48.1%	49.7%	56.3%	55.1%	58.0%	68.9%
		Bases	*343*	*295*	*311*	*318*	*562*	*593*	*5145*	*1646*	*5599*	*2296*	*9016*	*8083*
	Female	Smoker	31.5%	39.8%	33.6%	38.8%	37.4%	36.1%	30.4%	31.5%	25.2%	23.3%	21.4%	14.5%
		Used to smoke	15.1%	15.3%	13.6%	16.7%	19.3%	16.3%	16.8%	13.4%	12.9%	10.8%	8.9%	5.5%
		Tried once	18.9%	17.1%	20.6%	17.8%	17.5%	16.5%	18.1%	18.5%	17.6%	19.0%	17.6%	16.6%

	Never smoked	34.4%	27.8%	32.1%	26.8%	25.8%	31.1%	34.7%	36.6%	44.2%	46.9%	52.1%	63.3%
	Bases	*317*	*334*	*330*	*276*	*554*	*570*	*5074*	*1689*	*5410*	*2329*	*8685*	*7970*

Table B.3 - Purchasing behaviour: change over time for 13 year old regular smokers

Source Type	Source	1990	1992	1994	1996	1998	2000	2002	2004	2006	2008	2010	2013
Primary	Supermarket	6.8%	6.8%	13.3%	12.8%	6.3%	10.9%	13.3%	12.5%	9.7%	8.8%	11.8%	4.2%
	Newsagent, tobacconist or sweetshop	68.2%	52.3%	62.2%	57.4%	64.6%	53.1%	52.3%	52.9%	38.2%	30.6%	32.5%	8.0%
	Garage	22.7%	15.9%	20.0%	12.8%	12.5%	14.1%	17.1%	16.8%	9.9%	10.4%	8.9%	3.5%
	Van										19.8%	18.8%	7.0%
	Other Shop	13.6%	9.1%	17.8%	21.3%	10.4%	7.8%	14.1%	8.7%	9.4%	8.2%	9.6%	4.9%
	Machine	11.4%	11.4%	15.6%	21.3%	16.7%	15.6%	15.1%	13.0%	8.5%	12.6%	5.2%	
	Market									5.9%	7.7%	4.3%	3.1%
	Internet								1.0%	1.2%	1.1%	4.2%	3.1%
	Any primary source (full time series only)	79.5%	63.6%	66.7%	70.2%	68.8%	65.1%	63.1%	62.0%	55.3%	43.8%	46.3%	16.5%
	Any primary source (all)									57.4%	55.6%	52.3%	20.4%
Secondary	Buy from friends or relatives					16.7%	34.4%	20.8%	21.2%	22.6%	23.5%	18.6%	21.3%
	Buy from someone else					25.0%	18.8%	17.8%	19.2%	16.0%	25.3%	19.0%	11.9%
	Ask someone else under 18 to buy them for me											17.5%	10.8%
	Ask adult I know to buy them for me											22.0%	15.7%
	Ask adult I don't know to buy them for me											33.5%	18.8%
	Buy them from other people	18.2%	25.0%	31.1%	44.7%								

	Get them from friends	59.1%	47.7%	46.7%	46.8%	50.0%	50.0%	44.6%	42.8%	39.4%	45.4%	34.8%	39.2%
	Get them from brother or sister	6.8%	9.1%	11.1%	17.0%	16.7%	14.1%	13.3%	14.4%	12.3%	8.2%	11.7%	7.3%
	Get them from mother or father	.0%	4.5%	.0%	4.3%	4.2%	3.1%	5.4%	6.7%	6.8%	5.5%	10.5%	5.6%
	I take them	6.8%	9.1%	13.3%	8.5%	10.4%	10.9%	9.9%	10.6%	9.7%	12.6%	9.6%	14.7%
	Any secondary source (full time series only)	63.6%	50.0%	48.9%	53.2%	58.3%	54.0%	51.4%	52.4%	53.7%	54.8%	45.9%	55.7%
	Any secondary source (all)											78.3%	89.5%
	Other Way	6.8%	20.5%	13.3%	21.3%	14.6%	26.6%	21.8%	18.3%	11.3%	0.0%	2.0%	4.5%
	Bases	*44*	*44*	*45*	*47*	*48*	*64*	*943*	*208*	*471*	*208*	*587*	*319*

Table B.4 - Purchasing behaviour: change over time for 15 year old regular smokers

Source Type	Source	1990	1992	1994	1996	1998	2000	2002	2004	2006	2008	2010	2013
Primary	Supermarket	19.5%	15.3%	25.4%	29.7%	31.2%	24.8%	37.9%	28.7%	21.5%	11.5%	13.1%	7.0%
	Newsagent, tobacconist or sweetshop	87.0%	89.2%	86.6%	82.6%	84.8%	80.1%	86.7%	79.3%	74.5%	46.4%	45.4%	22.3%
	Garage	32.5%	38.9%	45.5%	48.8%	47.1%	39.8%	43.7%	33.4%	29.1%	12.5%	12.5%	3.2%
	Van										16.1%	15.1%	9.8%
	Other Shop	19.5%	18.5%	23.9%	25.0%	24.6%	21.1%	21.9%	14.8%	13.9%	6.7%	5.9%	4.3%
	Machine	21.4%	19.7%	27.6%	31.4%	26.4%	21.5%	18.0%	14.8%	9.7%	9.9%	5.5%	
	Market									4.0%	3.0%	2.7%	1.6%
	Internet								0.8%	0.8%	0.6%	1.6%	1.6%
	Any primary source (full time series only)	94.2%	91.1%	91.8%	88.4%	92.0%	90.2%	92.6%	86.0%	86.0%	57.6%	54.2%	32.6%
	Any primary source (all)									86.7%	65.1%	58.7%	37.9%

Secondary	**Buy from friends or relatives**					**26.4%**	**17.1%**	**14.7%**	**13.6%**	**18.0%**	**23.1%**	**19.8%**	**17.8%**
	Buy from someone else					**12.7%**	**9.8%**	**9.5%**	**10.3%**	**11.1%**	**19.0%**	**15.1%**	**11.6%**
	Ask someone else under 18 to buy them for me											**16.3%**	**11.7%**
	Ask adult I know to buy them for me											**31.9%**	**31.7%**
	Ask adult I don't know to buy them for me											**29.8%**	**26.9%**
	Buy them from other people	**22.1%**	**17.8%**	**16.4%**	**21.5%**								
	Get them from friends	**52.6%**	**56.1%**	**52.2%**	**54.7%**	**53.6%**	**42.7%**	**40.7%**	**38.3%**	**36.6%**	**42.5%**	**37.2%**	**36.8%**
	Get them from brother or sister	**13.0%**	**14.0%**	**17.9%**	**15.1%**	**15.6%**	**12.2%**	**12.3%**	**9.0%**	**10.3%**	**12.5%**	**13.0%**	**7.8%**
	Get them from mother or father	**7.1%**	**5.1%**	**6.0%**	**7.6%**	**6.5%**	**10.6%**	**8.3%**	**9.0%**	**8.2%**	**8.0%**	**10.1%**	**8.6%**
	I take them	**3.9%**	**2.5%**	**3.0%**	**8.7%**	**5.8%**	**3.7%**	**4.7%**	**4.7%**	**3.9%**	**6.7%**	**7.5%**	**8.8%**
	Any secondary source (full time series only)	**58.4%**	**60.5%**	**58.2%**	**60.5%**	**60.1%**	**51.0%**	**47.7%**	**45.9%**	**45.9%**	**51.1%**	**47.8%**	**47.7%**
	Any secondary source (all)											**78.0%**	**82.7%**
	Other Way	**1.3%**	**7.0%**	**3.0%**	**8.7%**	**8.7%**	**9.8%**	**6.3%**	**5.7%**	**4.7%**	**1.4%**	**1.5%**	**1.4%**
	Bases	***154***	***157***	***134***	***172***	***276***	***246***	***2006***	***634***	***1667***	***685***	***2292***	***1362***

Table B.5 - Smoking knowledge and attitudes: 15 year olds responding true (1994-1998) or agree (2006-2010) to statement

Statement	Classification	1994	1996	1998	2006	2008	2010
Smoking gives people confidence	Regular Smoker	17.4%	23.1%	24.5%	25.7%	29.2%	31.0%
	Occasional Smoker	36.2%	26.4%	31.0%	24.6%	28.2%	33.7%
	Non-Smoker	21.2%	18.5%	19.8%	17.7%	18.6%	20.3%
Smoking makes people worse at sport	Regular Smoker	76.1%	79.5%	78.3%	76.2%	76.8%	75.1%
	Occasional Smoker	85.4%	90.6%	75.3%	83.8%	71.5%	79.9%
	Non-Smoker	83.6%	84.8%	84.1%	90.3%	88.9%	87.0%
Smokers stay slimmer than non-smokers	Regular Smoker	33.1%	35.1%	32.2%	35.3%	39.7%	39.0%
	Occasional Smoker	28.3%	34.6%	34.1%	34.2%	39.5%	38.0%
	Non-Smoker	26.5%	21.9%	25.8%	30.7%	27.2%	30.7%
If a woman smokes when she is pregnant, it can harm her unborn baby	Regular Smoker	95.5%	93.6%	95.3%	94.4%	91.1%	91.0%
	Occasional Smoker	95.8%	100.0%	95.3%	96.9%	94.1%	93.6%
	Non-Smoker	95.6%	97.3%	97.6%	97.4%	96.6%	97.0%
Smoking helps people relax if they feel nervous	Regular Smoker	85.6%	91.8%	90.9%	89.5%	90.4%	91.6%
	Occasional Smoker	85.4%	81.1%	88.2%	83.8%	85.8%	84.7%
	Non-Smoker	67.5%	64.4%	71.8%	67.1%	65.1%	68.0%
Smoking can cause heart disease	Regular Smoker	91.0%	93.6%	91.6%	89.8%	88.6%	87.5%
	Occasional Smoker	91.7%	92.5%	91.8%	92.1%	92.7%	86.1%
	Non-Smoker	90.7%	92.4%	89.3%	93.2%	91.1%	90.6%
Smoking is not really dangerous, it only harms people who smoke a lot	Regular Smoker	18.0%	18.7%	15.0%	25.8%	30.4%	35.6%
	Occasional Smoker	10.4%	18.9%	20.0%	32.6%	35.0%	39.4%
	Non-Smoker	10.7%	10.0%	11.9%	11.4%	11.9%	15.8%
Smokers get more coughs and colds than non-smokers	Regular Smoker	76.1%	76.3%	78.0%	75.1%	74.8%	75.1%
	Occasional Smoker	79.2%	86.5%	69.0%	75.0%	73.9%	77.7%
	Non-Smoker	83.8%	80.3%	80.5%	82.7%	84.8%	84.9%
Other people's smoking can harm the health of non-smokers	Regular Smoker	92.5%	93.5%	94.1%	93.2%	91.2%	90.5%
	Occasional Smoker	95.8%	96.2%	96.5%	94.6%	94.4%	91.9%
	Non-Smoker	97.4%	94.6%	95.5%	97.1%	96.8%	95.9%
Smoking helps people cope better with life	Regular Smoker	17.6%	21.0%	22.7%	34.8%	40.3%	40.4%
	Occasional Smoker	18.8%	9.4%	16.7%	27.4%	26.9%	30.1%
	Non-Smoker	10.8%	7.4%	11.2%	11.4%	12.5%	13.8%

Statement	Classification	1994	1996	1998	2006	2008	2010
Smoking makes your clothes smell	Regular Smoker	97.0%	96.5%	96.3%	93.9%	93.3%	93.7%
	Occasional Smoker	95.8%	96.2%	98.8%	95.7%	94.7%	96.8%
	Non-Smoker	98.3%	99.2%	98.3%	98.4%	98.2%	97.7%
Smokers are more fun than non-smokers	Regular Smoker	5.4%	9.5%	11.3%	17.3%	18.7%	19.5%
	Occasional Smoker	2.1%	1.9%	4.7%	6.1%	8.3%	11.4%
	Non-Smoker	1.1%	1.1%	1.1%	2.0%	2.6%	2.8%
Smoking can cause lung cancer	Regular Smoker	100.0%	98.8%	98.5%	96.8%	95.9%	96.1%
	Occasional Smoker	97.9%	100.0%	98.8%	98.1%	97.4%	97.4%
	Non-Smoker	98.7%	99.2%	98.3%	98.9%	98.5%	98.8%

Table B.6 - Parental knowledge: 15 year olds regularly smoking by gender

Mother's Knowledge	Father's Knowledge	Gender	2002	2004	2006	2008	2010	2013
Below Median	Below Median	Male	22.0%	20.5%	15.6%	19.8%	18.3%	10.7%
		Female	37.1%	30.2%	25.2%	22.6%	21.7%	16.7%
	At Median	Male	18.1%	14.9%	9.3%	13.3%	8.8%	4.9%
		Female	28.1%	25.9%	18.4%	16.2%	17.6%	7.3%
	Above Median	Male	18.5%	20.3%	17.1%	12.3%	15.5%	14.5%
		Female	31.3%	23.6%	22.0%	17.0%	19.7%	10.6%
At median	Below Median	Male	14.3%	11.8%	12.7%	8.6%	8.2%	6.3%
		Female	20.8%	23.3%	18.5%	15.2%	12.1%	5.3%
	At Median	Male	8.0%	9.3%	6.3%	6.5%	6.2%	1.2%
		Female	12.3%	27.3%	6.1%	10.3%	8.8%	3.0%
	Above Median	Male	14.5%	13.7%	10.1%	5.1%	8.1%	3.4%
		Female	21.6%	14.5%	12.1%	11.0%	9.8%	4.1%
Above median	Below Median	Male	15.6%	11.3%	11.5%	6.2%	11.1%	9.0%
		Female	22.5%	22.7%	15.7%	15.4%	11.6%	6.1%
	At Median	Male	7.8%	4.5%	5.6%	0%	5.0%	1.5%
		Female	22.3%	18.5%	9.9%	8.8%	6.2%	2.9%
	Above Median	Male	7.4%	8.4%	5.9%	6.3%	6.7%	3.6%
		Female	12.3%	13.4%	6.5%	3.0%	3.9%	2.3%

Table B.7 - Leisure activities: change over time

Activity	Frequency	2002	2004	2006	2008	2010	2013
See your friends	Every day	37.1%	28.5%	33.3%	28.5%	36.9%	20.9%
	Most days	43.8%	50.1%	46.0%	49.2%	40.0%	44.4%
	Weekly	12.8%	14.5%	13.5%	15.3%	15.1%	19.8%
	Less Often	5.5%	6.1%	6.2%	6.1%	6.7%	12.9%
	Never	5.5%	6.1%	6.2%	6.1%	6.7%	12.9%
Listen to music	Every day	65.2%	62.7%	65.6%	67.9%	72.7%	66.7%
	Most days	25.1%	27.6%	25.7%	23.6%	19.7%	23.7%
	Weekly	5.2%	4.3%	4.0%	3.5%	3.6%	4.2%
	Less Often	3.4%	4.3%	3.6%	3.8%	2.9%	4.1%
	Never	1.0%	1.1%	1.1%	1.1%	1.0%	1.4%
Look around the shops	Every day	6.4%	6.2%	5.6%	5.1%	6.0%	5.7%
	Most days	18.8%	21.2%	17.5%	17.1%	16.2%	15.6%
	Weekly	45.7%	45.2%	45.0%	45.9%	44.2%	39.8%
	Less Often	26.1%	24.6%	27.1%	27.8%	29.6%	33.4%
	Never	3.0%	2.7%	4.8%	4.1%	4.0%	5.6%
Read comics or magazines	Every day	7.1%	8.0%	6.2%	5.3%	5.7%	4.1%
	Most days	18.8%	22.0%	15.5%	14.4%	12.4%	7.8%
	Weekly	25.5%	23.8%	22.7%	23.0%	21.2%	13.9%
	Less Often	35.2%	35.5%	35.8%	38.7%	37.1%	39.4%
	Never	13.4%	10.7%	19.8%	18.6%	23.5%	34.9%
Read books	Every day	7.2%	8.2%	8.4%	8.4%	9.1%	10.1%
	Most days	12.9%	14.2%	13.1%	14.6%	14.2%	13.7%
	Weekly	13.4%	10.6%	11.8%	12.6%	12.9%	13.0%
	Less Often	35.7%	36.0%	33.3%	33.7%	31.5%	31.0%
	Never	30.8%	31.0%	33.4%	30.7%	32.4%	32.2%

Activity	Frequency	2002	2004	2006	2008	2010	2013
Go to watch sports matches	Every day	3.1%	3.8%	4.7%	4.5%	4.8%	5.2%
	Most days	8.0%	7.8%	8.9%	7.3%	7.7%	8.4%
	Weekly	19.9%	18.7%	18.8%	19.2%	17.1%	16.2%
	Less Often	32.7%	33.9%	32.4%	32.5%	30.7%	29.5%
	Never	36.2%	35.8%	35.1%	36.5%	39.6%	40.6%
Go to the cinema	Every day	1.6%	1.6%	2.2%	1.7%	2.2%	1.9%
	Most days	5.1%	6.7%	5.6%	5.4%	4.8%	4.3%
	Weekly	25.5%	28.4%	24.4%	26.2%	25.9%	19.2%
	Less Often	60.2%	57.6%	61.8%	61.5%	60.8%	66.9%
	Never	7.7%	5.7%	6.0%	5.1%	6.3%	7.8%
Hang around the street	Every day	13.6%	12.4%	15.1%	10.7%	10.4%	6.5%
	Most days	22.2%	24.7%	23.8%	22.6%	18.4%	13.3%
	Weekly	17.3%	15.3%	17.8%	17.4%	17.6%	13.6%
	Less Often	25.1%	27.2%	24.5%	27.7%	29.0%	32.0%
	Never	21.8%	20.4%	18.8%	21.5%	24.7%	34.7%
Do a hobby, art or musical instrument	Every day	17.9%	19.2%	19.4%	17.7%	18.9%	18.3%
	Most days	22.2%	21.6%	19.3%	18.7%	19.2%	19.3%
	Weekly	17.4%	16.6%	14.7%	14.4%	15.5%	14.8%
	Less Often	14.8%	16.6%	16.0%	17.9%	17.8%	17.7%
	Never	27.7%	26.0%	30.7%	31.2%	28.5%	29.9%
Go to a friend's house	Every day	15.6%	13.0%	11.9%	9.8%	12.2%	9.0%
	Most days	39.3%	41.4%	39.7%	36.3%	33.8%	28.7%
	Weekly	30.5%	29.3%	31.4%	35.3%	32.9%	31.7%
	Less Often	12.2%	14.4%	14.5%	15.7%	17.8%	25.4%
	Never	2.4%	1.8%	2.6%	2.9%	3.4%	5.1%

Activity	Frequency	2002	2004	2006	2008	2010	2013
Go to concerts or gigs	Every day	1.3%	1.4%	1.6%	1.1%	1.9%	1.7%
	Most days	2.4%	2.5%	2.5%	2.5%	2.5%	2.0%
	Weekly	5.9%	6.0%	7.1%	6.5%	6.8%	5.0%
	Less Often	54.2%	56.9%	51.6%	57.9%	55.3%	52.0%
	Never	36.1%	33.2%	37.2%	31.9%	33.5%	39.4%
Go to the church, mosque or temple	Every day	1.2%	1.1%	1.7%	1.0%	2.2%	1.6%
	Most days	1.4%	1.3%	1.5%	1.2%	1.2%	1.3%
	Weekly	8.6%	8.5%	9.2%	8.3%	8.8%	8.3%
	Less Often	9.2%	11.2%	10.4%	11.7%	11.2%	12.3%
	Never	79.6%	78.0%	77.1%	77.9%	76.5%	76.4%
Do nothing	Every day	8.8%	8.7%	3.9%	3.0%	4.1%	5.9%
	Most days	15.2%	15.7%	5.2%	4.3%	5.7%	9.1%
	Weekly	14.4%	12.8%	6.5%	4.9%	7.1%	10.0%
	Less Often	28.6%	32.0%	20.4%	20.7%	22.3%	22.7%
	Never	33.0%	30.7%	63.9%	67.0%	60.8%	52.3%
Watch films or DVDs	Every day			18.8%	19.7%	20.6%	21.6%
	Most days			32.4%	30.8%	30.4%	33.0%
	Weekly			28.0%	29.9%	29.9%	26.4%
	Less Often			19.2%	18.3%	17.7%	17.4%
	Never			1.6%	1.3%	1.4%	1.6%
Play computer games	Every day			19.6%	20.1%	23.8%	23.3%
	Most days			25.7%	24.7%	23.0%	22.2%
	Weekly			15.5%	14.0%	12.7%	10.6%
	Less Often			24.3%	24.3%	24.0%	23.4%
	Never			14.9%	17.0%	16.4%	20.5%
Do a sport e.g. football etc.	Every day		16.6%	17.9%	16.4%	17.6%	18.0%
	Most days		24.5%	26.7%	26.2%	23.8%	23.4%
	Weekly		20.4%	21.5%	21.3%	20.5%	18.6%
	Less Often		20.8%	18.9%	19.1%	19.5%	19.5%
	Never		17.8%	15.1%	17.1%	18.5%	20.5%

Activity	Frequency	2002	2004	2006	2008	2010	2013
Help other people, do voluntary work	Every day			2.0%	1.3%	2.0%	2.0%
	Most days			2.6%	2.1%	2.9%	3.6%
	Weekly			7.5%	8.3%	9.8%	14.0%
	Less Often			22.2%	21.6%	22.7%	23.5%
	Never			65.7%	66.7%	62.6%	56.8%
Go online and use social networking sites (e.g. Facebook, Twitter)	Every day						67.6%
	Most days						18.2%
	Weekly						4.5%
	Less Often						4.9%
	Never						4.9%
Go to a public library	Every day						1.3%
	Most days						1.6%
	Weekly						3.6%
	Less Often						19.9%
	Never						73.7%
Go to a museum or gallery	Every day						1.1%
	Most days						1.0%
	Weekly						2.1%
	Less Often						26.7%
	Never						69.1%
Go to theatres or concert halls	Every day						1.2%
	Most days						1.2%
	Weekly						3.1%
	Less Often						29.5%
	Never						65.0%

APPENDIX C – LOGISTIC REGRESSION

Table C.1 shows a selection of outputs from the logistic regression model of factors associated with regular smoking. The first two columns indicate the different predictor factors included in the model. All variables have been treated as categorical variables.

Significance values are shown in column 'Sig.' Significance was determined at $p < 0.05$. Beta indicates the direction of the effect compared to the first category (the reference category) in that variable – a positive value indicates that respondents in that category are more likely to regularly smoke than those in the first and vice versa.

Exp(B) gives the odds ratio, indicating the size of the effect. The further above 1 the value is, the greater the increase in likelihood of regularly smoking. The further below 1, the greater the decrease in likelihood of regularly smoking. A value of 1 means that a factor has no effect.

Table C.1: Logistic regression model of regularly smoking versus not regularly smoking among 15 year olds

		Beta	S.E of Beta	Sig.	Exp(B)
Gender of respondent	Male				
	Female	-0.29	0.14	**0.03**	0.75
SIMD quintiles	1 – most deprived quintile			0.61	
	2	0.15	0.15	0.33	1.16
	3	-0.04	0.16	0.83	0.97
	4	0.03	0.16	0.86	1.03
	5 – least deprived quintile	0.16	0.16	0.32	1.18
Do you get free school meals, or vouchers for free school meals?	Yes			**0.02**	
	No	-0.38	0.14	**0.01**	0.69
	Don't Know	-0.26	0.21	0.21	0.77
Banded Strengths and Difficulties (SDQ) Score	Normal			0.08	
	Borderline	0.15	0.13	0.23	1.17
	Abnormal	0.42	0.13	**0.00**	1.52
Actively taken part in youth group(s)	No				
	Yes	0.19	0.14	0.18	1.21

		Beta	S.E of Beta	Sig.	Exp(B)
Actively taken part in drama, arts, music or singing group(s)	No				
	Yes	0.04	0.16	0.79	1.04
Actively taken part in sports group(s)	No				
	Yes	-0.18	0.16	0.26	0.83
Actively taken part in computer group(s)	No				
	Yes	0.15	0.28	0.60	1.16
Not actively taken part in any of these groups	No				
	Yes	0.14	0.18	0.44	1.15
Don't know if actively taken part in any of these groups	No				
	Yes	-0.00	0.29	0.99	1.00
How often do you see your friends?	At least weekly				
	Less than weekly	-0.27	0.24	0.26	0.77
How often do you listen to music?	At least weekly				
	Less than weekly	-0.21	0.28	0.44	0.81
How often do you look around the shops?	At least weekly				
	Less than weekly	0.21	0.12	0.05	1.24
How often do you read comics or magazines?	At least weekly				
	Less than weekly	0.00	0.12	0.99	1.00
How often do you read books?	At least weekly				
	Less than weekly	-0.04	0.12	0.76	0.96
How often do you go to watch sport matches?	At least weekly				
	Less than weekly	-0.15	0.12	0.22	0.86
How often do you go to the cinema?	At least weekly				
	Less than weekly	0.37	0.12	**0.00**	1.45
How often do you hang around the street?	At least weekly				
	Less than weekly	-1.00	0.11	**0.00**	0.37
How often do you do a hobby art or play a musical instrument?	At least weekly				
	Less than weekly	0.06	0.11	0.59	1.06
How often do you go to a friend's house?	At least weekly				
	Less than weekly	-0.42	0.17	**0.01**	0.66
How often do you go to concerts or gigs?	At least weekly				
	Less than weekly	-0.51	0.16	**0.00**	0.60

		Beta	S.E of Beta	Sig.	Exp(B)
How often do you go to the church, mosque or temple?	At least weekly				
	Less than weekly	-0.09	0.22	0.68	0.93
How often do you do nothing?	At least weekly				
	Less than weekly	0.06	0.11	0.58	1.07
How often do you watch a films or DVD?	At least weekly				
	Less than weekly	-0.29	0.14	**0.03**	0.75
How often do you play computer games?	At least weekly				
	Less than weekly	0.30	0.13	**0.01**	1.36
How often do you do a sport e.g. football?	At least weekly				
	Less than weekly	0.63	0.13	**0.00**	1.87
How often do you help other people, do voluntary work?	At least weekly				
	Less than weekly	0.30	0.16	0.06	1.35
How often do you go online and use social networking websites (e.g. Facebook, Twitter)?	At least weekly				
	Less than weekly	-0.45	0.24	0.06	0.64
How often do you go to a public library?	At least weekly				
	Less than weekly	0.10	0.26	0.70	1.11
How often do you go to a museum or gallery?	At least weekly				
	Less than weekly	-0.03	0.34	0.93	0.97
How often do you go to theatres or concert halls?	At least weekly				
	Less than weekly	-0.12	0.28	0.68	0.89
Family status	Single parent			**0.00**	
	Step parent (and one parent)	0.30	0.16	0.06	1.35
	Both parents	-0.18	0.12	0.14	0.85
	Other	0.26	0.24	0.28	1.29
Paternal knowledge of activities – banded	Below median			**0.00**	
	Median	-0.81	0.20	**0.00**	0.44
	Above median	-0.32	0.13	**0.03**	0.73
Maternal knowledge of activities - banded	Below median			**0.03**	
	Median	-0.22	0.15	0.13	0.80
	Above median	-0.35	0.14	**0.01**	0.70

		Beta	S.E of Beta	Sig.	Exp(B)
How well off would you say your family is?	Very well off			0.27	
	Quite well off	-0.11	0.16	0.49	0.90
	Average	-0.21	0.16	0.18	0.81
	Not well off	-0.52	0.25	**0.04**	0.60
	Not at all well off	-0.31	0.44	0.49	0.74
How many close friends would you say you have?	None			0.21	
	One	0.06	0.40	0.88	1.06
	Two or more	-0.30	0.35	0.39	0.74
Are your friends older, younger or about the same age as you?	Older than me			**0.00**	
	Younger than me	-1.15	0.49	**0.02**	0.32
	About the same age as me	-0.85	0.19	**0.00**	0.43
	Mixed ages	-0.16	0.19	0.40	0.85
	Don't know	0.73	0.70	0.30	2.07
Thinking about a typical a week, how many evenings do you spend out with friends	0-1 evenings			**0.00**	
	2-3 evenings	0.27	0.22	0.23	1.31
	4-5 evenings	0.79	0.23	**0.00**	2.19
	6-7 evenings	1.38	0.23	**0.00**	3.99
How much do you like school?	I like it a lot			0.19	
	I like it a bit	-0.10	0.18	0.58	0.91
	I don't like it very much	0.16	0.19	0.42	1.17
	I don't like it at all	0.09	0.21	0.68	1.09
How often do you feel strained or pressured by the school work you have to do?	Never			0.11	
	Sometimes	-0.16	0.18	0.37	0.85
	A lot of the time	0.07	0.19	0.72	1.07
During this school year/In the past school year, how many times did you skip or skive school?	None			**0.00**	
	1-3 times	0.66	0.13	**0.00**	1.94
	4-10 times	1.09	0.14	**0.00**	2.97
	More than 10 times	1.53	0.17	**0.00**	4.60
Ever been excluded since started secondary school?	No				
	Yes	0.71	0.13	**0.00**	2.04

		Beta	S.E of Beta	Sig.	Exp(B)
What do you think you are most likely to be doing when you leave school?	University			**0.00**	
	FE college	0.38	0.13	**0.00**	1.46
	Apprenticeship	0.86	0.18	**0.00**	2.36
	Working	0.36	0.18	**0.04**	1.44
	Other	0.30	0.16	0.06	1.35
Urban rural classification based on home postcode	Large urban areas			0.17	
	Other urban areas	0.25	0.12	**0.05**	1.28
	Small accessible towns	0.33	0.17	**0.05**	1.39
	Small remote towns	0.20	0.23	0.38	1.22
	Accessible rural	0.13	0.17	0.44	1.14
	Remote rural	0.45	0.20	**0.03**	1.56
Overall WEMWBS score banded into three categories	Below average mental wellbeing			0.43	
	Average mental wellbeing	-0.13	0.13	0.31	0.88
	Above average mental wellbeing	-0.27	0.22	0.22	0.77
Constant		-2.37	0.60	**0.00**	0.10

Table C.2 - Logistic regression model of regularly smoking versus not regularly smoking among 15 year old boys and girls separately

		GIRLS				BOYS			
		Beta	S.E of Beta	Sig.	Exp(B)	Beta	S.E of Beta	Sig.	Exp(B)
SIMD quintiles	1 – most deprived quintile			0.69				0.31	
	2	0.06	0.21	0.78	1.06	0.24	0.24	0.33	1.27
	3	-0.22	0.23	0.34	0.80	0.10	0.25	0.70	1.10
	4	-0.10	0.22	0.64	0.90	0.13	0.26	0.60	1.14
	5 – least deprived quintile	-0.17	0.24	0.46	0.84	0.49	0.25	0.05	1.63
Do you get free school meals, or vouchers for free school meals?	Yes			0.71				**0.00**	
	No	0.10	0.20	0.62	1.11	-0.81	0.21	**0.00**	0.45
	Don't Know	0.25	0.30	0.41	1.28	-0.83	0.31	**0.01**	0.44
Banded Strengths and Difficulties (SDQ) Score	Normal			**0.00**				0.48	
	Borderline	0.29	0.18	0.11	1.34	0.24	0.20	0.23	1.28
	Abnormal	0.74	0.19	**0.00**	2.09	0.13	0.22	0.54	1.14
Actively taken part in youth group(s)	No								
	Yes	0.14	0.21	0.50	1.15	0.25	0.21	0.24	1.28
Actively taken part in drama, arts, music or singing group(s)	No								
	Yes	0.25	0.20	0.21	1.29	-0.12	0.27	0.66	0.89
Actively taken part in sports group(s)	No								
	Yes	-0.12	0.23	0.60	0.89	-0.15	0.25	0.55	0.86

		GIRLS				BOYS			
		Beta	S.E of Beta	Sig.	Exp(B)	Beta	S.E of Beta	Sig.	Exp(B)
Actively taken part in computer group(s)	No								
	Yes	0.59	0.52	0.25	1.81	0.05	0.35	0.89	1.05
Not actively taken part in any of these groups	No								
	Yes	0.35	0.25	0.16	1.42	-0.02	0.29	0.96	0.98
Don't know if actively taken part in any of these groups	No								
	Yes	0.15	0.41	0.71	1.17	-0.10	0.46	0.82	0.90
How often do you see your friends?	At least weekly								
	Less than weekly	-0.29	0.32	0.37	0.75	-0.25	0.41	0.55	0.78
How often do you listen to music?	At least weekly								
	Less than weekly	0.23	0.42	0.59	1.26	-0.22	0.40	0.58	0.80
How often do you look around the shops?	At least weekly								
	Less than weekly	0.55	0.15	**0.00**	1.74	-0.06	0.17	0.73	0.94
How often do you read comics or magazines?	At least weekly								
	Less than weekly	-0.01	0.17	0.93	0.99	-0.03	0.20	0.88	0.97
How often do you read books?	At least weekly								
	Less than weekly	0.18	0.17	0.27	1.20	-0.38	0.19	0.05	0.69
How often do you go to watch sport matches?	At least weekly								
	Less than weekly	-0.19	0.21	0.36	0.83	-0.07	0.17	0.71	0.94
How often do you go to the cinema?	At least weekly								
	Less than weekly	0.37	0.18	**0.04**	1.45	0.45	0.18	**0.01**	1.57

		GIRLS				BOYS			
		Beta	S.E of Beta	Sig.	Exp(B)	Beta	S.E of Beta	Sig.	Exp(B)
How often do you hang around the street?	At least weekly								
	Less than weekly	-0.81	0.15	**0.00**	0.45	-1.17	0.18	**0.00**	0.31
How often do you do a hobby art or play a musical instrument?	At least weekly								
	Less than weekly	0.25	0.16	0.11	1.29	-0.14	0.16	0.38	0.87
How often do you go to a friend's house?	At least weekly								
	Less than weekly	-0.01	0.23	0.95	0.99	-0.87	0.26	**0.00**	0.42
How often do you go to concerts or gigs?	At least weekly								
	Less than weekly	-0.78	0.22	**0.00**	0.46	-0.24	0.24	0.31	0.78
How often do you go to the church, mosque or temple?	At least weekly								
	Less than weekly	0.14	0.32	0.66	1.15	-0.18	0.30	0.56	0.84
How often do you do nothing?	At least weekly								
	Less than weekly	0.05	0.15	0.77	1.05	0.32	0.19	0.08	1.38
How often do you watch films or DVDs?	At least weekly								
	Less than weekly	-0.17	0.18	0.35	0.84	-0.51	0.22	**0.02**	0.60
How often do you play computer games?	At least weekly								
	Less than weekly	0.02	0.15	0.89	1.02	0.62	0.20	**0.00**	1.87
How often do you do a sport e.g. football?	At least weekly								
	Less than weekly	0.48	0.18	**0.01**	1.62	0.91	0.20	**0.00**	2.49
How often do you help other people, do voluntary work?	At least weekly								
	Less than weekly	0.40	0.22	0.07	1.49	0.19	0.25	0.44	1.21

		GIRLS				BOYS			
		Beta	S.E of Beta	Sig.	Exp(B)	Beta	S.E of Beta	Sig.	Exp(B)
How often do you go online and use social networking websites (e.g. Facebook, Twitter)?	At least weekly								
	Less than weekly	0.08	0.36	0.83	1.08	-0.68	0.35	0.05	0.51
How often do you go to a public library?	At least weekly								
	Less than weekly	-0.19	0.42	0.66	0.83	0.57	0.38	0.13	1.76
How often do you go to a museum or gallery?	At least weekly								
	Less than weekly	1.05	0.80	0.18	2.87	0.23	0.48	0.63	1.26
How often do you go to theatres or concert halls?	At least weekly								
	Less than weekly	1.35	0.53	**0.01**	3.84	-1.24	0.42	**0.00**	0.29
Family status	Single parent			**0.03**				0.15	
	Step parent (and one parent)	0.18	0.21	0.39	1.20	0.42	0.26	0.10	1.52
	Both parents	-0.32	0.17	0.06	0.73	-0.01	0.19	0.96	0.99
	Other	0.17	0.33	0.60	1.19	0.51	0.36	0.16	1.66
Paternal knowledge of activities – banded	Below median			**0.00**				**0.01**	
	Median	-0.77	0.30	**0.01**	0.46	-0.89	0.29	**0.00**	0.41
	Above median	-0.47	0.19	**0.01**	0.63	-0.21	0.20	0.30	0.81
Maternal knowledge of activities - banded	Below median			0.08				0.15	
	Median	-0.32	0.21	0.12	0.72	-0.16	0.23	0.47	0.85
	Above median	-0.38	0.19	**0.04**	0.68	-0.42	0.22	0.05	0.65

		GIRLS				BOYS			
		Beta	S.E of Beta	Sig.	Exp(B)	Beta	S.E of Beta	Sig.	Exp(B)
How well off would you say your family is?	Very well off			**0.02**				0.67	
	Quite well off	-0.48	0.23	**0.04**	0.62	0.14	0.24	0.57	1.14
	Average	-0.44	0.22	0.05	0.64	-0.09	0.23	0.69	0.91
	Not well off	-1.08	0.34	**0.00**	0.34	0.19	0.38	0.62	1.21
	Not at all well off	-1.26	0.66	0.06	0.28	0.31	0.69	0.66	1.36
How many close friends would you say you have?	None			0.30				0.70	
	One	0.61	0.57	0.29	1.83	-0.19	0.67	0.78	0.83
	Two or more	0.18	0.51	0.73	1.20	-0.39	0.54	0.48	0.68
Are your friends older, younger or about the same age as you?	Older than me			**0.00**				**0.00**	
	Younger than me	-0.81	0.78	0.29	0.44	-1.47	0.67	**0.03**	0.23
	About the same age as me	-0.88	0.26	**0.00**	0.41	-0.72	0.31	**0.02**	0.49
	Mixed ages	-0.18	0.26	0.48	0.84	-0.04	0.31	0.90	0.96
	Don’t know	-18.03	13998.2	1.00	0.00	0.67	0.91	0.46	1.95
Thinking about a typical a week, how many evenings do you spend out with friends	0-1 evenings			**0.00**				**0.00**	
	2-3 evenings	0.83	0.30	**0.01**	2.29	-0.22	0.38	0.57	0.81
	4-5 evenings	0.88	0.32	**0.01**	2.41	0.91	0.37	**0.01**	2.49
	6-7 evenings	1.82	0.33	**0.00**	6.15	1.29	0.37	**0.00**	3.63

		GIRLS				BOYS			
		Beta	S.E of Beta	Sig.	Exp(B)	Beta	S.E of Beta	Sig.	Exp(B)
How much do you like school?	I like it a lot			0.68				**0.04**	
	I like it a bit	-0.31	0.28	0.28	0.74	-0.31	0.28	0.97	0.74
	I don't like it very much	-0.25	0.30	0.41	0.78	-0.25	0.30	0.08	0.78
	I don't like it at all	-0.36	0.32	0.26	0.70	-0.36	0.32	0.12	0.70
How often do you feel strained or pressured by the school work you have to do?	Never			0.92				**0.00**	
	Sometimes	0.08	0.34	0.82	1.08	0.08	0.34	0.20	1.08
	A lot of the time	0.02	0.34	0.95	1.02	0.02	0.34	0.29	1.02
During this school year/In the past school year, how many times did you skip or skive school?	None			**0.00**				**0.00**	
	1-3 times	0.77	0.17	**0.00**	2.17	0.77	0.17	**0.00**	2.17
	4-10 times	1.39	0.19	**0.00**	4.02	1.39	0.19	**0.00**	4.02
	More than 10 times	1.46	0.24	**0.00**	4.32	1.46	0.24	**0.00**	4.32
Ever been excluded since started secondary school?	No								
	Yes	0.64	0.20	**0.00**	1.89	0.64	0.20	**0.00**	1.89
What do you think you are most likely to be doing when you leave school?	University			**0.04**				**0.01**	
	FE college	0.48	0.16	**0.00**	1.62	0.48	0.16	0.13	1.62
	Apprenticeship	0.75	0.40	0.06	2.12	0.75	0.40	**0.00**	2.12
	Working	0.26	0.28	0.34	1.30	0.26	0.28	0.07	1.30
	Other	0.27	0.23	0.23	1.32	0.27	0.23	0.19	1.32

		GIRLS				BOYS			
		Beta	S.E of Beta	Sig.	Exp(B)	Beta	S.E of Beta	Sig.	Exp(B)
Urban rural classification based on home postcode	Large urban areas	0.00	0.00	**0.01**	0.00			0.32	
	Other urban areas	0.55	0.18	**0.00**	1.73	0.15	0.19	0.94	1.02
	Small accessible towns	0.68	0.23	**0.00**	1.97	0.00	0.26	0.99	1.01
	Small remote towns	0.75	0.30	**0.01**	2.11	-0.49	0.39	0.21	0.61
	Accessible rural	0.53	0.24	**0.03**	1.70	-0.26	0.25	0.30	0.77
	Remote rural	0.52	0.30	0.08	1.68	0.41	0.31	0.18	1.51
Overall WEMWBS score banded into three categories	Below average mental wellbeing	0.00	0.00	0.60	0.00			0.67	
	Average mental wellbeing	-0.11	0.16	0.50	0.90	-0.11	0.23	0.63	0.89
	Above average mental wellbeing	-0.38	0.41	0.35	0.68	-0.27	0.31	0.38	0.76
Constant		-6.17	1.25	**0.00**	0.00	-1.85	0.89	**0.04**	0.16

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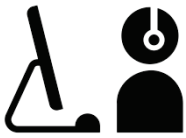

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ISBN 978-1-78544-990-1 (web only)

ISBN 978-1-78544-990-1 (web only)

APS Group Scotland, 21 Tennant Street, Edinburgh EH6 5NA
PPDAS64389 (01/16)