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HBSC is the Health Behaviour in School-Aged Children: WHO Collaborative Cross-National Study

How are Scotland's young people doing? A cross-national perspective on health-related risk

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Introduction

Scotland first participated in the *Health Behaviour in School-Aged Children (HBSC): a WHO Collaborative Cross-National Study* in 1986, along with 12 other countries. The most recent HBSC survey in 2001/2 was conducted in 35 countries, including Scotland.

HBSC makes a unique contribution to the study of young people's health through the collection of cross-national data in surveys conducted every four years using a common survey protocol. This allows the measurement and tracking of aspects of adolescent health and health-related behaviours and their developmental and social contexts.¹

The report *Young People's Health in Context* begins the international dissemination of findings from the 2001/2 HBSC survey of more than 160,000 young people.² Data from the 2001/2 survey profile health and health-related behaviours within and between countries. This information will contribute to an evidence base for policy making at local, national and international levels.

Based upon chapters in *Young People's Health in Context*, this Briefing Paper compares Scotland with other HBSC countries. The focus is on health-related risk, with particular reference to reports of: weekly smoking, drunkenness, cannabis use and condom use. It is recommended that readers consult the report in its entirety for both expanded details of results and pertinent literature.

Methods

In 2001/2, 35 countries drew national samples of 11, 13 and 15 year olds in accordance with the Study protocol.¹

In the main, fieldwork took place between the autumn of 2001 and the spring of 2002.² Approximately 1,500 respondents in each age group were targeted in every country. Pupils who were absent on the day of the survey were not followed up.

Data were collected by self-administered questionnaire. On completion of fieldwork, national data files were prepared using standard documentation and submitted to the HBSC International Data Bank at the University of Bergen, Norway. Data files were checked, cleaned and returned to countries for approval prior to their placement in the international file. Further details can be found in *Young People's Health in Context*.²

How are we doing?

Scotland in a cross-national perspective

Tobacco smoking

- ~ In 19 countries, including England, Scotland and Wales, reported rates of weekly smoking by girls exceeded those reported by boys.
- ~ In only five countries were reported rates of weekly smoking of 15 year old boys lower than those reported in Scotland (15.9%).
- ~ In 15 countries the reported rate of weekly smoking among 15 year old girls was lower than that reported in Scotland (23.2%).

Alcohol use

- ~ Across all HBSC countries, reports of being drunk on two or more occasions among 15 year olds ranged between 16.9% and 67.7% for boys and between 5.9% and 64.8% for girls.
- ~ Reports of being drunk on two or more occasions among 15 year olds in Scotland were higher than many other HBSC countries, 51.9% among boys and 51.8% among girls, and similar to proportions in England and Wales.

Cannabis use

- ~ In six countries including Scotland, reports by 15 year olds of heavy cannabis use (40 or more times a year) ranged from 5% to 10%. In Scotland, 6.6% of boys and 4.5% of girls reported this level of usage.
- ~ In 13 countries, reports by 15 year olds of more moderate use (3 to 39 times a year) ranged from 10% to 20%. In Scotland, 12.9% of boys and 13.4% of girls reported moderate use.

Condom use

- ~ Reports of condom use among 15 year olds the last time that they had sexual intercourse ranged from 69.6% to 91.2% among boys and between 57.6% and 89.1% among girls.
- ~ 80.2% of 15 year old boys and 69.9% of girls in Scotland reported that they or their partner used a condom the last time that they had sexual intercourse.

The final 2001/2 international data file is composed of data from: Austria, Belgium (Flemish and French speaking populations), Canada, Croatia, Czech Republic, Denmark, England, Estonia, Finland, France, Germany, Greece, Greenland, Hungary, Ireland, Israel, Italy, Latvia, Lithuania, FYR Macedonia, Malta, Netherlands, Norway, Poland, Portugal, Russia, Scotland, Slovenia, Spain, Sweden, Switzerland, Ukraine, the United States and Wales[‡].

Presentation of Cross-National Results

Results from the 2001/02 survey represent more than 160,000 young people. Respondents were distributed fairly evenly with respect to gender and age. The mean age within each age group was 11.6, 13.6 and 15.6 years.²

The sample in Scotland was nationally representative, drawn from mixed ability classes of both state and independent schools and yielded responses from 4,404 young people in Primary 7 (11 year olds), Secondary 2 (13 year olds) and Secondary 4 (15 year olds).

This Briefing Paper focuses on 15 year olds, although data on 11 and 13 year olds are presented. Comparisons are provided between Scotland, the entire HBSC survey and a subset of participating countries. Data from England and Wales are presented to show similarities and differences within the UK. A further four countries, one from each quartile, are also presented.[§]

Each figure illustrates the cross-national range of responses and the HBSC average. The ranking of each country, for boys and girls

combined, is also shown in brackets. Ranks should be interpreted with caution and may reflect relatively small cross-national differences. A country may appear in one Figure but not another because of its relative international ranking.

Tobacco Smoking

Attitudes and behaviour of family and peers, as well as personal beliefs, affect a young person's decision to start smoking. For some young people, smoking is an important part of image presentation and contributes to peer group affiliation. For many, smoking will become a life long habit.

The long term consequences of smoking may be less salient for young people or may be disregarded in favour of perceived social benefits or in the belief that it curbs weight gain, for example.

A measure of smoking frequency was obtained by asking young people:

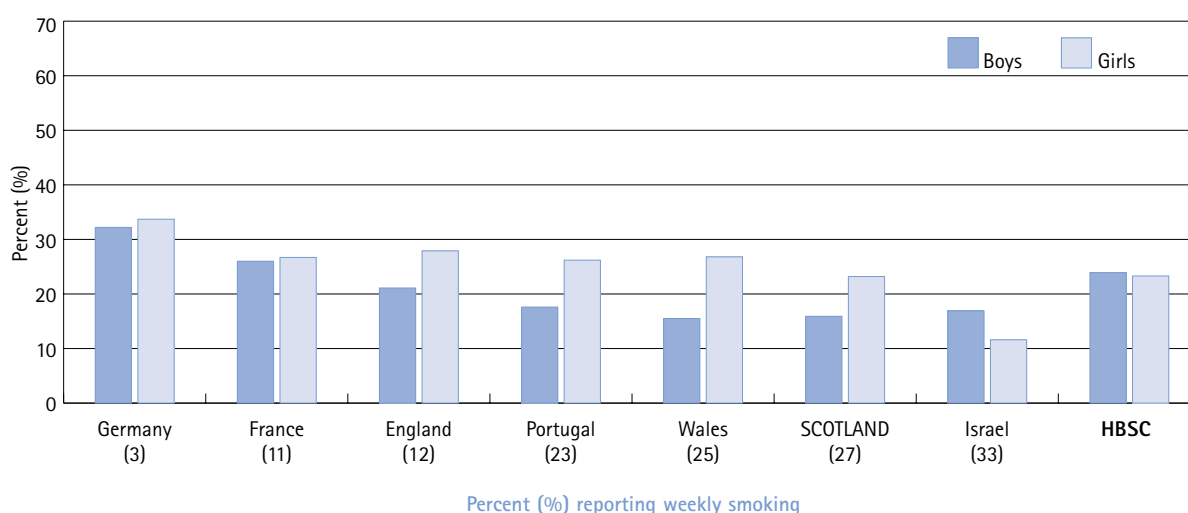
How often do you smoke tobacco at present?

Response categories were: *I don't smoke; Every day; At least once a week, but not every day; Less than once a week.*

Figure 1 illustrates regular or weekly smoking of tobacco, defined as at least once a week, by 15 year olds.

Reports of weekly smoking increase with age (Figure 1). Cross-nationally, weekly smoking rates for all 15 year old HBSC respondents varied between 14.0% and 62.4%. Average rates for boys and girls at

Figure 1. Reported weekly smoking among 15 year olds.



Age	Percent (%) reporting weekly smoking	
	Boys Scotland (HBSC average)	Girls Scotland (HBSC average)
11	1.4 (2.2)	1.1 (1.0)
13	6.1 (8.9)	10.7 (7.9)
15	15.9 (23.9)	23.2 (23.3)

Health Behaviour in School-Aged Children (HBSC): WHO Collaborative Cross-National 2001/2 Survey

[‡] A regional sample was selected in Germany (Nordrhein-Westfalen, Berlin, Hessen and Sachsen). Separate studies were carried out in Flemish and French speaking populations in Belgium, England, Scotland and Wales. Due to the small size of the 11, 13 and 15 year old population in Greenland, a census was taken.²

[§] Non-UK countries were ranked according to the responses from boys and girls combined. Countries ranked 3rd and 11th from the top and 3rd and 11th from the bottom of a cross-national comparison were used to represent the top two quartiles and the bottom two quartiles.

age 15 were similar across countries (23.9% and 23.3%, respectively). However, in 19 countries including Scotland, England and Wales, rates for girls exceeded those for boys.

For 15 year old boys in Scotland, self-reported weekly smoking (15.9%) was below the male HBSC average although this was not the case for girls, 23.2% of whom reported smoking at least once a week. Among girls in Scotland, self-reported weekly smoking rates exceeded those of their male peers by 7.3%.

While 15 year old boys in Scotland have one of the lowest weekly smoking rates in the 2001/2 HBSC survey, with only five other countries having lower rates, weekly smoking rates among girls were higher and 15 countries reported lower rates than in Scotland. A recent Scottish survey has shown a decline in weekly smoking among 15 year old boys since 1982, but rates for girls have shown little change.³ These findings may point to gender differences in the motivational factors influencing smoking behaviour and require further investigation.

Alcohol use

For young people, the use of alcohol can be influenced by a number of factors, including cultural and familial norms, peer pressure and personal preferences. Advertising also exerts an influence employing positive images of sexual attraction, romance and adventure. Although many young people may for a variety of reasons perceive the use of alcohol to be appealing, alcohol consumption among children and adolescents is known to have adverse outcomes. These include: a greater propensity to engage in other risk related

behaviours such as unprotected sex; under achievement; truancy; injury and alcohol-related deaths. Within Scotland, the Scottish Executive has developed a *Plan of Action* to reduce harmful drinking by children and young people.⁴

A number of questions were used to measure the use of alcohol and associated behaviours including frequency and types of alcohol consumed, the age of first drinking alcohol and getting drunk.

Self-reported drunkenness provides a measure of excessive alcohol use. Young people were asked;

Have you ever had so much alcohol that you were really drunk?

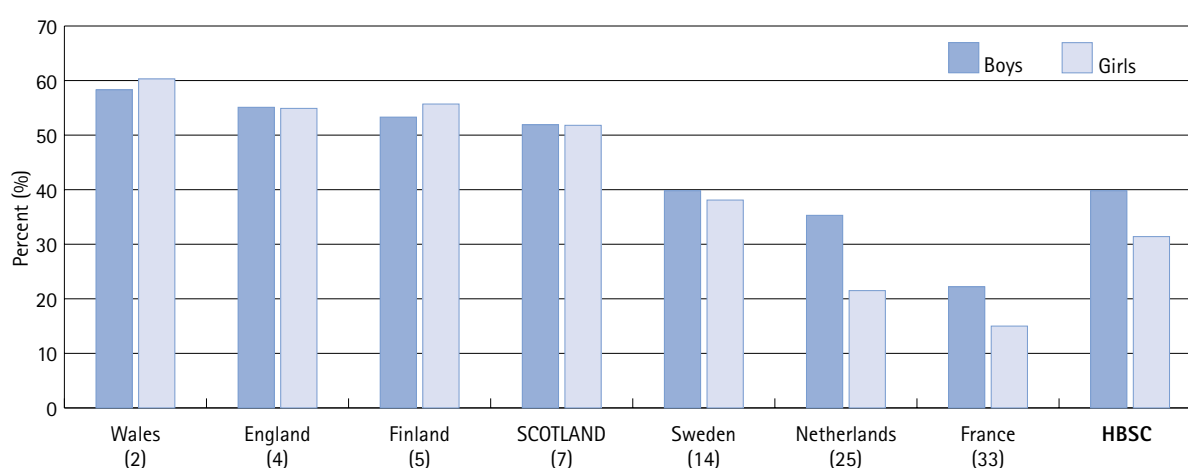
Response categories were: *No, never; Yes, once; Yes, 2-3 times; Yes, 4-10 times; Yes, more than 10 times.*

Figure 2 illustrates self reported drunkenness, on two or more occasions, among 15 year olds.

Reports of being drunk on two or more occasions increase with age and vary cross-nationally. Reported drunkenness among 15 year olds varied between countries from 16.9% to 67.7% for boys and from 5.9% to 64.8% for girls. On average across all HBSC countries, rates of being drunk on two or more occasions were higher among 15 year old boys (39.8%) than girls (31.4%). In only four countries, including Wales and Finland, did rates among girls aged 15 exceed those of their male peers.

In general, when reported rates are low, gender differences are more marked as can be seen in Figure 2; among the higher rates reported, such as those in Scotland, gender differences are less apparent.

Figure 2. Proportion of 15 year olds reporting drunkenness on 2 or more occasions.



Percent (%) reporting drunkenness on two or more occasions

Age	Boys	Girls
	Scotland (HBSC average)	Scotland (HBSC average)
11	6.3 (4.3)	3.2 (1.5)
13	19.0 (14.5)	21.3 (9.7)
15	51.9 (39.8)	51.8 (31.4)

Reports of being drunk on two or more occasions from 15 year olds in Scotland (51.9% for boys and 51.8% for girls) were above HBSC averages (Figure 2). For both genders combined, Scotland ranked 7th out of the 35 HBSC countries with slightly higher rates of drunkenness being reported in England and Wales.

Research elsewhere has also highlighted the high levels of teenage drinking and drunkenness in Scotland³ and it is clear that these require continued attention.

In relation to preventive measures, social, economic, cultural and legislative differences between HBSC countries make it unlikely that a common approach to tackling drunkenness and promoting sensible drinking would be either feasible or effective. The impacts of the numerous alcohol strategies in place, locally and nationally, need to be regularly examined to ensure that the cost of these strategies is offset by their efficacy.

Cannabis use

Although the use of cannabis is illegal in the vast majority of HBSC countries, it has been reported to be the most widely used substance after alcohol and tobacco.^{2,6}

It has been suggested that the use of cannabis has become normalised within many cultures in Europe and North America and that modest use facilitates social interaction. However, more frequent use can have adverse consequences, including psychological or physical harm and a greater propensity to engage in risky behaviour.

Given the relatively infrequent use of cannabis among 11 and 13 year olds, these groups were not included in data collection on this topic.

Cannabis use was estimated using two questions, namely:

Have you ever taken cannabis in your life?

Have you ever taken cannabis in the last 12 months?

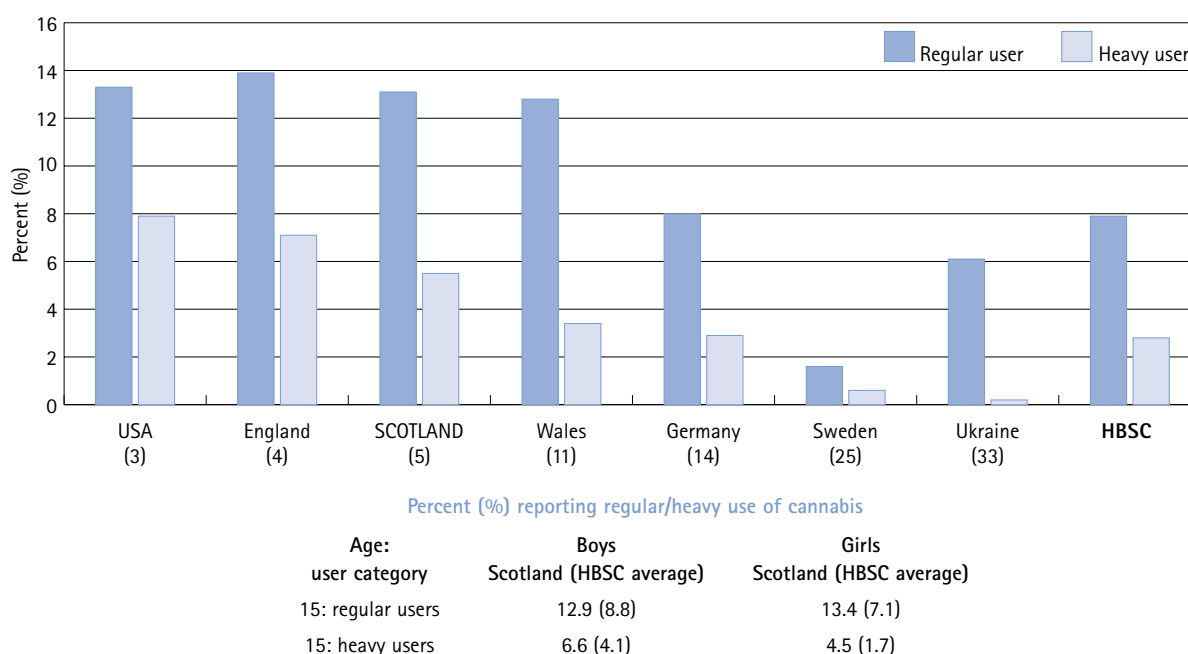
Response categories for both questions were: *Never; Once or twice; 3 to 5 times; 6 to 9 times; 10 to 19 times; 20 to 39 times; More than 39 times*

Those who reported using cannabis have been categorised as either regular or heavy users (data on discontinued and experimental users are not presented here). Regular or recreational users were defined as using cannabis between three and 39 times in the past year. Heavy users are those who reported using cannabis 40 or more times in the last year (a frequency equivalent to once every nine days or more).

Reported rates of cannabis use varied markedly across the HBSC sample and by gender. In eleven countries, less than 1% of the young people surveyed reported using cannabis 40 or more times a year (heavy users). In 17 countries, heavy users represented between 1% and 4.9% of respondents and in six countries, including Scotland, heavy users accounted for between 5% and 10% of respondents. Heavy use was reported by 6.6% of boys in Scotland and 4.5% girls.

In Scotland, 13.1% of respondents reported that they had used cannabis between 3 and 39 times in the past year (regular users) as compared with an HBSC average of 7.9% (Figure 3). Reported regular use in Scotland was similar to that in England and the USA. Findings from the HBSC survey are similar to those from other studies carried out in Scotland.^{3,4,6}

Figure 3. Regular and heavy cannabis use reported among 15 year olds, ranked by heavy users.



Sexual health

A major aim of public health initiatives and health promotion in Scotland has been the reduction and prevention of sexually transmitted infections (STIs) as well as a reduction in the number of unwanted teenage pregnancies.^{5,7}

In Scotland, STIs, particularly chlamydia, have been increasing among young people. Sexual health educational programmes now highlight the use of condoms not only as a safeguard against AIDS, HIV and other STIs but also as a means of contraception.

Data on sexual health were gathered from 27 countries; in eight countries questions were not included in the questionnaire[†].

Questions were adapted from the US Youth Risk Behavior Survey.^{1,2} Data were collected from 15 year olds only, due to the sensitivity of the topic. The following questions were asked:

Have you ever had sexual intercourse? (Sometimes this is called 'making love,' 'having sex,' or 'going all the way.')

Response categories were: Yes; No.

The last time you had sexual intercourse, did you or your partner use a condom?

Response categories were: *I have never had sexual intercourse;* Yes; No.

The last time you had sexual intercourse, what method(s) did you or your partner use to prevent pregnancy?

Response categories for each of the following options were:

I have never had sexual intercourse; No method was used to prevent pregnancy; Birth control pills (Yes; No); Condoms (Yes; No); Spermicidal spray or foam (Yes; No); Withdrawal (Yes; No); National choice option (Yes; No); Some other method (Yes; No); Not sure.

Condom use was calculated for those young people who identified themselves as being sexually active and answered positively to either question regarding condom usage.

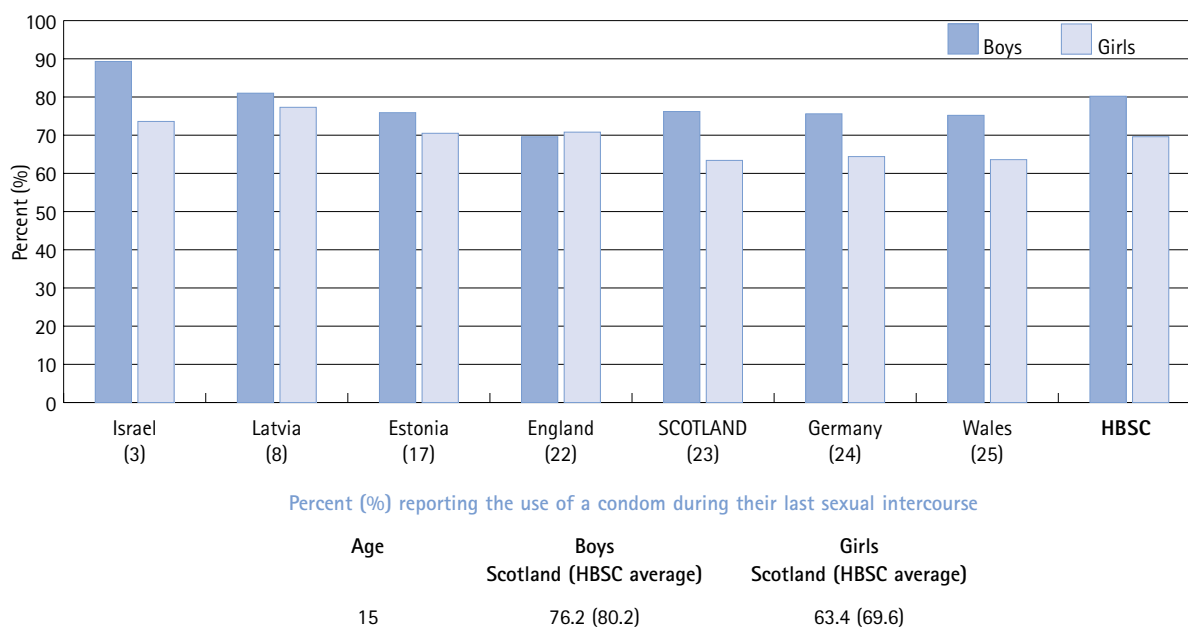
For the HBSC sample as a whole, 23.9% of 15 year olds reported themselves to be sexually active (28.1% boys and 20.2% girls). In Scotland, rates were higher (32.9% boys and 34.6% girls), slightly less than the proportion of sexually active young people in England and Wales.

Overall, 75.5% of sexually active young people in 27 countries reported using a condom the last time they had sexual intercourse, 80.2% of boys and 69.6% of girls. The range for HBSC countries was 69.6% to 91.2% for boys and between 57.6% and 89.1% for girls. Boys reported condom use more often than girls in 25 of the 27 countries surveyed.

In Scotland, 76.2% of boys and 63.4% of girls reported condom use. In five countries reported condom use exceeded 85% among boys but only in Spain did girls report this level of usage.

Condom use is influenced by a number of factors including social norms, availability, cost, religion, personal preferences and drug or alcohol use, for example. In Scotland, public health professionals strongly advocate condom use as a means of both protection and contraception. The new sexual health strategy for Scotland sets

Figure 4. Reported condom use during last intercourse among 15 year olds.



Health Behaviour in School-Aged Children (HBSC): WHO Collaborative Cross-National 2001/2 Survey

† In both Israel and Germany, data were collected from a subset of respondents. Those countries not represented include: Denmark, Ireland, Norway, the United States, Malta, the Czech Republic, Russia and Italy.²

targets and identifies a number of positive strategies to combat the increasing incidence of STIs and unwanted pregnancies, including: school based education; provision of accessible contraceptive clinics and health services as well as prompt diagnosis and treatment of STIs.^{6, 7}

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HBSC publications and HBSC information

Further information on the international report from the 2001/02 survey can be obtained from the International Study website www.hbsc.org. The International Coordinating Centre of the HBSC Study is the Child and Adolescent Health Research Unit (CAHRU), The University of Edinburgh.

Reports from this and earlier surveys include

Alexander LM, Currie C, Todd J and Smith R. (2004). *HBSC Briefing Paper 5: How are Scotland's young people doing? A cross-national perspective on physical and emotional well-being*. Child & Adolescent Health Research Unit (CAHRU), Edinburgh.

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