



# Sexual health among young people in Scotland

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## Introduction

Adolescence is a key period in the development of personal relationships and sexual behaviour. It is during this time that thoughts and feelings about sexual behaviour emerge, often the result of developing relationships, curiosity and sexually active peers. Sexual health has previously been defined as the complete physical, emotional, mental and social well-being of individuals with regards to their sexual behaviour (Berkeley & Ross, 2003) and is in keeping with the World Health Organisation (WHO) definition adopted by the national sexual health strategy, *Respect and Responsibility* (Scottish Executive, 2005).

Risky sexual health behaviours among young people are important to address, with key markers including early age of initiation, inadequate contraception use, sexually transmitted infections (STIs) and unintended pregnancies. Early sexual activity can have consequences for young people's health and well-being, in particular if it occurs prior to being physically and mentally mature enough to cope with it (Godeau et al., 2008). Early initiation of sexual behaviour has been associated with adverse health outcomes such as increased risk of STIs and unintended pregnancies (Godeau et al., 2008), poor mental health (Sabia & Rees, 2008) and lower academic performance (Sabia, 2007). Although teenage pregnancy rates in Scotland have remained constant over the last decade, the diagnosis of STIs has increased, although partly due to increased testing (Health Protection Scotland, 2009). In 2008, people under the age of twenty-five accounted for 13% of the population but 72%, 59% and 61% of all diagnoses of Chlamydia, genital warts and Gonorrhoea, respectively. In a study of 24 European countries which included Scotland, condoms were the most commonly used form of contraception among young people, however, the proportion of poorly or unprotected adolescents still remains high (Godeau et al., 2008).

The national sexual health strategy, *Respect and Responsibility* (Scottish Executive, 2005) recognises the importance of young people and their sexual health needs, and identifies a number of actions aimed at providing evidence-based, age-appropriate Sex and Relationships Education (SRE) to young people. Furthermore, relationships, sexual health and parenthood are key learning outcomes within the Curriculum for Excellence (Scottish Executive, 2004).

The HBSC study collects data from 15-year-olds (S4) on reported sexual intercourse and contraception use. Information is also collected in relation to their experiences of sex and

relationships education at school, sources of information about sexual matters and with whom they find it easiest to talk to about personal and sexual matters. This eighteenth Briefing Paper in the HBSC series aims to examine sexual health among young people in Scotland. It provides an overview of young people's reported sexual behaviours in Scotland in relation to age of initiation, experience and contraception use. More specific information on the relationship between sexual health and other key factors is presented in the accompanying Briefing Paper Supplements (eg 18a – Sources of sexual health information among young people) which are new to this series.

## Summary of main findings

- There are wide variations between countries in the proportion of 15-year olds reporting to have experienced sexual intercourse, with young people in Scotland ranked seventh against 33 European countries and Canada in 2006.
- Trends in reported sexual intercourse have decreased slightly in Scotland between 1998 and 2006, although this drop is not significant.
- Approximately two-thirds of 15-year olds report never having had sexual intercourse. Of those who have, the most common age of initiation is 14 or 15 years, with approximately three quarters of these young people reporting having had sexual intercourse for the first time at this age. There is no significant gender difference.
- The most commonly used contraception among sexually active young people is condoms. Over three quarters report having used a condom at last sexual intercourse, with more boys reporting condom use than girls.
- Trends in reported condom and contraceptive pill use have shown an increase among both boys and girls.

## Experience of sexual intercourse – how does Scotland compare?

**Figure 1** shows the percentage of boys and girls (aged 15) who report having had sexual intercourse in Scotland compared to selected countries within the HBSC survey. Although not demonstrated in the figure, Scotland ranked seventh out of 33 European countries and Canada in the proportion of 15-year olds who have had sexual intercourse. In Scotland, around a third of young people report having had sexual intercourse (30% of boys and 34% of girls). There are wide variations between countries in reports of experiencing

**Figure 1: International comparison of young people’s experience of sexual intercourse**



sexual intercourse, with Greenland (55% boys; 66% girls) and Slovakia (13% boys; 11% girls) representing the highest and lowest respectively. Cross nationally, Wales, Scotland and England have relatively high levels of sexual intercourse among young people. Wales shows the highest levels among girls (41%), as well as a high proportion of boys (30%). In England, 31% and 26% of girls and boys respectively have had sexual intercourse by the age of 15.

**Trends in sexual intercourse**

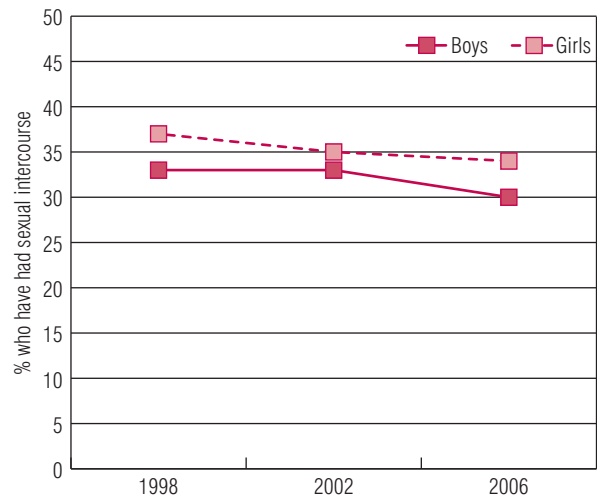
**Figure 2** shows the proportion of young people reporting sexual intercourse between 1998 and 2006 in Scotland. There has been little change in the proportion of 15-year-old boys and girls who report being sexually active over this 8-year period. In 2006, 32% of 15-year-olds report having had sexual intercourse, compared with 35% in 1998 and 34% in 2002. No gender differences are apparent in each of the three survey years.

**Age at first sexual intercourse**

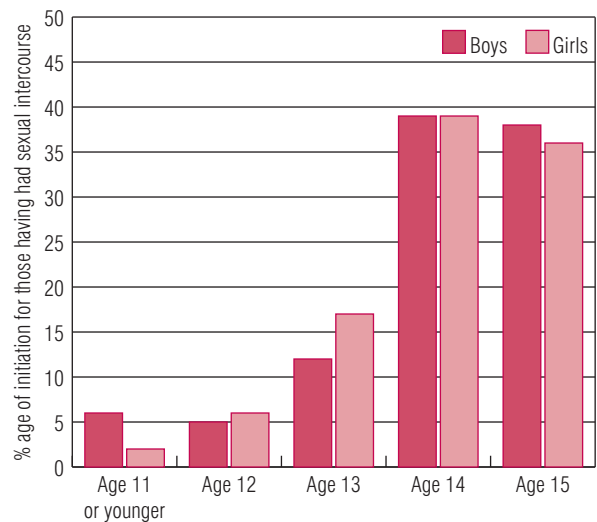
Fifteen year olds in Scotland were asked how old they were when they had sexual intercourse for the first time. Around two-thirds of boys (70%) and girls (66%) reported never having had sexual intercourse. For those who have experienced sexual intercourse, **Figure 3** shows the age of initiation by gender in 2006. The most common age of sexual initiation for young people is 14 years, with 39% of boys and girls having had sex for the first time at this age. Similar proportions report having had sex for the first time at age 15 (38% of boys and 36% of girls).

Despite Wales having the highest proportion of sexually active 15-year olds, a different finding is present in relation to age of sexual initiation. Compared with Scotland and England, of those who have had sexual intercourse, 15-year-olds in Wales (43%) are significantly less likely to have reported having had first sexual intercourse aged 14 years or younger than 15-year olds in England (55%) or Scotland (62%) (Brooks et al., 2009).

**Figure 2: Trends in reported sexual intercourse**



**Figure 3: Age of sexual initiation**

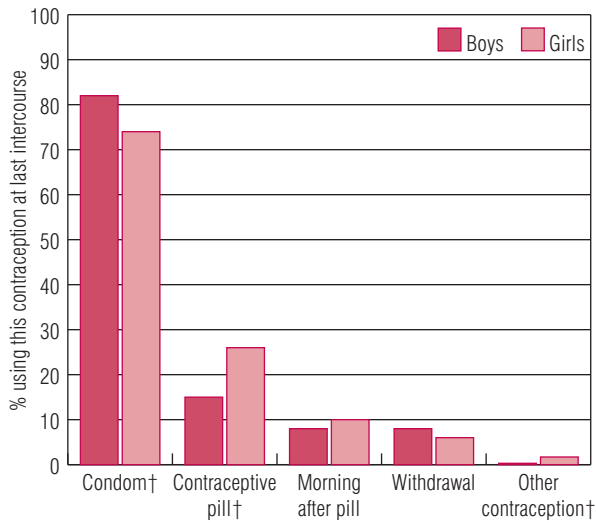


**Contraception use**

Sexually active pupils were asked what method of contraception was used the last time they had sexual intercourse. **Figure 4** shows the different types of contraception used by gender in Scotland. As shown in the figure, condom use is the most popular form of contraception among both genders, with more boys (82%) reporting condom use than girls (74%). However, a larger proportion of girls report the contraceptive pill (26%) than boys (15%). Similar proportions of boys and girls report the morning after pill or withdrawal as forms of contraception at last intercourse. Less than 2% of pupils report using other kinds of contraception.

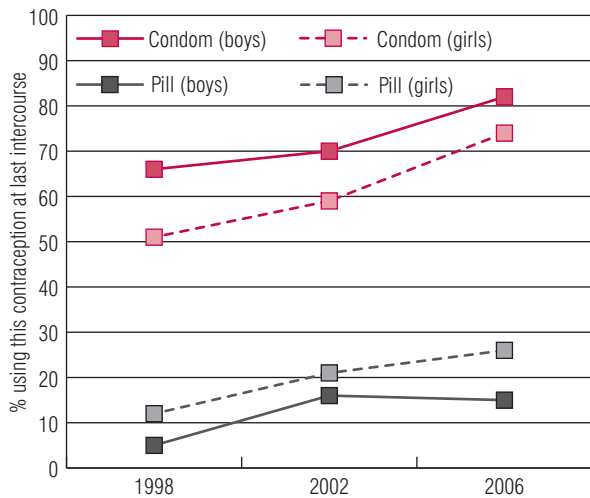
**Figure 5** show the trends in condom and contraceptive pill use at last intercourse among boys and girls between 1998 and 2006 in Scotland. The figure shows that condom use has

**Figure 4: Contraception use at last sexual intercourse among 15 year olds by gender**



† Significant gender difference (p<0.05)

**Figure 5: Condom and pill use at last intercourse (1998–2006)**



increased over this 8 year period among both boys and girls, with more boys reporting condom use in all three survey years. Whereas two thirds of boys (66%) and half of girls (51%) report using a condom at last intercourse in 1998, these figures increase to four fifths of boys (82%) and three quarters of girls (74%) in 2006. Among girls, pill use has doubled over this time, from just over one in ten (12%) using the pill in 1998 to a quarter (26%) using it in 2006. Reporting the pill increased among boys between 1998 and 2002 (5% to 16%). However, proportions using this form of contraception have remained stable between 2002 and 2006. Significantly more girls report having used the pill in 1998 and 2006. However, there was no gender difference in the 2002 survey.

## Discussion

This briefing paper provides an overview of young people’s sexual health at age 15 in Scotland. It identifies the proportion of young people who report that they are sexually active (in comparison with other HBSC countries), the age of first sexual experience and contraception use at last sexual intercourse. No information however, is collected by HBSC about the nature of sexual experience (e.g. voluntary or coerced). Compared with other countries within the HBSC study, Scotland has a relatively high proportion of sexually active young people. Cross-national differences in sexual behaviours may be a result of accessibility to contraceptives and reproductive services or indeed differences in cultural norms or religion (Godeau et al., 2008).

Within industrialised countries, international comparisons of age of initiation of sexual intercourse have shown the decline in age of first sexual experience is slowing down (Wellings et al., 2006). Since 1998, HBSC data show that there has been a small decline in the proportion of 15-year olds who have had sexual intercourse, although this decrease is not significant. Of those who have experienced sexual intercourse, around three quarters do so between the ages of 14 and 15 years. Previous research has shown that the timing of first sexual intercourse can have implications on a young person’s health. Early sexual initiation for example, has been linked to increased substance use and decreased school attachment (Madkour et al., 2010). Conversely, an older age at first sexual intercourse is linked to increased contraceptive use for both boys and girls (Manlove et al., 2009). Although the current trends in Scotland are moving in a downwards direction, these findings suggest that continued emphasis on delaying sexual initiation is required to promote sexual health.

This paper reports that condoms are the most common form of contraception among young people, although, in line with previous research (Everett et al., 2000) significantly more boys than girls report having used a condom at last intercourse. These findings may reflect gender differences in attitudes towards condom use, such as embarrassment over buying condoms or feeling uncomfortable carrying condoms (Kirby et al., 2010). More girls than boys report using the contraceptive pill, although this may be, in part, due to boys not being aware of girls using the pill. Results presented in this briefing paper show that contraception use (condoms and contraceptive pill) have increased among young people over time. This is in line with previous research which has identified that the use of condoms by young people in developed countries has increased substantially over the years (Wellings et al., 2006). Such results highlight the impact that an increased emphasis on young people’s sexual health and sex education may be having, as well as emphasising the continued need for the promotion of sexual health among this age group. The NHS *Healthy Respect Evaluation Report* (Scottish Government, 2010) identifies the need to consider

more fundamentally how to tackle poor sexual outcomes among young people. Findings have provided evidence for the benefits of high quality school sex education and widespread implementation of sexual health services, but also demonstrate the need for different approaches to achieve substantial impacts on sexual health outcomes. The results presented in this paper identify that among sexually active young people, over three quarters report using a condom on the last occasion of sexual intercourse. However, despite the increase over the years, this means that a proportion of young people still fail to protect themselves properly against STIs and pregnancies. Although no data regarding STIs or pregnancies is collected in the HBSC survey, previous statistics have identified increases in the proportion of young people with STIs and stable teenage pregnancy levels (Health Protection Scotland, 2009). As such, promotion of contraceptives, both condoms and other forms of contraception needs to remain high on the agenda in young people's sexual health. It is important for interventions to target the group of sexually active young people who fail to use contraception, and who are at increased risk of STIs and unintended pregnancies.

## Technical Appendix

Scotland, along with 40 other countries in Europe and North America participated in the 2005/2006 Health Behaviour in School-Aged Children (HBSC): WHO Collaborative Cross-National Survey (Currie, Todd & Smith, 2003: HBSC Briefing Paper 1). Previous surveys were conducted in 1989/90, 1993/94, 1997/98 and 2001/2002 and findings from these have been published in a series of international and Scottish reports and briefing papers listed at the end of this document and can be found at: [www.education.ed.ac.uk/cahru/publications/](http://www.education.ed.ac.uk/cahru/publications/). Key findings from the 2005/2006 cross-national survey have been published in the international report *Inequalities in Young People's Health* (Currie et al, 2008).

## The 2006 HBSC survey in Scotland

The 2006 HBSC survey was carried out in 300 schools across Scotland. Pupils from mixed ability classes anonymously completed questionnaires in the classroom. The sample was nationally representative and included pupils from Secondary 4 (15-year-olds, n=2306). On completion of fieldwork, national data files were prepared using the standard documentation procedures of the HBSC International Protocol 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. Results from the 2005/06 HBSC international survey represent more than 200,000 young people in 41 countries. Further details can be found in *Inequalities in Young People's Health* (Currie et al, 2008).

## Measures used in this briefing paper

### Sexual intercourse

Young people were asked whether they had ever had sexual intercourse. *Have you ever had sexual intercourse (sometimes this is called 'making love', 'having sex' or 'going all the way')? (Yes / No).*

### Age of initiation

Young people were asked how old they were when they had first had sexual intercourse. *How old were you when you had sexual intercourse for the first time? I have never had sexual intercourse / 11 years or younger / 12 years old / 13 years old / 14 years old / 15 years old / 16 years old.*

### Contraception

Young people were asked what method of contraception they used on the last occasion of sexual intercourse. *The last time you had sexual intercourse, what method(s) did you or your partner use to prevent pregnancy? I have never had sexual intercourse / Birth control pills (the pill) / Condoms / Withdrawal / Emergency contraception ('morning after' pill) / Some other method / Not sure.*

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## HBSC publications and HBSC information

Further information on the international report and scientific papers from the 2005/6 survey can be obtained from the International Study website [www.hbsc.org](http://www.hbsc.org). The International Coordinating Centre for the HBSC Study is the Child and Adolescent Health Research Unit (CAHRU), The University of Edinburgh.

### HBSC Briefing Papers from earlier surveys include:

- 1: Introduction, background and dissemination of the 2002 HBSC survey in Scotland.
- 2: Mental well-being among schoolchildren in Scotland: age and gender patterns, trends and cross-national comparisons.
- 3: Gender Matters: Physical activity patterns of schoolchildren in Scotland.
- 4: Mental-health and well-being in the context of school: Young people in Scotland.
- 5: How are Scotland's young people doing? A cross-national perspective on physical and emotional well-being.
- 6: How are Scotland's young people doing? A cross-national perspective on health-related risk.
- 7: How are Scotland's young people doing? A cross-national perspective on physical activity, TV viewing, eating habits, body image and oral hygiene.
- 8: Bullying and fighting among schoolchildren in Scotland: age and gender patterns, trends and cross-national comparisons.
- 9: Social Context of Bullying Behaviours.
- 10: Bullying: Health, Well-Being and Risk Behaviours.
- 11: Family affluence and health among schoolchildren.
- 12: Family structure and relationships and health among schoolchildren.
- 13: Perceptions of school and health of schoolchildren.
- 14: Mental well-being of young people in Scotland: 1994-2006.
- 15: Key findings from the 2006 Scottish Health Behaviour in School-aged Children Study.
- 16: Oral Health among young people in Scotland
- 17: Nutrition and Health among young people in Scotland.

## References

- Berkeley D. and Ross D. (2003) *Strategies for improving the sexual health of young people, Culture, Health and Sexuality* 5, 71–86.
- Brooks et al (2009) *Young People's Health in Great Britain and Ireland: Findings from the Health Behaviour in School-aged Children Survey, 2006*. Cardiff, Edinburgh, Galway, Hertfordshire.
- Currie C et al (eds) (2008) *Inequalities in young people's health: HBSC international report from the 2005/2006 Survey*. Health Policy for Children and Adolescents No. 5, WHO Regional Office for Europe, Copenhagen, Denmark.
- Everett SA, Warren CW, Santelli JS, Kann L., Collins JL, and Kolbe LJ (2000) Use of birth control pills, condoms, and withdrawal among U.S. high school students. *Journal of Adolescent Health*, 27, 112-118.
- Godeau E, Nic Gabhainn S, Vignes C, Ross J, Boyce W and Todd J. (2008) Contraceptive use by 15-year-old students at their last sexual intercourse. Results from 24 countries. *Archives of Pediatrics & Adolescent Medicine*, 162, 66-73.
- Kirby J, van der Sluijs W and Currie C. (2010) HBSC Briefing Paper 18b – *Attitudes towards condom use*. HBSC Briefing Paper Series.
- Madkour AS, Farhat T, Halpern CT, Godeau E and Gabhainn SN (2010) Early sexual initiation as a problem behavior: a comparative study of five nations. *Journal of Adolescent Health*, in press, 1-10.
- Manlove J, Ikramullah E, Mincieli L, Holcombe E and Danish S. (2009) Trends in sexual experience, contraceptive use, and teenage childbearing: 1992-2002. *Journal of Adolescent Health*, 44, 413-423.
- Health Protection Scotland (2009) *Scotland's Sexual Health Information*. Available on: [www.documents.hps.scot.nhs.uk/bbvsti/sti/publications/sshi-2009-11-24.pdf](http://www.documents.hps.scot.nhs.uk/bbvsti/sti/publications/sshi-2009-11-24.pdf)
- Sabia JJ (2007) Reading, writing, and sex: the effect of losing virginity on adolescent academic performance. *Economic Enquiry*, 45, 647-670.
- Sabia JJ and Rees, DI (2008) The effect of adolescent virginity status on psychological well-being. *Journal of Health Economics*, 27, 1368-1381.
- Scottish Executive (2005) *Respect and Responsibility: Strategy and Action Plan for Improving Sexual Health*. Edinburgh. Scottish Executive.
- Scottish Government (2010) *Evaluation of Healthy Respect Phase Two: Final Report March 2010*. Edinburgh. Scottish Government.
- Wellings K, Collumbien M, Slaymaker E. Singh S, Hodges Z, Patel D and Bajos N (2006) Sexual behaviour in context: a global perspective. *Lancet*, 368, 1706-1728.

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