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The Irish Study of Sexual Health and Relationships Sub-Report 3: Sexual Knowledge, Attitudes and Behaviours – A Further Analysis

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Foreword by Minister for Health and Children, Mary Harney TD



I WELCOME the publication of this report, *Sexual Knowledge, Attitudes and Behaviours – A Further Analysis*. It is the third sub-report developed from the findings of the ISSHR project. It analyses in depth the results from the ISSHR project and, with Sub-Reports 1 and 2, helps to provide a comprehensive picture of sexuality in Ireland today.

The overall aim of the ISSHR project has been to provide useful information on sexual knowledge, attitudes and behaviours, for use by policymakers and service providers. This is a complex and sensitive area of policy and service delivery for all involved; it is important that the most accurate and in-depth data, research and analysis be available to ensure that the progress made in the area can be evaluated and benchmarked.

The analysis provided in this ISSHR report provides detailed information and analysis of the responses received from 7,441 participants. Such a survey is in line with research in other European countries and has come about on foot of a recommendation by the National AIDS Strategy Committee (NASC), in its report *Aids Strategy 2000*. On foot of that recommendation, my Department and the Crisis Pregnancy Agency commissioned the Irish Study of Sexual Health and Relationships in 2003. The results of that study form the basis of the ISSHR reports – the Main Report, a Summary Report, and Sub-Reports 1, 2 and 3.

The ISSHR provides nationally representative data on the levels of sexual knowledge, attitudes and behaviours of adults in Ireland for the first time. The data contributes to an informed understanding of the factors related to the broad spectrum of sexual behaviour and practice.

Overall, the ISSHR project allows us to develop a greater insight into the contribution that individual behaviours, appropriate service development and education and prevention activities can make to securing good sexual health and avoiding negative outcomes. Sub-Report 3 in particular gives us a deeper insight into what determines some of these attitudes and behaviours; it looks at the connections between a multitude of demographic characteristics and how these might be related to certain outcomes.

The study was conducted by the Economic and Social Research Institute (ESRI) and the Royal College of Surgeons in Ireland (RCSI). I commend and congratulate all those involved in the survey and preparation of this report and trust that it will be used widely by those working in the field.

Mary Harney TD

Minister for Health & Children

Introduction



It is a great pleasure for me to welcome the publication of Sub-Report 3 of the Irish Study of Sexual Health and Relationships (ISSHR): *Sexual Knowledge, Attitudes and Behaviours – A Further Analysis*.

The ISSHR was commissioned by the Department of Health and Children and the Crisis Pregnancy Agency in response to a recommendation by the National AIDS Strategy Committee. It is the largest nationally representative study on sexual knowledge, attitudes and behaviour ever undertaken in Ireland.

International evidence indicates that aspects of sexual health, such as contraception, crisis pregnancy and sexually transmitted infections, should be examined jointly. To this end, the Crisis Pregnancy Agency and the Department of Health and Children instigated the ISSHR project.

The ISSHR findings have been outlined in a suite of reports – the Main Report, a Summary Report and three sub-reports; the latter provide detailed information in defined areas of interest. This, the third sub-report, focuses on the patterning of sexual knowledge and attitudes of people in Ireland and how these affect behaviour.

The Crisis Pregnancy Agency (CPA) and the sexual-health sector in general need robust evidence in order to develop sexual-health policies, to plan strategies and to inform the effective promotion of sexual-health messages. The ISSHR findings will be invaluable not only to the work of the CPA in preventing crisis pregnancy, but also to that of other organisations concerned with promoting sexual health, providing sexual-health services, preventing sexually transmitted infections, and providing sex education for young people.

I would like to thank Ms Gráinne Cousins for her work on this report, as well as the entire ISSHR research team led by Professor Richard Layte of the Economic and Social Research Institute and Professor Hannah McGee of the Royal College of Surgeons in Ireland. Following their sterling work on the ISSHR Main Report and Summary Report, producing this report entailed a great deal of extra effort for the authors. I am extremely grateful to them for undertaking the task.

I would also like to thank the people who gave of their time and expertise in steering and managing this project and in critiquing the reports. A special word of thanks is due to the staff of the Crisis Pregnancy Agency and the Department of Health and Children for their strong commitment to completing the project.

Katharine Bulbulia

Chair

Crisis Pregnancy Agency

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Professor **Hannah McGee** is a health psychologist and director of the Health Services Research Centre, Royal College of Surgeons in Ireland (RCSI). Her research addresses the psychological and social factors associated with health, illness and healthcare in Ireland. Ongoing work includes national studies of ageing, stroke care and population health behaviour. She is the co-principal investigator on the ISSHR Study.

Acknowledgements

THIS study was commissioned by the Department of Health and Children (DoHC) and the Crisis Pregnancy Agency (CPA).

The authors would like to acknowledge the role played by a large number of people outside of the study team who contributed to the completion of the study.

First, we wish to acknowledge the co-operation of the 7,441 individuals who gave their time to take part in the study and who discussed with us many extremely personal aspects of their lives. Without their generous assistance, this study could not have yielded the wealth of information that will be invaluable in developing locally informed policies and services in the coming years.

The ESRI Survey Division, and James Williams, Amanda Quail, Ita Condrón and Pauline Needham in particular, not only contributed hugely to the design of the survey and its protocols, but also showed fine judgement and professionalism in guiding the fieldwork to successful completion.

The study team also wishes to acknowledge the hard work and commitment of the 27 interviewers who worked on the project: Miriam Ahern, Eimear Breheny, Delia Brownlee, Laura Callaghan, Claire Corcoran, Jessica Dempsey, Riona Donnelly, Frances Lyne, Phil Fitzsimons, Catherine Glennon, Kate Halligan, Kathleen Hyland, Hillary Heeney, Fiona Kane, Aoife Kearney, Ciara Lawless, Emer McDermott, Anne Marie McGirr, Charleen McGuane, Carmel McKenna, Katherine Norris, Marita O'Brien, Aideen O'Neill, Patricia O'Neill, Martine Taylor, Anne Toner and Eileen Vaughan.

A large number of other people contributed to the development of the methodology, protocols and data analysis of the ISSHR study. The research team acknowledges their contribution.

The following were members of either the Management and/or Steering Committee for part or all of the project: Bernie Hyland (HSE), Sharon Foley (CPA), Caroline Spillane (CPA), Dr Nazih Eldin, (HSE), Dr Stephanie O'Keeffe (CPA), Olive McGovern (DoHC), Mary Smith (CPA), Frances Shearer (Department of Education & Science), Mick Quinlan (Gay Men's Health Project), Deirdre Seery (Alliance SHC), Madeleine O'Carroll (CPA), Ciara O'Shea (DoHC), David Moloney (DoHC), Brian Mullen (DoHC), Deirdre Sullivan (CPA), Deirdre McGrath (CPA), Paul Walsh (CSO), Lucy Deegan Leirião (CPA), Prof. Linda Hogan (TCD), Chris Fitzgerald (DoHC).

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This study had a long gestation. Many groups and individuals encouraged and recommended the development of a robust evidence base on sexual health issues in Ireland. We thank all those who enabled this work. We hope that the ISSHR findings will help develop a better understanding of the interplay of sexual knowledge, attitudes and behaviours in contemporary Ireland, and inform the development of improved sexual health policy and services for all.

Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ASHR	Australian Study of Health and Relationships
CATI	Computer-aided telephone interview
CPA	Crisis Pregnancy Agency
EG	The Erikson/Goldthorpe class measure, based on employment status
ESRI	Economic and Social Research Institute
HIV	Human Immunodeficiency Virus
HPSC	Health Protection Surveillance Centre (formerly the NDSC)
ICCP	Irish Contraception and Crisis Pregnancy Study
IFPA	Irish Family Planning Association
ISSHR	Irish Study of Sexual Health and Relationships
ISSP	International Social Survey Project
KABS	Knowledge, attitudes and behaviour surveys
Natsal	National Survey of Sexual Attitudes & Lifestyles
NDSC	National Disease Surveillance Centre
NHSLs	(US) National Health and Social Life Survey
ONS	Office of National Statistics (UK)
RANSAM	Sample selection programme developed at the ESRI
RDD	Random digit dialling
RSE	Relationship and Sexuality Education
SAVI	Sexual Abuse and Violence in Ireland Study
SILC	Survey of Income and Living Conditions
SPHE	Social, Personal and Health Education
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
WHO	World Health Organisation

Glossary

Confidence interval	Quantifies the uncertainty in a measurement. The probability (between 0% and 100%) that an observed value is the true or actual value.
Design effects	A measure of how much statistical uncertainty is introduced into a survey by the manner in which individuals are selected for interview.
Disaggregation	The separation of an aggregate body into its component parts. In statistics, categories may be split or disaggregated to reveal finer details.
Religiosity	The condition of being religious. The sociological use of this term has no pejorative connotation.
Sex and sexuality	Sex is used in this report to mean sexual activity. Sexuality encompasses sex, gender identities and roles, sexual orientation, pleasure, etc. It is affected by many factors and their interaction (biological, social, psychological, historical, cultural, economic, political, legal, religious and spiritual).
Sexual health	Sexual health is used to mean, not merely the absence of infection, disease, dysfunction or infirmity, but a state of general well-being (physical, emotional, mental and social) in the area of sexuality.

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Contemporary knowledge, attitudes and behaviours

1.1 Introduction

SEXUAL expression is a fundamental human need, a positive aspect of human development that facilitates intimate human relationships and enables procreation. Sexual health has been variously defined. The World Health Organisation has defined it as:

".... a state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence." ¹

Although the biological human sexual drive is universal, its expression is strongly influenced by socio-cultural forces. All societies have evolved complex structures of values, beliefs and sanctions to regulate sexual behaviour.² However, these social systems vary both across the population and over time; thus it is impossible to understand current sexual behaviours without a clear understanding of the patterning of sexual knowledge, attitudes and beliefs and how these have changed.

This sub-report, the fourth from the Irish Study of Sexual Health and Relationships (ISSHR), charts the changing nature of sexual values and attitudes in Irish society in recent decades and examines in detail how individual sexual knowledge, beliefs and attitudes influence behaviours, using data from a representative survey of the Irish population carried out in 2004/5.

Research^{3,4} has shown that Irish sexual attitudes have changed enormously over the last four decades. As elsewhere in Europe, church and religion were important in Ireland in defining sexuality and the sexual standards that were considered appropriate. Catholic teaching also had an influential role in shaping Irish legislation and providing education in the Irish state. Learning about sex in schools and other settings was based on religious teachings that promoted procreation within marriage, the need to control desire and a sense of sin.⁵ The Catholic Church was also influential in the issues of importation of, access to and literature about contraception.⁶

Irish legislation on such matters served to further regulate sexual behaviour in line with the church's teachings.

Other factors have shaped Irish attitudes to sex and sexual behaviour. A combination of factors including poverty, religious culture and teaching, inheritance laws and the unavailability of contraception is credited with the later age of marriage of Irish people compared with other European countries (a gap that still exists).⁷ Older age of marriage required significant social constraint on the sexual behaviour of young adults for a considerable period of their lives. Both families and church teaching strongly regulated sexual activity. Pregnancy outside marriage, as the clearest evidence of transgression of social norms about appropriate sexual behaviour, was widely considered to be a personal and family tragedy and to bring great shame on all concerned.

The emphasis was on preventing any sexual activity that was not aimed at procreation. Access to contraception was prohibited; discouraging unsafe sex was not a consideration. The first Censorship of Publications Act, in 1929, prohibited all works deemed to be indecent or obscene but also all literature that advocated birth control.

While the Catholic Church exercised a highly visible influence over sexual matters, many complex factors in Irish society in the last two centuries have influenced sexuality and its expression. These factors are summarised by the historian JJ Lee⁸:

"The technique of birth control devised by post-Famine Ireland, late and few marriages, required rigorous sexual self-control from the disinherited, and indeed from the inheritors until they belatedly came into their legacy. Exceptional emphasis was naturally laid on the peril of sex, whose uncontrolled consequences would threaten the whole edifice. The obsessive equation of sex with sin was much less pronounced in popular pre-Famine Irish traditions. It was partly imported from Victorian England, where it flourished for somewhat different reasons. In Ireland it proved useful in reconciling the disinherited to their involuntary celibacy if they failed to emigrate in time, and ensured that inheritance patterns would not be spoiled by untimely accidents occurring during the long wait for marriage. It therefore protected property interests of the farmer, whose children dominated the clergies, Catholic and Protestant, which preached these necessary values." (Lee, 1989, p.645)

1.2 The changing social and legal regulation of sex

IRISH legislation on sexual matters underwent a process of liberalisation after 1970. The importation and sale of artificial methods of contraception had been prohibited in 1935, but in 1973 the Supreme Court struck down the 1935 Criminal Law (Amendment) Act that had limited, as unconstitutional, the supply of contraception to married couples. This led to a series of legislative changes, the last of which was the 1992 Health (Family Planning) (Amendment) Act. It obliged health boards to provide family-planning services and deregulated condom sales.

The laws on homosexuality and divorce, too, became increasingly out of step with behaviour and public attitudes by the 1970s. As with contraception, however, the wholesale reform of the law did not take place until the 1990s. Irish laws on homosexuality had been inherited from the British laws of 1861 and 1885.

The 1861 Offences Against the Person Act codified earlier legislation on anal sex and defined it as an offence punishable by a custodial sentence. The 1885 Labouchere amendment extended the list of sexual acts between males punishable by prison (no legislation dealt with sexual acts between women) to any act of 'gross indecency'. In practice, this meant any act of physical intimacy between two men, even where no physical contact was involved. It was not until the early 1970s and the foundation of the Irish Gay Rights movement that momentum for reform of this ageing legislation began to build.

Although prosecutions under the 1885 Act continued into the 1980s, the Gay Rights movement increasingly contested cases in the courts. Its campaign culminated in David Norris's 1977 High Court challenge to the constitutionality of the 1861 and 1885 Acts. The ruling of the High and Supreme Courts went against Norris, but the European Court of Human Rights found in his favour in 1988, making a change of Irish legislation unavoidable. Nonetheless, it was not until June 1993 that the Criminal Law (Sexual Offences) Bill was published.

The constitutional ban on divorce had come under increasing criticism in the 1970s. This desire for reform took official shape in the Joint Committee on Marital Breakdown which was set up in 1983 to analyse the issues around marital legislation. Conditions were not yet ripe for change, however: the referendum on divorce in 1986 failed, although a legal framework for marital separation was introduced in 1989 as part of the Judicial Separation Act. It was not until 1995 that full divorce was permitted after a second referendum was carried by the narrowest of margins.

On the question of abortion, the campaign for change was actually led by anti-abortion groups. They wanted a clause banning abortion inserted into the Constitution in case the increasingly liberal judiciary attempted to change the existing ban through a legal judgement. This campaign led to a constitutional referendum in 1983 on the right to life of the unborn. A large majority of voters supported this right. However, the 'X' case brought difficult problems to the surface in 1992. It involved a 14-year-old girl who had become pregnant through rape. The case led to a controversial Supreme Court ruling and a new referendum in 1992 on questions related to foreign abortions.

The current legal position is that, constitutionally, termination of pregnancy is not legal in this country unless it meets the conditions laid down by the Supreme Court in the 'X' case.

The Supreme Court decided in this case that abortion is permissible under the Constitution if it is established as a matter of probability that there is a real and substantial risk to the life, as distinct from the health, of the mother, which can only be avoided by the termination of her pregnancy. The court accepted that the threat of suicide constituted a real and substantial risk to the life of the mother.

CONTRACEPTION

Criminal Law (Amendment) Act, 1935	Prohibits the importation and sale of artificial methods of contraception.
McGee v. Attorney General [1974] IR 284	The Supreme Court decides that this prohibition is unconstitutional as it was an unjustified invasion of Mrs McGee's right to privacy in her marital affairs.
Health (Family Planning) Acts 1979, 1992 and 1993	<p>Provide for the regulation and control of the sale, importation, manufacture, advertisement and display of contraceptive devices (excluding contraceptives with a medical dimension such as the contraceptive pill).</p> <p>Provide that health boards (as existed then) and other appropriate bodies may supply family-planning services.</p> <p>Deregulates the sale of condoms.</p>
Health Acts 1947 onwards	Provide for the regulation and control of contraceptive pills and other contraception that has a medical dimension. Such contraceptives fall under the remit of medical legislation and are subject to the requirements of the National Drugs Advisory Board.

ABORTION

Offences Against the Person Act, 1861	It is an offence to procure a miscarriage.
Eighth Amendment of the Constitution Act, 1983	Article 40.3.3° acknowledges the right to life of the unborn, with due regard to the equal right to life of the mother.
Attorney General v. X [1992] 1 IR 1	The Supreme Court, in interpreting this provision in the Constitution, holds that the termination of pregnancy is unconstitutional unless there is a real and substantial risk to the life, as opposed to the health, of the mother, which risk includes the risk of suicide.
ECJ Case No. 375, 29.10.1992, Open Door and Dublin Well Woman Centre v. Ireland	<p>The European Court of Justice rules that it is legal for a pregnant woman to travel abroad to obtain a service in a European member state where that service is legally provided.</p> <p>The court also rules that a state in which abortion is illegal is entitled to prohibit the distribution of information on the identity and location of clinics in another member state where abortions are legally carried out.</p>

Twelfth Amendment of the Constitution Bill, 1992	In 1992 three proposals are put to the people: the Twelfth, Thirteenth and Fourteenth Amendments. The people reject the Twelfth (on the right to life of the unborn) and approve the Thirteenth and Fourteenth (see below).
Thirteenth Amendment of the Constitution Act, 1992	Provides that Article 40.3.3° will not limit freedom to travel between Ireland and another state.
Fourteenth Amendment of the Constitution Act, 1992	Provides that Article 40.3.3° will not limit freedom to obtain or make available information relating to services lawfully available in another state.
Regulation of Information (Services outside the State for the Termination of Pregnancies) Act, 1995	Regulates the manner in which information on abortion services may be made available to the public generally and to individuals who request such information.
1996 - 2000	<p>A constitutional review group (All-Party Oireachtas Committee on the Constitution: Fifth Progress Party Report – Abortion) and an Inter-departmental Working Group on Abortion are formed. A Green Paper is published.</p> <p>Another all-party Oireachtas committee is convened.</p>
Twenty-Fifth Amendment of the Constitution (Protection of Human Life in Pregnancy) Bill, 2002	A referendum is held and the proposal is rejected.

DIVORCE

1937 Constitution of Ireland	<p>Article 41.3.2° provides that no law may be enacted allowing for the dissolution of a marriage.</p> <p>The courts grant decrees of nullity and judicial separation and recognise some foreign divorces. In the case of a decree of nullity or a recognised foreign divorce, spouses can lawfully remarry; in the case of a decree of judicial separation they can not.</p>
1967 All-Party Dáil Committee on the Constitution	Recommends that divorce should be legally granted in circumstances where it would be recognised by a person's religion.
1983-1985: Joint Oireachtas Committee on Marriage Breakdown	Puts forward arguments for and against divorce being made legal in Ireland and concludes that a referendum should be held on the issue.

Tenth Amendment of the
Constitution Bill, 1986

Proposes that the prohibition on divorce in the Constitution be removed and that divorce be permitted in Ireland in specified circumstances. A referendum is held and the proposal is rejected.

Judicial Separation and Family
Reform Act, 1989

Widens the grounds on which a decree of judicial separation can be granted by the courts and enables the courts to make a broad range of financial and property orders for the benefit of dependent spouses and children where a decree of judicial separation is granted. These are known as 'ancillary relief orders'.

1992 Government White Paper
on Marital Breakdown: A Review
and Proposed Changes

Considers the extent of marital breakdown in Ireland and discusses various proposals for reform. Notes that any change in the constitutional prohibition on divorce can only be decided by a referendum. Various constitutional proposals are suggested.

Family Law and Social Welfare
(No. 2) Act, 1995

Extends the courts' powers in making ancillary relief orders in judicial separation, especially in the areas of life and pension policies and social-welfare entitlements.

Fifteenth Amendment of the
Constitution Act, 1994

Provides for the dissolution of marriage in certain specified circumstances. A referendum is held and the proposal is accepted.

Family Law (Divorce) Act, 1996

Provides that a court may grant a decree of divorce if it is satisfied that the conditions in Article 41.3.2° of the Constitution are complied with.

Divorce in Ireland is described as 'no fault' divorce in that proof of matrimonial misconduct, such as adultery or desertion, is not required.

HOMOSEXUAL ACTS

Offences against the Person
Act, 1861

Intercourse by penetration *per anum* (anal sex or buggery) upon a man, a woman or an animal is an offence at common law. Penalties are provided for in the Act.

Criminal Law Amendment Act, 1885

Provides that any act of "gross indecency" between males is an offence.

No legislation exists to deal specifically with sexual acts between females.

Norris v. Ireland [1988] EHRR

The European Court of Human Rights holds that the existence of a law that penalises certain homosexual acts carried out in private by consenting male adults constitutes a breach of rights under Article 8 of the European Convention on Human Rights.

Criminal Law (Sexual Offences) Act, 1993

Abolishes the offence of buggery between consenting adults. Homosexual acts between consenting adults are not prohibited or regulated by law.

It is an offence to commit or attempt to commit an act of buggery on a person under 17 or a person of any age who is mentally impaired (unless married to that person).

It is also an offence to commit or attempt to commit an act of gross indecency with another male person under 17 or a person of any age who is mentally impaired (unless married to that person). "Gross indecency" is defined as an act of a gross nature and purpose between male persons which falls short of buggery.

Soliciting or importuning for the purposes of gross indecency is also an offence.

RAPE AND OTHER SEXUAL OFFENCES

Criminal Law Act, 1935

Raises the age of consent from 16 to 17 years of age. It provides that it is an offence to have "unlawful carnal knowledge" of girls under 15 and 17 years of age respectively. The presence of consent is not a defence. It is not a defence for the accused to say that he believed the girl to be over the age of 15 or 17.

Criminal Law (Rape) Act, 1981

Rape is an offence at common law. It is defined in the 1981 Act as an offence committed by a man if he has unlawful sexual intercourse with a woman who at the time of the intercourse does not consent to it, and at that time he knows that she does not consent to the intercourse or he is reckless as to whether or not she consents.

"Sexual intercourse" is defined as penetration of the vagina by the penis.

Criminal Law (Rape) (Amendment) Act, 1990

Extends the definition of rape to a sexual assault that includes a penetration (however slight) of the anus or mouth by the penis, or a penetration (however slight) of the vagina by any object held or manipulated by another person. This is known as 'section four rape' as it is provided for by section four of the Act.

Rape as defined by the 1981 Act is an act perpetrated by a man on a woman; however, section-four rape is gender-neutral.

At common law a husband could not be found guilty of the rape of his wife. The 1990 Act abolishes this "marital exemption".

The Act also provides that the common-law offence of indecent assault shall be known as "sexual assault".

It also defines the offence of "aggravated sexual assault" as a sexual assault involving serious violence or the threat of serious violence or is such as to cause injury, humiliation or degradation of a grave nature to the person assaulted.

Criminal Law (Sexual Offences) Act, 1993

Provides for the following offences:

- committing or attempting to commit buggery with a person under 17 (unless married to that person)
- having or attempting to have sexual intercourse with a person who is mentally impaired
- committing or attempting to commit an act of gross indecency with another male who is under 17 or mentally impaired (unless married to that person)
- soliciting or importuning for the purposes of committing a sexual offence,
- offences in relation to prostitution – soliciting, loitering with intent, organising, living off the proceeds, brothel keeping.

Criminal Law (Sexual Offences) Act, 2006

This Act makes significant changes to the Criminal Law Act 1935 where it was an offence to have "unlawful carnal knowledge" with a girl under 15 and 17.

Under the 2006 Act it is an offence to engage or attempt to engage in a sexual act with a child under 15. This is described in the Act as "defilement". Unlike in the 1935 Act, the offence extends to any sexual act and is gender-neutral. A "sexual act" is defined as sexual intercourse or buggery between persons who are not married to each other or an act of aggravated sexual assault or section-four rape. A new defence of "honest belief" is provided for where it is open to the accused to argue that he or she honestly believed that the child was aged 15 or over. The court will then consider if there are reasonable grounds for that belief. It can never be a defence to argue that the child consented to the sexual act as the age of consent for both heterosexual and homosexual activity is 17.

It is also an offence to defile or attempt to defile a child under 17. If the perpetrator is “a person in authority” they shall be subject to a higher penalty. The defence of “honest belief” may also be argued.

If the perpetrator is under 17 the consent of the Director of Public Prosecutions is required before he or she may be prosecuted.

A girl under 17 shall not be guilty of an offence by reason only of her engaging in an act of sexual intercourse.

[Criminal Justice Act, 2006](#)

Provides for the offence of reckless endangerment of children.

A Joint Committee on the Constitutional Amendment on Children, established in December 2007, is (a) examining the Twenty-Eighth Amendment of the Constitution Bill 2007 and (b) considering the text set out in the schedule to that bill with regard to a range of children’s rights issues, including ensuring that no provision in the Constitution should invalidate any absolute or strict liability in respect of sexual offences against or in connection with children.

1.3 Sex education in Ireland

ONE medium through which knowledge and attitudes to sex can be changed is education, whether through formal channels such as schools or informal channels such as parents, siblings, friends and media such as magazines, television, film and the internet.

Since the late 1990s, a significant attempt has been made to systematise the teaching of sex education in Irish schools. However, sex education in schools is often less than ideal. Indeed, a number of studies in recent decades have found that many young people in Ireland did not possess important knowledge and information about basic sexual matters^{9,10,11,12} In 1997 the Relationships and Sexuality Education programme (RSE) was introduced. RSE aims to provide young people with a holistic understanding of sexuality in the context of relationships; it includes lessons on self esteem, understanding feelings, communication skills, decision-making, conflict resolution and personal safety, as well as biological information on puberty, the reproductive system, sexual intercourse, sexual orientation, fertility, family planning and sexually transmitted infections. Each school is required to develop a policy for RSE in consultation with the whole school community; the policy provides a framework within which the RSE programme, as laid out in the National Council for Curriculum and Assessment guidelines, will be taught.

An evaluation in 2000 of sex education in Irish schools¹³ found that:

- 42% of primary and 34% of post-primary schools had not drafted an RSE policy document
- around a quarter of both primary (26%) and post-primary (28%) schools had not established an RSE policy committee

The author concluded that many children were not receiving adequate sex education at school or at home. However, the evaluation did find an increase in the number of schools establishing committees and drafting policy documents between 1999 and 2000. Additionally, 36% of primary schools and 64% of post-primary schools had drawn up an RSE programme by 2000; and 19% of primary and 42% of post-primary schools had implemented it in all classes. Again, an increase in schools drawing up and implementing RSE programmes was seen between 1999 and 2000, and 59% of primary and 42% of post-primary schools said they intended to implement an RSE programme in all classes in the following year.

A national survey of implementation of SPHE at Junior Cycle carried out by the University of Limerick in 2002 asked school principals (response rate 48%) to outline the availability of RSE programmes. Results showed that an RSE programme was available to 73% of first-year, 69% of second-year and 63% of third-year students. The authors suggested that, although fewer students received RSE as they moved into adolescence, their need for education in RSE was probably likely to increase over these school years.¹⁴

Further research by Mayock et al (2007) among 187 post-primary schools (response rate of 76%) showed that the proportion of schools not teaching RSE to their pupils rose from 11.3% for first year to 33.3% for sixth year.⁶⁸

The same research showed that RSE tends to be taught as part of SPHE for first- and second-year classes, but is increasingly taught as part of another subject from third year on. For example, among first- and second-year classes, 7% taught RSE as part of another subject (81% as part of SPHE), but this total rose to 20% in third year (58% as part of SPHE). In sixth year, 52% of classes were taught RSE as part of another subject and 12% as part of SPHE.

Another evaluation of RSE implementation in primary schools (response rate 50%) carried out in 2002 found that:

- 69% had established an RSE policy committee
- 65% had drafted an RSE policy document
- 50% had implemented the policy through an RSE programme

However, many schools reported an intention to implement an RSE programme in the coming years.

1.4 The need for a national survey of sexual knowledge, attitudes and behaviours

THE emergence of HIV, the sexually transmissible virus that may result in AIDS, is the primary reason why there have been more than 40 national surveys of sexual knowledge, attitudes and behaviours around the world since 1980.¹⁵

Although the data are necessarily incomplete (they depend on patterns of testing and reporting), the level of new HIV infections in Ireland has been reasonably low compared to other countries and rates of infection did not increase until the mid-1990s.¹⁶ Since then, however, there

has been a rise in infections; this rise was particularly sharp after 1998. Between 1998 and 2003, infections rose by 243%, but this increase was not straight-forward. It was from a comparatively low base and so the rate of increase is misleading as the absolute number involved was relatively small. As well, the increase after 1998 was mostly among heterosexuals and over 80% of new infections were among recent immigrants from sub-Saharan Africa¹⁶ who would have acquired their infections outside the state. The pattern of HIV infection in Ireland was not, then, one found in many other industrialised countries. However, after 1998 the rate of increase suggests that HIV could be a substantial problem in time if conditions encourage its spread.

More striking, perhaps, in the Irish context is the steady increase observed in other sexually transmitted infections since 1989. Reports by the Health Protection Surveillance Centre (HPSC – formerly the National Disease Surveillance Centre) from 2000 to 2003 show that the number of new STI infections notified increased from 2,228 in 1989 to nearly 10,500 by 2003. Rates of genital warts, non-specific urethritis and Chlamydia trachomatis increased strongly, particularly after 1994.

Sexually transmitted infections can have serious consequences for individual health and present a substantial burden for health-care services. If left untreated Chlamydia can lead to pelvic inflammatory disease and be a cause of ectopic pregnancy and infertility. Genital warts and the virus which causes them can cause cervical and other genital cancers. Hepatitis C can cause chronic liver disease and liver cancer. An increase in STIs is thus a cause for deep concern, but infection with STIs also increases the risk of transmitting HIV during unprotected sex.

It is clear, then, that the large increases in STIs in Ireland over the last 15 years and the rise in HIV infection among the heterosexual population, albeit from a low base, could lead to large increases in HIV infection in Ireland over the medium term.

It was in the context of the increase in HIV and STI infections after the mid-1990s that the report of the National AIDS Strategy Committee¹⁷ recommended that a national survey of sexual knowledge, attitudes and behaviours in Ireland be carried out in line with those in other European countries. Such a study would provide nationally representative information on knowledge and attitudes to sex, sexual health, sexual-health services and sexual behaviour. The data would also provide a benchmark for planning sexual health promotion services and strategies. Both 'Quality and Fairness: A Health System for You' and 'The National Health Promotion Strategy 2000-2005' supported the full implementation of the AIDS Strategy 2000.

On July 17th 2003, the Crisis Pregnancy Agency and the Department of Health and Children published a tender document. It requested proposals for the first national sexual KAB survey. The primary aim of the project, as set out in the tender document, was the collection of reliable, nationally representative baseline information that would:

- build a representative and reliable national picture of sex and sexual **behaviour** in Ireland
- measure levels of sexual **knowledge** among people in Ireland
- reliably assess national **attitudes** to important constructs related to sex, sexuality, service use, etc, to examine patterns (similarities and differences) among different cohorts and the patterns underlying these variations
- examine, explore and reliably describe the interrelationships between knowledge, attitudes and behaviours in the context of theory, sexual-health promotion and policy development

The research objectives of the study were defined as:

- To establish baseline data that will enable key variables to be monitored, replicated and tracked over time.
- To provide nationally representative statistical data describing levels of sexual knowledge, attitudes and behaviours in Ireland, to better inform policy and practice.
- To understand the factors (behavioural, attitudinal and knowledge level) related to the broad spectrum of sexual behaviour and practice and to feed this information into policy and practice. Key sexual behaviours and practices of interest include risk-reductive behaviours, protective behaviours, and positive and negative sexual health outcomes.
- To generate a better understanding of the factors that contribute to unplanned pregnancy, STIs and the interrelationships between these factors.
- To examine this data with respect to key variables (e.g., urban/rural categories, gender, education levels) so as to assess any significant patterns with respect to behaviour, attitudes or service usage, for example.
- To compare findings with international data and with previous Irish data and to feed this information into policy and practice.

For a more detailed description of the process leading up to the survey, see *The Irish Study of Sexual Health and Relationships: Main Report*.¹⁸

1.5 Understanding the relationship between sexual knowledge, attitudes and behaviours

THE value of this sub-report in the ISSHR series is the role it plays in linking sexual knowledge and attitudes to specific behaviours. However, doing this requires a conceptual framework to structure the analyses to come and the results which emerge.

Most models of human behaviour are based on the cognitions and rationality of an individual. Rational decision-making models consider knowledge and beliefs regarding a person's current situation to be central to his or her decision to engage in a given behaviour. While knowledge is an important prerequisite for behavior, it does not necessarily shape action. For example, knowledge of the benefits of condom use in preventing infection does not guarantee use during a sexual encounter. Ajzen and Fishbein¹⁹ argued that the extent to which a person's knowledge can be used to predict behaviour is limited as the influence of social peers is not taken into account. This social influence may be particularly strong in relation to sexual behaviour, as, unlike most other health behaviours, sex occurs within a dyadic relationship. Therefore it is important to examine sexual practices in the context of the type of relationship. Attitudes towards sexual practices are also important predictors of whether a person will engage in safe sex; for example, if a person has a negative attitude towards condoms, it is unlikely that they will use them.

The basic KAB model of sexual behaviour described above is minimalist in nature as it assumes that knowledge and attitudes are singularly capable of steering action over time and over obstacles.²⁰ A more comprehensive KAB model of sexual behavior, which examines various situational factors, is required. According to King,²¹ human behaviour is the result of competition

between a multitude of motivational tendencies. This competition is referred to as inter-goal conflict. Karoly²⁰ regards inter-goal conflict as a “demon of self-regulation” and advocates careful analysis of factors which serve to derail an individual's efforts to perform a particular behaviour. In relation to safe sex (particularly condom use), inter-goal conflict may emerge in conditions of high sexual arousal or intoxication by alcohol. In other words, decisions to engage in unsafe sex are often made in the heat of the moment²²⁻²⁴ or after the drinking of alcohol^{25,11} rather than after rational deliberation. Another reason that condoms are not used is simply the failure to have a condom available at the time of intercourse.^{26,27}

Finally, a comprehensive KAB model of sexual behaviour requires the examination of demographic factors (e.g. gender, age, education and socio-economic status) and how they relate to sexual lifestyles. The inclusion of demographic factors allows for certain groups who are most at risk of infection or unintended pregnancy to be identified. Examining age differences allows intergenerational differences in attitudes and behavior to be identified. Intergenerational differences, observed across Europe, are likely to emerge due to social factors, such as the narrowing of the gap between gender roles since the availability of the oral contraceptive pill, improved educational opportunities for women and the growing participation of women in the workforce.²⁸

The following sub-sections outline attitudes to various issues in the context of international research.

1.5.1 Attitudes to condoms

THE Health (Family Planning) (Amendment) Act, 1993 introduced legislation in the Republic of Ireland to allow condoms to be sold in a wide range of outlets. However, little is known about Irish attitudes to condom use.

Several international studies have found negative attitudes towards condoms, particularly among men. This was mainly due to perceptions of reduced sexual pleasure and interruption of intercourse.²⁹⁻³¹ Another potential barrier to condom use is the view that they are too expensive. However, Sutton, McVey & Glanz³² found that respondents did not think the cost of condoms would prevent use. Rosenthal, Fernbach & Moore²³ found that few sexually active adults in the ‘single scene’, i.e. in bars and clubs, in Australia expressed negative attitudes to condoms. They also found that homosexual men had more positive attitudes to condoms than heterosexual men.

The ISSHR study examines whether the cost of condoms would discourage respondents from using them. The findings can be used to measure how far cost is a barrier to safe-sex practices.

1.5.2 Attitudes to the oral contraceptive pill

A NUMBER of studies have found that women often hold negative attitudes towards the oral contraceptive pill. These concern the potential medical side-effects, mood-swings and weight gain.^{29,33-36} In the Irish context, the Irish Contraception and Crisis Pregnancy (ICCP) study found that 50% agreed that the oral contraceptive pill has dangerous side-effects. Older respondents were more likely to hold this negative attitude (Rundle *et al* 2004); this may reflect their awareness of ‘first generation’ contraceptive pills, which had a higher side-effect profile than those of recent

years, or their awareness of risks associated with use of the contraceptive pill by older women.¹¹

The cost of the oral contraceptive pill has also been identified as a potential barrier to use. For example, a focus-group study of Belgium girls (aged 17) found that one of the most important obstacles to use was having to pay the doctor and the cost of the contraceptives.³⁷ This is consistent with the study by Pesa *et al*³⁸, in which a small percentage of adolescents felt that birth control was too expensive.

The ISSHR study examines women's attitudes to the oral contraceptive pill in relation to three potential barriers identified in the literature to date: the possible medical side-effects, possible weight gain and the cost of the pill.

1.5.3 Attitudes to emergency contraception

UNTIL recent years, women seeking the emergency contraceptive pill had to obtain a prescription from a doctor. To improve access to emergency contraception, pharmaceutical companies developed progestin-only products. These have no medical side-effects and can be safely used without a prescription. Progestin-only emergency contraceptive pills have been registered as a non-prescriptive method in over 25 countries.³⁹ However, Irish women require a medical prescription. Little is known about the attitude of the Irish public towards over-the-counter availability of this pill.

Research internationally has generally found positive attitudes to the availability of over-the-counter emergency contraception.⁴⁰ However, concerns about its potential misuse and health risks have been raised.⁴¹ A qualitative study of Swedish women who had purchased emergency contraception over-the-counter reported that they appreciated this option and saw it as a time-saving and safe method.⁴² A national Swedish study of young women aged between 16 and 30 found that 78% had positive attitude to over-the-counter availability; 65% of respondents said they would prefer to purchase the emergency pill in a pharmacy, while only 35% said they would prefer to obtain it from a clinic.⁴¹ Focus-group discussions with users of non-prescription emergency contraception in France, Norway, Sweden and Denmark reported similar results. Respondents were unanimous in their appraisal that over-the-counter delivery increases accessibility by eliminating time and cost barriers.³⁹

Not all studies have reported such high levels of approval of over-the-counter accessibility. For example, Smith *et al*⁴³ found in their postal survey of 2,000 women aged 18-47 in the UK that only 36% considered over-the-counter availability desirable. Those with positive attitudes to over-the-counter availability were generally younger and single. Haggstrom-Nordin & Tyden⁴⁴ found gender differences in attitude among a sample of Swedish adolescents; more boys (55%) believed that the emergency contraceptive pill should be sold over-the-counter than girls (35%).

One of the major concerns raised in policy debates about deregulating the emergency contraceptive pill is that it would result in more risk-taking, such as increased unprotected intercourse and the abandonment of more effective forms of regular contraception.⁴⁵ This concern has also been voiced by study participants who support over-the-counter availability.^{40,44} For example, in the study by Gainer *et al*,³⁹ women in France, Norway and Sweden were concerned that easy access to emergency contraception might result in overuse and misuse among young

people. They were particularly concerned that young people might substitute regular contraception with emergency contraception, thus putting themselves at greater risk of STIs, including HIV. Despite expressing this general concern, the opposite was generally the case in relation to their own behaviour. Respondents reported that they became more vigilant in their contraception practices, using a regular method more responsibly or switching to a more reliable method. This increased motivation to use regular contraception was frequently shared by the respondents' male partners.

Raine *et al*⁴⁵ addressed these concerns by randomly assigning 2,117 young women aged 15-24 to (a) over-the-counter access in a pharmacy without a prescription, (b) advance provision of the emergency contraceptive pill (ECP) and (c) usual care, which required a visit to a clinic to obtain emergency contraception. The authors assessed the effects of increased access on repeated use of emergency contraceptives, pregnancy rates, acquisition of new sexually transmitted infections, contraception use and sexual behaviour. In a follow-up after six months:

- women in the advance-access group were more likely to report use more than once than those in the clinic-access group
- of those in the advance-access group, only 7% used the ECP twice while 4% used it three or more times
- those in the pharmacy group were not more likely than women in the clinic-access group to use it more than twice

Furthermore, easier access to emergency contraception did not compromise regular contraceptive use or lead to risky sexual behaviour. There were no differences in frequency of unprotected sex by study group. Those in the advance-access group were twice as likely to use emergency contraception as those in the clinic-access group. However, there were no significant differences in rates of pregnancy by study group. Similarly, there were no differences in positive Chlamydia or HSV-2 tests across study groups.

Gold, Wolford, Smith, & Parker⁴⁶ conducted a similar study to determine if adolescents given advance emergency contraception would report higher contraceptive risk-taking behaviours than those obtaining it as needed. They found that providing advance supplies was not associated with less use of condoms or hormonal contraception. However, these findings must be addressed with caution, as there was a large attrition rate – 36% – at the six-month follow-up.

Glasier & Baird⁴⁷ also examined the effects of advance provision of the emergency contraception, relative to a control group who obtained emergency contraception by visiting a doctor. They found that the treatment group used the emergency contraception more frequently (47% at least once relative to 27% of the control group). However, women in the treatment group were not more likely to use it repeatedly and their use of other contraception did not differ from that in the control group. During the study, there were 18 unintended pregnancies in the treatment group compared to 25 in the control group. Therefore making emergency contraception easily attainable may reduce the rate of unwanted pregnancies.

1.5.4 Attitudes to abortion

AN unplanned or crisis pregnancy is one of the consequences of unprotected intercourse or contraceptive failure. The ICCP study addressed this issue in great detail in its report,

highlighting the three possible outcomes: becoming a parent, having an abortion or deciding to put the child up for adoption. Rundle *et al*¹¹ concluded that, while the stigma of becoming a lone parent in Irish society had diminished, Irish women travelling abroad for an abortion remained “silent and invisible” (p.39).

Figures from the UK National Statistics Office have shown that the number of Irish women travelling to Britain to terminate an unplanned/crisis pregnancy has been rising; over 6,000 women who had an abortion in Britain in 2001 identified their place of residence as Ireland.¹¹ Although reliable figures are not available, it is also likely that Irish women are travelling further afield than the UK for terminations.

Consistent with the increase in Irish women travelling abroad for an abortion, Irish public attitudes toward abortion appear to be less conservative in recent years. For example, the European Values Study (EVS) in 1981 found that 74% of Irish participants agreed with the statement that ‘abortion is always wrong’. This figure decreased to 68% in 1990. The International Social Survey Programme (ISSP) in 1991 and 1998 showed a further decline – to 48% and 41%, respectively.

International KAB studies of sexual behaviour have also examined attitudes to abortion.^{15,48,49} In these, a minority consider abortion to be always wrong: for example, less than one-fifth of Australians and 17% of men and 18% of women in the British study.^{50,51} Rissel *et al* (2003)⁵⁰ found that women were less likely to agree that abortion is always wrong; 71% of men and 73% of women disagreed. In contrast, Natsal (1994) found that women were slightly less liberal, with 38% saying abortion was always or mostly wrong compared to 33% of men. However, attitudes among British women have been found to be more liberal in recent years; Marie Stopes International (2002)⁵² found in their study of 1,222 women aged 16-49 that only 27% agreed that abortion is morally wrong.

The national Australian study (ASHR) revealed that men and women aged 16-19 were significantly more likely than older men and women to believe that abortion was always wrong.⁵⁰ Other studies have found that people who consider religion important are more likely to oppose abortion.⁵³ Wellings *et al*⁴⁸ found that UK respondents whose religious affiliation was Roman Catholic were more likely to oppose abortion than people of another or of no affiliation.

Another measure of attitude to abortion is to assess people’s views of the circumstances in which an abortion might be permissible. The ICCP report covered this extensively,¹¹ so it is not addressed in this report which, in line with other KAB studies, examined moral attitudes to abortion.

1.5.5 Attitudes to premarital sex

THERE is now an almost universal trend in developed countries towards delaying marriage and becoming sexually active at a younger age.⁵⁴ In their study of the ‘single scene’ in Australia, Rosenthal *et al*²³ noted that the media portray multiple sexual encounters as the norm among this group. They are depicted as having many opportunities for sex and fewer attitudinal barriers to premarital sex than past generations. However, attitudes to premarital sex vary internationally. For example, Sprecher & Hatfield’s cross-national comparison study of university students⁵⁵ found that American students had more liberal attitudes than students in Russia or

Japan. However, Americans were found to hold the least liberal attitudes compared to people in Britain, France, Sweden and Canada; only 59% approved of sex before marriage. In contrast, 94% of Swedish respondents approved, followed by 84% of Canadian and British respondents.⁵⁶ ASHR found that more than three-quarters of Australian men and women were accepting of premarital sex.⁵⁰ In the Natsal study in Britain, three-quarters of the sample said sex before marriage is not at all wrong or only rarely so.⁴⁸ As well, Copas *et al*⁵⁴ reported an increase in tolerance of premarital sex in Britain between 1990 and 2000.

Gender differences in attitudes to premarital sex have been found. Oliver & Hyde's meta-analysis of 177 studies⁵⁷ found that men tend to express more liberal attitudes towards sex before marriage. Findings from the Australian and British national studies are consistent with this trend. Rissel *et al*⁵⁰ found that women were significantly less likely to agree with the statement that 'sex before marriage is acceptable'. However, the difference was small; 84% of women agreed compared to 86% of men. Similarly, Rissel *et al* reported that women were marginally less likely than men to see pre-marital sex as acceptable; three-quarters of men and two-thirds of women considered sex before marriage as not wrong at all.

Interesting gender differences emerged between Natsal 1990 and Natsal 2000. In 1990, 84% of men considered sex before marriage as rarely or not wrong at all; this proportion increased to 85% in 2000. A greater increase in tolerance was reported among British women; 79% considered sex before marriage as rarely or not wrong at all in 1990, rising to 84% in 2000, which is almost level with British men's attitudes.

Attitudes to premarital sex are most liberal among those in the age group in which it is most likely to occur. Natsal⁴⁸ found that only one in 20 young adults aged 16-24 considered premarital sex to be wrong. But nearly three times as many men and four times as many women aged 45-59 considered it to be wrong. However, those in the older group disapproving of premarital sex were still in a minority.

A comparison of British and American respondents also found greater tolerance among younger generations in both nations.⁵⁸ Similarly, Rissel *et al*⁵⁰ reported that Australian men aged 16-19 were significantly less likely than older men to consider premarital sex as unacceptable. However, age was not related to the acceptance of premarital sex among female respondents.

Similar findings have been reported in the Irish context. A survey by MacGreil in 1988-89⁵⁹ found 27% believed that premarital sex was always wrong. However a strong generation gap was found; 20% of people under 35 considered premarital sex is always wrong compared to 85% of those over 65. The 1998 version of the ISSP found that 30% of Irish respondents but only 8% of those aged 18-28 considered premarital sex to be always wrong.⁶⁰

Religiosity has also been found to influence attitudes to premarital sex. For example, Stevens *et al*⁵³ found in their study of university students in 1999 that those who considered religion to be important were more likely to see premarital sex as wrong. Wellings *et al*⁴⁸ found the same among people with a religious affiliation.

1.5.6 Attitudes to 'one-night stands'

IN the ISSHR survey the term 'one-night stands' was used to investigate attitudes to casual sex. Casual sex refers to sexual intercourse that the participants engage in without the intention of forming a long-term relationship. It thus refers to the intentions of the partners and should not be confused with extra-marital sex. (From here on, the term 'casual sex' is used.)

There appears to be less acceptance of casual sex than of premarital sex, particularly among women. Wellings *et al*⁴⁸ found in the early 1990s that 36% of British men but 62% of British women considered casual sex to be always wrong. However, British attitudes have become more liberal in recent years. Copas *et al*⁵⁴ examined changes in public attitudes between 1990 and 2000, revealing that in 1991 71% of men thought casual sex is sometimes, mostly or always wrong, compared to 59% in 2000. The comparable figures for British women are 90% in 1990 and 77% in 2000. These figures show that, in Britain, women support monogamy more strongly than men. Rissel *et al*⁵⁰ also found gender differences in attitudes to casual sex.

The Australian study, unlike the British one, measured attitudes to casual sex in the context of the respondents' specific regular heterosexual relationship rather than as a view of short-term sexual interactions or infidelity in general. Most respondents – 96% of both men and women – expected that their partner would not have sex with other people. However, women were significantly more likely to report that they expected they would not have sex with other people; 97% of women reported this against 94% of men. Men's expectations of not having sex with others was significantly less likely among younger men and bisexual men, if they did not expect their partner to do so, if they had more than one regular partner and if they had sex with more than one person in the previous year. Among women, such expectations were significantly more likely among older women, heterosexually identified women and women with higher incomes and blue-collar, managerial and professional occupations.

Little is known about Irish attitudes to casual sex. The ISSP found that the number of Irish people who considered extra-marital relationships as always wrong declined from 71% in 1991 to 63% in 1998, while 43% of respondents between 18-28 agreed that it was always wrong.⁶⁰

The ISSHR study examined Irish attitudes to casual sex, thus allowing for comparisons with the British Natsal study.

1.5.7 Attitudes to homosexuality

ATTITUDES toward homosexuality in Ireland have softened substantially in the last two decades. There is now increased acceptance of homosexuality as an expression of human sexuality rather than a sin or an illness that needs to be treated.^{5,3}

In the past, in some Western societies, people who engaged in homosexual activity were often committed to psychiatric hospitals, given hormonal or aversion therapy or even castrated.⁶¹ In 1974, the American Psychiatric Association removed homosexuality from the Diagnostic Statistical Manual, thus indicating that it was no longer considered a psychiatric condition.⁴⁸ In 1993, homosexual acts were decriminalised in Ireland and the age of consent for homosexual activity was made the same as that for heterosexual relations.

Despite such changes, Sandfort²⁸ argues that most European societies are more supportive of heterosexual than homosexual relations and there is social pressure to adopt a heterosexual lifestyle. However, nationalities differ greatly in their views about homosexuality. Kelley (2001) examined differences in attitudes toward homosexuality across 29 countries, using data from the International Social Survey Program 1998/1999. Tolerance of homosexual behaviour was measured on a scale from 0 (always wrong) to 100 (not wrong at all). The most liberal countries included the Netherlands (77/100), Switzerland (62/100) and Denmark (60/100). Tolerance was much lower among the Irish sample, with a score of 29/100. Kelley concluded that each country had moral reservations about homosexual behaviour but that the intensity of such reservations varied.

Sandfort 1998²⁸ suggested that Ireland might have reported lower tolerance for homosexual behaviour due to the Catholic Church's influence on social organisation. This argument is consistent with Kelley's finding that people with religious beliefs tend to be less accepting of homosexual behaviour. Richer countries, as indicated by their gross domestic product per capita, were found to be more tolerant of homosexuality.

Little is known about the influence of religiosity on Irish attitudes to homosexual behaviour. If patterns follow those in other countries, the combination of recent decline in religious practices and increased prosperity in Ireland may be associated with increased tolerance. The European Values Survey in 1999 revealed that 35% of Irish respondents considered same-sex relations as always wrong, but only 19% of younger adults (aged 18-26).⁶⁰

Changes in social attitudes over the past decade (towards greater acceptance of homosexuality) have been documented in studies conducted in Australia, Britain and America. Kelley 2001⁶² compared Australian attitudes measured in 1984 to those from 1999/2000. Most respondents (64%) condemned homosexuality as always wrong in 1984, but 48% did so in 2000. As well, the percentage of respondents reporting that homosexuality is 'not wrong at all' almost doubled, from 16% in 1984 to 28% in 2000. Findings from ASHR further supported a decline in negative attitudes towards homosexuality; around one-quarter of respondents agreed that male or female homosexual activity is always wrong.⁵⁰

Attitudes in the 1980s may have been partly influenced by the emergence of the AIDS epidemic, which led to an increase in anti-gay sentiments as homosexual activity was initially identified as the primary mode of transmission of HIV.⁴⁸ The UK Natsal studies in 1990 and 2000 also demonstrated a substantial increase in public tolerance of male homosexuality over the decade.⁶³

Research has consistently shown gender differences in attitudes towards homosexuality. A meta-analysis of 112 studies suggested that women hold more positive attitudes toward homosexuality than men.⁶⁴ As well, heterosexual individuals tend to express more negative attitudes towards homosexual activity among members of the same gender. Again this negativity is more pronounced among men.^{65,64} Consistent with this, a national American study of 1,335 respondents in 1998/1999 found that almost 50% of men said they felt somewhat or very uncomfortable in the company of homosexual men, whereas 29% felt this way in the company of homosexual women. Among women, 29% felt uncomfortable in the company of homosexual men but 43% were uncomfortable with homosexual women.⁶⁵

Similarly, the ASHR study found that women were significantly more likely than men to agree that sex between two adult women is always wrong, and significantly less likely to agree that sex between two adult men is always wrong. More men condemned sex between men than did women condemn sex between women.⁵⁰ This gender bias is further supported by the British Natsal studies of 1990 and 2000. For example, in 1990 71% of men and 60% of women reported that sex between two men was sometimes, mostly or always wrong. As noted earlier, tolerance increased in the following decade, but there were still gender differences: 60% of men and 36% of women said sex between two men is sometimes, mostly or always wrong in 2000 (54). A recent study of over 2,000 German respondents also found that women reported more favourable attitudes to homosexuality than men.⁶⁶ Stevens et al's 2003 study of American student attitudes⁵³ reported that men were more likely to consider homosexuality as unacceptable than women (49% vs. 25%) in 1990, but no significant differences were found in 1999.

Kite and Whitely 1996⁶⁴ argued that this difference in attitude may arise because heterosexual men believe that homosexual men violate gender roles and reject the advantaged status of being male. They also postulate that cultural norms of masculinity require men to prove that they are not homosexual, and that disliking homosexual men is one means of achieving this and thereby enforcing their own heterosexual masculine identity.

Older people appear to be less tolerant of homosexuality.⁶² ASHR showed that Australian men aged 50-59 were significantly more likely than younger men to believe that male and female homosexual activity is always wrong. Similarly, older women reported less acceptance of both male and female homosexual activity.⁵⁰ The German study also found that younger respondents were more accepting of homosexual and bisexual activity than older adults.⁶⁶ In contrast, the first Natsal study found that younger respondents were not significantly more tolerant than older ones.⁵¹

Other factors found to influence attitudes to homosexuality include education and religious beliefs. People with higher education are more likely to accept homosexuality⁶² whereas those with religious beliefs are less tolerant.^{67,53} Place of residence was also found to influence attitudes in the first Natsal study; men and women living in London were more tolerant of sex between two men than those living in the rest of the country. The authors suggest that these differences may arise since gay men have a higher profile in the capital, which increases familiarity and thus tolerance.⁵¹

This study examines current Irish attitudes toward homosexual behaviour.

1.6 Current study

THE value of a national study of sexual knowledge, attitudes and behaviours such as ISSHR lies in its ability to examine the complex interplay between individual factors and social relationships within a social and economic context. Since, to be effective, a strategy for behavioural change must be sensitive to context, understanding the complexities of sexual behaviour is essential for informing future policy and practice. It is not enough to merely identify predictors of sexual behavior. The challenge is to identify modifiable factors which can be targeted in strategies to promote sexual health. Unlike certain social factors, such as age or socio-economic status,

knowledge and attitudes are potentially modifiable. Therefore it is important to identify how they promote or impede safe sexual practices.

This sub-report addresses the social construction of sexuality in Ireland, by focusing on contemporary sexual knowledge, attitudes and behaviours. Attention is also given to socio-demographic variables and self-reported barriers to practising safe sex.

This report is one of three specialist reports considering information from the *Irish Study of Sexual Health and Relationships* (ISSHR). This was an anonymous telephone survey of 7,441 adults aged 18-64 in Ireland. Data was collected in 2004/5.

Chapter two describes the methodology of the ISSHR studies.

Chapters three and four provide detailed analysis of contemporary knowledge and attitudes. Chapter three reports on current levels of knowledge about: fertility; time limit for the effectiveness of the emergency contraceptive pill; and STIs including Chlamydia and HIV. Chapter four investigates attitudes towards various sexual health issues, including: condom use; oral and emergency contraceptives; abortion; various sexual partnerships such as sex before marriage and one-night stands; and attitudes towards homosexuality.

The remaining chapters focus on sexual practices. These are generally a matter of individual choice, but decisions are made in context and may be influenced by socio-demographic factors, level of knowledge about fertility and STIs, and an individual's perceived risk of infection – as well as by attitudes to contraception, condoms, sexual behaviours and partnership types. The influence of these factors is examined in relation to use of contraception and outcomes of crisis pregnancy (**chapter five**), condom use (**chapter six**) and partnership patterns (**chapter seven**). The latter investigates the number of sexual partners across three time-frames and experience of commercial sex.

Chapter eight summarises the key findings and develops recommendations for policy and service development.

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2

Designing the ISSHR study

2.1 Introduction

THE core aims of the ISSHR study were to generate a nationally representative and reliable picture of the sexual knowledge, attitudes and behaviours of the Irish population and to describe the interrelationships between knowledge, attitudes and behaviours in the context of theory, sexual-health promotion and policy development (Crisis Pregnancy Agency and Department of Health and Children tender documentation, July 2003).

From the beginning of the project a series of decisions had to be taken on how these objectives could be achieved and a balance struck between the competing requirements. A nationally representative survey demands a national sampling strategy that takes account of the geographic and socio-demographic diversity of the country. However, the sampling frame used is influenced by the mode of data collection and this in turn influences the nature of the survey instrument that can be used.

Balancing these requirements to achieve the project aims is a difficult process, but there are also other important issues that need to be considered. Sexuality and sexual behaviour are sensitive subjects; the methodological approach adopted needs to recognise this if it is to be successful and to protect the privacy of respondents.

Similarly, many of the issues addressed within a knowledge, attitudes and behaviour (KAB) survey can provoke a strong emotional reaction. Thus the welfare of respondents also needs to be paramount when designing the methodology. Fortunately, the Irish Contraception and Crisis Pregnancy Study,¹ carried out the year before development work on ISSHR began, had tested how to deal with issues of sensitivity and privacy. This contributed greatly to the development process of the ISSHR project.

This chapter examines the diverse range of methodological questions addressed before the study could begin.

The **next section** begins by examining whether a survey of sexual knowledge, attitudes and behaviours among Irish people is actually feasible and will return valid, reliable results.

The **third section** considers the question of the target population in terms of the minimum and maximum ages of respondents and population groups that should be included.

The **fourth section** examines the issue of how the questionnaire should be administered. Administration is a crucial issue in a survey of such sensitive information, but the choice of method also has implications for the sampling strategy, and this is discussed in **section five**.

Section six details the development of the questionnaire and how this was shaped by the aims and objectives of the study and by previous KAB surveys carried out in other countries.

The **seventh section** outlines the pilot survey for the project; **section eight** covers the recruitment and training of interviewers, and **section nine** the issue of ethical clearance.

Section 10 examines interviews carried out and the response rate achieved, while **section 11** assesses the representativeness and demographic profile of the final data file. This section also details the weighting strategy adopted to ensure that the data was representative.

Section 12 describes important relationships between variables, while **section 13** explains statistical methods and provides an overview of methods used to present results.

2.2 Asking questions about sex and sexuality

SEX is a sensitive subject in almost all cultures² and Irish society is no different. Thus, the issue arises as to whether it is feasible to ask people sensitive questions and expect an honest answer. This concern was one of the primary reasons why research into sex around the world was confined to convenience samples and sub-groups of the population until the mid-1980s. However, since then it has been shown in a number of countries that people will answer deeply sensitive questions as long as they feel that this is part of a legitimate and socially valuable research project and they are guaranteed that their information will be treated in the strictest confidence. In this sense, survey research on sex faces many of the same problems that all survey research faces.

The techniques for gaining cooperation are essentially the same as those used when investigating other subjects. For example, at the beginning of a survey, within 20 or so seconds of contact being established, the interviewer needs to convince the respondent that the research is being conducted for a legitimate purpose and that its findings will be used to improve the health and welfare of the population in general. Establishing this may require verification of the project and/or interviewer. The ISSHR project used a system whereby respondents could call back to the ESRI directly and speak to a researcher or, if need be, the researchers could fax the details of the project to a local garda station. Using these procedures, previous Irish researchers found that most fears about participation could be dealt with and cooperation obtained.

Although people may answer questions, however, the fear of social judgement may motivate them to conceal their true sexual behaviour. Where behaviours are socially disapproved of, or do not reflect well on the individual reporting them, there is always an incentive to either not report or under-report. Similarly, other people may well embellish the accounts they present of their sexual behaviour, over-reporting the frequency of a particular behaviour or reporting behaviours they have not experienced. To these issues we should add the more mundane problems of survey research such as the potential for inaccurate recall of past events or the fact that respondents may reconstruct their experiences in a manner which they perceive is desired by the interviewer.

A number of studies have examined the reliability of self-reported sexual behaviour. In general, the findings are quite positive. One route has been to compare the data given by sexual partners independently of each other, examining the extent to which these present a coherent picture.³⁻⁵ In general, these have shown a high level of agreement. A number of studies that used a test-retest approach^{6,4,7} found very high levels of reliability, even where the tests were carried out up to 18 months apart.

Another test of the extent to which survey data presents a reliable picture of behaviours is to compare self-reported behaviours with outcomes measured in other statistical sources. A good example of this is the results of the British National Survey of Sexual Attitudes and Lifestyles (Natsal) survey.⁸ This showed a pattern of sexual risk behaviour across age groups which is highly consistent with the patterns observed across age groups in statistics on STIs and abortions gathered through surveillance centres in the UK.

2.3 The target population

THE overall aim of the ISSHR project was to collect representative data on KAB issues for the Irish population. This presented several problems. First, interviewing all groups, even where they resided in institutions (say, prisons or care homes), would have entailed creating a complicated sampling frame of those who could be interviewed; there would be serious doubts as to whether the samples attained would be useful for analysis because of the circumstances in which they lived. For this reason, in a consultation process with a panel of interested stakeholders in the area of sexual health and education, it was decided early on⁹ that the sampling frame for the project would be drawn from the non-institutional population in private residential housing.

This choice simplified the sampling frame required, but there was a second problem. There are many groups in the population that it would be beneficial to have in the sample if it is to represent the population and if analysis is to be performed on issues specific to a sub-group (e.g. Travellers, refugees). Even cursory analysis shows, however, that if these groups made up a small part of the Irish population,^A the number who would be found in the final sample would not be useful for analysis unless a very large sample was drawn, or a 'booster' sample of that group was collected. Again, these issues were aired and discussed in the consultation process undertaken with stakeholders. It was decided that the survey would not attempt to over-sample

^A For example, if a group make up 2% of the population, as with Irish Travellers, it is likely that around 200 individuals will be contacted in a sample of 10,000 people, although this number may vary because of sampling error.

specific sub-groups, although individuals from these groups might find their way into the sample on a *pro-rata* basis. That is, it was decided that no specific measures should be taken to increase the representation of sub-groups beyond the proportions that would be found by sampling the national, non-institutional population in a representative fashion. Such a national study could then provide the contextual data required for smaller studies of specific populations.

2.3.1 Age range

Another issue was the age range of the respondents. Sensitivity about the well-being of minors meant that the lower age cut-off was set at 18. The age range to be interviewed was addressed during the consultation process (see Layte *et al* 2003⁹). A more difficult question was the maximum age. The initial aim was that all those aged 18 or above should in principle be able to be selected for inclusion. However, resources were limited and evidence from elsewhere suggested that people aged 65 or above are less likely to engage in behaviours that would put them at risk of contracting an STI/HIV. The risk for younger groups has been shown in other national studies and Irish HPSC reports to be much higher. If those aged over 64 had been included in the study, there would not have been sufficient resources to collect a large enough sample of this younger group to make accurate estimates. Such concerns led us to adopt a maximum age of 64 and to use the resources freed to interview a larger proportion of younger respondents.

2.4 Mode of administration

THE sensitivity of the content of KAB surveys means that the quality of the data collected is highly influenced by the manner in which it is collected. Interviewer bias, where the characteristics of the interviewer influence the response, is a constant problem. This has led previous studies, notably the National Survey of Sexual Attitudes and Lifestyles (Natsal 1990 and 2000), carried out in Britain, and the American National Health and Social Life Survey (NHSL 1992), to use face-to-face interviews, supplemented with a self-completion survey.

This combination has a number of advantages. First, face-to-face surveys generally lead to higher data quality as the interviewer can clarify issues with the respondent and monitor data quality (see Laumann *et al*, 1994¹⁰). Secondly, the instrument can be longer as the method requires less dedication from the respondent, and it can be more complex since the interviewer can clarify issues and use visual aids. Thirdly, the self-completion element means that the respondent can provide information anonymously.

However, all methods have their problems. Face-to-face interviews are more expensive than telephone or mail surveys as the interviewer has to physically travel to the home of the respondent, often several times, before an interview can be carried out. To minimise this cost, interviews can be clustered in geographic areas, but this too has a cost in terms of increasing sample errors through 'design effects' (that is, the sample is no longer a simple random sample of the population, but rather a random sample within each cluster). Face-to-face interviews are also inherently riskier for field staff who must travel to respondents' homes, which is a concern in a survey on sexual issues.

Self-completion surveys put greater demands on the respondent in terms of literacy, motivation and time. This means that the people who complete a survey may be different from the people who do not and this can lead to biased samples. For example, Copas *et al* (1997)¹¹ have shown that people with poorer literacy skills were less likely to complete a self-completion survey. This makes it difficult to generalise from the results to the general population.

The alternative to these two methods is the telephone survey. Unlike face-to-face methods, telephone surveys allow interviewers to make calls from a centralised call centre, thus saving on travel costs. As well, interviewers can be monitored and given appropriate support. This is less risky than face-to-face interviews in respondents' homes about sexual subjects; when faced with difficult issues, the interviewer can be given advice directly by other team members. Because of the resources saved by not travelling, telephone surveys are also substantially cheaper than face-to-face surveys, allowing more interviews to be completed for a given budget. Finally, telephone surveys offer a high degree of anonymity once it is explained to the respondent that their number was randomly generated and their name and address are unknown.

As with face-to-face and self-completion surveys, however, telephone surveys also have drawbacks. First, telephone interviews are shorter than face-to-face interviews which can last for 60 minutes or more with few problems, whereas effective average telephone interviews last no more than 30 minutes. This limitation means that the time spent interviewing by telephone must be maximised. Secondly, the questions must be less complex than when using face-to-face methods since visual aids cannot be used and respondents can only retain a limited number of options in their heads when answering questions. This restriction can present particular problems when replicating questions used previously in face-to-face surveys.

After these costs and benefits were weighed up, the telephone interview was chosen as the method for the survey. The telephone interview has been used successfully in KAB surveys outside Ireland, notably in Australia¹² and France.¹³ It has also been used successfully in Ireland for surveys on sensitive issues (e.g. the Irish Contraception and Crisis Pregnancy Survey {ICCP} 2004¹ and the Sexual Abuse and Violence in Ireland {SAVI} Study²²). To minimise the cost associated with a short interview time, the research team chose to use computer-aided telephone interviewing (CATI). In CATI interviews, questions are selected and answers coded directly into a computer programme. This allows far more complicated routing and filtering than would be possible using a paper questionnaire. It had the added benefit of improving data quality as data did not have to be coded from paper questionnaires.

2.5 The sample design

THE requirement for a nationally representative sample of individuals meant that the sample drawn for the ISSHR survey had to be systematically selected from a national sampling frame. This can be achieved by using the electoral register or An Post's GEO directory of residential addresses.

2.5.1 Random digit dialling

The decision to use telephone interviewing enabled the use of random digit dialling (RDD). This can be used to create a sample of telephone numbers from the national population

and has the advantage that the numbers are generated without recourse to a number directory; thus ex-directory numbers and recent numbers not yet in the directory are also listed. This approach does mean, however, that letters to households cannot be sent prior to the interview call (as was done in the French and Australian telephone surveys), a method which has been shown to increase response rates.¹⁴ However, there were concerns that using address matching and notification letters might lead to a biased sample (e.g. no ex-directory numbers would be sampled). It was felt that, in the Irish context, better response rates would be obtained by cold-calling households. This intuition was tested and confirmed during the pilot process; cold-calling produced a response rate comparable to previous Irish face-to-face surveys with notification letters.

2.5.2 Mobile-phone penetration

It is not possible to randomly sample from mobile-phone numbers at present in Ireland. This is a concern given the increasing penetration of mobiles in the Irish population and anecdotal evidence that some households may only use a mobile phone. Although the same 'random digit dialling' technique used with landlines could equally be employed with mobile phones, it would not be possible with mobiles to 'stratify' the sample so that it would represent the population geographically, since mobile phones have no geographical prefix. This would seriously increase the sample error in any survey.

Telephone surveys using mobile phones also face the problem that individuals are likely to be in a public space when called. This is not conducive to carrying out an interview on a sensitive subject. However, the growing penetration of mobiles does raise the possibility that particular sections of the population such as young, single people and/or those living in rented accommodation are less likely to be reached by a landline telephone survey. It is important to clarify the extent of this challenge.

Most analysts of mobile-phone penetration quote the COMREG Trends Survey, the most recent of which was carried out in 2005.¹⁵ This indicates that 76% of households have a landline and, perhaps more importantly, that 24% of households have only a mobile phone. However, the survey used by COMREG included just 1,000 individuals and was not a national probability sample. The CSO's Survey of Income and Living Conditions (SILC) from late 2004 is a more robust survey. It shows a much lower proportion of households without a landline. SILC, a weighted, clustered, two-stage probability sample of over 14,000 individuals and 5,000 households, is the main source of official statistics on income and living conditions. SILC 2004 reported that 88% of individuals lived in households with a landline, a significantly higher proportion than found in the COMREG survey. Interestingly, of the 12% of individuals who do not have a landline in their home, roughly 2% do not have a mobile either.

SILC also shows which population groups are less likely to have a landline. Over 90% of men and women over 35 live in households with a landline, but this falls to 86% among men and 74% among women aged 18 to 24. This confirms the view that younger individuals are the most likely to live in 'mobile phone only' households. This could increase sample error among this age group, particularly among women.

Concern about potential exclusions from the survey due to possible reduced landline coverage within various groups (such as younger people) was in part balanced by using a

sophisticated procedure of re-weighting or statistical adjustment to ensure that the data collected was balanced by population characteristics such as age and gender. This statistical adjustment was implemented prior to data analysis. The present study used a 'minimum information loss' algorithm to implement the re-weighting adjustment. This adjusted the data on the basis of gender, age cohort, educational attainment, marital status, employment status and region. Thus, the data fully represent the population that falls within the scope of the survey (people aged 18-64). Such re-weighting of survey data is a standard aspect of sample surveying and allows conclusions of a wide generalisability.

2.5.3 RDD stratification – the 'hundred banks' method

RDD telephone interviewing allows researchers to 'stratify' numbers within the population so that full coverage of different geographic areas can be achieved. This guaranteed that, in the survey, all areas in Ireland were represented in the final data set, rather than this being dependent on statistical probability. For ISSHR, the ESRI's RANSAM system was used to perform this stratification of areas (selected through their area code) and number 'stem' selection. The 'hundreds bank' method was then used to create a sample of numbers for call. In this method the number 'stem' is generated and the last two digits varied from '00' to '99', creating a full set of 100 numbers that can then be called. This means that some of the numbers called would not exist or not be a residential number. However, by calling numbers in this manner, a full probability sample of all Irish numbers could be built up.

If respondents did not wish to be interviewed at this first call and did not arrange for the interviewer to call back, a 'conversion call' was placed after a suitable period (usually around two weeks). The conversion call provides an opportunity for those who have declined participation in an unsolicited ('cold call') contact by a researcher to reconsider participation. Conversion calls were made to all those who had refused participation on the first contact call. The reasons for re-contact ('It provides us and you with the possibility to reconsider your decision to participate') were provided, with an assurance that this was the only re-contact.

2.5.4 Sample size

The feasibility study for the ISSHR project⁹ proposed a sample of 10,000 respondents to allow the level of sample disaggregation necessary in study analyses. Assuming five age groups of roughly equal size, a cross-tabulation of age and sex groups would produce sub-samples of around 1,000 respondents each, where the confidence interval including design effects is +/- 3.92%. A power to detect differences of +/- 3.92% between groups was deemed sufficient for the project overall. Unfortunately, budget constraints meant that the final sample was around 7,688 cases, which produced an average age/sex cell size of 744 individuals, with a power to detect differences of 5.39%. This power was not deemed acceptable for the analysis of important high-risk groups among younger people aged under 30.

To improve statistical power for the younger age group, those aged under 30 were 'over-sampled' in the final data file. This means that this group make up 4.9% more of the final data file than they represent in the Irish population (36.4% rather than 31.5%). This allows appropriate disaggregation in specific analyses of this age group, but, by weighting down this group, representativeness is preserved in analyses of the total sample. A separate weight for the analysis of those under 30 was also generated. (See section 2.11 for details of the weighting procedures used.)

2.6 Questionnaire development

THE design of the questionnaire is possibly the most important issue in the development of a research project as this defines the nature and quality of the information collected. Fortunately, the development of the questionnaire for the ISSHR study occurred at time when a number of other national KAB studies had been carried out, so that both their research instruments and results were available. This was crucial, as development time was to be extremely compressed; questionnaire development occurred within five months.

Questionnaire development is a difficult task; as well as choosing the areas that need to be covered to attain the study objectives, research needs to be carried out on the exact nature of the questions and how these might affect the likely response. The ordering of questions and sections is also crucial. The sequence of the questions has a considerable impact on the nature and reliability of the answers received. For example, the early stages of the questionnaire need to establish a rapport between the interviewer and the respondent, and particularly sensitive or intrusive questions should be avoided at this stage. Similarly, it is advisable to ask questions about beliefs and attitudes early on, as doing so later may lead to contamination if they follow behavioural questions that prompt the respondent to reflect on their sexual attitudes and lifestyle. These are just simple examples of a more complex developmental process which requires that each question be tested to ensure that it is a worthwhile addition.

This development would not have been possible in the time available if much of the ground work had not already been carried out and discussed in the documents describing the ASHR (Australia), Natsal (Britain), NHSLs (USA) and ACSF (France) surveys.

Some developmental work on new questions was also carried out. Questions were selected in discussion with the project steering committee and, after initial work within the research group on question formats, the questions were tested in a pilot survey. However, the limit on time and resources meant that only this single pilot was possible and different forms of the same question could not be tested.

Through an iterative process, a very large collection of possible questions drawn from a range of surveys was distilled to a first draft that was no more than 10 minutes longer than the 30-minute average required. This first draft was tested in mock interviews and shortened in editorial meetings with the steering committee. From this process, a final draft questionnaire was arrived at for CATI development and testing. The question domains established remained intact for the main fieldwork, although many individual items changed. The 12-question domains of the survey were:

SECTION A: Introduction and respondent agreement

This section provided a standardised introduction to the study, detailing who was carrying out the survey, its confidential nature and how the telephone numbers had been randomly selected. Following agreement to participate, information on procedures to verify the study was offered, and, before proceeding, interviewers confirmed that the respondent was over 18 and younger than 65. The section also collected information on marital status and number of children.

SECTION B: Learning about sex

Section B provided a non-contentious opening to the questioning. It centred on sex education experienced at both home and school; the helpfulness of this education; and whether children should receive sex education, and if so, from whom.

SECTION C: Knowledge, attitudes and beliefs

Section C investigated the sexual knowledge, attitudes and beliefs of respondents using a series of multi-item instruments. Questions were included on sexual morality; beliefs about contraception; and knowledge of STIs, a woman's fertility and emergency contraception, as well as a subjective analysis of the person's risk of contracting HIV.

SECTION D: First sexual experience

This section investigated the range of sexual behaviours experienced and when these first occurred, before examining in detail the first occasion of penetrative sex (vaginal or anal).

SECTION E: Attraction

Section E contained a single item asking respondents to indicate the extent to which they had been attracted to the opposite gender alone, their own gender alone, or some mix of the two.

SECTION F: Heterosexual partnerships and practices

This section quantified when the respondent last experienced different types of sexual behaviours (vaginal, oral and anal sex) with members of the opposite gender and the number of sexual partners they had had over different periods (life, last five years, last year). The section also examined the number of partners which the respondent had paid to have sex with over their life so far, and use of condoms with these partners. Lastly, the section examined use of condoms in the last year and, given current lifestyle, the perceived risk of conception.

SECTION G: Homosexual partnerships and practices

This section examined the same subjects as section F, except that here the questions were asked concerning sexual partners of the same gender.

SECTION H: Most recent event

Whereas sections F and G examined total sexual experience, section H examined the last sexual event (with the opposite or same gender). 'Sexual event' was broadly defined, but actual experiences were then examined (vaginal, oral and anal sex), and there was a particular emphasis on use of contraception (whether used and which type) and protection from STIs. This section also examined the expectations of the respondent and partner of their relationship at last event; sexual and emotional satisfaction; number of sexual events in the last four weeks, as well as preferences for frequency of sex.

SECTION I: Sexual problems

Section I asked if the respondent had experienced a range of sexual problems and, if so, if they had sought professional help for these and what type of help this was. Preferences for sexual-health services were also examined. As well, section I examined lifetime fertility and infertility, with a particular emphasis on 'crisis pregnancies' and their outcomes.

SECTION J: Sex outside Ireland and the UK

This section examined sex outside Ireland and the UK in the last five years with a new partner met while abroad. The prime focus was on vaginal or anal sex without a condom and on the number of partners.

SECTION K: STIs and use of health-care services

This substantial section examined use of sexual-health and contraceptive services. Questions included: what types of service were used, whether payment was required, impediments to service use, and preferences for future use. It also examined if the person had ever been diagnosed with an STI, which type, and details of treatment (if any). It finished with questions on AIDS and HIV. These examined knowledge about the subject, experience of testing, and history of injecting drug use.

SECTION L: Demographics and personal characteristics

The final section gathered basic information on education, nationality, employment status and occupation, and place of residence (urban vs. rural). It also examined health status and consumption of alcohol.

2.6.1 Question order

The survey was designed with a section on sex education at the beginning so that respondents would have a relatively non-contentious and less sensitive beginning to the interview. Questions on attitudes and beliefs were also placed early so that these would not be influenced by details about behaviour given later in the survey.

2.6.2 Survey length

The overall length of the questionnaire was a concern. Previous experience had indicated that an average telephone interview should be around 30 minutes and that, after this point, non-response to particular questions becomes a serious issue. It also indicated that respondent participation becomes a serious issue if the putative respondent is informed beforehand that the survey may take longer than 30 minutes.

One option would have been to follow the French ACSF survey and use a combination of short and long questionnaires. In that survey, 24% of the sample were administered a long instrument (45 minutes) and 76% a short version (15 minutes). The large size of the French sample (20,055) meant that the 4,820 respondents doing the long version still represented a significant sample, although confidence intervals around questions demanding detailed information were higher than thought acceptable.

Instead, a method similar to that used in the ASHR survey was employed.¹² In that survey, all those with two or more partners in the year prior to the survey were asked a long form of questionnaire and those with one partner a short version (although a random selection of the 20% with one partner also completed a long form of questionnaire).

The ISSHR survey used the filtering facilities of the CATI system to identify questions in the survey already completely determined by earlier answers. The CATI system was then used to skip these questions for individual respondents and the appropriate answer was inserted. CATI

was also used to reduce the number of questions to which people were exposed. For example, if a respondent indicated that they had never experienced oral sex, in section D of the survey, all questions on oral sex were skipped throughout the survey and coded as 'not applicable'.

2.6.3 Questionnaire language

The type of language used in a survey can have major implications for results. As interviewers are trying to establish a rapport with respondents, it is possible that tailoring the language of the survey to the respondent may improve item response.

Kinsey^{16,17} advised against using scientific terms in interviews. The use of vernacular language has been adopted in a number of surveys on sex, some of which have been carried out in Ireland. The All-Ireland Gay Men's Sex Survey (2000), for instance, used vernacular terms throughout, with some success.¹⁸ However, tailoring language to the respondent can increase the chance that the respondent will have a different understanding of the subject matter, even though this difference may be extremely subtle. This is a particular problem in broad population surveys. Given this, the ISSHR study followed the practice of most KAB surveys and used scientific/anatomical language within questions.

2.7 The pilot survey

It is essential to test the instrument to be used in a survey and the interview protocols. After a substantial period of questionnaire development, CATI programming and testing, the pilot survey for the ISSHR project was carried out in the first two weeks of June 2004. As with the main fieldwork, the ESRI's RANSAM system was used to draw a sample of number stems to which the 'hundred banks' method was applied to generate the sample numbers.

Six experienced interviewers were given in-depth training before pilot interviewing began. Training covered the background to the survey, survey content, and sensitivity and awareness training, related to issues around sex, sexuality and sexual abuse. The training also examined procedures for legitimising the research should respondents have doubts about the authenticity of the phone calls. The procedure was, first, that the respondent could call back directly to the ESRI and talk to a senior researcher or interviewer supervisor; if this was not sufficient, the interviewer could fax the credentials of the project to a garda station nominated by the respondent.

In all, 1,529 calls were placed, yielding 354 valid households (i.e. a private residential address where a member of the household was aged 18-64). Of these 354 households, full interviews were completed with 205 respondents, 101 refused, 34 appointments were made for a later date and time, and 13 were partially completed. This led – counting as refusals the appointments made for a later date – to a crude response rate of 61.8%, without any attempt at conversion. Conservative estimates of conversion rates (where people who refuse to take part are called back and an attempt is made to 'convert' them to answering a questionnaire) led us to expect a final response rate of at least 65% – similar to that obtained in the Natsal surveys in Britain, though lower than that obtained in Australia, France and the US. This would not be

unusual in survey research where previous experience has shown that Irish response rates tend to be lower than those in other comparable countries.

The pilot was particularly useful for identifying aspects of the questionnaire that needed to be changed before the main fieldwork. A number of substantial alterations were made before the instrument re-entered CATI development and testing.

2.8 Recruitment and training of interviewers

TRAINING of interviewers is extremely important in all areas of survey research, but is especially important in research in such a sensitive area as sex. The interviewer's ability to contextualise the research and answer questions is crucial in getting a respondent to commit to taking part in an interview.

Interviewers also need to be aware that the subject matter of KAB surveys can touch on areas in the respondent's life and past that may be hard for them to talk about and may, in a small number of cases, lead to distress. The first requirement of social-survey research is that the respondent should not be harmed by the research. This puts a particular onus on those carrying out a KAB survey to make sure that research protocols are well developed and that interviewers are well skilled in dealing with sensitive issues.

Along with recruiting experienced interviewers and those with other relevant professional experience, the research team designed a six-day training schedule which prepared the interviewers for fieldwork. As well as examining the background to the study, the instrument to be used, validation procedures and the CATI system, the training worked through the study protocols in terms of dealing with distress. It was particularly important to instil in interviewers the understanding that, in such cases, their role was not to give counselling but to provide useful information, using a standard national list of telephone numbers of support agencies, which was developed for the study.

Strategies for debriefing of interviewers were also established to protect their wellbeing in a potentially sensitive research setting. One important part of developing good interview and support skills among interviewers was role-playing, where interviewers had to deal with a number of different situations. In the final part of training, interviewers carried out a number of mock interviews with members of the research team, who varied the type of interview in order to assist training.

2.9 Ethical clearance

THE full set of instruments and protocols for the study as well as the training and back-up procedures to be used were reviewed and approved by the Research Ethics Committee of the Royal College of Surgeons in Ireland.

2.10 Total interviews and response rates

A TOTAL of 87,440 unique telephone numbers were called as part of the main fieldwork of the ISSHR study.

- Of the 87,440 calls, 37,674 were to valid numbers, i.e. a private residential household.
- Of the 37,674 households, 12,510 contained a person within the required age range (18 to 64).
- Out of the 12,510 eligible numbers, 7,441 completed interviews were obtained and 227 partial interviews.

Figure 2.1 summarises the call outcomes for the survey in total.

The final response rate was 61.3% if partial interviews are included and 59.5% if they are excluded.

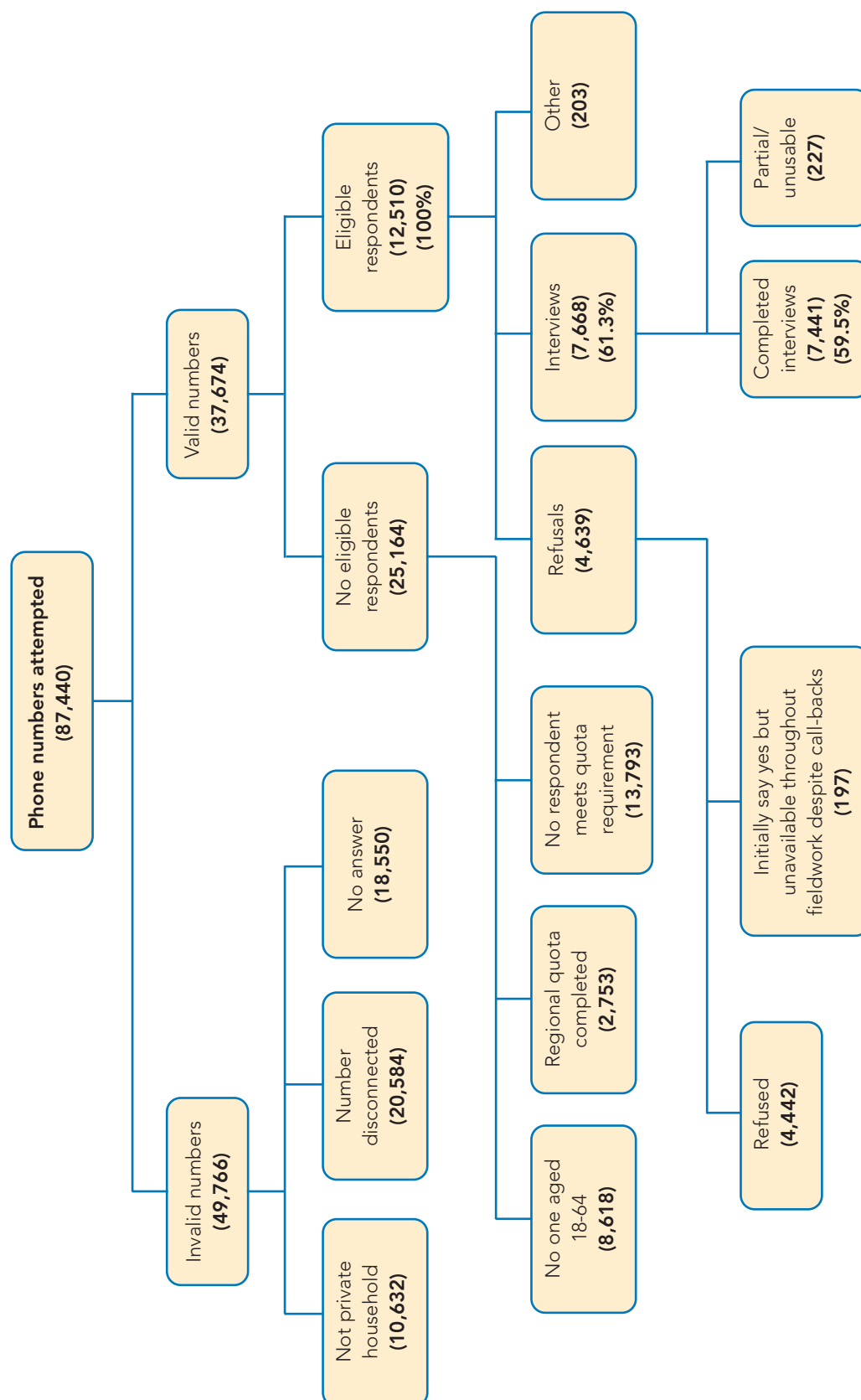
All analyses in the ISSHR report and sub-reports are based on the 7,441 completed interviews. The response rate is close to that obtained by the Irish Contraception and Crisis Pregnancy Survey (63.8%) and the 2000 British National Survey of Sexual Attitudes and Lifestyles (Natsal) (65% after regional reweighting). It is substantially higher than many of the face-to-face surveys carried out in the Irish context, such as the Quarterly National Household Survey or Household Budget Survey (carried out by the Central Statistics Office), which achieve response rates in the low 50% range.

Although the response rate is high in the Irish context, especially given the sensitive nature of the subject matter, it is below that achieved in other countries such as Australia, which achieved the very high rate of 73%. On the other hand, it is notably higher than that achieved by other Irish surveys on sexuality which used self-completion mail surveys. For instance, the 1994 ISSP module achieved a response rate of 53%.

The response rate was achieved by using multiple strategies, as is standard in telephone research protocols internationally, to facilitate participation.

- First, interviewers let a number ring 10 times, then halted that attempt, but repeated the procedure a further 10 times at other times during the day and the following week to try to achieve contact. If there was an answering machine, no message was left (experience has shown that messages cause confusion or concern). If no contact was achieved after 10 separate attempts, the number was logged as 'no answer'.
- Secondly, to facilitate respondents who could not participate during the day on a weekday, calls were made in the evenings up to 9pm and on Saturdays up to 4pm.
- Thirdly, interviewers were given training in first-contact procedures and attaining participation; this was augmented with regular meetings between interviewers, supervisors and fieldwork managers at which the best approach was discussed and successful methods shared.
- Finally, people refusing at the first invitation were offered another opportunity to take part in the survey, around two weeks after the first call.

Figure 2.1: Profile of unique telephone numbers called and outcome classifications



2.11 Demographic profile and representativeness

Table 2.1 gives an indication of the representativeness of the ISSHR data by comparing the distribution of cases across a number of different characteristics with that found in the Census of Population 2002.

The distribution of cases in the ISSHR data is given first by the 'unweighted' proportion in the first column of Table 2.1, with the 'weighted' proportion in the second (given separately for men and women). Data from the Census of Population 2002 is displayed in the third column so that the ISSHR distributions can be compared.^B It is standard practice with population surveys to examine the information collected from the questionnaire and statistically adjust or 'reweight' this prior to analysis so that it represents the population.

For example, Table 2.1 shows that the unweighted sample comprises 42.8% men and 57.2% women. Based on the national pattern found using the 2002 census, the proportions should actually be around 50/50. Re-weighting is used to achieve this adjustment in the sample. The purpose of this re-weighting is to ensure that the structure of the complete sample is in line with the known structure of the population, according to the classificatory variables used in the analysis. Statistically adjusting data prior to analysis is standard practice in surveys and addresses any potential bias that may arise from issues related to sample design and also to differential non-response within sub-groups of the population.

The re-weighting procedure used was based on a 'minimum information loss' algorithm; this adjusts an initial weight so as to ensure that the distributional characteristics of the sample match those of the population, according to a set of externally determined controls. The latter are based on independent national sources such as the Census of Population 2002 and the Quarterly National Household Survey (both undertaken by the Central Statistics Office).

The variables used in the statistical adjustment or re-weighting procedure were gender, age cohort, marital status, level of educational attainment and geographic region. The interaction of these variables was also incorporated into the re-weighting scheme.

As has already been discussed in section 2.5, the ISSHR sample included an 'over-sample' of the population aged under 30 so that more disaggregated analyses could be performed on a population that previous research suggests has more risky behaviours. This meant that two weights were needed for the data. The first or 'total population weight' re-weighted the data to represent the whole population aged 18-64 and thus weighted down the proportion of respondents under 30. The second or 'young persons' weight was designed to be applied only to those under 30; this re-weighted this group to represent those aged 18-29, including a disaggregation into three sub-age-groups.

Analyses in this report were carried out using whichever weight was most appropriate to the particular analyses. Where the number of individuals included in an analysis is given, this is always the unweighted number of cases. (Section 2.12 examines this issue further, describing how the analyses were carried out and how the tables in this report should be interpreted.)

^B The social-class distribution is compared to results from the Living in Ireland Survey (2001) as data on this class measure was not available from the CSO.

The categories used in Table 2.1 are those available from the Census of Population 2002. They are purely for re-weighting purposes and for comparisons with population data. They are not used for analysis in the report. (The distribution of variables used in the analyses will be examined shortly.)

Table 2.1: Unweighted, weighted and population proportions*# of selected characteristics by gender (%)						
Demographic characteristics	Men (n=3,188)			Women (N=4,253)		
	Un-weighted sample	Weighted sample	General population	Un-weighted sample	Weighted sample	General population
All*	42.8	50.1	50.1	57.2	49.9	49.9
Age*						
18-29	38.1	31.1	30.7	35.2	31.8	31.2
30-39	17.2	23.9	24.3	22.4	23.6	23.8
40-49	20.6	21.1	21.5	19.5	21.3	21.2
50-59	17.8	17.6	17.3	17.3	17.1	17.6
60-64	6.4	6.3	6.2	5.7	6.2	6.2
Relationship status*						
Single	45.4	44.7	45.0	38.1	41.8	42.2
Married	47.1	49.0	48.7	55.5	51.8	51.5
Cohabiting	7.5	6.3	6.3	6.4	6.4	6.3
Highest education*						
Primary or less	9.2	17.4	17.5	8.0	14.4	14.4
Lower secondary	18.5	24.4	24.4	16.8	22.0	22.0
Upper secondary	25.7	31.0	30.9	25.9	32.7	32.7
Post Leaving Certificate	11.2	10.5	10.5	15.2	12.5	12.5
Third level	35.5	16.8	16.8	34.1	18.5	18.4
Region*						
Dublin	30.6	29.4	29.4	26.7	31.1	31.1
Border, Midlands & West	25.4	25.9	25.8	28.2	24.9	24.9
Rest of country	44.0	44.7	44.8	45.1	44.0	43.9
Social class#						
Higher prof. & managerial	22.3	17.9	19.5	11.1	9.2	11.4
Lower prof. & managerial	21.9	19.1	13.9	29.6	22.9	20.9
Clerical/administrative	13.5	13.3	15.1	29.5	30.5	34.8
Skilled manual	22.8	27.2	28.4	1.8	2.1	1.7
Semi-skilled manual	12.3	13.1	13.3	19.3	23.2	21.8
Unskilled manual	7.4	9.4	9.6	8.8	12.1	9.4

* Central Statistics Office (2002)

Living in Ireland Survey (2001)

Table 2.1 shows that, although there are some differences between the unweighted proportions of some groups in the ISSHR data compared to the census data, the weighted data are very close to those of the population as measured by exterior data sources. Data from the Living in Ireland Survey is used to compare the social-class distribution in the ISSHR survey as information on the distribution of this class measure was not available from the CSO. The weighted proportions will not exactly match the census totals as some weights are adjusted so that undue weight is not placed on a small number of individuals. The unweighted differential stems in part from the intentional over-sampling of younger respondents, which was carried out to gain a higher number of younger individuals for analysis. Thus, whereas those under 30 make up 35.2% of the ISSHR sample, when unweighted, compared to 31.2% in the census population, this proportion falls to 31.8% when weighted.

The satisfactory response rate and effective re-weighting mean that results are very representative of the general population. The following sections examine the distribution of cases in the ISSHR data across the various socio-demographic categories used in the later chapters. The distribution of educational, demographic and relationship categories in the data is shown in *Table 2.1*, and the following sections examine a range of other factors.

2.11.1 Social classification

Socio-economic differences are a key interest of this study. Thus measures had to be taken to allow the differences in this dimension to be examined. The term 'socio-economic factors' covers a range of different measures of a person's relationship to the labour market, their level of resources (and power), and the manner in which these are translated into social status.

Although it would be ideal to have measures of all the constituent factors (education, income, social class and social status), this was not practical within the confines of a 30-minute telephone survey. Instead it was decided that education and social class alone would be measured; education because it is a major determinant of other socio-economic factors such as income and status, and social class because it is a useful summary measure of occupational success and income level.

A number of social-class measures have been developed, both in the Irish context and in international research. One of the best known and most frequently used is the Erikson/Goldthorpe or EG class measure, which is based on the employment status of an individual. This has informed the development of other national class measures such as the current Office of National Statistics (ONS) measure in the UK and the current CSO (1996) measure. Operating the EG, ONS or CSO measures requires information on the number of individuals supervised or managed as well as information on the person's occupation and employment status. Shortage of space in the questionnaire made this impractical. Given this, the social class measure used by the Central Statistics Office until 1996 (known as the 1986 class schema) was used instead. Although superseded by the 1996 measure, the 1986 one remains a robust and valid class measure and is still used for research even by the CSO itself.

Table 2.2 provides an overview of the distribution of social class in the ISSHR sample. The largest grouping among social classes is social class III (other non-manual) at 21.4%, followed by social class II (lower professional) at 20.9%. As has already been seen, these proportions are very similar to those of the general population as measured in a recent national sample.

Table 2.2: Social class of study sample by gender

	Men	Women	Total
	N=3,188 (%)	N=4,253 (%)	N=7,441 (%)
Higher professional (social class I)	17.9	9.2	13.8
Lower professional (social class II)	19.1	22.9	20.9
Other non-manual (social class III)	13.3	30.5	21.4
Skilled manual (social class IV)	27.2	2.1	15.4
Semi-skilled manual (social class V)	13.1	23.2	17.8
Unskilled manual (social class VI)	9.4	12.1	10.7

Note: Weighted proportions

It should be remembered when examining the distribution of classes in Table 2.2 that the age distribution of the population is truncated to those aged between 18 and 64. This means that there is a higher proportion of non-manual occupations in ISSHR than in the general population, although it is also true that Ireland has a higher proportion of non-manual occupations in the population generally.

2.11.2 Relationship status

While marital status was used in weighting the sample to match the general population profile (Table 2.1), the data was re-categorised by current relationship status for the purposes of analysis (Table 2.3). Current relationship status was considered to be a more useful variable in terms of current sexual and contraceptive behaviour. In total, 50% of participants were married, 6% were living with a partner, and 11% were in a steady relationship.

Table 2.3: Relationship status of study sample by gender

	Men	Women	Total
	N=3,188 (%)	N=4,253 (%)	N=7,441 (%)
Not in a relationship	27.3	26.1	26.7
Married and living with spouse*	49.0	51.8	50.4
Not married and living with a partner	6.3	6.4	6.4
In a steady relationship	10.1	12.4	11.2
In a casual relationship	7.4	3.4	5.4

Note: Weighted proportions

* If married, participants were asked if they were currently living with their husband/wife. If not, their current relationship status was ascertained.

2.11.3 Religious beliefs

ISSHR respondents were asked if they would describe themselves as religious or spiritual. Their responses were coded from 'not at all' to 'extremely religious' (Table 2.4). The weighted responses show that the largest grouping was of those who responded that they were a 'little religious' (38%) followed by those who were 'quite religious' (30%).

Table 2.4 Level of religiosity of the study sample by gender

	Men	Women	Total
	N=3,188 (%)	N=4,253 (%)	N=7,441 (%)
Not at all religious	24.4	17.0	20.7
A little religious	38.1	38.0	38.1
Quite religious	27.1	32.2	29.7
Very much religious	9.3	11.1	10.2
Extremely religious	1.1	1.6	1.4

Note: Weighted proportions

2.11.4 Country of birth

In the last decade, there has been a substantial increase in inward migration to Ireland. Much of this migration has been by Irish people moving back to Ireland from overseas, but there has also been a large rise in the number of people moving to Ireland from other EU states and further afield. Table 2.5 gives the proportion of the ISSHR sample who were born in Ireland (North and South), Britain, another EU country and elsewhere.

Table 2.5: Country of birth of the study sample by gender

	Men	Women	Total
	N=3,186 (%)	N=4,251 (%)	N=7,437 (%)
Ireland	91.8	89.7	90.8
Britain	5.5	6.9	6.2
Other EU	0.9	1.2	1.1
Elsewhere	1.8	2.1	2.0

Note: Weighted proportions.

Table 2.5 shows that the vast majority of ISSHR respondents were born in Ireland, while the largest group of non-Irish-born people are from Britain. Around 3% of ISSHR respondents were born elsewhere.

2.11.5 Type of geographic location

The ISSHR data were collected as a representative sample of the population of Ireland, and that includes the geographical breakdown. The type of geographic location where a person lives could be associated with sexual attitudes and behaviours, and this is one of the dimensions investigated in this report. Table 2.6 shows that the ISSHR sample breaks down relatively evenly across geographic location. The largest grouping (30%) of respondents live in a rural ('open country') location, 24% live in a town and 35% in a city (most in Dublin city or county).

	Men	Women	Total
	N=3,187 (%)	N=4,249 (%)	N=7,436 (%)
Rural (open country)	30.3	28.9	29.6
Village	9.9	12.7	11.3
Town (1,500 pop. +)	24.7	23.0	23.9
City	11.6	11.5	11.6
Dublin city or county	23.6	23.9	23.7

Note: Weighted proportions.

2.11.6 Employment status

Employment status is an important socio-economic indicator and the ISSHR survey included questions on this issue. Table 2.7 shows that the employed make up the largest grouping, with 40% of respondents employed full-time and 12% part-time. Fewer women than men are employed and they are more likely to be employed part-time (19% compared to 6% of men). The small proportion of respondents who are unemployed (4%) reflects the generally buoyant economic conditions in which the survey was carried out.

Table 2.7: Employment status by gender

	Men	Women	Total
	N=3,188 (%)	N=4,253 (%)	N=7,441 (%)
Full-time employment	52.0	27.1	39.6
Part-time employment	5.6	19.1	12.3
Self-emp./farming	17.6	2.8	10.2
Full-time student	9.5	13.4	11.5
Govt. training scheme	0.1	0.3	0.2
Unemployed	5.8	2.7	4.3
Sick/disabled	2.8	2.2	2.5
Full-time carer	0.4	29.8	15.1
Retired (before 65)	5.8	2.5	4.1
Other	0.3	0.2	0.2

Note: Weighted proportions.

2.11.7 Age group

Table 2.1 shows that the age distribution of the ISSHR sample was very representative of the Irish population. The age categories in Table 2.1 were used for comparison because they matched the data available from the CSO. The remainder of this report uses different sets of age categories that allow greater differentiation between age groups, particularly at the younger end of the age spectrum. Two age categories are used: a nine-category age group, as displayed in Table 2.8, and a collapsed five-category version which retains those aged 18-25 as one group but thereafter collapses all other five-year age groups into 10-year groups.

Table 2.8: Age groups by gender

	Men	Women	Total
	N=3,188 (%)	N=4,253 (%)	N=7,441 (%)
18-24	20.8	20.9	20.8
25-29	10.3	11.0	10.7
30-34	10.7	9.4	10.0
35-39	13.2	14.2	13.7
40-44	11.0	11.0	11.0
45-49	10.1	10.2	10.2
50-54	7.9	8.4	8.1
55-59	9.7	8.7	9.2
60-64	6.3	6.2	6.2

Note: Weighted proportions.

Table 2.5 shows that the largest age group comprised people under 25, who make up 21% of the population. The next largest group was of those between 35 and 39. The smallest age group was of people aged 60 to 64.

2.12 The relationship between age group, social class, education and relationship status

THIS section provides a breakdown of the main socio-demographic predictors that are used in this study. It is important to understand the relationship between these variables. This section contains cross-tabulations of four of these variables: age group, social class, educational level and relationship status. The five-category age version employing 10-year age groups is used.

2.12.1 Age and highest educational level

The first important pattern concerns age and educational level. Since the introduction of free secondary education in Ireland in 1967, the level of education in the Irish population has steadily increased. Younger age groups are now far more likely to complete secondary education and participate in third-level education. This is shown in Table 2.6, which gives the distribution of highest educational qualification across age groups.

Table 2.9: Highest educational level attained by age group (%)					
	18-24	25-34	35-44	45-54	55-64
Primary only	2.2	4.6	9.0	21.5	42.9
Lower secondary	11.0	20.0	27.0	27.3	19.4
Upper secondary	57.0	46.1	45.2	35.1	27.6
Third level	29.8	29.3	18.8	16.1	10.2

Note: Weighted proportions

Table 2.9 shows that the average level of highest education increased as age decreased. People under 35 are much more likely to have undergone third-level education than those aged 35 or more. The influence of free secondary education (introduced in 1967) is clear in the large proportion (43%) of those in the oldest age group with primary education alone. Among those aged 45-54, this proportion falls to 22% and to just 2% among those aged 18-24.

It is important in the analyses to come to bear in mind the structured relationship between education and age group when examining patterns of sexual behaviours across education groups. Any results which do not control for age may largely reflect the average age of the people in the education groups rather than the impact of education *per se*.

2.12.2 Age and social class

The increasing educational profile of younger Irish people has also influenced their occupational and social-class status. Ireland's move from a predominantly agricultural economy in the 1950s to one of the most 'post-industrial' economies in the world by the end of the century has increased the proportion of the population working in professional and white-collar occupations, particularly among younger cohorts who have the higher levels of education required.¹⁹ This is shown in *Table 2.10*, where the lowest proportion in semi-skilled or unskilled occupations is found among the youngest age group, who also have the highest proportion in professional and managerial occupations.

Table 2.10: Highest social-class position attained by age group (%)

	18-24	25-34	35-44	45-54	55-64
Higher prof. & managerial	25.0	17.6	17.2	16.0	14.2
Lower prof. & managerial	23.7	22.0	22.3	22.6	21.4
Clerical/administrative	15.6	19.5	22.4	20.3	20.4
Skilled manual	17.5	16.5	13.0	15.6	18.5
Semi/unskilled manual	18.1	24.4	25.1	25.5	25.5

Note: Weighted proportions

As with education, it is important to bear this distribution in mind when examining the patterns of sexual behaviours.

2.12.3 Education and social class

The previous section mentioned the influence among younger age groups of higher levels of education on their social class. This relationship, found across all industrial societies studied in social-mobility research, results from the role which education plays in the allocation of occupations in industrial economies.^{20,21} It can be seen clearly in *Table 2.11*, which shows that those with higher levels of education are far more likely to have a higher occupational position. For example, among those with primary education alone, 22% are in professional and managerial positions compared to 66% among those with third-level qualifications. Similarly, whereas 41% of those with primary education alone are in the semi/unskilled-manual class, this is true of just 11% of those with a third-level qualification.

Table 2.11: Social-class position by highest educational level attained (%)

	Primary	Lower secondary	Higher secondary	Third level
Higher prof. & managerial	8.6	13.3	17.3	31.0
Lower prof. & managerial	13.4	13.5	23.5	34.9
Clerical/administrative	13.1	20.2	23.9	15.0
Skilled manual	23.7	21.3	14.8	8.4
Semi/unskilled manual	41.1	31.8	20.6	10.7

Note: Weighted proportions.

This structured relationship between education and social class has implications for the analyses in this report. Analyses aim to identify which socio-demographic factors, such as age, educational level and social class, are independently related to various sexual behaviours and outcomes by controlling for the socio-demographic factors in multivariate analyses (see section 2.13 for more information). However, because social class and education are often closely related in their effects, controlling for both simultaneously can lead to the effects of both being ‘cancelled out’. In the analyses, we thus explain where this effect is an issue and test the variables separately.

2.12.4 Age group and relationship status

Throughout this report, patterns of sexual behaviours are according to a person’s relationship status. As explained in section 2.11.2, relationship status is a more powerful predictor of sexual behaviours than marital status since those who are legally married, divorced, separated or widowed may or may not have a sexual partner and it is the latter factor that is assumed to be more important for many outcomes than the legal status itself.

Table 2.12: Relationship status by age group (%)

	18-24	25-34	35-44	45-54	55-64
Not in a relationship	51.1	26.8	16.6	14.6	21.3
Married (and living with spouse)	1.5	36.4	71.6	76.4	72.8
Cohabiting	5.0	15.9	5.5	2.6	1.5
Steady relationship	30.3	14.4	3.5	3.5	2.2
Casual relationship	12.1	6.5	2.8	2.9	2.2

Note: Weighted proportions.

However, relationship status varies significantly by age group and this will influence the patterns seen in analyses. For example, as shown in Table 2.12, younger individuals were far less likely to be in a committed relationship. Over half (51%) of those aged 18-24 in the ISSHR sample were single (i.e. not currently in a relationship), compared to 27% of those aged 25-34 and just 15% of those aged 45-54. The corollary of this is that older age groups were far more likely to be married. This is shown well in Table 2.12, where 76% of those aged 45-54 were married and living with their spouse, compared to just 2% of those aged 18-24.

2.13 Methodology and presentation of findings

THE ISSHR reports are intended to be accessible to a broad readership. This is reflected in the way the analyses are presented. For the most part, they are presented so as to emphasise differences in the knowledge, attitudes and behaviours of groups defined according to particular characteristics. Almost all the analyses are therefore 'bivariate' in the sense that they present the proportion of a group defined by education, age, social class, etc, who hold a certain attitude or behave in a particular fashion.

It is useful, however, to know whether or not the differences between groups are statistically different once we control for other factors. For example, section 2.12.1 showed that younger individuals are far more likely to have higher levels of education and this is reflected in the ISSHR sample. When examining the relationship between education and some variables such as attitudes to contraception, we thus need to be aware that the relationships that we find with education may actually result from the fact that different age groups are unevenly distributed across the education categories. However, it is possible to control for the influence of age when examining the influence of education by using a multivariate statistical model. The results from these models are given in the tables as asterisks, representing whether differences are statistically significant and, if so, to what extent. An example of such a table is *Table 2.13*.

Table 2.13: Proportion believing that the cost of condoms would discourage their use of them, by gender

	Men		Women	
	%	N	%	N
All	15.2	3,188	14.2	4,253
Age group				
18-24 years	19.4c	759	16.9c	908
25-34 years	18.4n.s	701	19.1n.s	966
35-44 years	16.5n.s	647	11.7***	1,014
45-54 years	10.5**	574	11.3***	755
55-64 years	8.9***	507	11.4***	610
Education (highest level attained)				
Primary	16.6**	263	16.4*	305
Lower secondary	16.8**	544	14.8n.s	657
Upper secondary	15.1n.s	1,198	13.9n.s	1,780
Third level	12.6c	1,183	12.8c	1,511

*Significance key: n.s.=not significant; *= $P<0.05$; **= $P<0.01$; ***= $P<0.001$ c=Reference group to which all other groups are compared.*

NOTE: Significance given adjusting for all variables in the table. This table is provided here for illustrative purposes.

Reading from the top line, *Table 2.13* gives the overall proportion of men and women ('All') who believe that the cost of condoms would discourage them from using them, i.e. 15.2% of men and 14.2% of women. Beside this proportion, the number of men or women involved in the analysis ('N') is given, e.g. 3,188 men. The proportions given here are what we referred to earlier as 'bivariate' statistics.

Below the top line we find the proportion of men or women in different age groups who believe that the cost of condoms would discourage them from using condoms and the number involved in the analysis. These proportions by age group are not connected to those in the top line. For example, 19.4% of *all* men aged 18 to 24 believed that the cost of condoms would discourage them from using them, *not* 19.4% of the 15.2% in the top line. Each line can thus be read independently of all others to give the simple probability of some belief, attitude or behaviour being true or occurring.

While it was possible to present the results of multi-variate analyses next to the bivariate statistics, it was agreed that this format could be confusing. The report thus presents the statistical significance of differences between groups controlling for all other variables in the table. This significance is represented using asterisks as described in the key at the bottom of each table. The more asterisks next to a proportion, the more significant is the difference after controlling for other factors in a multi-variate model (the key to the number of asterisks is given at the foot of the table).

Several cautions are needed about this method of presentation. First, statistical differences between groups may not be reflected in the actual proportions in the table. Thus, what appears to be a large difference on one variable might not be significant, while a small difference on another could be. This is because statistical significance depends not only on the difference between groups in outcome but also on the size of the groups involved and the distribution of other variables in the analysis.

Secondly, controlling for other factors in a multi-variate model can mean that the difference between groups is reversed. In this situation, a bivariate difference in one direction can be replaced by a statistically significant difference in the other direction once we control for other factors, but this will not be shown in the table. This is a rare occurrence and is commented on in the text where appropriate.

Thirdly and lastly, evaluation of the significance of differences across groups requires a reference category. This is identified in tables using the letter 'c' for 'constant', which is another term for the reference category. The asterisks in the table thus indicate if a group is statistically different from the reference category and not necessarily all other categories. For instance, in *Table 2.13*, the reference age is 18-24, with 19.4% of men in this age group believing cost would discourage use. When compared to this reference group, there was no difference (*n.s.: not significant*) in views of men aged under 45. However, a significantly smaller proportion of men aged 45-54 and 55-64 believed that cost would discourage use than did men aged 18 to 24. These differences were significant from the youngest age group at the $p < .01$ statistical level (meaning that the chance of this difference between groups occurring by chance was less than one in 100). Where possible, the reference category in analyses is consistent across analyses. It changes in some instances to aid presentation.

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Knowledge about sexual health issues

3.1 Introduction

KNOWLEDGE does not guarantee safe sexual practices but is regarded as a prerequisite for informed protective action.¹ Furthermore, information about people's levels of knowledge is needed both to define the content of intervention and to provide indicators for evaluating its effectiveness.

This chapter addresses levels of knowledge about fertility; the time limit for the effectiveness of the emergency contraceptive pill; and STIs, including HIV.

Examination of each topic begins with a brief review of relevant national and international research. This is followed by an in-depth analysis of findings and how they relate to previous research.

The topics selected for investigation represent a balance and a choice: the questions asked aimed to achieve a balance across a wide range of disparate themes. Thus, typically, a few questions are asked about a wide range of topics rather than a few topics being evaluated in depth. This choice provides more coverage but less depth. The consensus across the research team and the steering group was that this approach was necessary given the wide-ranging coverage of the survey; the limited national evidence on sexual-health matters; and the need to provide some useful information to a very diverse policy and service constituency.

Knowledge is quite a difficult area to assess in surveys. Questions evaluating knowledge can cause offence, such that participants may feel they are being 'tested' and consequently feel threatened. It is also difficult to ask many knowledge-type questions without prompting the answer; for example, including several questions about Chlamydia signals the importance of this issue, which may not have been evident to the participant beforehand. The knowledge questions asked in this survey were thus a selected few. These questions were based on previous research concerning key targets for health-promotion campaigns.

- The second section examines the patterns of knowledge about a woman's fertility found in the ISSHR data.
- The third section analyses knowledge of emergency contraception.
- The fourth section analyses knowledge of the STI Chlamydia.
- The fifth section investigates knowledge of HIV/AIDS and respondents' perceived risk of this.
- Section six examines the extent to which a person's level of knowledge of one subject is consistent with the level of knowledge of other subjects.
- Section seven summarises the results of the chapter and draws conclusions.

3.1.1 Knowledge of fertility

KNOWLEDGE of female fertility – that is, awareness of when women are most likely to become pregnant following intercourse – is an important precursor of effective contraceptive and protective practices. In situations where contraception such as condoms or the contraceptive pill is not an option (for access, cost, religious or other reasons), knowledge of cycles of fertility is in effect the only contraception available. Accurate knowledge of a woman's fertility cycle is important to achieve or avoid pregnancy. Knowing the most fertile period in a woman's menstrual cycle can assist in both aspects of fertility management.

However, it appears that knowledge about female fertility in Ireland is poor. The Irish Family Planning Association (IFPA) reported that it "continues to see clients who lack an understanding of bodily functions and the risks posed by casual, unprotected sex".^{2,3} Research findings have supported this anecdotal evidence. For example, Richardson (2000)³ noted that young Irish mothers had a limited ability to link sexual activity with the risk of pregnancy. Hyde (1996)⁴ reported a similar trend in her interviews with unmarried pregnant Irish women. Despite not wanting to become pregnant at the time of intercourse, some of the women had failed to use contraception. It appears that they had not considered the possibility of becoming pregnant. Hyde described such failure to acknowledge the potential risk of pregnancy following unprotected sex as 'fertility denial'. Women displaying fertility denial tended to be younger than the overall study population, had lower educational achievements, and were more likely to have left school before completing second-level education (i.e. the Leaving Certificate).

While these studies indicate a failure to recognize the risk of pregnancy following unprotected intercourse among young Irish mothers, they do not show actual levels of fertility knowledge among the population as a whole. Wiley and Merriman (1996)⁵ and a recent study of Irish contraception and crisis pregnancy, the Rundle *et al* ICCP study,⁶ addressed this issue by asking respondents to indicate the time of month when they thought a woman is most likely to become pregnant.

- Wiley and Merriman found in their 1993 study that between one-third and one-quarter of women across different age groups did not know that a woman is most likely to get pregnant in the middle of her menstrual cycle. They did not survey men.
- Ten years later (2003), the ICCP found higher levels of inaccuracy; only 54% correctly identified the most fertile time. Women were significantly more likely (65%) to report higher levels of knowledge than men (42%).

Overall, Irish women's knowledge of fertility has disimproved over the ten years. For example, in 1993, 33% of 18-24 year-olds responded incorrectly or did not know the answer. The figure increased to 43% in the 2003 study.

Both studies found that knowledge of fertility improved with age. For example, the ICCP study found that 57% of 18-25 year-old women responded correctly, compared to 67% of 26-35 year-olds and 71% of 36-45 year-olds.

Both studies found that women with higher educational attainment were more likely to identify the fertile time. In 2003, 56% of those with lower second-level education correctly identified the most fertile time, but 59% and 75% among those with upper second-level and third-level education respectively.⁶ The 1993 study reported similar results: 45% of those with lower second-level education correctly identified the fertile time compared to 62% of those with third-level education.

Similarly, the 1993 survey found that 48% of respondents in the lower social classes could identify the most fertile time. This finding was consistent with those from the ICCP survey, in which 58% of respondents from the lower social classes responded correctly as opposed to 72% of respondents from higher social classes.⁶

3.1.2 Knowledge of the emergency contraceptive pill

EMERGENCY contraception reduces the risk of pregnancy after a main method of contraception has failed or after unprotected intercourse. It works by preventing ovulation, fertilization or implantation.⁷ Emergency contraceptive pills (ECPs) are the most common form of emergency contraception. They consist of higher doses of the same hormones as found in oral contraceptive pills.⁸ Although emergency contraception can substantially reduce the likelihood of unintended pregnancy, its uptake is quite low.⁷ Low levels of use are unlikely to be due to a lack of need; women may be unfamiliar with the specifics of the method and thus not consider it as an option when the need arises. Research supports this view. Several studies have found that many women are aware of the existence of the ECP but lack specific knowledge of time frames and how it works.⁹

Several surveys from different countries have shown that most women are aware of the existence of the emergency contraceptive pill.^{9,10-14} For example, Smith *et al* (1996)¹⁴ found that 94% of women were aware of the existence of the ECP, in their study of a stratified random sample of 2,000 women aged 18-47 in the UK. Similar findings were reported in a recent Irish study; 96% of the total sample reported awareness of the ECP (97% of women and 95% of men).⁶

For the emergency contraceptive pill to be effective in preventing ovulation, fertilisation or implantation, it should be taken within 72 hours of intercourse.¹⁵ However, knowledge of this 'time window' has been found to be poor in several countries.^{16,17,12,18,13;14} For example, Graham *et al* (1996) (10) examined knowledge among pupils in ten secondary schools in Scotland. They found that, when given a choice of time limits of the effectiveness of the ECP, only 26% identified the correct answer. Similar findings have been reported in the Irish context; 38% correctly identified 72 hours as the time limit.⁶

Accurate knowledge of the effective 'time window' tends to be greatest among younger participants,^{9,6,17,19} and people with higher levels of education and of a higher social class.^{6,17,19} For example, Rundle *et al* (2004)⁶ found that 45% of 18-25 year-olds correctly identified the time limit compared to 43% of 26-35 year-olds and 28% of 35-45 year-olds. They found that people with lower education levels were significantly less likely to identify the time limit: 31% of participants with lower second level, 38% of those with upper second level and 44% of those with third-level education did so. Participants from higher social classes (41%) were also more likely to identify the time limits than participants from lower social classes (34%).

Several authors have expressed concern about people's consistent underestimation of the ECP's effective time limit. For example:

- Rundle *et al* (2004)⁶ found that 29% of their sample underestimated it, believing that emergency contraception has to be taken within 24 hours of intercourse. A further 15% felt it could be used only up to 12 hours.
- Similarly, Graham *et al*'s (1996) study of secondary students¹⁰ found that 14% thought that emergency contraception had to be used within 48 hours, and 27% that it had to be taken within 24 hours.
- Nguyen *et al* (2003)²⁰ found similar trends in their study of women aged 14-46 who were prescribed the ECP; 42% erroneously thought it had to be used within 24 hours.

This misconception about the time limit for use of EC may be partly due to the popular term 'morning-after pill', which may inadvertently persuade women that the time limit for effective use is much shorter than 72 hours.

3.1.3 Knowledge of Chlamydia

AS well as unwanted pregnancy, unprotected sex carries the risk of exposure to STIs. This study focused on people's knowledge of (a) a serious and increasingly common STI, Chlamydia, and (b) the most serious and widely publicised STI, HIV.

Chlamydia a very common bacterial STI, is the one most commonly diagnosed among young people. However, it often goes undiagnosed as it is asymptomatic in around 70% of women and 50% of men. It can have serious long-term consequences, especially in women. It is a cause of pelvic inflammatory disease, ectopic pregnancy and infertility. In men, it causes 30-50% of non-gonococcal urethritis, and can cause epididymitis, prostatitis and proctocolitis. Less common manifestations include a reactive arthritis.

Ireland has reported an increasing number of cases of Chlamydia each year since 1995. There was a 684% increase in cases reported between 1995 and 2002. In keeping with international prevalence studies, young adults have the highest levels of Chlamydia infection. In Ireland, 84% of infections occur in adults under 30. Women account for 53% of reported cases.

These figures represent cases mainly reported by sexually transmitted infection (STI) clinics. However, many cases are managed in other health-care facilities such as GP practices and family-planning clinics and may not be reported to infection monitoring groups. Although the rise in figures may be partly explained by improved diagnostic tests and more testing in recent years, they are likely to reflect a real increase in overall incidence of Chlamydia. They almost certainly

under-estimate the levels of infection as there will be a significant proportion of undiagnosed asymptomatic infection in men and women. (A detailed description of Chlamydia prevalence and screening in Ireland and elsewhere is provided in ISSHR sub-report two).

Given the rising levels of Chlamydia in Ireland and the serious sequelae that follow untreated cases, it is important to assess how far the public are aware of this predominantly asymptomatic STI and of the potentially serious outcomes if the infection is untreated. Research has found that Chlamydia is one of the least well-known sexually transmitted infections.²¹⁻²³ However, Dawe & Rainford²¹ found in their recent national study in the UK (2003) that the proportion of men and women who recognised Chlamydia as an STI had increased significantly. Among men, the level of recognition almost doubled: 35% recognised the STI in 2000/01 and 67% in 2003/04. Among women the proportion rose from 65% to 87% during the same period.

Women continue to be more likely than men to know that Chlamydia is an STI.^{21,23} And the likelihood of this knowledge appears to be lower with increasing age.²¹ Men under 30 were more likely than over-40s to recognise Chlamydia as an STI. Awareness continued to decrease with age after 40; 71% of those aged 40-44 were aware of Chlamydia, but the figure dropped to 60% among 45-49 year-olds and to 52% among men aged 50-69. Similar trends were observed among women.

Research has also revealed that detailed knowledge about Chlamydia is quite poor among those who are aware of it as an STI. For example, Dawe & Rainford (2003)²¹ found that 56% of men and 76% of women knew that Chlamydia is often asymptomatic, while only 52% of men and 60% of women knew that Chlamydia is easily treated with antibiotics. However, respondents were more accurate about outcomes of Chlamydia; only 4% of men and 5% of women incorrectly thought that Chlamydia had no serious side-effects.

Knowledge that untreated Chlamydia can result in infertility in women has been found to be low in several studies. For example, in a UK sample of women attending family-planning clinics, only 27% knew that Chlamydia could cause infertility.²² Attendees at genito-urinary medicine clinics showed more awareness of this risk (around 40%).^{23,24} A nationally representative sample of Australian adults found that only 36% of men and 57% of women correctly indicated that Chlamydia can cause infertility in women.¹ On whether Chlamydia affects women or men only, Dawe & Rainford (2003)²¹ found that only 2% of men and 1% of women believed that Chlamydia only affects men. Grulich *et al* (2003)¹ found that 30% of men and 32% of women correctly indicated that the statement 'Chlamydia only affects women' is false.

Factors related to more knowledge include having been diagnosed with genital Chlamydia,²⁴ being aged between 20 and 49, homosexual or bisexual identity and higher educational and occupational level.¹

3.1.4 Knowledge of and perceived susceptibility to HIV

THE discovery of HIV in the early 1980s has had immense ramifications for investment and practice in sexual-health promotion. It was largely due to the advent of HIV that, after 1985, KAB surveys were undertaken in Western countries. Since then, knowledge about HIV and the behaviours that lead to its spread has increased dramatically.

Research since the mid-1990s has generally found high levels of knowledge about HIV transmission routes and prevention.²⁵⁻²⁸ This is largely due to the widespread public education campaigns which were run in many countries after the facts about HIV transmission were established. However, certain misconceptions about the transmission of HIV persist, including the idea that withdrawal of the penis before ejaculation (coitus interruptus) is an effective means of protecting against HIV. As well, developments in drug therapies to delay the onset of AIDS may have led to the misconception that there is a vaccine for HIV or a cure for AIDS.²⁹

National studies in France (1992) and Belgium (1993) examined people's perceptions of the effectiveness of withdrawal as a means of preventing the transmission of HIV. Over 30% of Belgian and 39% of French respondents believed that withdrawal was effective. These figures highlight that a significant minority hold the misconception that withdrawal is effective.²⁹ Although withdrawal prior to ejaculation reduces the potential viral dose of HIV transmission, it cannot be considered an effective means of protection, as pre-ejaculatory fluid may be a vector for transmitting HIV.^{30,31}

In relation to age, studies¹⁷ have found that the proportion of respondents thinking that withdrawal is totally ineffective against HIV is significantly smaller among 18-19 year-olds than among 20-24 year-olds and all the other age groups combined. The most highly educated respondents are also less likely to consider withdrawal effective.

On the misconception that there is a cure for AIDS, early studies conducted in the Netherlands and Portugal found that 88% and 75% of respondents respectively rejected the statement that there is a cure for AIDS. No gender differences were found. However, in both studies, people with higher levels of education were more likely to report that there is no cure for AIDS.²⁹ Studies in France and Belgium (1993) investigated a similar misconception, about the existence of a vaccine for HIV. More respondents rejected the concept of a vaccine for HIV than that of a cure for AIDS; 96% of Belgian and 91% of French respondents said there was no effective vaccine against HIV. Both studies found that the highly educated were most likely to believe there is no vaccine for HIV.²⁹

Believing that withdrawal is an effective means of preventing HIV and that there is a cure for HIV may result in unsafe sexual practices due to a false sense of security. Therefore, it is important to measure how far Irish people hold these beliefs. It is accepted that improved knowledge does not automatically lead to risk-reduction behaviour. However, safe-sex practices are highly improbable in the presence of ignorance or misconceptions. Knowledge about the transmission and consequence of HIV may also influence a person's view about personal susceptibility to infection. Perceived susceptibility refers to the extent to which one feels personally at risk of infection.²⁵ Brien *et al* (1994)³² argue that people may be aware of the transmission routes and consequences of HIV but not feel personally at risk, as many do not personalise the risk of HIV but perceive themselves to be invulnerable.³³ It is unclear whether such judgements are based on realistic appraisals of relevant past behaviour or on optimistic bias. Again, it is important to identify those respondents who do not consider themselves at risk of infection.

3.2 Findings: Knowledge of fertility

SUMMARY

Findings show that most men and a substantial minority of women do not know when the most fertile period of a woman's cycle occurs. Correct knowledge is highest among women aged 35 to 44 and lowest in women aged 18 to 24.

Higher levels of education are also associated with correct knowledge.

- *43.6% of participants correctly identified the most fertile time in the female menstrual cycle (about half way between menstrual periods).*
- *Women were more likely than men to respond correctly (56% of women and 31.3% of men).*
- *A substantial proportion of women (44%) could not identify when they were most likely to become pregnant during the menstrual cycle.*
- *Women aged 35 to 44 were most likely to know the most fertile period of the cycle (65%) and women aged 18 to 24 least likely (44%).*
- *Knowledge of the fertility cycle appears to have been falling over time among women.*

HAVING examined the Irish and international literature on sexual knowledge, we now turn to the results of the ISSHR survey. The method used to measure knowledge about fertility is similar to that used by Wiley & Merriman (1996)⁵ and the ICCP,⁶ which allows for comparisons to be made across studies.

All ISSHR participants were asked at what time of the month they thought a woman is *most likely* to become pregnant.

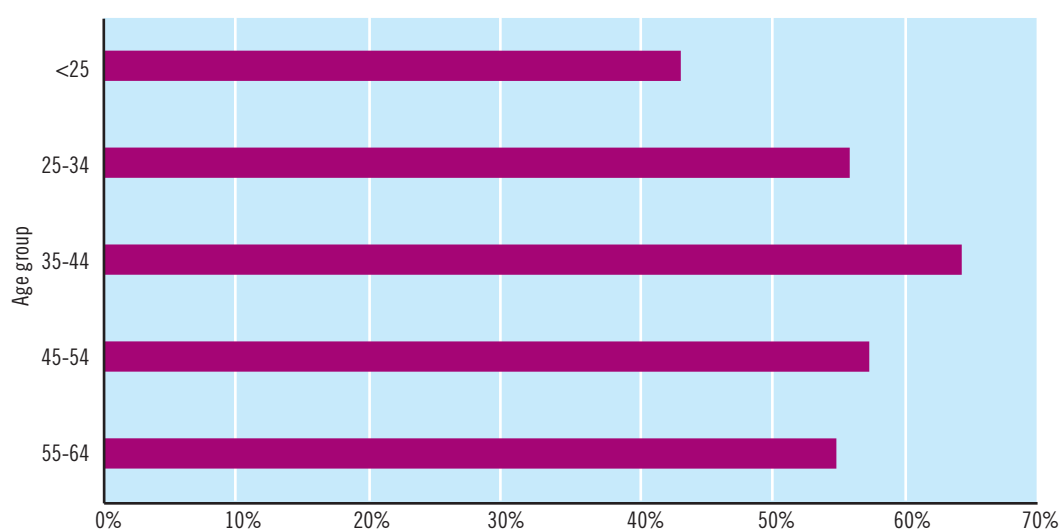
- In total, 43.6% correctly identified the most fertile time as about half way between menstrual periods.
- Women (56%) were significantly more likely to respond correctly than men (31.3%) (see *Table 3.1*).

As in the studies by Wiley & Merriman (1996)⁵ and Rundle *et al* (2004),⁶ women's knowledge of fertility times was investigated further. This knowledge varied across age groups; women under 25 were most likely to respond incorrectly (*Figure 3.1*). The accuracy of responses tended to increase after age 25: 55.9% and 64.5% of women aged 25-34 and 35-44 respectively responding correctly. After age 44, there was an increased tendency to respond incorrectly. However, the proportion of older women responding incorrectly was less than the proportion of women under 25.

Table 3.1: Knowledge about time (during menstrual cycle) when a woman is most likely to become pregnant (%)

A woman is most likely to become pregnant:	Men	Women	Total
During her period	1.8	0.6	1.3
Just before her period	17.3	10.9	14.1
Just after her period	17.5	12.7	15.1
*About half way between periods	31.3	56.0	43.6
Anytime	10.2	13.6	11.9
Don't know/not sure	21.8	6.1	13.9
Total	100	100	100
N	3,184	4,252	7,436

* Most accurate answer

Figure 3.1: Proportion of women correctly identifying the most fertile period of the cycle, by age group

A comparison of the figures across recent national studies shows that knowledge of fertility has decreased over time across all age cohorts. *Table 3.2* shows comparisons between the ISSHR findings and those of the ICCP (2004)⁶ and Wiley & Merriman (1996).⁵ Rundle *et al* noted in their ICCP study that women's knowledge of fertility had declined in the ten years since Wiley and Merriman's study, particularly among younger women (18 to 25) where the proportion with incorrect knowledge increased from 33% to 43% (see *Table 3.2*).

The ISSHR results demonstrate that this trend has continued:

- 56% of women under 25 showed incorrect knowledge of fertility and 45% overall, compared to 23% in 1996 and 35% in 2004

As in Rundle *et al* (2004), older women (36-45) were least likely to respond incorrectly.

Unlike previous studies, ISSHR included women aged over 46; it found that 42.6% of these women responded incorrectly – the same figure as for women aged 26-35 (*Table 3.2*).

The strong increase in the proportion reporting poor knowledge in the short period between the ICCP and ISSHR surveys is hard to explain. It may be due to methodological differences between the surveys. What is clear, however, is that levels of knowledge among women have decreased since the mid-1990s.

Table 3.2: Proportion of women with inaccurate knowledge of female fertility, by age: ISSHR, ICCP (2004), Wiley & Merriman (1996)

Age group	Wiley & Merriman (1996) %	ICCP (2004) %	ISSHR (2004/5) %
18-25	33.0 (18-24)	43.4	56.4
26-35	18.2 (25-29) 21.7 (30-34)	32.7	42.6
36-45	17.4 (35-39) 21.1 (40-44)	28.6	35.5
46+			42.6
All	23.1	34.6	44.6 (18-45)

Table 3.3 shows the proportion of women, across a range of socio-demographic characteristics, who correctly identified when a woman is most likely to become pregnant during the menstrual cycle. As mentioned, women over 25 were significantly more likely to respond correctly than those under 25. Consistent with previous Irish studies, significantly more women from higher social classes and with higher levels of education responded correctly, even when controlling for other socio-demographic factors. For example, women with third-level and upper secondary education were significantly more likely to identify the most fertile time than those with primary education. There were no significant differences between those with primary and lower secondary ($p=0.14$). Rundle *et al* (2004)⁶ and Wiley and Merriman (1996)⁵ reported similar differences in fertility knowledge across education.

In relation to social class, multivariate analysis found that, after controlling for other factors, women from the upper professional, lower professional and administrative/clerical groups were one and a half times more likely to respond correctly than women from the semi-skilled/unskilled manual category (not shown).

Table 3.3: Proportion of women who correctly identified the most fertile period in a women's menstrual cycle, by demographic factors

	Correct response (%)	N
All participants	56.0	4,175
Current age (years)		
18-24	43.5c	908
25-34	55.9**	965
35-44	64.5***	1,014
45-54	57.7**	755
55-64	57.3***	610
Education (highest attained)		
Primary	45.6***	305
Lower secondary	51.3***	657
Higher secondary	57.8**	1,779
Third level	62.6 c	1,511
Social class		
Higher professional	59.4***	642
Lower professional	62.7***	1,097
Administrative/clerical	62.7***	978
Skilled manual	45.9ns	296
Semi-skilled/unskilled manual	47.9c	892
Current relationship status		
Not in a relationship	44.1***	961
Married	63.1c	2,360
Cohabiting	53.5ns	270
Steady relationship	53.9ns	520
Casual relationship	53.2ns	141
Received sex education on contraception		
Yes	51.2ns	1,626
No	58.9c	2,623
Current residence		
Urban	55.2ns	2,361
Rural	57.4 c	1,887

Significance key: *= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

3.3 Findings: Knowledge of the emergency contraceptive pill

SUMMARY

A MAJORITY of ISSHR respondents could not correctly identify the effective time limit for emergency contraception (EC).

Women were more likely to do so than men. Younger men and women and individuals with higher levels of education were more likely to have accurate information.

Those who got the effective time limit wrong were most likely to underestimate the period. This suggests that, because of incorrect knowledge, EC may not be used in situations where it would be effective.

Of respondents who did not correctly identify the effective time limit, 91.5% reported that they knew enough about contraception.

- 31.6% of participants correctly identified the 72-hour time-limit for the effectiveness of the emergency contraceptive pill.
- Women were significantly more likely to respond correctly (41.8% of women versus 21.4% of men).
- Younger participants and those with higher levels of education were most likely to respond correctly.
- 46.3% underestimated the time-limit, reporting that emergency contraception should be taken 12 or 24 hours after intercourse.
- 50% of women who had sought advice about contraception had accurate information about EC use compared to 33% who had not sought advice.

THIS section investigates participants' knowledge of the effective time-limit of the emergency contraceptive pill.

The ISSHR method of measuring this knowledge was similar to that used by ICCP (Rundle et al 2004), thus allowing for comparisons across studies. Respondents were asked how long after sexual intercourse the 'morning-after pill' or 'emergency contraceptive pill' can be effectively used. Five response options were suggested: up to 12 hours, up to 24 hours, up to 72 hours, up to five days or over five days. A 'don't know' option was also included. The proportion of men and women who endorsed each of the options is displayed in Table 3.4.

Table 3.4 Knowledge about the correct use of the emergency contraceptive pill (%)

How long after sexual intercourse do you think the 'morning-after pill' or 'emergency contraceptive pill' can be effectively used?	Men	Women	Total
Up to 12 hours	20.3	14.5	17.4
Up to 24 hours	32.6	25.2	28.9
*Up to 72 hours	21.4	41.8	31.6
Up to 5 days	0.67	0.25	0.46
Over 5 days	0.36	0.25	0.31
Don't know	24.7	18.1	21.4
N	3,186	4,245	7,431

* *Most accurate answer*

One-third of participants correctly identified the 72-hour limit for effective use of emergency contraception. This low level of accurate knowledge is consistent with previous research.^{16,17,13} Women (41.8%) were almost twice as likely to respond correctly as men (21.4%). The ICCP study⁶ found slightly higher levels of knowledge in their 2003 study, in which 26% of men and 51% of women responding correctly. However, in ISSHR, as shown by *Table 3.4*, knowledge of the 72-hour limit was lowest among participants aged 55-64. This age group was not included in the ICCP study, which focused on adults aged 18-44.

Table 3.5 displays the proportion of men and women who accurately identified 72 hours as the correct time-limit, by socio-demographic characteristics. Among men, the likelihood of responding correctly decreases with age:

- men aged 18-24 and 25-34 were more than twice as likely to respond correctly as those aged 55-64 ($p < 0.001$)

Similarly, when controlling for other factors in *Table 3.5*, education proved significant:

- men with upper secondary (23.1%) and third-level education (27.1%) were over twice as likely to identify the 72-hour limit as men with primary education

Examination of knowledge across relationship type revealed that only men in a steady relationship were significantly more likely than married men to accurately identify the 72-hour limit.

As in the analysis of knowledge of fertility, the influence of other behavioural factors on knowledge, including receipt of sex education on contraception and seeking advice about contraception, were tested. Results showed that none of these factors was a significant influence, after controlling for other variables.

Table 3.5 Proportion of men and women who correctly identified the 72 hour time-limit, by demographic factors

	Men		Women	
	%	Base	%	Base
All participants	21.4	3,186	41.8	4,245
Current age (years)				
18-24	27.4c	758	63.5c	905
25-34	27.9ns	701	55.8*	963
35-44	20.5ns	647	39.6***	1,013
45-54	17.2*	573	25.8***	755
55-64	11.1***	507	15.8***	609
Education (highest attained)				
Primary	12.3*	263	19.3***	305
Lower secondary	17.6*	544	31.6***	657
Higher secondary	23.1ns	1,198	44.3***	1,776
Third level	27.1c	1,181	58.3c	1,507
Social class				
Higher professional	25.7ns	789	53.6*	642
Lower professional	20.5ns	731	47.1ns	1,095
Administrative/clerical	23.7ns	428	40.3ns	974
Skilled manual	20.1ns	611	47.3ns	296
Semi-skilled/unskilled manual	18.4c	492	34.3c	892
Relationship status				
Not in a relationship	19.8ns	853	43.8ns	959
Married	18.4c	1,502	31.8c	2,357
Cohabiting	25.8ns	239	64.4***	270
Steady relationship	35.7*	370	63.7**	518
Casual relationship	24.0ns	222	55.7 ns	141
Received sex education on contraception				
Yes	26.7ns	1,124	53.3ns	1,624
No	18.9c	2,054	35.2c	2,618
Sought advice about contraception				
Yes	26.5 ns	345	49.6***	2,294
No	20.9	2,806	33.1c	1,897
Current residence				
Urban	23.1ns	1,928	43.4ns	2,355
Rural	18.9c	1,257	39.6c	1,886

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

Among women, age trends were similar to those found among men; younger women were significantly more likely to correctly identify the correct time-limit. But age effects were greater among women. For example, controlling for other factors,

- women under 25 were five times more likely and women aged 25-34 were four times more likely to respond correctly than women aged 55-64 (not shown)

Such age differences may be related to the fact that the emergency contraceptive pill has only been made available in Ireland in recent decades and older women may not have had as much exposure to this method of contraception.

Women with higher levels of education were also significantly more likely to respond correctly, even when controlling for age and social class. When controlling for education, the effect of social class was weak, but higher professional class women were still significantly more likely to respond correctly than women from the semi-skilled/unskilled manual classes ($p < 0.05$). Relationship status also remained significant; women in cohabiting or 'steady' relationships were significantly more likely to respond correctly than married women.

Women who had received sex education were more likely to have correct information but, after controlling for other socio-demographic characteristics, the differences are not significant. However, women who reported having sought advice about contraception were significantly more likely to respond correctly, as shown in *Table 3.5*.

The strong age and educational effects observed among men and women are consistent with previous research.^{9,6,6,17,19} It has revealed that women often underestimate the time-limit for the effectiveness of the emergency contraceptive pill (that is, they consider it to be 24 hours). ISSHR found that:

- 17.4% (14.5% of women and 20.3% of men) believed EC must be taken within 12 hours of intercourse
- a further 28.9% (25.2% of women and 32.6% of men) believed that the ECP is only effective if used 24 hours after intercourse

Thus, overall, a total of 46.3% underestimated the time-limit for the effectiveness of emergency contraception. This result supports the ICCP finding that 44% underestimated the 72-hour time-limit.⁶

This lack of knowledge about the emergency contraceptive pill may act as a barrier to use; 68.4% of respondents either did not know the correct time-limit or estimated it inaccurately. Furthermore, of those who responded incorrectly, 91.5% reported that they knew enough about contraception. Such people are unlikely to seek information, and may decide not to use emergency contraception when it would be effective.

Current place of residence was not included in the multi-variate analysis as it was not found to be related to knowledge of emergency contraception at the univariate level of analysis, among men or women.

Emergency contraception has a potentially important role in preventing unintended pregnancy. In many cases, contraception is not used because of lack of planning or alcohol/drug

use. For example, the ICCP study found that 15% of participants used the emergency contraceptive pill because no contraception had been available at the time of intercourse and a further 19% because they had not used contraception.⁶ Thus, knowledge about contraceptive choices after the event can be very important.

ISSHR clearly shows that a strategy is required to inform people about emergency contraception. Health service providers may need to incorporate in their contraceptive counselling the emergency contraceptive pill and its usage. Larsson *et al* (2004)⁹ found that women who had visited a clinic for contraceptive counselling had better general knowledge about the ECP than those who had not requested counselling. Perslev *et al* (2002)¹⁷ concluded that information campaigns need to target women with lower educational levels. The ISSHR findings support that conclusion.

3.4 Findings: Knowledge of Chlamydia

SUMMARY

As found with knowledge of emergency contraception, awareness of and knowledge about Chlamydia tend to be higher among women than men and among younger than older respondents.

More educated individuals also have more knowledge about Chlamydia, even controlling for differences in age across educational groups. People in urban areas were better informed than those in rural areas.

Individuals who had been diagnosed with an STI were much more likely to be aware of and have good knowledge about Chlamydia.

Men who self-identified as homosexual were also more likely than heterosexual men to have good knowledge about Chlamydia.

- 62.3% of participants had heard of Chlamydia. Women were significantly more likely to have done so (72.6% of women versus 53.8% of men).
- Younger participants and people with higher levels of education were more likely (than older and people with lower levels of education) to have heard of Chlamydia.
- Women, younger respondents and the better educated were significantly more likely to report better knowledge about the consequences and treatment of Chlamydia.
- 59% of men and 75% of women who had been diagnosed with an STI had heard of Chlamydia, compared to 47% of men and 70% of women who had not.
- 78% of men who self-identified as homosexual had good knowledge of Chlamydia compared to 37% of men self-identifying as heterosexual.
- People living in urban areas were significantly more likely than those in rural areas to have heard of Chlamydia (59% of urban men compared to 47% of rural, and 75% urban women compared to 70% of rural).

THIS section examines participants' awareness and knowledge of Chlamydia.

In total, 63.2% of participants had heard of Chlamydia. Women (72.6%) were significantly more likely to report having heard of it than men (53.8%) (OR=2.27, 95% CI 2.02-2.56, $p<0.001$).

Awareness of Chlamydia among Irish participants appears to be lower than among their UK counterparts. For example, Dawe and Rainford (2003)²¹ found levels of 67% among men and 87% among women in 2003. The Irish levels were between these levels and lower UK levels recorded in 2001 (35% for men and 65% for women). This suggests that educational strategies in the UK achieved some success.

The trend of women in ISSHR reporting more awareness is consistent with international studies.²¹⁻²³ As also found in previous research, awareness of Chlamydia declined with age.²¹

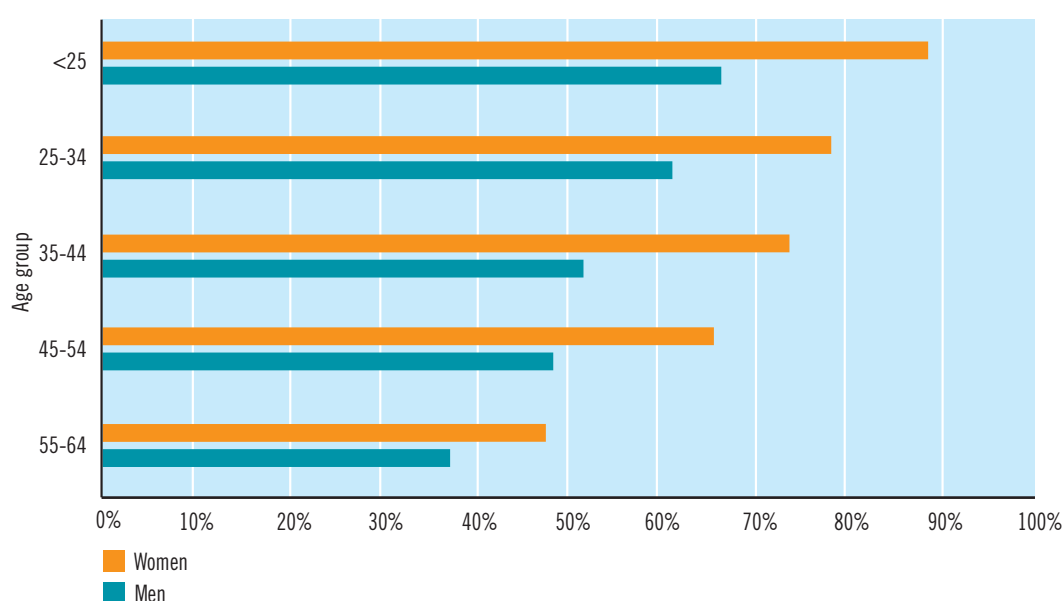
Figure 3.2 presents the proportion of men and women who reported having heard of Chlamydia:

- 66.5% of men aged 18-24 had heard of Chlamydia, falling to 37.1% among men aged 55-64
- 89.1% of women aged 18-24 had heard of Chlamydia, falling to 65.9% among women aged 45-54 and 47.7% among 55-64 year-olds

Awareness of Chlamydia across various socio-demographic factors is displayed in Table 3.6. As men and women report different levels of awareness, their results are reported separately.

Men with third-level qualifications are over twice as likely as those with primary education to have heard of Chlamydia. After controlling for all factors in Table 3.6, men with third-level education are five times more likely to be aware of it than those with primary education. Men with upper second-level education were twice as likely, compared to men with primary education.

Figure 3.2 Proportion of men and women who had heard of Chlamydia, by age group



Place of residence is an important predictor of knowledge of Chlamydia. Urban residents are significantly more likely to have heard of Chlamydia, even within age and education groups.

It is likely that experience of an STI, either directly or vicariously, provides personal knowledge of STIs. *Table 3.6* shows the impact of having been diagnosed with an STI. It shows that men who reported such diagnosis are 26% more likely to have heard of Chlamydia than men who did not, a difference that remains significant across age and education categories.

Men who identify as homosexual or bisexual may also be more aware of STIs given the HIV and AIDS awareness-raising campaigns directed at the homosexual and bisexual populations. To examine this, a variable representing individual's sexual identity was used, but analysis shows no significant association with recognition of Chlamydia (as distinguished from knowledge about Chlamydia).

Among women, as with men, those in younger age groups were most likely to report being aware of Chlamydia. For example, controlling for other factors (not shown), all older age groups among women were significantly less likely to report being aware than women aged 18-24.

Education is also an important factor among women. Awareness increases with educational level. Women with third-level education were significantly more likely to report awareness than all other educational groups.

Social-class differences are also significant, after controlling for age and education level. Higher and lower professional women were significantly more likely to have heard of Chlamydia than women of the semi/unskilled manual class.

As with men, women living in an urban area and those who reported experience of an STI were significantly more likely to have heard of Chlamydia than those from a rural setting and with no STI diagnosis.

Table 3.6: Proportion of men and women who had heard of Chlamydia, by demographic and experiential factors

	Men (%)	N	Women (%)	N
All participants	53.8	3,188	72.6	4,253
Current age (years)				
18-24	66.5c	759	89.1c	908
25-34	61.3ns	701	78.7***	966
35-44	51.4*	647	73.8***	1,014
45-54	48.6*	574	65.9***	755
55-64	37.1***	507	47.7***	610
Educational level (highest attained)				
Primary	28.7***	263	45.0***	305
Lower secondary	46.7***	544	58.9***	657
Upper secondary	57.1***	1,198	77.5***	1,780
Third level	74.7c	1,183	90.4c	1,511
Social class				
Higher professional	59.7ns	790	83.8*	642
Lower professional	55.4ns	731	80.1*	1,097
Administrative/clerical	60.4***	428	73.4ns	978
Skilled manual	46.4ns	611	72.6ns	296
Semi/unskilled manual	46.8c	492	63.4c	892
Current relationship status				
Not in a relationship	57.4ns	854	73.2ns	961
Married	47.8c	1,502	66.9c	2,361
Cohabiting	61.1ns	239	81.9ns	270
Steady relationship	64.1ns	371	87.8ns	520
Casual relationship	60.5ns	222	83.5ns	141
Current residence				
Urban	58.5***	1,930	75.0**	2,362
Rural	46.9c	1,257	69.5c	1,887
Received sex education on safe sex and STIs				
Yes	65.6ns	1,031	81.5ns	1,379
No	49.0c	2,154	68.7c	2,868
Previous diagnosis of STI				
Yes	78.6***	107	98.7***	85
No	53.0c	3,069	72.2c	4,153
Sexual identity				
Heterosexual	53.4c	3,089	72.6c	4,199
Homosexual	81.7ns	53	74.6ns	14
Bisexual	64.6ns	29	93.9ns	29

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

While there appears to be relatively high awareness of the existence of the infection Chlamydia, particularly among women and younger participants, it is important to assess the accuracy of public knowledge about the specific nature of this infection. To measure this, participants who reported having heard of Chlamydia (n=5,111) were asked five questions about various consequences of and treatment for Chlamydia.

Table 3.7 displays the proportion of men and women who correctly answered each question. The correct answer is shown in parentheses and the items are listed in decreasing order of correct responses.

Women were significantly more likely than men to respond correctly to each question. However, similar patterns of responses emerged; for example, higher proportions of both men and women understood that Chlamydia does not only affect men and that it can cause infertility. And the lowest accuracy among both men and women concerns the asymptomatic nature of Chlamydia.

Table 3.7: Proportion of men and women (who had heard of Chlamydia) who correctly answered specific question about Chlamydia

	Men (%)	N	Women (%)	N
“Chlamydia only affects men” (false)	71.1	1,882	84.5	3,229
“Chlamydia can cause infertility if untreated” (true)	71.5	1,882	81.3	3,229
“Chlamydia has no serious side-effects” (false)	62.6	1,882	72.1	3,229
“Chlamydia is easily treated with antibiotics” (true)	57.6	1,882	71.6	3,229
“Chlamydia does not always cause symptoms” (true)	47.4	1,882	62.2	3,229

The ISSHR study shows awareness and knowledge of Chlamydia among all participants, including those who were not asked the questions listed in Table 3.7 as they had not heard of Chlamydia. The results can be compared with those of international studies.

Irish levels of knowledge that Chlamydia can cause infertility if untreated were modest, but almost identical with those in the national Australian study.¹

Where comparisons were possible with specific questions in a UK study,²¹ Irish levels of knowledge were notably lower: for instance, 56% of men in the UK vs. 25% in ISSHR knew that Chlamydia could be asymptomatic. Parallel figures for women were 76% (UK) and 45% (ISSHR). On Chlamydia being treated with antibiotics, 52% of UK men vs. 31% in ISSHR and 60% of UK women vs. 53% in ISSHR knew this to be true.

The gaps in knowledge in ISSHR, compared to international studies and in absolute levels, were larger for men than for women. Overall, only about a third of Irish men and half of Irish women knew basic facts about Chlamydia. Methods of public education on Chlamydia from countries such as the UK which have made more progress on this issue may inform a public education strategy in Ireland.

Next, answers to the five questions were combined to form an index of knowledge, adding up to a maximum of five points if all answers were correct. Based on this scale, 'good knowledge' of Chlamydia was defined as a score of three or more and 'limited knowledge' as a score of two or less. To aid interpretation, respondents who had not heard of Chlamydia were defined as having 'limited' knowledge. The analyses below are, thus, of the total ISSHR sample, not just of those who had heard of Chlamydia.

Women were significantly more likely to demonstrate good knowledge (60%) than men (37%). Therefore all further analysis was conducted separately for men and women.

Table 3.8 shows the proportions of men and women with good knowledge of Chlamydia across a range of socio-demographic characteristics. As before, age is an important determinant of knowledge of Chlamydia among men; younger male respondents are significantly more likely to have good knowledge, as were men with higher levels of education or from a higher social class. Relationship status, on the other hand, was not related, after controlling for factors such as age and education. The location of the respondent was a significant predictor; urban individuals are significantly more likely to have good knowledge of Chlamydia, even among younger age groups.

As found with recognition of Chlamydia, having been diagnosed with an STI is significantly associated with better knowledge of Chlamydia. However, unlike in Table 3.6 (which shows recognition of Chlamydia), men who self-identify as homosexual are over twice as likely as men who self-identify as heterosexual to have good knowledge, even controlling for age. While heterosexually men have similar levels of recognition of Chlamydia to those of homosexual men, the latter are significantly more likely to know more details about the STI.

Table 3.8 shows that among women there is a significant age gradient in level of knowledge about Chlamydia. Women aged 18 to 24 are over twice as likely to have good levels of knowledge as the oldest group of women (55-64). Women with higher levels of education are significantly more likely to have good knowledge. For example, women with third-level education are over twice as likely to have good knowledge as women with primary education.

Table 3.8: Proportions of men and women who reported 'good' levels of knowledge of Chlamydia, by demographic and experiential factors (those who had not heard of Chlamydia are defined as having poor knowledge)

	Men (%)	N	Women (%)	N
All participants	37.4	3,188	59.7	4,253
Current age (years)				
18-24	48.8c	759	75.9c	908
25-34	43.4ns	701	67.8*	966
35-44	34.1**	647	60.8*	1,014
45-54	32.3*	574	51.9**	755
55-64	25.7**	507	33.8***	610
Educational level (highest level attained)				
Primary	19.2***	263	31.0***	305
Lower secondary	30.8***	544	44.8***	657
Upper secondary	39.7***	1,198	63.7***	1,780
Third level	54.1c	1,183	80.9c	1,511
Social class				
Higher professional	44.2*	790	71.2*	642
Lower professional	36.5ns	731	69.2*	1,097
Administrative/clerical	43.7**	428	59.9ns	978
Skilled manual	31.4ns	611	57.6ns	296
Semi/unskilled manual	30.4c	492	50.5c	892
Current relationship status				
Not in a relationship	40.4ns	854	61.2ns	961
Married	31.6c	1,502	52.8c	2,361
Cohabiting	45.2ns	239	72.4*	270
Steady relationship	49.6ns	371	75.9ns	520
Casual relationship	41.3ns	222	71.5ns	141
Current residence				
Urban	41.6***	1,930	61.5*	2,362
Rural	31.2c	1,257	57.3c	1,887
Received sex education on safe sex and STIs				
Yes	47.4ns	1,031	69.7ns	1,379
No	33.3c	2,154	55.2c	2,868
Previous diagnosis of STI				
Yes	62.7***	107	93.4***	85
No	36.6c	3,069	59.2c	4,153
Sexual identity				
Heterosexual	36.8c	3,089	59.6c	4,199
Homosexual	78.1**	53	64.6ns	14
Bisexual	49.7ns	29	81.8ns	29

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; +=not included in the model

C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

Among women, there is not such a large differential in knowledge by location as there is among men, but the difference is still significant. As among men, women who reported STI diagnosis are significantly more likely to report good knowledge of Chlamydia. But, unlike among men, sexual identity is not a significant predictor.

When participants' actual level of knowledge is compared to their perceived level, similar findings emerged as with emergency contraception. A high proportion of participants with lower levels of knowledge (76.7%) indicated that they know enough about safe sex and STIs. Only 23% said they would like to learn more. This highlights the need to make information readily available as it is unlikely that such people would seek out information.

3.5 Findings: Knowledge of and perceived susceptibility to HIV

SUMMARY

Three questions on HIV and AIDS were used to test for differences in level of knowledge.

Over 85% of respondents correctly answered each of these questions. Younger people and those with higher levels of education were most likely to do so. Differences across levels of education were particularly pronounced, even after controlling for age.

Both men and women in casual relationships or not in a relationship tended to have less knowledge, as did respondents living in rural areas. Having previously had a HIV test was associated with higher levels of knowledge.

Women and older people were most likely to perceive their risk of HIV as being low or minimal, whereas those reporting multiple partners in the last year and women who had been diagnosed with an STI were least likely to see their risk as low.

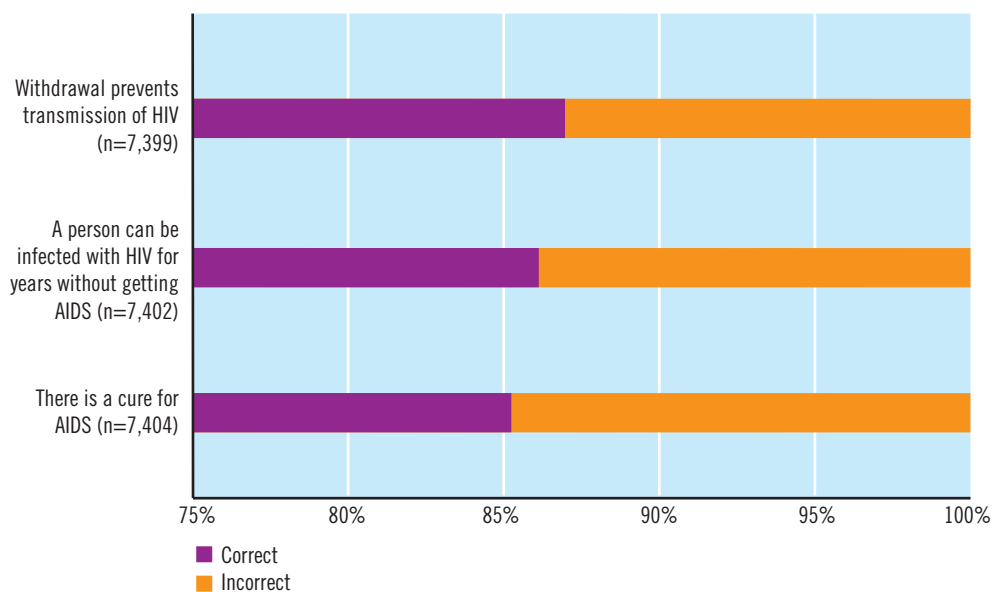
- *Almost 90% correctly said that withdrawal does not protect against HIV, that there is not a cure for AIDS and that a person can be infected with HIV for years without developing AIDS.*
- *Knowledge of all three items (protection, cure and prognosis) was lowest among older men and women, particularly those aged 55-64.*
- *Higher levels of education are associated with higher levels of knowledge.*
- *Respondents who live in urban areas are more likely than rural-dwellers to give a correct answer, even controlling for differences in age.*
- *Having undergone a HIV test is associated with more knowledge.*
- *Married men and women were most likely to consider their risk as very low.*
- *Overall, 95% of respondents regard their risk of infection with HIV as low/non-existent (96% among women and 94% among men).*
- *Men and women reporting two or more partners in the last year are significantly less likely to see their risk as low or minimal.*
- *Women, but not men, reporting STI diagnosis are less likely to consider their risk as low.*

PEOPLE'S knowledge of HIV was examined by asking participants to indicate the veracity of the following three statements:

- 'Withdrawing the penis before a man climaxes or ejaculates prevents his partner from getting HIV during sex'
- 'A person can be infected with HIV for years without getting AIDS'
- 'There is a cure for AIDS'

The proportion of participants responding correctly to each item is displayed in Figure 3.3.

Figure 3.3: Proportion of participants who correctly answered questions about HIV (%)



Most participants (87%) correctly indicated that withdrawal does not effectively prevent the transmission of HIV. This proportion is higher than in previous studies. Similarly, 85.3% correctly said a cure for AIDS does not exist. This figure is between that found in the Netherlands (88%) in 1989 and that found in Portugal (75%) in 1991²⁹ (more recent comparisons were not available). On prognosis of the HIV infection, 86.2% accurately said a person can have HIV for years without getting AIDS.

Predictors of these three knowledge items were examined separately as they focused on distinct aspects of HIV: protection, cure and consequences.

Statement 1: ‘Withdrawing the penis before a man climaxes or ejaculates prevents his partner from getting HIV during sex.’

On withdrawal as a means of preventing HIV, the vast majority of participants responded correctly, though men were significantly more likely to do so than women. As well, variability was found across certain socio-demographic variables for both men and women (*Table 3.9*). Among the age groups, older men were least likely to respond correctly. However, the effects of age were relatively weak after controlling for other factors and none of the differences was statistically significant.

Education, on the other hand, appears to be a determinant of knowledge, although once we have controlled for age, only the difference between people with third-level qualifications and those with primary education is significant. This difference is not reflected across social-class categories where there are only small differences between groups.

Men who are not in a relationship or in a casual relationship are less likely than those who are married, cohabiting or in steady relationships to give the correct response, although the difference is only significant for those in casual relationships once we control for other factors. This is important, since people in this group, on average, have a higher number of partners in any period than those in other groups (see chapter seven). On the other hand, they are also more likely to use protection during sex.

After controlling for other factors, men in urban areas are significantly more likely to give the correct response.

As in the assessment of knowledge about Chlamydia, we also examined the association of: receipt of sex education about STIs and safe sex, having been diagnosed with an STI, having had an HIV test and self-identifying as homosexual or bisexual. Reported levels of knowledge about HIV may stem directly from education received or health education campaigns. As with Chlamydia, though, it may also be that diagnosis with an STI alerts the individual to the risks of contracting HIV. Similarly, people who have had a test for HIV may be assumed to have done so because of awareness of the disease (HIV tests undertaken as part of routine surveillance such as during childbirth were not included). Given the health promotion campaigns directed at men who have sex with men, men identifying as homosexual or bisexual should have a higher level of knowledge than heterosexual men.

Table 3.9 shows that sexual identity, sex education received and diagnosis with an STI are not significant predictors of better knowledge, whereas men who have had an HIV test are significantly more likely to answer correctly, after other factors are controlled for.

Table 3.9 Proportion of men and women who correctly identified as false the statement 'withdrawal prevents transmission of HIV'

	Men (%)	N	Women (%)	N
Total population	89.0	3,168	85.0	4,231
Current age (years)				
18-24	89.3c	749	89.4c	908
25-34	92.6ns	700	89.5ns	963
35-44	89.1 ns	645	84.7ns	1,004
45-54	89.3 ns	570	84.4ns	753
55-64	83.0ns	504	74.1*	603
Educational level (highest attained)				
Primary	80.1**	262	74.3**	303
Lower secondary	89.0ns	541	79.5***	653
Upper secondary	90.7ns	1,189	87.2*	1,768
Third level	92.3c	1,176	91.5c	1,507
Social class				
Higher professional	91.6ns	785	89.8ns	639
Lower professional	87.9ns	729	89.2ns	1,091
Administrative/clerical	89.6ns	427	87.5ns	971
Skilled manual	88.1ns	611	83.8ns	295
Semi/unskilled manual	87.9c	487	82.0c	892
Current relationship status				
Not in a relationship	88.2ns	846	82.1ns	957
Married	89.4c	1,493	83.8c	2,343
Cohabiting	91.5ns	239	90.0 ns	270
Steady relationship	91.9ns	370	92.0*	520
Casual relationship	82.8**	220	91.6ns	141
Current residence				
Urban	90.8**	1,914	85.0ns	2,349
Rural	86.1c	1,253	85.1c	1,879
Received sex education on safe sex and STIs				
Yes	91.1ns	1,025	88.3ns	1,372
No	88.1c	2,140	83.6c	2,853
Previous diagnosis of STI				
Yes	93.1ns	107	94.7ns	85
No	88.8c	3,060	84.9c	4,141
HIV test				
Yes	95.1*	289	91.7ns	324
No	88.4c	2,875	84.6c	3,906
Sexual identity				
Heterosexual	89.1c	3,070	85.1c	4,177
Homosexual	89.8ns	53	80.9ns	14
Bisexual	86.3ns	29	89.1ns	29

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; +=not included in the model

C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

Among women, only educational level and, to a lesser extent, relationship status are independently predictive of knowledge about the ineffectiveness of withdrawal as a means of preventing HIV. As displayed in *Table 3.9*, knowledge decreased with age, but not significantly. On the other hand, women with higher levels of education were significantly more likely to answer correctly. Women with a third-level qualification are 18% more likely than those with primary education alone to know the correct answer. Unlike among men, a woman's location does not seem to be significantly related to their level of knowledge.

Statement 2: 'A person can be infected with HIV for years without getting AIDS.'

On the question on whether 'a person can be infected with HIV for years without getting AIDS', 86.2% of people responded correctly (*Table 3.10*). Although slightly more men than women did so, the difference was not significant. Among men, age, education, social class and experience of an HIV test were significantly related to responding correctly, after controlling for other variables.

Men aged between 25 and 44 were most likely to respond correctly and men aged 55 to 64 least likely. Men with third-level education were significantly more likely to respond correctly compared to all other education groups.

Social class is also significant. Men from the lower professional and administrative/clerical classes were significantly more likely to respond correctly than those in the semi/unskilled manual group. Relationship status is weakly predictive; married and cohabiting men were most likely to give the correct response. Location, on the other hand, has significant influence; men living in urban areas were more likely to answer correctly.

As with the previous question, men who reported having had an HIV test were significantly more likely to respond correctly. There may be several explanations for this relationship. It could be that those who know most about HIV are most concerned about their status and thus seek a test. On the other hand, perceived exposure to the virus could prompt individuals to have the test. Analyses in ISSHR Sub-Report 2: 'Sexual Health Challenges and Related Service Provision' show that the strongest predictors of having an HIV test include having had a same-sex partner, paying for sex and having unprotected sex. Thus, the second explanation may be most likely. If so, this suggests that better knowledge may arise from negative experiences rather than from sex education, which is not predictive in these results. This does not mean however that sex education on STIs and HIV is not effective as we will go on to see later in this report.

Similar effects were observed among women (see *Table 3.10*). However, social class is not significant, when controlling for other factors, while relationship status has a stronger influence. Women who are married, cohabiting or in a steady relationship were most likely to give the correct response. As among men, those groups who are most likely to have higher numbers of partners show less knowledge.

Also as with men, women with higher levels of education were more likely to respond correctly; those with upper secondary and third-level education were significantly more likely to do so.

Table 3.10: Proportion of men and women who correctly identified as false the statement ‘a person can have HIV for years without getting AIDS’ (%)

	Men	N	Women	N
Total	86.8	3,169	85.7	4,233
Current age (years)				
18-24	83.2c	750	86.0c	908
25-34	90.9**	700	89.7ns	963
35-44	90.0ns	645	88.7ns	1,004
45-54	88.0ns	570	83.4ns	754
55-64	79.9ns	504	77.3 ns	604
Educational level (highest attained)				
Primary	79.5**	262	75.7***	303
Lower secondary	85.2***	541	79.5***	655
Upper secondary	87.7**	1,189	87.1* **	1,768
Third level	92.5c	1,177	93.8c	1,507
Social class				
Higher professional	88.4ns	785	86.4ns	639
Lower professional	89.8**	730	89.8ns	1,091
Administrative/clerical	88.4*	427	88.0ns	972
Skilled manual	86.1ns	611	83.1ns	296
Semi/unskilled manual	82.0c	487	82.5 c	892
Relationship status				
Not in a relationship	83.9*	847	82.4*	958
Married	88.4c	1,493	86.2c	2,344
Cohabiting	88.0ns	217	90.0ns	270
Steady relationship	86.7ns	328	89.3ns	520
Casual relationship	86.7ns	193	81.4*	141
Current residence				
Urban	88.3*	1,914	86.0ns	2,350
Rural	84.6c	1,254	85.3c	1,880
Received sex education on safe sex and STIs				
Yes	87.5ns	1,026	86.8ns	1,372
No	86.5c	2,140	85.2c	2,855
Previous diagnosis of STI				
Yes	92.8ns	107	95.9ns	85
No	86.6c	3,061	85.5c	4,143
HIV test				
Yes	94.4*	289	93.6ns	324
No	86.1c	2,876	85.1c	3,908
Sexual identity				
Heterosexual	86.8c	3,071	85.7c	4,179
Homosexual	95.1ns	53	83.5ns	14
Bisexual	95.9ns	29	86.6ns	29

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; +=not included in the model

C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

Statement 3: 'There is a cure for AIDS.'

Over 85% of participants correctly identified as false the statement 'There is a cure for AIDS'. There are no significant gender differences, although, as with the two other items, men were slightly more likely to answer correctly.

Table 3.11 shows the proportion of people answering correctly across socio-demographic characteristics. Among men, the impact of age is weak; the main difference is between the oldest age group and all others, although no differences are statistically significant, after controlling for other factors.

Higher levels of education are again associated with better knowledge. For the remaining variables tested, there are no significant differences.

Stronger age effects are found among women. Younger women were significantly more likely to give the correct response; the main difference is between women aged 45 or more and younger age groups. Women with higher levels of education were also significantly more likely to respond correctly. Each increase in level of education is associated with an increase in the proportion getting the answer correct.

Social class is also significant, after when controlling for education. Women from the lower professional and clerical/administrative groups were significantly more likely to respond correctly than those from the semi/unskilled manual class.

Relationship status, location, receipt of sexual education about STIs/safe sex, STI diagnosis and experience of an HIV test are not significant when other variables are controlled for.

These findings make it possible to identify differences in levels of knowledge between groups in the population. It is clear, for instance, that knowledge of HIV/AIDS is better among younger people. This may show that public health campaigns about HIV and AIDS in the period when they were growing up and reaching sexual maturity had some success. However, between 11% and 17% of the youngest age group failed to answer the three simple questions correctly. Another important pattern is the significant differences across education groups. Participants reporting lower levels of education were less likely to respond correctly.

We also asked participants to indicate if they felt at risk of infection with HIV, based on their sexual lifestyle. They responded on a scale ranging from 'very high' to 'no risk'. In the analyses, this scale was collapsed into low/no risk and high/average risk.

Most people (94.6%) considered their personal risk of infection to be low/non-existent. Women were significantly more likely than men to report low/no risk (95.6% versus 93.7%).

Table 3.11: Proportion of men and women who correctly identified as false the statement 'there is a cure for AIDS' (%)

	Men	N	Women	N
Total	85.5	3,170	85.1	4,234
Current age (years)				
18-24	86.8c	750	91.8c	908
25-34	87.1ns	700	89.4ns	963
35-44	85.6ns	645	88.0*	1,004
45-54	87.3ns	570	78.6***	754
55-64	79.2ns	505	72.8***	605
Educational level (highest attained)				
Primary	76.4***	262	72.7**	303
Lower secondary	82.4***	541	81.4**	655
Upper secondary	87.7*	1,189	86.9*	1,768
Third level	91.3c	1,178	91.5c	1,508
Social class				
Higher professional	87.8ns	785	89.0ns	639
Lower professional	87.6ns	730	89.9**	1,091
Administrative/clerical	85.9ns	427	87.5**	972
Skilled manual	84.9ns	611	87.1ns	296
Semi/unskilled manual	81.7c	487	80.2c	892
Relationship status				
Not in a relationship	84.8ns	847	84.4 ns	958
Married	85.5ns	1,494	83.1 ns	2,345
Cohabiting	84.7ns	239	93.2 ns	270
Steady relationship	89.7ns	370	89.3 ns	520
Casual relationship	82.5c	220	88.7 c	141
Current residence				
Urban	86.2ns	1,915	84.7ns	2,351
Rural	84.4c	1,254	85.6c	1,880
Received sex education on safe sex and STIs				
Yes	87.8ns	1,026	88.3 ns	1,372
No	84.5c	2,141	83.6 c	2,856
Previous diagnosis of STI				
Yes	87.9ns	107	97.3 ns	85
No	85.4c	3,061	84.8 c	4,144
HIV test				
Yes	89.9ns	289	90.2 ns	324
No	85.0c	2,877	84.7 c	3,909
Sexual identity				
Heterosexual	85.4c	3,072	85.1c	4,180
Homosexual	96.2ns	53	91.7ns	14
Bisexual	92.6ns	29	82.4ns	29

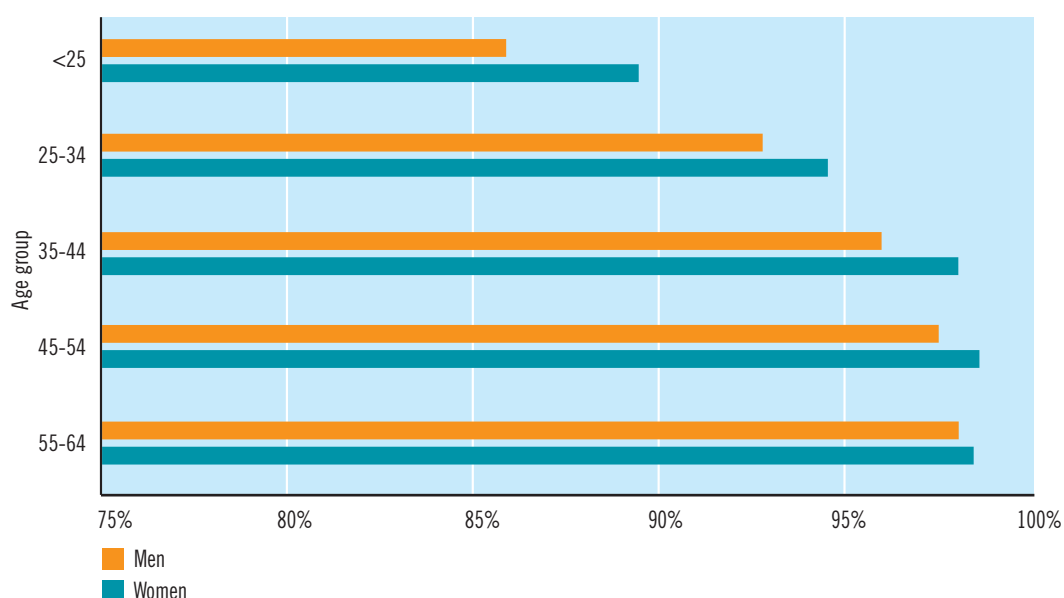
*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; +=not included in the model

C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

Figure 3.4 shows the proportion of men and women who reported having low/no risk of infection, across age groups. Across each of the age groups, more women than men reported this. The figure also shows that the proportion indicating low/no risk increases with age.

Figure 3.4: Proportion of men and women who reported having low/no risk of infection of HIV, by age group



To examine the influence of knowledge on perceived risk, the three HIV knowledge items were combined to form an index of knowledge, adding up to a maximum of three points if all questions were answered correctly. 'Good knowledge' was defined as two or more points and 'limited knowledge' as one or zero.

Since participants were asked to consider their risk in relation to their current behaviour, it is important to also examine recent events which may be considered risky and whether such events influenced risk perceptions. These included: having two or more partners in the last year and frequency of condom use in the last year. Table 3.12 displays the proportion of men and women who perceived themselves to have a low/no risk of infection, across knowledge and behavioural factors. Important socio-demographic variables and experiential variables were also included, such as STI diagnosis or an HIV test.

Table 3.12: Proportion of men and women reporting low/no perceived risk of HIV infection, by demographic and sexual behaviour factors (%)

	Men	N	Women	N
Total	93.7	3,176	95.6	4,238
Current age (years)				
18-24	85.8c	754	89.3c	904
25-34	92.7ns	697	94.4*	965
35-44	95.9ns	645	97.9ns	1,010
45-54	97.3*	573	98.5*	752
55-64	97.9ns	507	98.4*	607
Educational level (highest attained)				
Primary	96.4ns	252	96.0ns	292
Lower secondary	94.8ns	512	96.4ns	633
Upper secondary	92.2ns	1,104	95.5ns	1,700
Third level	93.5 c	1,109	94.8c	1,431
Social class				
Higher professional	91.9ns	734	92.5c	592
Lower professional	95.5ns	697	95.9ns	1,054
Administrative/clerical	94.1ns	401	96.9ns	947
Skilled manual	93.4ns	561	94.4ns	280
Semi/unskilled manual	94.1c	460	95.7ns	851
Relationship status				
Not in a relationship	83.8***	710	91.6**	869
Married	98.5c	1,478	98.4c	2,318
Cohabiting	97.1ns	231	93.6*	255
Steady relationship	96.9ns	360	94.9ns	490
Casual relationship	91.1**	198	89.9ns	124
Current residence				
Urban	93.4ns	1,922	95.7ns	2,354
Rural	94.2c	1,253	95.5c	1,880
Knowledge of HIV				
Correct knowledge	93.7c	2,344	95.6c	3,047
Incorrect knowledge	94.0ns	812	95.6ns	1,169
Two or more sexual partners in last year				
Yes	82.0*	483	77.5***	229
No	95.6 c	2,693	96.6c	4,009
Condom use during heterosexual intercourse in last year				
Always	89.8ns	755	92.6ns	806
Sometimes	91.6ns	590	93.1ns	666
Never	97.8c	1,327	97.7c	2,051

Table 3.12: Proportion of men and women reporting low/no perceived risk of HIV infection, by demographic and sexual behaviour factors (%) (continued)

	Men	N	Women	N
Previous diagnosis of STI				
Yes	87.0ns	91	82.3*	74
No	94.0c	2,875	95.8c	3,967
HIV test				
Yes	88.6ns	289	91.2ns	324
No	94.2c	2,869	95.9c	3,897

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; +=not included in the model

C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

Among men, relationship status is the most important predictor of low/no perceived risk. Controlling for other socio-demographic characteristics, married men were seven times more likely to report no or low risk of infection than those not currently in a relationship (using multivariate methods which are not shown). Similarly, men in a cohabiting, steady or casual relationship were also significantly more likely to consider their risk as minimal than men not currently in a relationship.

Age, too, is predictive of low/no perceived risk, after controlling for other factors. Men aged 45-54 were significantly more likely to consider their risk as minimal than men aged 18-25.

Among women, age and relationship status are also significantly related to a low perceived risk of infection. Women aged 45-54 and 55-64 were significantly more likely to report minimal risk than women aged 18-24. Women aged 25-34 years were also significantly more likely than those aged 18-24 to report low/no perceived risk.

Unlike men, only women who reported being married or in a steady relationship were significantly more likely to consider their risk as minimal than women who were not in a relationship. There were no significant differences between those not in a relationship and those cohabiting or in a casual relationship.

Both men and women who reported two or more sexual partners in the last year were significantly less likely to see their risk as low or minimal. This was especially the case among women. Similarly, women who reported an STI diagnosis were significantly less likely to consider their risk as minimal. There was no significant difference on this variable among men. Objectively it would appear that women who have a higher number of partners or who have had an STI previously would be at a greater risk of HIV infection, but it may be that these women are also more likely to use protection and as such feel at a lower level of risk. The extent to which this is so is examined in chapter five.

3.6 Findings: Consistency of knowledge levels across subjects

SUMMARY

- *Aside from knowledge of fertility, good knowledge on one sexual-health issue is positively associated with good knowledge on other sexual-health issues*
- *Low levels of knowledge on Chlamydia and emergency contraception among older and less educated respondents, combined with a high general level of knowledge about HIV/AIDS, result in less consistency across these issues.*

THIS chapter has shown that Irish people's levels of knowledge on sexual-health issues vary widely, both across groups and across subjects. The socio-demographic predictors of correct knowledge of sexual issues have tended to remain the same. On most issues, respondents who were younger, with higher levels of education and of higher occupational class were more likely to report the correct answer. The exception to this pattern was the finding that knowledge of a woman's most fertile period is worse among younger people.

This section explores the extent to which knowledge across these issues is consistent at the individual level – in other words, the degree to which an individual who has correct knowledge on one subject also has correct knowledge on the other issues.

Analyses (not shown) found that people with accurate knowledge about fertility tended to have poorer knowledge of other subjects such as emergency contraception and Chlamydia. This illustrates the fact that older people tended to have good knowledge of fertility but very poor knowledge of Chlamydia.

Aside from fertility, the correlation between all the other knowledge items is positive, suggesting more consistency in answers to these questions. However, the results suggest that many individuals do not have consistently good knowledge across the range of issues.

Table 3.13 shows the relationship between knowledge of Chlamydia and knowledge of HIV/AIDS. (The proportions in the four cells add up to 100%.)

Table 3.13: Consistency in 'good' knowledge of Chlamydia and HIV/AIDS					
		Knowledge of HIV/AIDS			
		Men %		Women %	
Knowledge of Chlamydia	Poor	Poor	Good	Poor	Good
	Good	7.5	55.1	8.0	32.2
		0.7	36.7	2.0	57.8

Among men, only 8% had poor knowledge of both subjects, but most (55%) had good knowledge of HIV/AIDS but poor knowledge of Chlamydia. This pattern reflects the fact that just 54% of men had heard of Chlamydia, and of these around three-quarters had 'good knowledge', whereas over 85% of men had good knowledge on HIV/AIDS.

Among women, consistency of knowledge was greater; 58% had good knowledge of both Chlamydia and HIV/AIDS. However, a substantial minority of 32% had good knowledge of HIV/AIDS but poor knowledge of Chlamydia.

Analysis among both men and women showed that respondents with inconsistent knowledge tend to have the same characteristics as were associated with poor knowledge across all issues, apart from fertility – they are older, generally have less education and come from the manual social groups.

3.7 Summary and conclusions

SEXUAL knowledge is an important part of sexual competence. Although having good knowledge may not guarantee safe sexual practices, it is still a prerequisite of informed intention to use protection. The extent to which knowledge is associated with use of protection is examined in the chapters to come. This chapter investigated the levels of sexual knowledge among the Irish population and how this varied across different sub-groups.

The knowledge questions in the ISSHR survey were chosen to investigate specific issues, but also to provide a measure of the general level of knowledge of the individual. In line with the remit to investigate the causes of crisis pregnancy, we examined knowledge about a woman's fertility and emergency contraception, as well as knowledge about the risk of infection with an STI/HIV, Chlamydia, an increasingly common and problematic STI, and HIV/AIDS.

Overall knowledge of sexual-health issues among Irish people is not good, although it varies both across the population and across different questions. Knowledge is worst on emergency contraception; just 21% of men and 42% of women could correctly identify the effective time limit for its use. Knowledge is highest on HIV and AIDS issues; over 85% of respondents answered each question correctly. It is encouraging to see that most people now have at least a basic knowledge of how this still incurable virus is transmitted and that the large expenditure on health promotion in this area has worked. However, there is still poor knowledge about wide areas of sexual health, and around 15% of the population still have inaccurate knowledge even about HIV/AIDS.

Across all the questions (excluding about fertility), the factors associated with 'good' knowledge are consistent: younger age, higher levels of education and non-manual social class. Informal relationship status (such as cohabitation, casual relationship, steady relationship) also tends to be associated with more knowledge, but this is often indirectly via the influence of younger age. However, this was not true of knowledge about the most fertile period of a woman's cycle where younger respondent performed worse than older people. Most women under 25 (57%) could not identify their most fertile period.

Comparison with previous surveys shows that levels of knowledge about fertility have been falling for at least the last decade across all age groups, but that the decrease in knowledge is greatest among young women. This is difficult to explain, since over the last decade sex education in Irish schools, which includes modules on fertility and family planning, has been widely established. It may be associated with greater use of contraception over the same period. The availability of contraception decreases the need for the accurate information on a woman's cycle that was essential when the rhythm method was used. This is likely to be reflected in less knowledge about the most fertile period, particularly among younger women. It is instructive, for instance, that the age gradient in knowledge is far less steep (and insignificant) among men, which suggests that effective knowledge of fertility was always less of an issue for men.

On poor knowledge about fertility among Irish women, Rundle *et al* (2004)⁶ concluded that "given the extent of the knowledge deficit, it may be necessary to launch a broad campaign to educate the Irish public about such a basic factor concerning contraception and pregnancy" (p.108). Provision of this basic biological information may need to receive a stronger focus in sex education initiatives. However, since lack of knowledge is most prominent among women who have left school before completing second level, it is important to consider targeting younger women in the junior years of second-level schooling. The lack of knowledge about fertility among less educated women points to the wider pattern of lack of knowledge about all the issues examined by ISSHR among people with less education and/or of a lower social class.

This lesser knowledge might be thought to reflect a lower level of school-based sex education among these groups. However, results from Sub-Report 1: 'Learning About Sex and First Sexual Experiences' suggests that this is unlikely to be the case since there were largely insignificant differences between education groups in their receipt of sex education in schools (the only difference was for those with primary education only). On the other hand, there were large differences in the extent to which higher and lower education groups received sex education at home. This may influence overall levels of knowledge across many issues. Differences in levels of knowledge may also stem from the greater ability of men and women with higher education to absorb sexual-health information and messages.

No matter how this differential between education and class groups arises, it is worrying that around a fifth of men with lower secondary education or less do not know basic facts about how HIV is transmitted.

Analyses consistently showed that, once age was controlled for, there is no relationship between receipt of sex education and knowledge. This lack of relationship may stem from the strong association between age and receipt of sex education. Younger age groups are far more likely to have received sex education *and* to have higher levels of knowledge. We have already argued that the greater knowledge among young people may be directly related to the greater levels of sex education that they have received. In the analyses here, however, this strong relationship between age and knowledge may mean that we find no direct effect of sex education on knowledge.

On the other hand, greater knowledge is related to: having sought advice about contraception, having had an HIV test and having experienced a negative outcome such as the diagnosis of an STI. This suggests that much knowledge may be accumulated in adulthood rather than in formal sex education in schools. Unfortunately, it also implies that increased knowledge

may also come from experience, in particular a negative experience such as contracting an STI or having a crisis pregnancy. However, it is not possible, given the cross-sectional study design in ISSHR, to determine which of the factors is causal. Therefore, caution is needed in assuming effects in one direction or the other and in introducing changes in policy or practice.

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Attitudes to sexual health issues

4.1 Introduction

THE study of sexual attitudes and beliefs is central to an understanding of the patterns of sexual behaviour, but research in social psychology since the 1930s has shown that the relationship between attitudes and behaviour is complex.

As far back as the late 60s, Wicker (1969)¹ showed that only a minority of attitude studies found a close relationship between verbally expressed attitudes and overt behaviour. Subsequent research has shown that some of this weak relationship is explained by a person's 'subjective norms'² or perception of what others will think of their behaviour. In attempting to explain behaviour, therefore, we need to understand not only a person's attitudes, beliefs and knowledge, but also the context of behaviour and situational factors.

King (1996)³ has put forward a more complex model of behaviour which takes account of these situational factors and argues that attitudes and intentions to act often directly conflict with other motivations to behaviour such as high sexual arousal and alcohol intoxication. This means that decisions to engage in unsafe practices may occur with less than perfect rational deliberation. In the area of sexual health, the problem may also be exacerbated by a person's lack of preparedness. Even when thought is given to issues of protection, if a condom is not immediately available the incentive to begin intercourse without protection may well outweigh the risks of unsafe sex as perceived at that moment.⁴

This chapter describes the pattern of sexual attitudes and beliefs in Ireland and examines their association with a range of socio-demographic variables. The aim is to provide an understanding which can then be used to shed light on patterns of sexual behaviour later in this report. Due to time and question constraints in such a wide-ranging study, the focus of the survey was on attitudes to the most frequently used contraceptive methods, as indicated in previous studies (e.g. Rundle *et al* 2004); to abortion; and to a diverse range of sexual contexts and practices. (While having an abortion is not a sexual behaviour, it arises as a consequence of sexual activity.) Other national studies (e.g. Natsal in the UK and ASSHR in Australia) have examined attitudes to abortion and findings are included here for comparative purposes.

Concerning sexual practices, attitudes to premarital sex, casual sex and same-sex relations are examined. Each of these could make a complete study in itself. However, while coverage was of necessity limited, the large sample consulted means that the possible association of findings with other issues can be investigated. While the issues examined represent only a small sample of possible issues to address, the findings provide a 'proxy' indication of public perceptions on a broad range of issues.

This chapter provides a detailed understanding of attitudes to the various issues, but we also attempt to provide an overall picture of the patterning of sexual attitudes, using a scale of 'sexual liberalism' (that is, attitudes which are relatively accepting of a range of sexual behaviours). The scale, based on attitudes to premarital sex, casual sex, same-sex relations, abortion and the 'morning-after pill', measures the extent to which people saw these behaviours as wrong. This scale is examined in relation to demographic factors and various experiences, in order to identify the profile of individuals who are most likely to be generally liberal in their attitudes towards sexuality. The influence of this liberalism scale on behaviour is examined in chapter six, which considers predictors of various sexual practices and behaviours.

It is clear from a number of studies^{5,6} that sexual attitudes in Ireland have been becoming increasing liberal over the last four decades, particularly since 1970.

Sexual behaviour is influenced by a wide range of factors, including the development of social attitudes and culture, public institutions and the regulatory/legal structure. In all these respects, Ireland has changed dramatically in the last four decades.

In these decades, most Western industrial countries, including Ireland, have experienced tremendous change in attitudes and behaviours in areas such as women's role in society and sexual freedom. In Ireland, however, the rise of the women's movement and the desire for secularisation occurred in the context of the wider pressures of industrialisation and urbanisation that took place long after they did so in other countries in Europe.⁷ The 1970s also brought closer integration of Ireland and Irish institutions with other European nations. This has had profound effects on the nature of Irish society. Together, all these changes accelerated and intensified the extent and nature of change in Irish attitudes and behaviours in the last four decades.

Influences on Irish sexual culture have also come from outside the country. Although emigration was a constant in Irish society from the founding of the state in 1922 right up to the 1990s, in the 1950s and 1980s particularly high numbers of Irish people left to find jobs elsewhere. When economic fortunes changed in the 1990s and many returned to Ireland, their attitudes and behaviours returned with them, which is likely to have influenced national patterns of sexual attitudes and behaviours.

Lastly, the influence of the mass media in Ireland in stimulating attitudinal and behavioural change should not be underestimated. In the last three decades, media sources, many of them based outside Ireland, have proliferated. Such developments have had a substantial influence on the development of social attitudes.⁵

The pace of change, particularly in the last thirty years, has been immense and Ireland has largely converged with other European countries in terms of living standards, demographic trends and legal frameworks. However, research shows that Irish people, both North and South, have significantly more conservative attitudes than those of populations in other European countries. For example, Layte *et al* (2003),⁸ using the European Values Survey 1999/2000, showed that, when asked, using a scale of one to ten, if certain forms of behaviour are justified (1=never justified, 10=always justified), 70% of the Irish sample rated homosexuality at five or less, 88% rated having casual sex at five or less, and 98% rated having sex under the legal age of consent at five or less. To put this in a European context, the Irish mean score on homosexuality was the lowest in Western Europe except for Portugal and Northern Ireland, and, on casual sex and sex under the age of consent, was the lowest score. Even among people under 30, the Irish were still more conservative on these issues than people in all other Western European states except Portugal and Northern Ireland.

It should be emphasized, however, that the Irish population is not homogenous in its attitudes. Research shows that young people tend to be more liberal than older individuals, and that higher education and non-manual social class tend to be associated with more liberal attitudes.⁹ The relationship of social class to attitudes may arise from the impact of education, since better educated people tend to be of higher social class, but the relationship between education, class and attitudes is not simple and is influenced by a host of factors.

The relationship of these changing sexual attitudes to sexual behaviours is one of the major questions to be tackled in this report. The increasingly secular framework in which sex is seen by Irish people means that the formal prescriptions and rules about acceptable behaviour advocated by the Catholic Church no longer have the force they once did to shape behaviour. Yet what they have been replaced with is unclear.

Inglis¹⁰ has argued that a new secular moral framework based upon individual responsibility and rationality is becoming dominant in Ireland, with sex and sexuality increasingly seen as a dimension of general health and lifestyle. If so, this could have both positive and negative consequences for both individuals and Irish society. On the one hand, discussion about sexual issues may become easier and more rationally based, which could lead to better knowledge of sexual issues and better sexual-health behaviours. This in turn could eventually lead to fewer negative outcomes such as crisis pregnancy and STI infection. On the other hand, with fewer moral restrictions on behaviour, individuals might make choices based solely on whether they wish to have an experience and on its possible consequences. For most individuals this may present few problems as they will seek to balance their sexual expression with sufficient protection. However, if knowledge of sexual risk factors is limited or risks are discounted, perhaps because sex takes place after the consumption of alcohol and other drugs, such an attitudinal framework could lead to problems.

4.2 Attitude to cost of condoms

SUMMARY

A minority of respondents said the cost of condoms discouraged them from using them. This proportion was highest among younger people, those with less education and of lower social class.

The findings suggest that lack of resources and low income could be serious obstacles to the use of condoms for a significant proportion of people living on a low income.

- Overall, 15% of men and women reported that the cost of condoms would discourage them from using them.
- Among both men and women, younger respondents were more likely to see cost as an obstacle.
- Controlling for other factors, lower education and social class were associated with a greater tendency to find that cost discouraged use.

THE remainder of this chapter examines the results from the ISSHR survey. This section investigates the extent to which the cost of condoms discourages people from using them.

Overall, 14.7% of participants indicated that the cost of condoms would discourage their use (15.2% of men and 14.2% of women). *Figure 4.1* shows the proportions, by age group.

Among both men and women, lower age is associated with greater likelihood of reporting cost as an obstacle. Among women, the age group most likely to report this statement were aged 25 to 34. This age relationship may be a function of income and resources rather than age per se (since younger people have less income on average than older people). (We look further into this issue below.)

Fig 4.1: Proportion of men and women indicating that cost of condoms would discourage personal use, by age

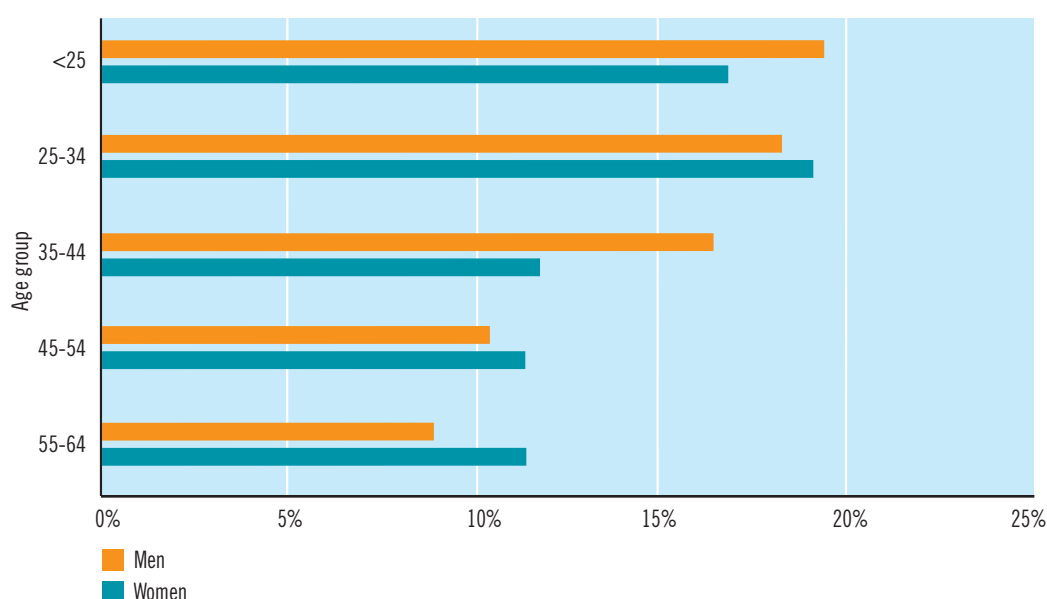


Table 4.1 shows the proportion of men and women agreeing with the statement, disaggregated across socio-demographic variables. It is interesting to examine if a negative experience arising from sexual intercourse (e.g. a crisis pregnancy or an STI diagnosis) has an impact on people's attitudes to condoms, so results for these variables are presented.

People with higher levels of education are significantly less likely to agree that cost is a discouragement. This may indicate that education is indeed related to level of income, since higher levels of education tend to be associated with higher income. If so, we should also see a relationship with social class. The table shows that men from the unskilled manual class are most likely to see cost as an obstacle, as we would expect if income is an issue, although this group are only significantly different from the lower professional class.

Variation was also found across relationship status; married men were least likely to agree and those cohabiting most likely.

Previous experience of an STI and sexual identity are not significantly related to cost as a barrier to use, after controlling for other variables.

Among women, age is significant after controlling for other variables; all older groups were significantly more likely than women in the youngest age group to agree.

Women with higher levels of education were more likely to report that cost is a barrier, but these differences are not significant after controlling for other factors.

As with men, the unskilled manual class among women were most likely to agree, but only the difference between the unskilled manual and clerical classes is statistically significant.

Although, as among men, women in cohabiting relationships were most likely to agree, this is not significant after controlling for other variables. They were followed by married women, while those in casual relationships were the least likely to agree.

As with men, experience of an STI and sexual identity are not significantly related to agreement that cost is a barrier. Nor is experience of a crisis pregnancy.

Table 4.1: Proportion of participants agreeing that the cost of condoms would discourage their use, by socio-demographic factors

	Men		Women	
	%	N	%	N
All	15.2	3,188	14.2	4,253
Current age				
18-24 years	19.4c	759	16.9c	908
25-34 years	18.4n.s	701	19.1*	966
35-44 years	16.5n.s	647	11.7**	1,014
45-54 years	10.5**	574	11.3***	755
55-64 years	8.9***	507	11.4***	610
Education level (highest attained)				
Primary	16.6**	263	16.4n.s	305
Lower secondary	16.8**	544	14.8n.s	657
Upper secondary	15.1*	1,198	13.9n.s	1,780
Third level	12.6c	1,183	12.8c	1,511
Social class				
Higher professional	16.4n.s	790	13.5n.s	642
Lower professional	11.3*	731	12.3n.s	1,097
Administrative/clerical	16.7n.s	428	13.1*	978
Skilled manual	13.7n.s	611	13.2n.s	296
Semi/unskilled manual	18.4c	492	17.0c	892
Relationship status				
Not in a relationship	15.2n.s	854	13.5n.s	961
Married	12.3c	1,502	13.5c	2,361
Cohabiting	23.9*	239	20.5n.s	270
Steady relationship	20.4n.s	371	16.4n.s	520
Causal relationship	20.3n.s	222	10.2n.s	141
Current residence				
Urban	16.7n.s	1,930	13.7n.s	1,887
Rural	13.0c	1,257	14.5c	2,362
Sexual identity				
Heterosexual	15.3c	3,089	14.1c	4,199
Homosexual	11.1n.s	53	11.1n.s	14
Bisexual	16.1n.s	29	32.1n.s	29
Previous STI diagnosis				
Yes	22.5n.s	107	23.6n.s	85
No	15.0c	3,069	14.0c	4,153
Experience of a crisis pregnancy				
Yes	————	————	16.8n.s	513
No	————	————	14.3 c	2,082

Significance key: *= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

4.3 Attitudes to the oral contraceptive pill

SUMMARY

Only 12% of women agreed that possible weight gain would discourage them from using the contraceptive pill, while 32% said cost was an issue and 59% agreed that medical side-effects would discourage use.

Older women were more likely to see medical side-effects and weight gain as a discouragement. Women with less education were more likely to see weight gain as an issue. Women reporting a crisis pregnancy were more likely to see all three issues as a discouragement.

- 32% of women reported that the cost of the oral contraceptive pill would discourage their use of it.
- 59% of women said medical side-effects would discourage use.
- 12% of women reported that weight gain would discourage use. Medical side-effects were seen as a barrier by a higher proportion of older women.
- Cost and weight gain were more important issues for less-educated women.
- Women who had experienced a crisis pregnancy were more likely to see cost, medical side-effects and weight gain as an impediment, even controlling for other factors.

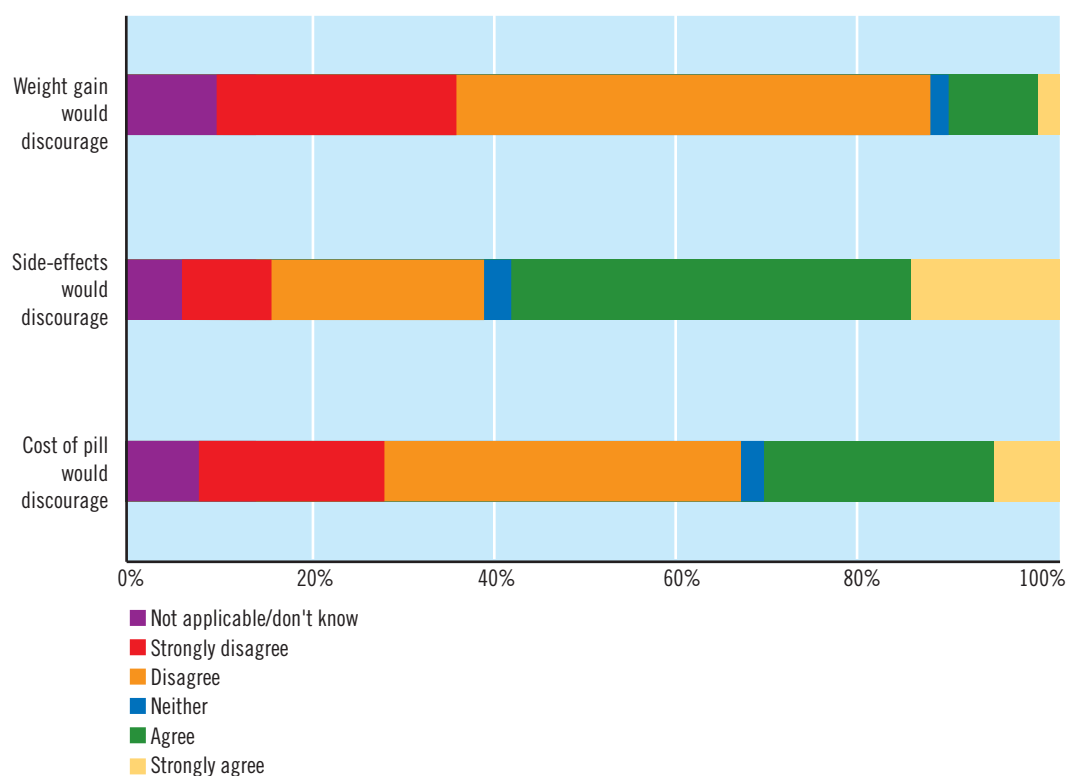
ATTITUDES to the oral contraceptive pill were examined among women only. They were asked to indicate on a five-point scale if they agreed or disagreed with the following statements:

- 'The cost of the contraceptive pill would discourage you from taking it.'
- 'Possible medical side-effects of the contraceptive pill would discourage you from taking it.'
- 'Possible weight gain on the contraceptive pill would discourage you from taking it.'

Figure 4.2 shows the distribution of answers given to the three questions, which differed substantially. Whereas 32% of women agreed to some extent or strongly that the cost of the contraceptive pill would discourage them from using it, this was true of almost 59% on the issue of side-effects (16% strongly agreed). A total of 13% of women agreed that possible weight gain would discourage use.

The proportion of women who agreed with each statement was examined according to demographic factors such as age, education, social class and relationship status. As before, we also examined the influence of experience of a crisis pregnancy, to determine if such a negative experience would result in more positive attitudes to the contraceptive pill.

Table 4.2 also indicates which variables remain independently significant after controlling for other factors. Just under one-third of women agreed that the cost of the pill would discourage use. With age, there was an increased tendency to agree, but this is not significant after controlling for education and other demographic factors.

Figure 4.2: Beliefs about the contraceptive pill, among women

The proportion agreeing that cost would discourage use of the pill increases as level of education falls. This suggests that lower income (since education and income are strongly related) may be a factor. However, this relationship is statistically significant only at the 6% level, which is slightly less than is usually acceptable. Social class can also be used as a proxy measure for people's resources, and lower social-class groups were more likely to agree. However, as with education, this relationship is not significant.

A woman's relationship status and whether she had children or not are not significant predictors for cost being seen as an obstacle, after controlling for other factors. In contrast, experience of a crisis pregnancy remains significant. Women who reported this were significantly more likely to agree.

As with the cost of the pill, agreement with the statement that 'side-effects would deter use' increased with age. This trend is significant after controlling for other factors. For example, women aged 45-54 were significantly more likely to see potential side-effects as an obstacle than women aged 18-24. Rundle *et al*¹¹ suggested that the relationship may be due to the exposure of older women to the first generation of contraceptive pills, from which the risk of side-effects was indeed higher. As well, older women may also be aware of the objectively greater risk faced by older women who use the pill.

Table 4.2: Beliefs among women about the cost of, medical side-effects of and potential weight gain from the contraceptive pill, by demographic factors

	Cost would discourage use ¹		Proportion agreeing that: Medical side-effects would discourage use ²		Weight gain would discourage use ³	
	%	N	%	N	%	N
All women	31.8	4,252	58.6	4,252	12.3	4,252
Age group						
18-24 years	30.5c	908	50.8c	908c	12.4c	908
25-34 years	31.1n.s	966	53.1n.s	966	13.3n.s	966
35-44 years	31.5n.s	1,014	65.4n.s	1,014	10.3n.s	1,014
45-54 years	35.4n.s	754	65.1*	754	13.1*	754
55-64 years	30.3n.s	610	57.7n.s	610	13.1n.s	610
Education level (highest attained)						
Primary	35.2n.s	305	59.6	305	15.9*	305
Lower secondary	33.1n.s	657	58.6	657	13.5***	657
Upper secondary	31.6n.s	1,780	57.6	1,780	11.8***	1,780
Third level	28.9c	1,510	60.2	1,510c	10.0c	1,510
Social class						
Higher professional	29.3	642	54.8n.s	960	13.5n.s	642
Lower professional	30.6	1,097	63.3*	2,361	10.4n.s	1,097
Administrative/clerical	33.8	978	53.7n.s	270	12.5n.s	978
Skilled manual	31.8	296	49.3n.s	520	11.9n.s	296
Semi/non-skilled manual	32.2	892	60.0n.s	141	12.3c	892
Relationship status						
Not in a relationship	30.8n.s	960	58.1n.s	642	13.1n.s	960
Married	33.4c	2,361	63.2c	1,097	12.2c	2,361
Cohabiting	29.0*	270	59.3n.s	978	13.3n.s	270
Steady relationship	29.0n.s	520	53.2*	296	11.0n.s	520
Causal relationship	28.9n.s	141	57.8n.s	892	9.3n.s	141
Current residence						
Urban	31.5n.s	2,361	57.1*	2,361	11.9*	2,361
Rural	32.2c	1,887	60.8c	1,887	12.8c	1,887
Experience of a crisis pregnancy						
Yes	37.6*	513	64.4*	513	11.6*	513
No	31.9c	2,081	62.0c	2,081	12.7 c	2,081
Children						
Yes	33.2n.s	2,754	61.7n.s	2,754	12.2n.s	2,754
No	28.9c	1,498	52.5c	1,498	12.5c	1,498

Significance key: *= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

¹ Significance given adjusting for all variables in the table except social class.

² Significance given adjusting for all variables in the table except education.

³ Significance given adjusting for all variables in the table.

Similar trends were observed in relation to education; agreement increased with the level of education. However, after controlling for other factors, significant differences were only observed between those with upper second level and third level, with the more highly educated women being more likely to agree.

No social class differences emerged when controlling for age. Nor were significant differences found across relationship type or having had children. As with the previous question however, results did show that women who reported having had a crisis pregnancy are significantly more likely to agree that potential side-effects would deter use. It is difficult in a cross-sectional survey to infer any causality from this association, but it is possible that a negative attitude to the contraceptive pill may be a factor in some crisis pregnancies.

Women were less concerned about potential weight gain; only 12.3% of women believed that this would discourage use. A higher proportion of older women (as with the previous issues) indicated concern about weight gain. However, this is not significant after controlling for other factors, apart from the difference between the youngest age group and those aged 45 to 54.

In contrast, education remains significant after controlling for other factors. Women with all other educational levels were more likely than women with third-level education to report potential weight gain as an obstacle. *Table 4.2* shows a steady gradient in the impact of education, which suggests a strong relationship.

No significant differences were found according to social class and relationship status, but living in an urban location is associated with less likelihood of agreement.

As with the other two items, reporting a crisis pregnancy is also associated with seeing weight gain as a discouragement from taking the pill.

4.4 Attitudes to emergency contraception ('morning after pill')

SUMMARY

Most respondents (84%) reported that use of emergency contraception (EC) is never or only sometimes wrong. Men were more likely than women to see use as never wrong.

Level of religiosity is the main determinant of attitudes to EC. Age and education effects are also present, but these are weak among women.

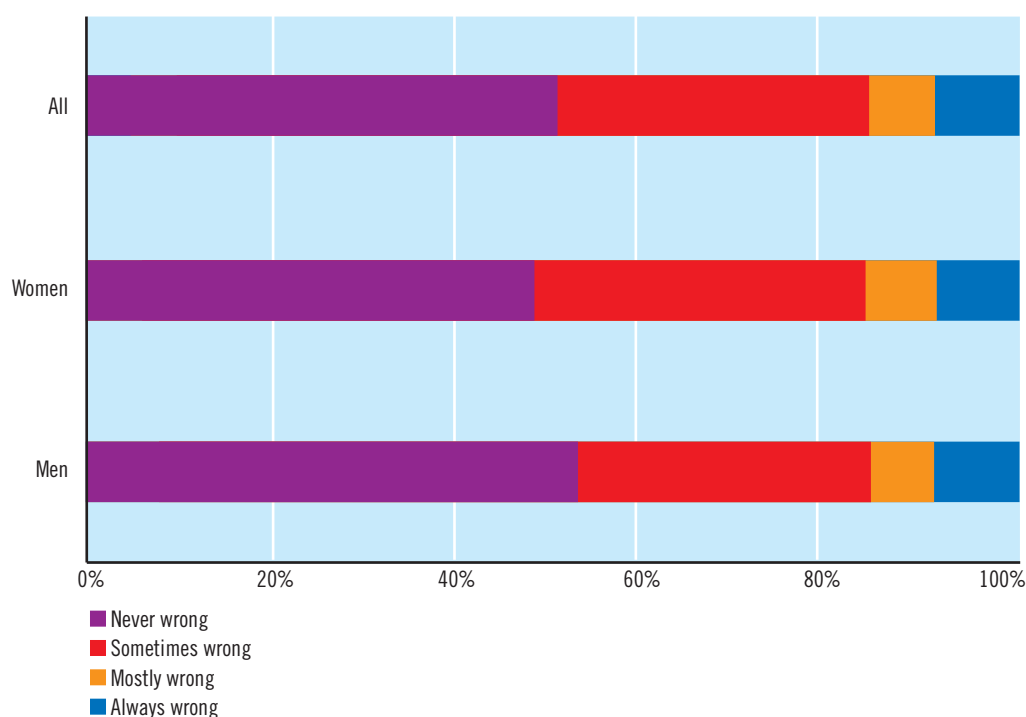
Older age and lower education are associated with a lower tendency to see use of EC as never wrong.

- *Less than 10% of ISSHR respondents regarded use of the emergency contraceptive pill (EC) as 'always wrong'.*
- *Men were significantly more likely than women to agree that EC use is 'never wrong' (53% v 48%).*
- *Women who had experienced a crisis pregnancy were more likely, than women who had not, to report that EC use is never wrong, even controlling for age and other factors.*
- *Mothers were less likely to see use of EC as never wrong.*

THIS section investigates people's attitudes to the emergency contraceptive, or 'morning after', pill.

Participants were asked to indicate if they believed the 'morning after' pill to be always wrong, mostly wrong, sometimes wrong or never wrong.

Half (50.4%) considered it to be never wrong, while 33.2% saw it as sometimes wrong. Less than 10% believed it to be always wrong and 7.1% to be mostly wrong. The proportion of men and women endorsing each belief is displayed in *Figure 4.3*.

Figure 4.3: Attitudes to the emergency contraceptive pill ('morning after' pill), by gender

Similar trends were observed among men and women, but men were significantly more likely to consider the 'morning after' pill as never wrong than women (52.6% vs. 48.1%).

The pattern of attitudes to emergency contraception (EC) across various socio-demographic and experiential factors is presented in *Table 4.3*.

Overall, the table shows little significant patterning of attitudes to the EC pill among men or women. There is some suggestion of greater agreement that EC is never wrong among younger respondents, but this proves not to be significant once we control for other factors. Similarly, there appears to be a gradient in the proportion seeing EC as never wrong by education group among women; again, this is insignificant statistically.

On the other hand, *Table 4.3* shows that, among both men and women, level of religiosity is very important in determining attitudes to EC. People with higher levels of religiosity were significantly less likely to see use of EC as never wrong. Analyses show that, for women, it is the strong association between age and level of religiosity which makes the age effect insignificant.

As in previous analyses, we also tested to see if experience of crisis pregnancy among women is associated with attitude to EC. *Table 4.3* indeed shows that women reporting this are significantly more likely to see use of EC as never wrong, even controlling for age.

Interestingly, women with children were significantly less likely to respond that EC use is never wrong.

Table 4.3: Proportion of participants endorsing the belief that emergency contraception is never wrong, by socio-demographic factors

	Men		Women	
	%	N	%	N
All	52.6	3,140	48.1	4,193
Current age				
18-24 years	60.8c	753	56.3n.s	896
25-34 years	57.3n.s	694	57.2n.s	953
35-44 years	48.5n.s	633	42.5n.s	1,000
45-54 years	47.5n.s	561	45.2n.s	746
55-64 years	47.3n.s	499	37.5c	598
Education level (highest attained)				
Primary	43.6c	257	42.6c	300
Lower secondary	54.9n.s	535	46.8n.s	641
Upper secondary	54.0n.s	1,186	47.9n.s	1,752
Third level	54.0n.s	1,162	52.8n.s	1,500
Social class				
Higher professional	54.4n.s	782	51.0n.s	636
Lower professional	50.4n.s	717	50.0n.s	1,086
Administrative/clerical	52.4n.s	425	47.2n.s	960
Skilled manual	53.8n.s	599	52.2n.s	290
Semi/unskilled manual	48.5c	486	45.1c	884
Relationship status				
Not in a relationship	56.3n.s	843	49.8n.s	948
Married	47.0c	1,472	42.8c	2,325
Cohabiting	58.3n.s	237	60.8n.s	269
Steady relationship	56.7n.s	368	59.5n.s	511
Causal relationship	64.8**	220	51.4n.s	140
Current residence				
Urban	55.8*	1,900	50.5n.s	2,330
Rural	47.7c	1,239	45.0c	1,860
Religiosity				
Not at all religious	65.6 ***	795	65.2 ***	695
A little religious	51.3***	1,154	50.0***	1,594
Quite religious	47.3***	873	44.4***	1,372
Very/extremely religious	40.3c	313	29.7c	527
Experience of a crisis pregnancy				
Yes	—	—	60.7**	507
No	—	—	42.6c	2,048
Children				
Yes	47.8ns	1,577	44.6**	2,709
No	57.9c	1,563	55.2c	1,484

Significance key: *= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table except for experience of crisis pregnancy among men.

4.5 Attitudes towards availability of emergency contraception in Ireland

SUMMARY

The vast majority of ISSHR respondents agreed that emergency contraception (EC) should be available, but attitudes were more divided as to whether it should be available with or without a prescription from a doctor.

Support for non-prescription availability was higher among men than women, but is not strongly associated with age.

Once again, level of religiosity is a determining factor; the more religious people were far less likely to support over the counter, non-prescription availability.

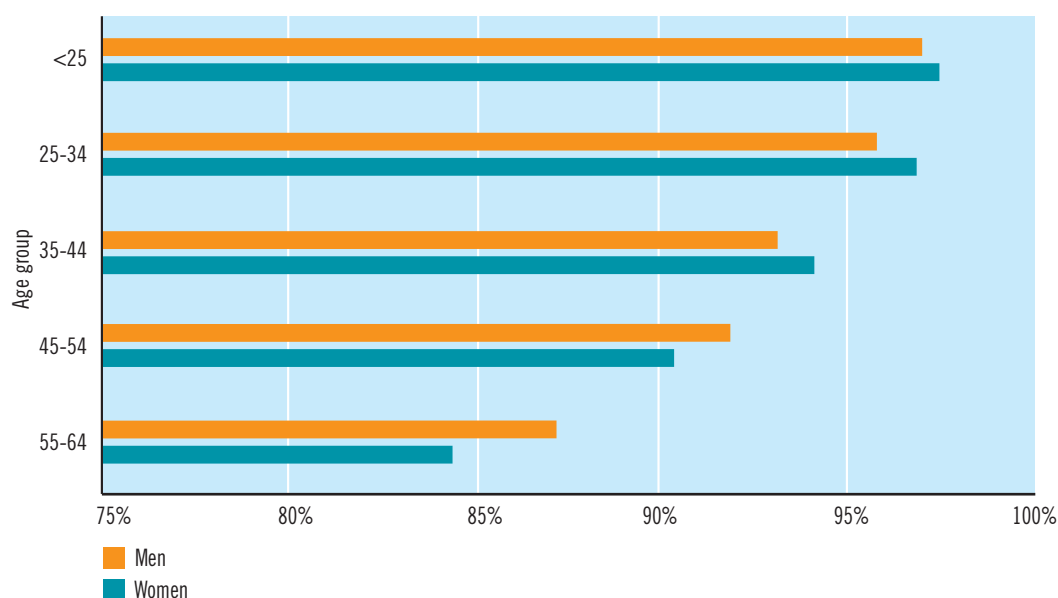
- *The vast majority of people agreed that emergency contraception should be available (93%), although the proportion falls slightly among older respondents.*
- *Of those who said EC should be available in Ireland, 50% said it should be available 'over the counter'.*
- *More men (52%) than women (42%) agreed that EC should be available 'over the counter'.*
- *Not being in a relationship or being in a less formalised relationship is associated with approval of over-the-counter sales.*
- *Higher religiosity is associated with a lower tendency to support over-the-counter sales.*

THIS section examines people's attitudes towards the availability of emergency contraception (EC) in Ireland, including whether it should be available with or without a prescription from a doctor.

The vast majority of respondents (93.3%) indicated that it *should* be available. Equal proportions of men and women (93%) agreed. Tendencies to agree decreased with age, both among men and women (Figure 4.4).

A multi-variate analysis examined the role of various demographic factors in predicting the likelihood of supporting EC availability. Given the similarity between the responses of men and women, a combined analysis was conducted.

Figure 4.4: Proportion of men and women who believe that emergency contraception should be available in Ireland



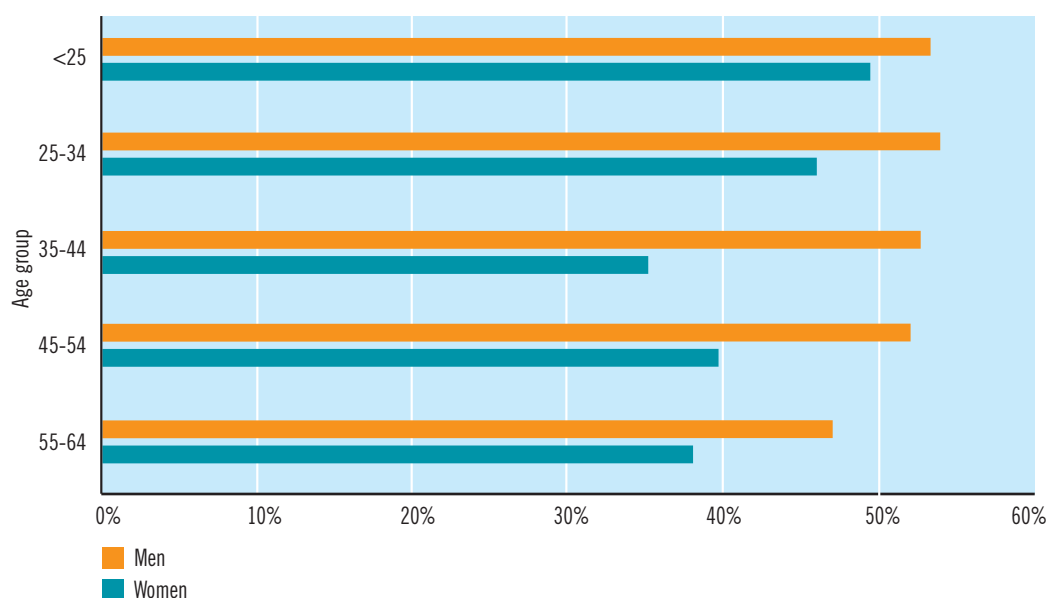
As Figure 4.4 shows, younger respondents were more likely to agree that emergency contraception should be available. Even controlling for other factors (not shown), participants aged 25-34, 35-45 and 45-54 were significantly more likely to agree.

There were no differences according to education level or social class, when controlling for age. In contrast, relationship status is predictive of supporting EC availability. Participants who indicated that they were cohabiting with a partner or had a casual relationship were three times more likely to support availability than married people. Support for availability decreased with religiosity. Participants who identified as not at all or a little religious were over four times more likely to support availability than those who identified as extremely or very religious ($p < 0.001$).

Of the 93% agreeing that the 'morning after' pill should be available in Ireland, 50.3% said it should be available over the counter, without a prescription, at pharmacies; a further 49.7% felt it should only be available on prescription. Men were significantly more likely (52.1%) to support over-the-counter availability than women (41.6%) (OR 1.60, 95% CI 1.41-1.75, $p < 0.001$).

The proportion of men and women supporting over-the-counter availability across different age groups is displayed in Figure 4.5. Male support appears quite consistent across the ages. In contrast, support from women is relatively complex; it is highest among women under 35 and lowest among those aged 35 to 44. After age 44, however, support increases.

Figure 4.5: Proportion of men and women supporting availability of emergency contraception over the counter in Ireland, by age



Given these differences, further analysis was conducted separately for men and women. The proportions of men and women who supported over-the-counter EC availability are displayed in Table 4.4. Men are significantly more likely to support it than women (52% v 42%). Among men, there is little variation in support across age or social class. The strong relationship between social class and education means that the effect of both could not be estimated simultaneously. Separate analyses including education and not class showed that education has no independent effect.

More distinct differences were observed across relationship status; men in cohabiting or casual relationships were significantly more likely to support EC availability without a prescription than married men. These effects were observed when controlling for other factors. As well, less religious men were much more likely to support availability.

There was also little variation among women across age group and no significant differences. As with men, the relationship between education and class meant that separate analyses were undertaken. With education excluded, social class proved to be a significant predictor, but only for lower professional women – they were significantly less likely to support over-the-counter sales than women in the unskilled/semi-skilled manual class. Similar to men, there were no significant differences across education groups when this was examined without social class, but controlling for other factors.

Women who reported not being in a relationship at the time of interview were significantly more likely to support over-the-counter availability than married women. As with men, the more religious women were less supportive of availability over the counter.

There are no significant effects according to knowledge of the time limit for EC effectiveness, experience of a crisis pregnancy or having children.

Table 4.4: Proportion of participants supporting over-the-counter availability of emergency contraception, by socio-demographic factors

	Men		Women	
	%	N	%	N
All	52.1	3,120	41.6	4,157
Current age				
18-24 years	53.3c	748	49.2c	895
25-34 years	54.1n.s	691	46.0n.s	945
35-44 years	52.8n.s	631	35.2n.s	991
45-54 years	52.0*	557	39.8n.s	732
55-64 years	47.0n.s	493	38.0n.s	594
Education level (highest attained)				
Primary	46.0	258	40.7	297
Lower secondary	55.1	532	41.7	645
Upper secondary	52.8	1,175	40.9	1,740
Third level	52.3	1,155	43.4	1,475
Social class				
Higher professional	54.4n.s	777	40.9n.s	631
Lower professional	52.2n.s	711	38.3*	1,070
Administrative/clerical	52.0n.s	416	38.9n.s	955
Skilled manual	52.4n.s	602	46.3n.s	288
Semi/unskilled manual	48.2c	483	43.6c	874
Relationship status				
Not in a relationship	54.3n.s	833	46.0*	950
Married	48.3c	1,465	37.0c	2,299
Cohabiting	63.2**	236	48.4n.s	262
Steady relationship	50.4n.s	365	45.3n.s	507
Causal relationship	62.0**	221	52.2n.s	139
Current residence				
Urban	53.26n.s	1,887	42.9n.s	2,306
Rural	50.38c	1,232	39.9c	1,847
Religiosity				
Not at all religious	60.0c	788	53.2c	684
A little religious	54.0*	1,147	45.0n.s	1,589
Quite religious	46.8***	869	35.9***	1,361
Very/extremely religious	40.28 ***	311	30.47 ***	518
Children				
No	55.3c	1,551	46.5c	1,468
Yes	49.4 n.s	1,569	39.16n.s	2,689
Correct knowledge of time limit for effectiveness of ECP				
No	52.2c	2,401	39.2c	2,295
Yes	51.9n.s	718	45.0n.s	1,856

Table 4.4: Proportion of participants supporting over-the-counter availability of emergency contraception, by socio-demographic factors (Continued)

	Men		Women	
	%	N	%	N
Experience of a crisis pregnancy				
No	—	—	38.0c	2,026
Yes	—	—	45.5ns	505

Significance key: *= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table except for experience of crisis pregnancy among men and education.

It was not possible to analyse the effect of previous use of emergency contraception due to the small number of participants reporting this ($n=15$ for use at first intercourse and $n=6$ for use at most recent intercourse). This is consistent with findings from the ICCP, where less than 1% of participants reported use of the emergency contraceptive pill at most recent sexual intercourse (Rundle et al 2004).

4.6 Attitudes to abortion

SUMMARY

Irish attitudes to abortion have changed considerably since the early 1980s. Far fewer men and women now report that abortion is always wrong. The ISSHR survey found that just over a third of respondents now see abortion as always wrong and another third as sometimes wrong. Around 10% believe that it is never wrong.

There are no significant differences between men and women. Younger people and those with higher levels of education and of a higher social class are far less likely to see abortion as always wrong.

Even controlling for age and education, men and women in rural areas are far more likely to see abortion as always wrong than those living in urban areas. One of the major determinants of attitudes to abortion is a person's level of religiosity.

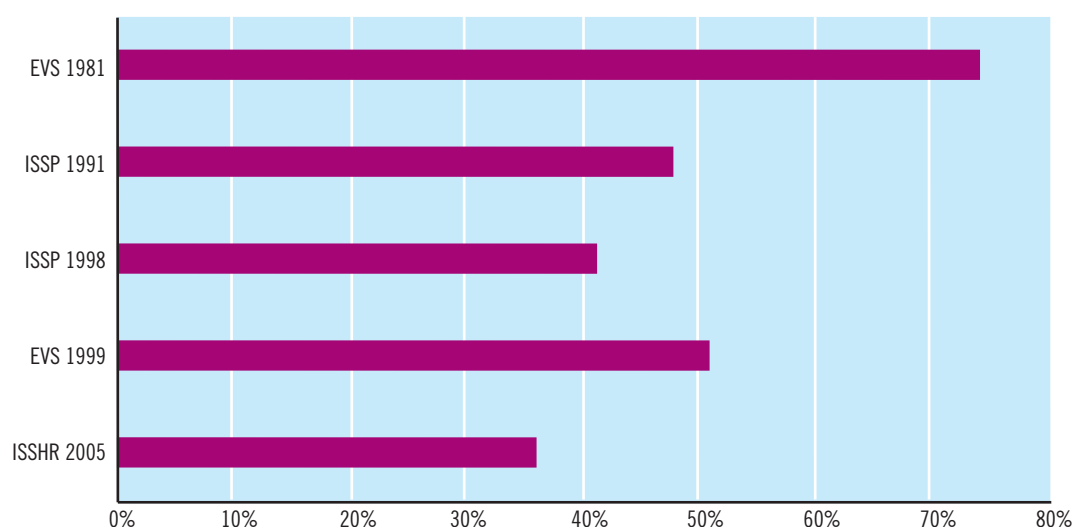
- Attitudes to abortion in Ireland have changed considerably over the last quarter of a century. The proportion of people agreeing that abortion is always wrong fell from 74% in 1981 to 36% in 2004/5.
- Higher levels of education and non-manual social class are associated with a more accepting stance on abortion.
- Respondents were sharply divided on attitudes to abortion by level of religiosity, even controlling for factors such as age.
- Women with children are more likely to see abortion as always wrong.
- Women who have had a crisis pregnancy are less likely than those who have not to see abortion as always wrong.

THIS section examines Irish attitudes to abortion, which have changed considerably since the early 1980s. Participants were asked if they believed abortion to be always wrong, mostly wrong, sometimes wrong or never wrong:

- over one-third of participants (35.8%) considered abortion to be always wrong
- 16.9% considered it to be mostly wrong
- 37.8% believed it to be sometimes wrong
- 9.5% thought it is never wrong

In line with previous national studies, attitudes to abortion are discussed in terms of the belief that abortion is always wrong. *Figure 4.6* compares the proportion of participants who agreed that abortion is 'always wrong' across different surveys over the last quarter of a century. It shows a gradual decline. In 1981, 74% believed abortion to be always wrong; by 1999 the proportion had fallen to 51%. The ISSHR study recorded the lowest percentage, at just 36%, a fall of more than 50% over the period.

Figure 4.6: Proportion of Irish respondents endorsing the belief that 'abortion is always wrong', in five surveys between 1981 and 2005

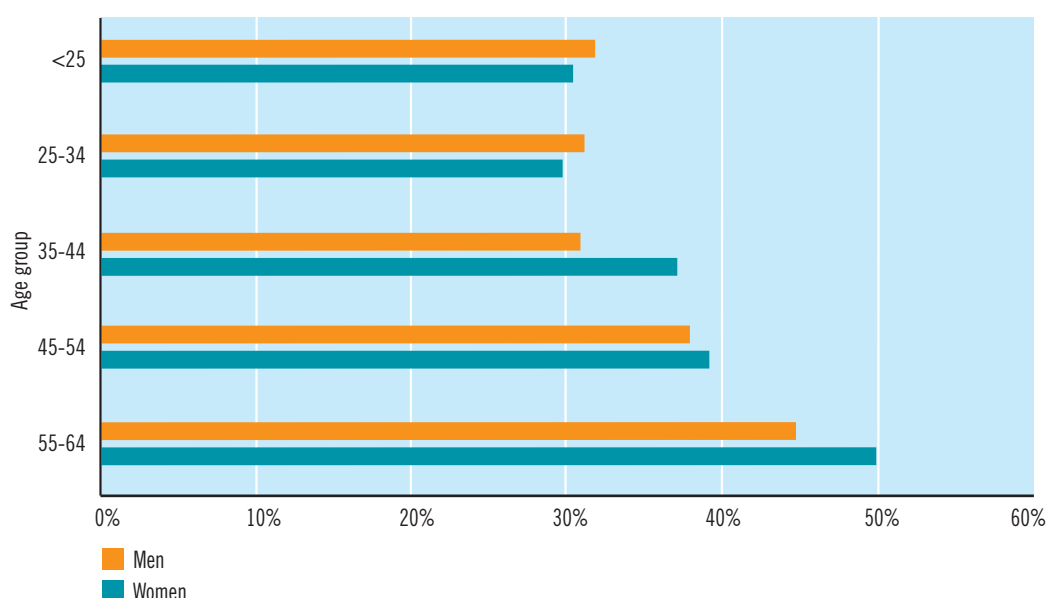


Although attitudes on abortion may have changed, international comparisons show that Irish people on average are still less accepting abortion than those in other countries.⁸ For example, Natsal found that 17% of men and 18% of women in Britain agreed that abortion is always wrong.¹² In ASHR, less than one-fifth of Australian participants supported this view.¹³ Fahey et al⁵ has shown, using European Values Survey data from 1999, that Irish attitudes to abortion were the least accepting in Western Europe apart from those in Northern Ireland and Malta.

In ISSHR, the likelihood of agreeing that abortion is always wrong was not related to gender ($p=0.09$). However, the proportion of men and women who agreed that 'abortion is always wrong' increased with age. *Figure 4.7* displays these age effects:

- 30.5% of women under 25 and 29.6% of those aged 25-34 agreed that abortion is always wrong, compared to 39.4% of those aged 45-54 and 53.7% of those aged 55-64
- 31.8% of men under 25 and 31.1% of those aged 25-34 agreed compared to 37.9% of those aged 45-54 and 44.7% of those aged 55-64

Figure 4.7: Proportion of men and women agreeing that abortion is always wrong, by age group



The proportions of men and women disaggregated across a number of socio-demographic categories who considered abortion to be 'always wrong' are displayed in *Table 4.5*.

Among men, level of agreement tended to increase with age; after controlling for other factors, these effects were found to be insignificant. In contrast, strong educational effects were observed after controlling for other factors; agreement tended to decrease with higher levels of education. For example, men with primary education were almost twice as likely to report that abortion is always wrong as men with third-level education. Men with lower and upper secondary education were also significantly more likely to endorse this attitude than those with third-level education.

Social-class effects are also significant. All classes except the clerical class are less likely to see abortion as always wrong than the semi/unskilled class.

Level of religiosity is also significantly related to this belief. Agreement rises along with increasing levels of religiosity.

Among women, older age groups and those with lower levels of education were more likely to see abortion as always wrong. For example, women with primary education are over twice as likely to agree as women with third-level education. Although lower social-class groups are more likely to agree, these differences are largely insignificant once we control for age and education.

Table 4.5: Proportion of participants reporting that abortion is always wrong, by socio-demographic factors

	Men		Women	
	%	N	%	N
All	34.7	3,145	37.0	4,202
Current age				
18-24 years	31.8c	742	30.5c	895
25-34 years	31.1 ns	689	29.6*	953
35-44 years	31.0 ns	642	36.9*	1,004
45-54 years	37.9 ns	570	39.4**	746
55-64 years	44.7 ns	502	53.7ns	604
Education level (highest attained)				
Primary	46.3***	262	52.3***	304
Lower secondary	37.6***	540	42.8**	646
Upper secondary	33.0**	1,182	35.9n.s	1,789
Third level	25.7c	1,161	25.5 c	1,489
Social class				
Higher professional	30.0**	780	28.9n.s	633
Lower professional	34.8 ns*	718	32.8n.s	1,091
Administrative/clerical	35.3 ns	422	35.7n.s	967
Skilled manual	31.4**	605	45.7**	291
Semi/unskilled manual	43.1c	485	41.5c	880
Relationship status				
Not in a relationship	38.7n.s	841	37.2n.s	947
Married	35.9c	1,490	40.9c	2,337
Cohabiting	24.8n.s	234	27.6n.s	269
Steady relationship	24.6 n.s	362	28.8n.s	510
Causal relationship	33.7 n.s	218	26.1n.s	139
Current residence				
Urban	29.6***	1,900	32.0***	2,336
Rural	42.2c	1,244	44.1c	1,862
Religiosity				
Not at all	20.7c	791	23.2c	689
A little	31.2***	1,150	30.6n.s	1,606
Quite	43.8***	881	42.9***	1,373
Very/extremely	55.2 ***	319	59.5 ***	529

Table 4.5: Proportion of participants reporting that abortion is always wrong, by socio-demographic factors (continued)

	Men		Women	
	%	N	%	N
Children				
Yes	36.1 _{ns}	1,593	40.6***	2,727
No	33.0 _c	1,552	29.8 _c	1,475
Experience of a crisis pregnancy				
Yes	—	—	25.0***	510
No	—	—	44.5 _c	2,060

Significance key: *= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table except for experience of crisis pregnancy among men.

As with men, level of religiosity is a very important factor; more religiosity is associated with a greater tendency to see abortion as wrong.

As with previous questions, we also tested the impact among women of having had a crisis pregnancy and having children. Women with children were significantly more likely to agree that abortion is always wrong, whereas women who had experienced a crisis pregnancy were significantly less likely.

4.7 Attitudes to premarital sex

SUMMARY

Attitudes to premarital sex have become far more accepting in Ireland in recent decades. Only 6% of the population now see it as always wrong.

Men are significantly more likely than women to see pre-marital sex as never wrong, as are younger individuals and those with higher levels of education and/or of higher social class. The impact of education and social class are far weaker among women.

Men and women who were cohabiting were far more likely than married people to see pre-marital sex as never wrong, as were the less religious and people living in an urban location.

- Only 6.4 of respondents regarded sex outside marriage as 'always wrong' in 2004/5 (ISSHR), compared to 71% in 1975 (Episcopal Commission for Research).
- Men were significantly more likely than women to see pre-marital sex as never wrong (70% v 64%).
- Younger respondents and less religious people were much more accepting of pre-marital sex.

ISSHR participants were asked to indicate if they believed 'A man and a woman having sex before marriage' is always, mostly, sometimes or never wrong.

Most participants (66.9%) considered premarital sex to be never wrong, 24% sometimes wrong, 6.4% always wrong and 2.8% mostly wrong. Comparison with previous national studies indicates that Irish attitudes toward premarital sex have become more accepting.

Figure 4.8: Proportions of people endorsing the belief that sex before marriage is always wrong, in three Irish surveys

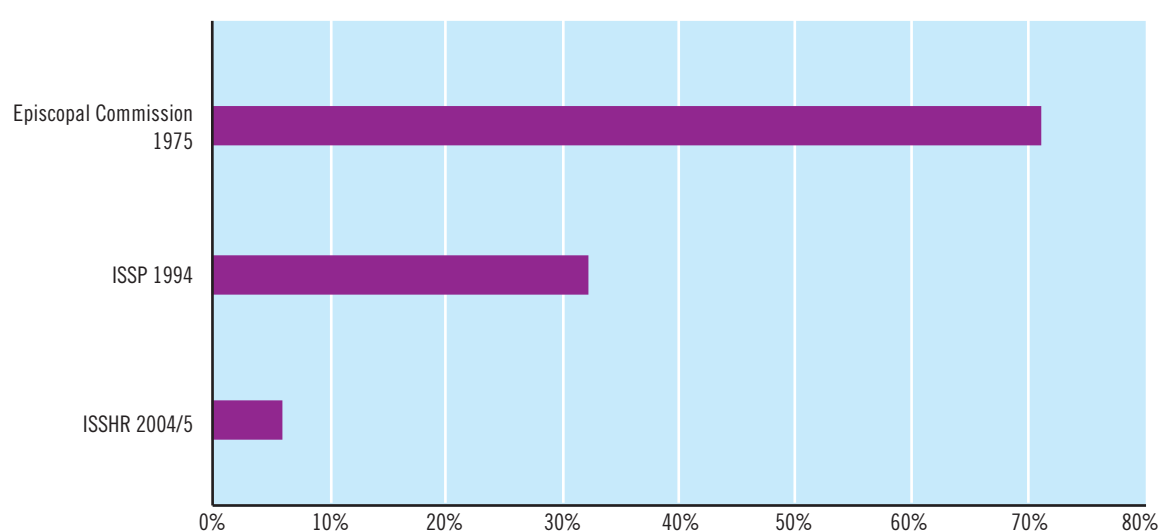


Figure 4.8 compares the proportion of Irish participants who agreed that sex before marriage is always wrong across three surveys carried out between 1975 and 2005.

Attitudes to premarital sex were highly conservative in the early 1970s. A national survey conducted in 1973-1974 found that 71% of Catholic respondents thought sex before marriage is always wrong (Episcopal Commission for Research 1975, reported in Inglis¹⁰). Since 96% of the population of the Republic were Catholic at the time, this finding could be considered quite representative of the population. By 1994 the 'always wrong' proportion had decreased to 32% and ten years later, in ISSHR, to just 6.4%. This indicates that the relationship between sex and marriage had been almost completely severed by the late 1990s in Ireland.

Consistent with international studies such as Natsal and ASHR, significant gender differences emerge. Men were significantly more likely to see premarital sex as never wrong (70.1%) than women (63.7%).

Several international studies have reported an age effect, with younger participants more tolerant than older people.^{12,13-15} Figure 4.9 shows the proportion of men and women in ISSHR who considered premarital sex as never wrong, by age group. The tendency to agree that 'premarital sex is never wrong' decreased with age, among both men and women. For example:

- almost 80% of men under 18 agreed that pre-marital sex is never wrong, compared to 62.1% of men aged 45-54 and 46.5% of 55-64 year-olds
- almost 80% of women aged 18-24 years agreed, compared to 50.4% and 37.8% of women aged 45-54 and 55-64 respectively

Figure 4.9: Proportion of men and women agreeing that premarital sex is never wrong, by age group

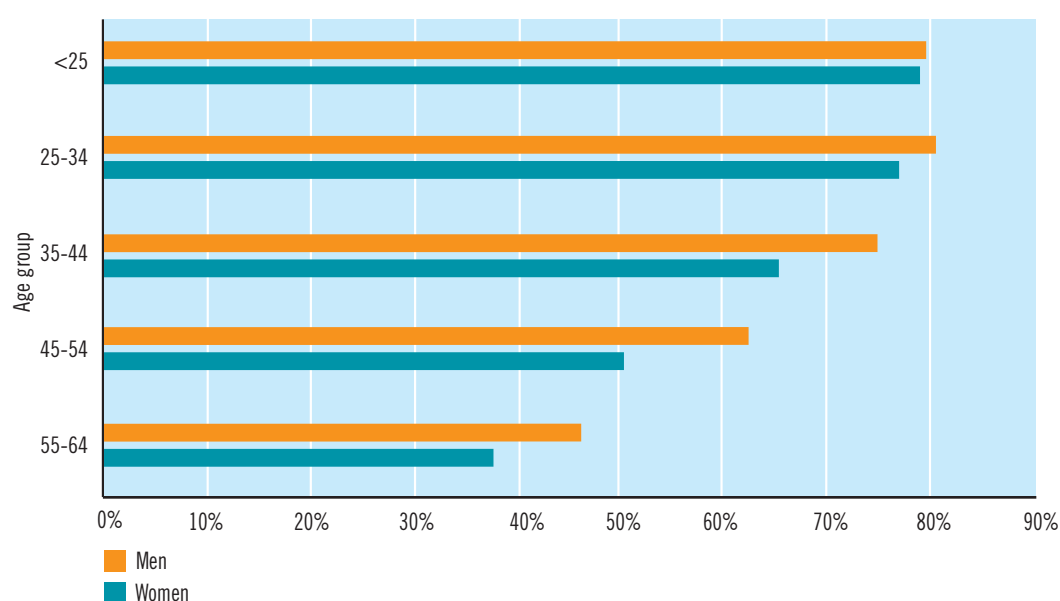


Table 4.6 gives the proportion of ISSHR respondents agreeing that ‘pre-marital sex is never wrong’ across socio-demographic characteristics. The age differences remain significant even after controlling for other factors, among men and women. For example, men aged 18-24 are almost twice as likely to agree as men aged 55-64. Men aged 45-54 were also significantly more likely to agree than the youngest age group.

Consistent with age effects, more men with higher levels of education indicated that premarital sex is never wrong. However, differences across education level are not independently significant after controlling for other factors such as age, except for differences between those with third-level and upper second-level education.

Men from the skilled manual and higher professional classes were significantly more likely to agree than men from the semi-unskilled manual class. The highest proportion agreeing is in the skilled manual class, among both men and women.

Married men and women were less likely to agree that premarital sex is never wrong than people in cohabiting, steady or casual relationships.

People who considered themselves to be extremely or very religious were also less likely to agree.

Table 4.6: Proportion of participants agreeing that premarital sex is never wrong, by socio-demographic factors

	Men		Women	
	%	N	%	N
All	70.1	3,173	63.7	4,232
Current age				
18-24 years	79.3C	759	78.8C	907
25-34 years	80.4n.s	699	76.8n.s	963
35-44 years	74.8n.s	640	65.3*	1,009
45-54 years	62.1*	572	50.4***	747
55-64 years	46.5***	503	37.8***	606
Education level (highest attained)				
Primary	59.8n.s	262	50.7c	301
Lower secondary	69.7n.s	543	61.4n.s	651
Upper secondary	74.1*	1,193	65.8n.s	1,775
Third level	70.3C	1,175	68.6n.s	1,505
Social class				
Higher professional	72.5*	787	66.5n.s	640
Lower professional	65.1n.s	727	62.4n.s	1,096
Administrative/clerical	71.2n.s	427	65.4n.s	972
Skilled manual	75.0***	607	70.5n.s	295
Semi/unskilled manual	66.1c	490	62.5c	887
Relationship status				
Not in a relationship	70.6n.s	850	67.4*	958
Married	63.3c	1,491	55.3c	2,344
Cohabiting	85.9**	239	77.9n.s	270
Steady relationship	83.8***	371	79.3*	519
Causal relationship	81.0**	222	78.6n.s	141
Current residence				
Urban	72.55n.s	1,921	67.99***	2,354
Rural	66.36c	1,251	57.71c	1,874
Religiosity				
Not at all	85.4c	808	83.9c	699
A little	73.7***	1,162	67.0***	1,613
Quite	60.7***	882	56.4***	1,381
Very/extremely	44.8 ***	316	39.5***	534

Significance key: *= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

Among women, age is also a significant predictor of attitudes toward premarital sex. Older women were much less likely to agree that it is never wrong. Unlike among men, however, level of education and social class are not significant predictors once we control for age group.

As with men, level of religiosity is also a strong determinant of attitudes, even controlling for other factors. Women who were very or extremely religious were less than half as likely to state that premarital sex is never wrong. Lastly, women in urban areas were more likely to see premarital sex as never wrong.

4.8 Attitudes to ‘one-night stands’ (casual sex)

SUMMARY

Participants were less accepting of casual sex (defined as ‘one-night stands’) than of premarital sex. Around a third of men and almost half of women said it is always wrong. Comparisons with Natsal studies show that Irish attitudes on this issue are more conservative than those in Britain.

Attitudes are strongly structured by age and level of education. Younger men and women and those with higher levels of education were much less likely to see casual sex as always wrong.

Even controlling for age and education, relationship status is important. Married people were far more likely to see casual sex as always wrong. Level of religiosity is also important.

- 40% of ISSHR respondents regarded casual sex as ‘always wrong’.
- Men are significantly less likely to see casual sex as always wrong (31%) than women (50%).
- Whereas 15% of men aged 18-24 said casual sex is always wrong, this is true of 56% of men aged 55-64.
- 29% of women aged 18 to 24 see casual sex as always wrong compared to 84% of women aged 55-64.
- Women were more conservative on this issue across the age range.
- More educated respondents tend to be more accepting of casual sex, as are people with less religiosity.

Attitudes to casual sex were measured by asking participants to indicate if they believed ‘A person having one-night stands’ is always, mostly, sometimes or never wrong:

- over two-fifths (40.1%) considered one-night stands to be always wrong, 13.7% to be mostly wrong, 30.1% to be sometimes wrong and 15.4% to be never wrong

Table 4.7: Proportion agreeing that casual sex is sometimes/mostly/always wrong and comparisons with Natsal 1990 and 2000

	ISSHR (2005) %	Natsal (2000) %	Natsal (1990) %
Men	76.8	58.8	70.5
Women	91.7	77.1	90.0

Table 4.8: Proportion of men and women agreeing that casual sex is always wrong, across socio-demographic factors

	Men		Women	
	%	N	%	N
All	30.8	3,170	49.9	4,239
Age group				
18-24	14.6c	757	29.2 c	904
24-34	21.2n.s	700	34.3n.s	963
35-44	26.3n.s	641	50.3n.s	1,012
45-54	44.8 **	568	62.4***	751
55-64	56.1***	504	84.2***	609
Education (highest level attained)				
Primary	55.7***	259	78.5***	301
Lower secondary	34.2**	542	61.9***	657
Upper secondary	23.7n.s	1,195	46.0***	1,777
Third level	22.6 c	1,174	31.3c	1,504
Social class				
Higher professional	26.6n.s	785	40.8c	642
Lower professional	29.6n.s	724	44.7n.s	1,094
Administrative/clerical	31.1n.s	427	50.6n.s	976
Skilled manual	32.1*	611	45.7n.s	296
Semi/unskilled manual	35.8c	488	55.8n.s	889
Relationship status				
Not in a relationship	23.7***	848	42.4***	957
Married	42.4c	1,493	61.2c	2,354
Cohabiting	11.7***	239	33.0**	270
Steady relationship	19.6*	370	35.1n.s	517
Causal relationship	12.3***	220	21.7***	141
Current residence				
Urban	27.7**	1,918	47.0**	2,353
Rural	35.6c	1,251	54.0c	1,882

Table 4.8: Proportion of men and women agreeing that casual sex is always wrong, across socio-demographic factors (Continued)

	Men		Women	
	%	N	%	N
Religiosity				
Not at all	15.4 _c	806	33.1 _c	698
A little	25.1 ^{**}	1,161	43.9 [*]	1,618
Quite	43.5 ^{***}	880	58.0 ^{***}	1,384
Very/extremely	55.5 ^{***}	318	69.4 ^{***}	535

Significance key: ^{*}= $p<0.05$; ^{**}= $p<0.01$; ^{***}= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

To allow direct comparisons with Natsal 1990¹⁶ and 2000¹⁷, participants who reported one-night stands as sometimes, mostly or always wrong were combined into one category. Table 4.7 displays a comparison between ISSHR findings and those of Natsal. Comparison of the two Natsal studies indicates that British men and women held more accepting attitudes towards one-night stands in 2000 than in the 1990s. Current Irish attitudes are similar to those found in Natsal 1990. Irish women in ISSHR are very similar in attitude to British women in Natsal 1990. In contrast, Irish men in 2004 appear to have been a little more conservative than their British counterparts in 1990; over three-quarters said one-night stands are always/mostly/sometimes wrong compared to 70.5% of British men in 1990.

In Ireland, women were more likely to say one-night stands are always wrong (49.9%) than men (30.8%). Table 4.8 displays the 'always wrong' proportions across socio-demographic factors.

Among men, the tendency to see one-night stands as wrong increases with age, even controlling for other factors. For example, men aged 45-54 and 55-64 were over twice as likely to do so as men under 25.

Similar patterns emerged with education status. Men with primary education were most likely to say 'always wrong', followed by those with lower secondary level. In multi-variate analyses, men with primary education were almost three times more likely to say 'always wrong' than men with third-level education (not shown). Those with upper second-level education were almost twice as likely.

Concerning current relationship status, married men were significantly more likely to view one-night stands as always wrong than men who were not in a relationship. In contrast, men in a casual relationship or who were cohabiting were significantly less likely to agree than those not in a relationship. These findings were observed after controlling for other factors. As with previous attitude items, the proportion of men disapproving of one-night stands increased with religiosity.

Similar patterns were found among women. Women aged 55-64 were significantly more likely to consider one-night stands as always wrong than women aged 18-24, as were women aged 45-54, after controlling for other factors.

Education level is an important predictor, whereas social class was unrelated after controlling for education. As among men, disapproval of one-night stands increases as education level decreases. For example, women with primary education were over twice as likely to say 'always wrong' as women with third-level education. Women with lower and upper second level were also significantly more likely to support this view than those with third-level education.

Relationship status and religiosity are also significantly related to attitudes. Married women were the most likely to consider one night stands as always wrong (61.2% - $p < 0.001$). Women in casual relationships were significantly more likely to do so than women who were not in a relationship. Finally, religious women were significantly more likely to disapprove of one-night stands than women who were not at all religious. There were no significant differences between those who identified as a little and not at all religious.

4.9 Attitudes to homosexuality

SUMMARY

Over half of all respondents to the ISSHR survey said sex between two people of the same sex is never wrong, while 23% said it is always wrong.

Men were more likely than women to say homosexual sex is always wrong, as are older respondents and those with lower levels of education.

Both men and women in urban areas were more likely to see homosexual sex as never wrong than people in rural areas.

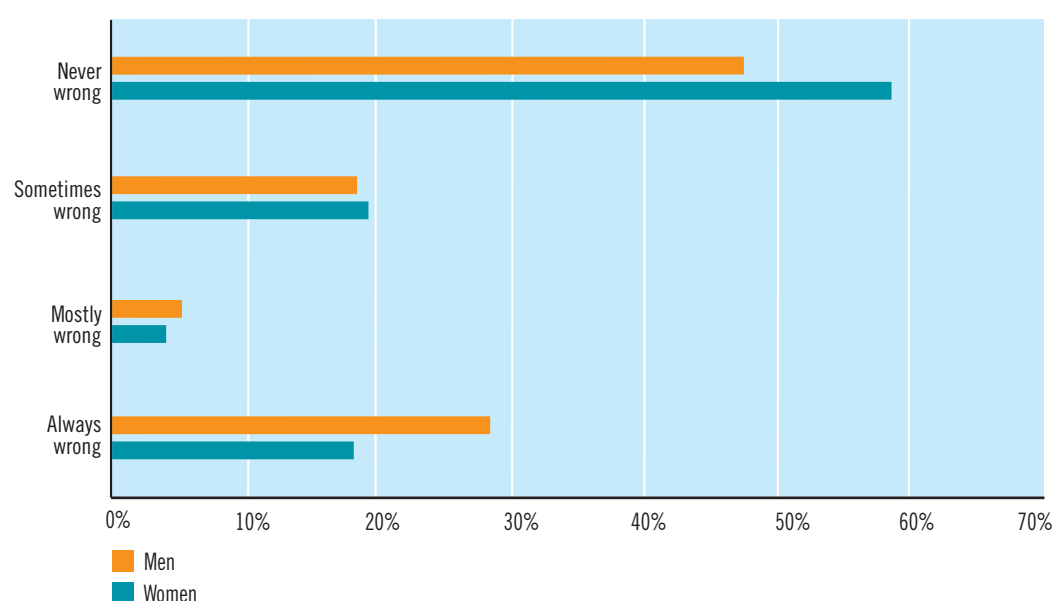
- *47% of men and 59% of women regarded sex between two people of the same sex as never wrong.*
- *29% of men and 18% of women regarded sex between two people of the same sex as always wrong.*
- *Younger respondents were much more likely to see homosexual sex as never wrong.*
- *Women were consistently more likely to see homosexual sex as never wrong, across all age groups.*
- *Young women were far more likely to see homosexual sex as never wrong than younger men (under 25). The gap between the genders in this age group is the largest of all age groups.*
- *People scoring high on religiosity were much more likely to see homosexual sex as wrong.*

TO investigate people's attitudes to homosexuality, participants were asked to indicate if they felt sex between two people of the same sex is always, mostly, sometimes or never wrong:

- over half the participants endorsed the view that same-sex intercourse is never wrong (53%)
- almost one-fifth considered it sometimes wrong
- less than 5% viewed it as mostly wrong
- 23.4% considered it to be always wrong

Women were significantly more likely to consider same-sex intercourse as never wrong (<0.001) than men (58.6% Vs 47.4%), as shown in Figure 4.10.

Figure 4.10: Attitudes to sex between two people of the same gender, by gender



The proportion of men and women endorsing the belief that same-sex intercourse is 'sometimes' or 'mostly wrong' were similar. But more men said it is always wrong than women (28.7% vs. 18%).

In line with previous issues, attitudes to same-sex relations were examined according to age, education, social class, religiosity and place of residence. Table 4.9 presents the proportion of men and women who said same-sex intercourse is never wrong, across socio-demographic factors.

Among men, there is a large variation across age. Older men (55-64) are least likely to see same-sex intercourse as never wrong. Younger men, and particularly those under 45, were over twice as likely to consider it never wrong as men aged 55-64. Men aged 45-54 years were also significantly less likely to endorse this view compared to the youngest age group.

Less pronounced effects were observed across education and social class. After controlling for age and other factors, significant differences across education were found only between men with primary education and those with third level. Men with third-level education were almost twice as likely to consider homosexual activity as never wrong. Men from the skilled manual class were significantly more likely to view homosexual activity favourably than men from the semi/unskilled manual class.

Relationship status is moderately related. Cohabiting men were significantly more likely to consider same-sex intercourse never wrong than married men. No other relationship differences were observed after controlling for other factors.

In contrast, religiosity and place of residence were strongly related. Men who identified themselves as extremely religious were least likely to respond favourably to same-sex intercourse. Men who identified as not at all religious were over twice as likely to consider it never wrong as those who identified as very/extremely religious. Similarly, men who identified as 'a little' or 'quite religious' were also significantly more likely to endorse this belief. Finally, men living in urban settings were almost twice as likely to consider same-sex intercourse as never wrong as those living in a rural setting.

Table 4.9: Proportions of men and women agreeing that sex between two people of the same sex is never wrong, across socio-demographic factors

	Men		Women	
	%	N	%	N
All	47.4	3,133	58.6	4,125
Age group				
18-24	57.1c	750	77.0c	884
24-34	59.1n.s	692	68.3**	954
35-44	49.6n.s	637	58.1***	989
45-54	36.8**	558	48.0***	719
55-64	27.8***	496	32.5***	579
Education (highest level attained)				
Primary	32.6*	260	44.5n.s	294
Lower secondary	46.2n.s	537	53.0*	635
Upper secondary	50.0*	1,181	59.8**	1,727
Third level	55.3c	1,155	68.8c	1,469
Social class				
Higher professional	48.3 ns	776	66.5n.s	631
Lower professional	42.9 ns	715	57.3n.s	1,058
Administrative/clerical	49.2 ns	424	58.0n.s	954
Skilled manual	50.6*	601	61.1n.s	286
Semi/unskilled manual	43.9 c	487	57.3c	863

Table 4.9: Proportions of men and women agreeing that sex between two people of the same sex is never wrong, across socio-demographic factors (Continued)

	Men		Women	
	%	N	%	N
Relationship status				
Not in a relationship	50.3n.s	840	63.1n.s	940
Married	41.1c	1,469	50.1c	2,275
Cohabiting	64.0 **	239	73.7*	265
Steady relationship	59.4n.s	365	74.0n.s	506
Casual relationship	47.7n.s	220	67.9n.s	139
Place of residence				
Urban	53.2***	1,902	63.7***	2,307
Rural	38.8 c	1,230	51.4 c	1,814
Religiosity				
Not at all	63.4c	797	75.0c	690
A little	45.9***	1,152	61.6***	1,574
Quite	41.2***	863	54.4***	1,337
Very/extremely	31.5***	316	38.5***	519

Significance key: n.s=not significant; *= $P<0.05$; **= $P<0.01$; ***= $P<0.001$

c=Reference group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

Similar findings were made among women, with strong effects for age, education, religiosity and place of residence when controlling for other factors. Social class is not significantly related, when controlling for other factors.

As among men, older women (aged 55-64) were least likely to consider same-sex intercourse as never wrong, while those aged under 25 were most likely to endorse this belief. In fact women under 25 and 25-34 were over twice as likely to do so as women aged 55-64.

As with men, disapproval of same-sex relationships increased with level of religiosity. Women who were 'not at all' religious were least likely to disapprove, whereas those identifying as extremely religious were most likely to do so.

Women living in an urban setting were significantly more likely to view homosexual activity as never wrong than those living in a rural setting.

4.10 Sexual liberalism

SUMMARY

To measure how liberal or conservative Irish people are about sexual practices, an index of sexual liberalism was developed using five attitudinal items. These were: attitudes to premarital sex, one-night stands, same-sex intercourse, abortion and emergency contraception.

- *Men are more likely to hold sexually 'liberal' attitudes than women (56% vs. 51%).*
- *Younger respondents and particularly those born after 1970 are more likely to show high levels of sexual liberalism*
- *The more educated and those in professional or managerial positions are more likely to be liberal.*
- *Religiosity is associated with less sexual liberalism even controlling for age group and education.*
- *Urban people tend to be more liberal than rural people.*

RESEARCH has found that individuals tend to hold congruent social attitudes within the same general subject area. In the area of sexual attitudes, most individuals will treat most issues in a conceptually similar fashion. For example, those who disapprove of premarital sex are likely to have a more conservative attitude toward behaviours such as one-night stands or use of emergency contraception.¹⁶

In previous sections of this chapter, we have found that the predictors of liberal attitudes tend to be the same across subjects. Younger, better educated and unmarried people were far more likely to report liberal attitudes. Individuals were not equally accepting of all behaviours, but, in general, we found consistent variation between groups. We found that less acceptance of behaviours such as one-night stands and abortion than of use of emergency contraception or premarital sex. These relativities are due to a number of factors, including changes in the construction of sexuality in recent years, with increasing trends toward cohabitation, birth control and divorce. These changes may also be influenced by rising secularisation and increasing levels of education among younger generations.⁶ And, since this is a cross-sectional study, it is possible that more conservative views are in part a feature of simply becoming older rather than a cohort (i.e. particular generation) effect.

To determine how liberal or conservative the Irish public are in relation to sexual practices, an index of sexual liberalism was developed, based on attitudes to:

- premarital sex
- one-night stands
- same-sex intercourse
- abortion
- emergency contraception

A similar index was used in the ASHR study. However, the ASHR scale included additional items, such as 'films these days are too sexually explicit' and 'having an affair when in a committed relationship is always wrong'. The ASHR scale did not include items on one-night stands and emergency contraception.

The ASHR study found that men were more likely to express liberal attitudes than women. Increased liberalism among men was associated with:

- higher education and incomes
- being aged between 20 and 39
- living in major cities
- identifying as homosexual or bisexual
- vaginal intercourse before the age of 16
- one or more partners in the last year
- having had heterosexual anal intercourse
- homosexual experience
- having no religious beliefs or faith
- drinking alcohol in excess of national guidelines

Similar patterns were found among women.¹³

Heffernan⁶ examined the relationship between Irish sexual attitudes and their impact on behaviour in the 1990s. Irish sexual attitudes relative to those in certain other countries were assessed using the 1994 ISSP dataset and a composite measure of 'sexual liberalism'⁸. This scale included attitudes to: cohabitation without marriage and before marriage, divorce, abortion, extramarital sex, homosexual sex, premarital sex and sex between teenagers. Ireland had the lowest mean on the sexual liberalism scale; it was, in other words, the most conservative of the five countries studied, while Spain was the most liberal. Age accounted for most of the variation in sexual liberalism in the five countries; each decade increase in age resulted in a decrease in sexual liberalism. This age affect was greatest in Ireland.

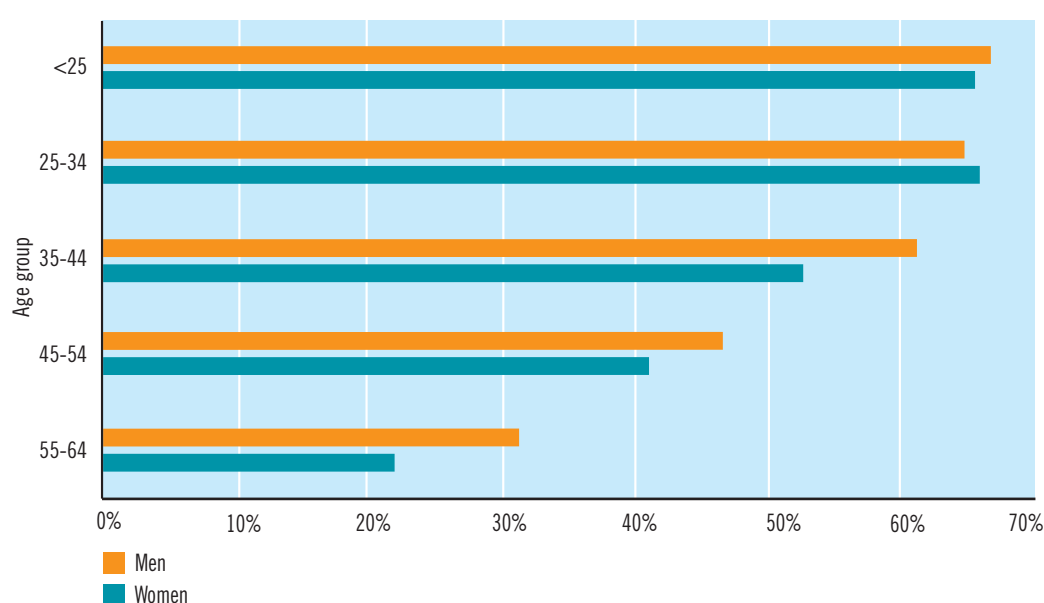
Similarly, gender had a significant, though varied, effect for all countries, including Ireland. Women were more likely to have lower sexual liberalism scores than men. In relation to marital status, Irish participants who were separated were more likely to be liberal than married people. Being single was not significant after controlling for gender and age. Age is likely to have an intervening influence on these patterns; that is, more younger than older people are single and unmarried. On the other hand, in Spain and the USA being single remained significant; single people held more sexually liberal views than those who were or had been married.

Findings from Australia, the USA and Ireland indicated that the more that people attended religious services more they tended to be sexually conservative. However, church attendance in Ireland had been dropping since the 1980s, falling from 81.6% in 1988 to 66% in 1996.¹⁸ This lessening impact of religion highlights the inadequacy of using religion as the main explanation for the difference in Irish sexual attitudes compared to other countries in the 1990s. In Ireland, age and attendance at religious services had the strongest relationship with sexual liberalism scores, when controlling for gender, area of residence, marital status and educational level. However, age rather than religion accounted for the greater proportion of variation in sexual liberalism.

In ISSHR, participants responded to each of the five items (see above) on a four-point scale: always wrong, mostly wrong, sometimes wrong and never wrong. Responses to each were collapsed into never/sometimes wrong (=1) and always/mostly wrong (=0). The five attitude items were then combined to form an index of sexual liberalism (range 0-5), which could sum to a maximum of five points if each item was reported as never/sometimes wrong. Participants who considered each item to be always/mostly wrong scored zero. Those who considered only one item to be never/sometimes wrong and all others to be always/mostly wrong scored one, and so on. Based on this scale:

- 'low sexual liberalism' was defined as obtaining a score of two or less as such people indicated that only two or fewer items were never/sometimes wrong
- 'medium sexual liberalism' was defined as obtaining a score of three (participants who considered three of the items to be never/sometimes wrong)
- 'high sexual liberalism' was defined as obtaining a score of four or more (participants who considered four or five of the items to be never/sometimes wrong)

Figure 4.11: Proportion of men and women reporting high sexual liberalism, by age



- Over half the sample obtained a score of three (53.6%).
- A further 22.5% were found to display medium sexual liberalism, with a score of two.
- Low sexual liberalism was found in 24% of the sample.

Men were significantly more likely to report high liberalism than women (55.7% versus 51.4%, $p=0.004$).

As Figure 4.11 shows, the proportion of participants reporting liberal attitudes to sexuality decreased with age. It also highlights the small degree of variation between men and women under 35. This trend changed with increasing age; more older men display high sexual liberalism than older women. For example, 22.0% of women aged 55-64 were high on the liberal scale, compared to 31.3% of men of the same age.

Table 4.10 shows the proportion of respondents with high levels of liberalism disaggregated across different characteristics. This shows that the differences by age just examined remain significant after controlling for other factors.

Table 4.10 Proportion of men and women scoring high on the sexual liberalism scale

	Men		Women	
	%	N	%	N
All	55.7	3,040	51.4	4,026
Age group				
18-24	66.6c	728	65.5c	864
24-34	64.8n.s	674	65.9*	927
35-44	60.9n.s	616	52.5n.s	964
45-54	46.7*	540	40.9n.s	707
55-64	31.3***	482	22.0***	564
Education (highest level attained)				
Primary	32.9***	250	28.4***	287
Lower secondary	53.5**	524	43.7***	610
Upper secondary	60.6n.s	1,154	54.2***	1,687
Third level	65.8c	1,112	65.2c	1,442
Social class				
Higher professional	63.8**	755	57.2n.s	618
Lower professional	53.5n.s	688	57.3n.s	1,044
Administrative/clerical	53.4n.s	414	51.2n.s	927
Skilled manual	57.3**	583	50.2n.s	279
Semi/unskilled manual	49.3c	475	48.1 c	842
Relationship status				
Not in a relationship	59.4n.s	815	54.5n.s	917
Married	49.3 c	1,423	42.9c	2,218
Cohabiting	69.9n.s	233	65.4n.s	264
Steady relationship	61.9n.s	356	66.8*	490
Casual relationship	62.9n.s	213	71.2n.s	137
Place of residence				
Urban	61.0***	1,841	55.6***	2,255
Rural	47.7c	1,198	45.5 c	1,768
Religiosity				
Not at all religious	72.6c	769	70.7c	671
A little religious	60.3**	1,121	59.3*	1,543
Quite religious	43.2***	843	41.3***	1,305
Extremely/very religious	32.0***	303	27.2***	503
Alcohol consumption				
<recommended limit	54.8 c	2,677	49.4 c	3,507
>recommended limit	61.9n.s	363	65.1*	519
Ever experienced anal sex				
Yes	74.37 **	359	68.82**	332
No	53.20c	2,645	49.96 c	3,645

Table 4.10 Proportion of men and women scoring high on the sexual liberalism scale (Continued)

	Men		Women	
	%	N	%	N
Age at first sex				
<17 years	66.3c	608	67.0c	443
>17 years	52.8n.s	2,432	49.2*	3,583
Number of partners (last year)				
1 partner	52.22c	2,463	49.71 c	3,753
2+ partners	71.95*	496	75.47n.s	226
Sexual identity				
Heterosexual	55.3n.s	2,943	51.2n.s	3,977
Homosexual/bisexual	75.1c	81	67.0c	41

Significance key: n.s.=not significant; *= $P<0.05$; **= $P<0.01$; ***= $P<0.001$

c=Reference group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

Similar effects were observed in relation to education. Men with higher levels of education are more likely to have high sexual liberalism. For example, men with third-level qualifications are twice as likely to have liberal attitudes as men with primary education only.

In relation to social class, men from the higher professional and skilled manual category were significantly more likely to report liberal attitudes than those from the semi/unskilled manual class. No such effects were observed across relationship type, when controlling for other factors.

As found throughout this chapter, level of religiosity is strongly related to overall liberalism; being sexually liberal is strongly associated with low religiosity.

Current residence also had a bearing; men in urban areas are significantly more likely to have liberal attitudes than rural dwellers.

To test whether liberal sexual attitudes are related to more liberal sexual behaviours and identities, variables were constructed for:

- the age the person first had vaginal sex (before or after 17)
- experience of (heterosexual) anal sex
- having a higher number of sexual partners in the last year (zero or one versus two or more)
- having a homosexual or bisexual identity

Analyses of these variables for men found that those who had experienced heterosexual anal sex or reported two or more partners in the last year are significantly more likely to have highly liberal attitudes in general.

To test if sexual liberalism is linked to risky health behaviours, we examined whether the individual reported consuming more than the recommended amount of alcohol on average. In later chapters we will be examining risky sexual behaviour directly, but it is useful here to examine the relation of attitudes to risky behaviours. Results showed, however, that these are not associated with more liberal attitudes.

Similar trends emerged among women. Younger women are significantly more likely to display sexually liberal attitudes than those aged 55-64. Sexual liberalism decreased strongly across age groups. Similar to men, women with higher levels of education are significantly more likely to be liberal than those with lower levels.

Again, as among men, religiosity, current residence and experience of anal intercourse are significantly related to high liberalism, after controlling for other factors. Women who identified as not at all religious are over twice as likely to show liberalism as extremely/very religious women.

Unlike among men, alcohol consumption and age at first sex are significantly related to greater liberalism among women. Those who drink above the recommended weekly limits hold more liberal attitudes, even controlling for age and other important factors.

Women reporting first sex after age 17 are significantly less likely to hold liberal attitudes than those who had sex before 17. Number of partners in the last year and sexual identity are not significantly related to liberalism, when controlling for other factors.

4.11 Summary and conclusions

THIS chapter has examined the pattern of sexual attitudes in the Irish population.

Sexual beliefs about contraception were examined first. Around 15% of men and 14% of women reported that cost would discourage them from using condoms. The proportion was higher among younger respondents and those in a lower socio-economic position. This is a concern, as younger people are more likely to have higher numbers of partners over a period and (as will be seen later in the report) respondents with less education are less likely to use protection.

Worryingly, women who reported an STI diagnosis were also likely to indicate that the cost of condoms is a barrier to use. It is hard to establish the precise economic relationship between use of condoms and price, using data such as the ISSHR survey, but it is important that as few impediments, including cost, as possible are put in the path of individuals seeking to use protection.

The cost of the contraceptive pill was a more important issue among women. Almost one-third said cost would discourage use. Unlike with the cost of condoms, this view did not seem to be more prevalent among young people.

On the other hand, having experienced a crisis pregnancy is associated with a greater tendency to see the cost of the pill as a discouragement. As with condoms, this should be a major concern to public health policymakers and practitioners.

Compared with the cost of the contraceptive pill as an obstacle, a far higher proportion of women (59%) said its side-effects would discourage use. As in previous studies, this belief seems to be stronger among older women who perhaps remember the higher risks associated with the first generation of contraceptive pills, or are aware of the higher risks faced by older women using it.

Around 12% of women said that possible weight gain would discourage them from using the pill. While evenly distributed across age groups, this view is significantly related to level of education; women with less education are significantly more concerned about this issue.

A large majority of people supported the availability of emergency contraception (EC) in Ireland. Only 7% of men and women disapproved. Support was far more divided on whether it should be available without prescription. A small majority of men advocated this option (52%), but just 42% of women. Young people and those with more education tend to be more liberal on issues of choice and sexual behaviour, and this came across on the issue of emergency contraception.

Although, like Irish legislation, attitudes to homosexual relationships have changed greatly in recent decades, homosexuality is still not accepted as legitimate by many Irish people. Over half of all men and over 40% of women do not believe that homosexual relationships are 'never wrong'. Although these are smaller proportions than in previous years, attitudes will need to change substantially before Irish men and women who have same-sex relationships are fully accepted in society.

Interestingly, young women in the ISSHR survey were the most accepting of homosexual relationships, a pattern that was also reflected in their behaviour. The ISSHR Main report showed that they were most likely to have had a homosexual relationship. Although young men were more accepting of homosexual relationships than older men, they still had far more conservative attitudes than young women. The 'gap' in attitudes between the genders on this issue was widest among the youngest age group.

The analysis of attitudes toward sex before marriage showed a dramatic liberalisation of attitudes since the 1970s. Only a small minority now see premarital sex as 'always wrong'. Analysis showed that young, better educated and less religious people tend to disapprove least. The same strong pattern of attitudes repeats itself on the issue of casual sex; younger, better-educated and less religious respondents had fewer reservations. In fact, this pattern was present across all the attitude questions, including those on homosexuality and abortion. This implies a generalised division in world view between the generations in Ireland and considerable differences between people on different socio-economic levels.

Analysis of comparative data on sexual attitudes shows that Irish people still hold comparatively conservative attitudes in the Western European context. This is as true of young people as of older. The rate of change in attitudes, however, suggests that Irish attitudes will converge with those in other countries in the medium term. This increase in Irish liberalism has happened in tandem with a gradual increase in the proportion of people with second- and third-level education and in higher-status occupations.

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Contraceptive and protective practices

5.1 Introduction

FOR most individuals, sex is a source of pleasure and well-being and an important part of relationships. However, if individuals do not protect themselves from unwanted pregnancy and infection, it may also be a source of pain and crisis.

As shown in the ISSHR Main Report and Overview, reported STIs in Ireland have increased dramatically in recent years. This increase may be due to the non-use or inconsistent use of condoms.

The ICCP survey¹ showed that over a quarter of women who had been pregnant had experienced a crisis pregnancy. Among women under 26 who had been pregnant, the proportion rose to more than half. The vast majority of these crisis pregnancies were a crisis because the pregnancy had been unplanned and occurred at the wrong period in the woman's life. The ICCP survey also showed that around 10% of women were not using contraception even when they did not wish to become pregnant.

The factors associated with contraceptive and protective practice are similar in many ways, but they also differ in some important respects. For example, although the need for contraception is roughly constant (although some partners use the rhythm method) until the menopause, use of barrier protection will depend on the status of the relationship and the judgment of the partners that trust has developed between them. Such trust often bears little relation to the true risk of infection but is actually linked to many social and cultural factors. Because of these distinctions, in this chapter we analyse separately use of contraception and use of protection.

The last two chapters examined the structuring of sexual knowledge and attitudes. This chapter concentrates instead on sexual behaviour. However, the earlier analyses are used to examine if an individual's sexual knowledge, beliefs and attitudes influence their contraceptive and protective behaviours. We are particularly interested in whether sex education influences protective behaviours, since this is a primary route through which policy can influence both

behaviours and outcomes. However, since sex education occurs within a social and cultural context, it is also important to examine the influence of sexual beliefs and attitudes on behaviours.

- The chapter first outlines the Irish and international literature on the issue.
- An examination of contraceptive use at most recent vaginal intercourse follows, in section two.
- Section three analyses the types of contraception used.
- Reasons why individuals did not use contraception are outlined in section four.
- Section five investigates predictors of use of the contraceptive pill, while section six examines use of condoms in the past twelve months.
- Section seven looks at use of condoms with the most recent sexual partner and section eight analyses why condoms were not used on the last occasion of heterosexual sex.
- The final section summarises the chapter and derives conclusions from the results.

5.1.1 Contraceptive practices

THE examination of trends in contraceptive use in Ireland is somewhat limited by the fact that most early research was confined to married women, as the law up to 1985 limited the sale of contraception to married couples.²

Examples of such studies include Fine-Davies' survey³ of 754 married women (randomly selected from the electoral register) which found that natural methods were most commonly used (55%), followed by oral contraception (15.6%) and withdrawal (10.2%).² Similarly, Mason (2003)² reports that, in a study of 198 postpartum women, 39% were using an oral contraceptive, 30% natural methods and 19% condoms, while 27% had never used any contraceptive method.

A number of large, nationally representative Irish studies examining contraceptive practices have been conducted in recent years.

- Wiley and Merriman⁴ found that 22.3% of over 3,000 randomly selected women reported using condoms, 22% used oral contraceptives and 14.2% natural methods (safe period/rhythm method).
- The Slán surveys (The National Health and Lifestyle Survey) also examined some features of sexual health. Contraceptive use by sexually active men and women remained relatively unchanged between the two survey periods of 1998 and 2002; men were most likely to report condom use and women to report the oral contraceptive pill, followed by the pill and condom combined.⁵
- The most recent relevant study, the ICCP survey of over 3,000 men and women aged 18-45, found that 80% of sexually active respondents reported using a method of contraception or precaution when having sex in the last year. The most common methods were condoms (55%) and the contraceptive pill (38%). A minority used sterilisation (7%), the safe period/rhythm method (6%) and withdrawal (6%).¹

These findings reflect international trends of increasing use of contraception. Most respondents reported using the condom or oral contraceptive pill as their primary method of contraception or protection.^{6,7,8} For example, a national French study revealed that the percentage of women using the oral contraceptive pill and the condom increased between 1988 and 1994, while reliance on non-medical methods such as withdrawal and periodic abstinence

decreased.⁹ The authors argued that increased use of the pill may have been due to third-generation pills having fewer side-effects than their predecessors. Trends in the US are similar; the proportion of women using contraception rose from 56% in 1982 to 64% in 1995. Over time, female sterilisation, the oral contraceptive pill and the male condom were most widely used. Use of the pill fell slightly while condom use increased between 1988 and 1995.⁷

5.1.2 The oral contraceptive pill

AGE has been found to be significantly related to use of the oral contraceptive pill.⁹⁻¹¹ Younger adults were more likely to use it than people over 30. For example, Dawe & Rainford⁶ found that its use was most frequently reported by people aged 18-19 (58%), followed by those aged 20-24 and 25-29 (49% and 40% respectively). Use fell sharply after age 30; less than one-third of 30-34 year-olds, under 15% of 35-44 year-olds and only 5% of 45-49 year-olds reported using it.

The Irish Slán report also found that use of the oral contraceptive pill was highest among people under 35 (25%). Only 13.4% of respondents over 35 reported use. People under 35 were also more likely to report using double protection (condom and pill) than those over 35.⁵

The recent ICCP report found similar trends; 55% of respondents aged 18-25 and 42% of 26-35 year-olds reported use, compared to only 18% of those aged 36-45.¹

Canadian studies also observed similar trends, for women reporting use of the pill and men reporting its use by partners, between 1984 and 1995.⁸ However, results from Canada also revealed an increase in use of the pill by women aged 24-40, and particularly among those aged 30-34. The authors argued that this increase might have been due to new pill formulations with lower oestrogen levels that are considered safer for older women.

5.1.3 Relationship status and use of contraceptives

FAILURE to use a continuous method of contraception, particularly the oral contraceptive pill, often reflects a low perceived need (for example, when a woman is not in a heterosexual relationship or has undergone a non-reversible form of contraception such as sterilisation/hysterectomy/tubal ligation). However, among sexually active people, using the pill is strongly related to relationship status. For example, Dawe & Rainford⁶ found that single women were more likely to use either the pill or condoms than married or cohabiting women. As well, they preferred the pill to condoms, while married or cohabiting women tended to use either form of contraceptive equally. Toulemon & Leridon⁹ also found that single men and women in France were more likely to use the pill.

It is important to acknowledge that these differences may be confounded by the age distribution within each group. Single women tend to be younger than those who are married or cohabiting, as demonstrated by Dawe & Rainford:⁶ 76% of single respondents were under 30 compared to 17% of married or cohabiting women.

As already reported, younger respondents – particularly those under 30 – are more likely to report use of the oral contraceptive pill (OCP).

It is likely that people who are married or live with a regular partner report OCP use less frequently because they have chosen non-reversible forms of contraception such as tubal ligation, hysterectomy and sterilisation.^{10,8} Once again age plays a significant role here; the Canadian study found that only 3% of women reported tubal ligation by age 24 compared to 65% among women aged 45.⁸

In relation to casual relationships or one-night stands, the ICCP study revealed that respondents who had just or recently met their most recent sexual partner were less likely (10% and 13% respectively) to report OCP use than those in a steady relationship (51%), living together (51%) or engaged (52%). However, only 23% of married respondents¹ reported using the pill at their most recent sexual encounter.^C The figure for people who had just/recently met their partner is very low, but between 81% and 86% of these reported using a condom during this encounter. Thus it appears that people not in steady relationships relied strongly on the condom, which does not need as much forward planning as the oral contraceptive pill.

5.1.4 Level of education and use of contraceptives

EDUCATIONAL level is also related to contraception use. The Slán and ICCP reports showed that people with higher education levels were significantly more likely to report always using contraception in the last year.^{5,1} In the ICCP study, education level was not significantly related to OCP use at most recent sexual encounter. However, ASHR (2003)¹⁰ found that OCP use was significantly more likely among women with higher levels of education.

5.1.5 Condom use

CONDOMS are an effective means of preventing transmission of HIV¹² and other STIs¹³ as well as a valuable form of contraception. It is important to identify factors which promote and impede both the choice and use of condoms as a method of contraception. Condom use may not be considered desirable in all relationships.

Time-trend analysis has indicated that condom use has increased in recent years.^{11,14,15} For instance, Murphy & Boggess¹⁵ compared data from the 1988 and 1995 national surveys of adolescent males in the US, showing that condom use increased by 24% in that period. Respondents reported using condoms in 56% of their sexual encounters in 1988 compared to 69% in 1995. Comparisons of Natsal 1990 and 2000 also found significant increases in consistent condom use.¹⁶ However, these studies also highlight the fact that condoms are often used infrequently or inconsistently.¹¹ French, Dutch and Belgian national studies have also revealed inconsistent use, reporting that 25-30% of adults had used condoms in the year before the respective studies.¹⁷ A recent British study of adults aged 16-69 found that, of those who reported using condoms in the past year, 56% of men and 64% of women said they always used a condom when they had sex.⁶

^C Figures related specifically to those who were not or did not intend to become pregnant (women who were or wanted to become pregnant were excluded as were those who could not become pregnant because of sterilisation or medically confirmed infertility).

5.1.6 Condom use and age

RESEARCH has found a pronounced age effect in condom use. Younger respondents report higher levels of use.^{6,18,19,14,20}

- The Irish Contraception and Crisis Pregnancy (ICCP) national study of contraceptive practices found that those aged 18-25 were more likely to report condom use in the last year (78%) than those aged 26-35 (54%) or 36-45 (36%). Condom use at most recent intercourse was also more likely among younger respondents.¹
- Similarly, Shiely, Kelleher & Galvin⁵ found that condom use among Irish men decreased with increasing age.
- Dawe & Rainford⁶ found that 96% of men aged 16-19 reported using a condom in the last year compared to 74% of men aged 20-24 and 31% of 40-44 year-olds.
- Dubois-Arber & Spencer's comparison of national European surveys¹⁷ found that, since 1991, five countries (Belgium, East Germany, France, Portugal and Switzerland) have reported higher lifetime use of condoms by younger people.
- The national Canadian study comparing contraceptive practices between 1984 and 1995 (mentioned above) found that condom use increased over time particularly among younger respondents.⁸
- The national Australian study also reported a significant relationship between age and condom use; older women reported much lower use over the past year.²¹
- A national Spanish study also revealed that systematic condom use in the 12 months before the survey was most frequent among respondents aged 20 and under (67%), but fell to below 20% among those aged over 40.²²

Dubois-Arber & Spencer argued that this higher condom use by younger people may be due to younger generations being the first to adapt their behaviour in light of the HIV epidemic and exposure to health promotion campaigns. This is supported by the reasons given by respondents for recent condom use. For example, in France the reasons given by respondents aged 18-19 for using condoms during the 12 previous months were protection against AIDS (75%), contraception (53%) and protection against STIs (76%). In contrast, respondents aged 40-49 indicated AIDS (3%) and STIs (43%) as a concern less frequently, and were more likely to report contraception as a reason (60%).

5.1.7 Condom use and number of sexual partners

THE number of sexual partners is related to the influence of age. Younger respondents (up to age 30) tend to report more partners, particularly when examined in relation to the twelve months preceding the study.^{10,16,23} Similarly to the age effects discussed above, respondents who report more than one partner in the previous year are more likely to report condom use than those who report just one partner in the year (Dawe & Rainford, 2003). Natsal (2000)¹⁶ found that consistent condom use over the past four weeks was more frequent among men and women who reported two or more partners in the past year than those with one. One-third of men with two or more partners consistently used a condom compared to 21% of those with one partner in the last year. Similarly, almost one-quarter of women (24%) with two or more partners consistently used a condom, compared to 17% of those with one partner.¹⁶

Comparisons of results from Natsal 1990 and 2000¹⁶ showed an increase in consistent condom use over time, particularly among men with multiple partners in the past year. However, combining data on condom use and number of partners to create an indicator of 'unsafe sex' revealed that the proportion of the population who reported two or more partners in the past year and did not use condoms consistently had in fact increased between the two surveys.¹⁶

The French ACSF study also found higher levels of condom use among respondents who reported greater numbers of partners in the twelve months before the study. Most men (79%) who reported five or more sexual partners in the last twelve months said they had used condoms in the last year, compared to 49% of those with fewer partners. In relation to most recent intercourse, 37% of men with five or more partners in the last year used a condom compared to 21% of men who reported one to four partners in the last 12 months. Similar trends were found among French women; 65% of those who reported five or more partners in the last year said they had used condoms in the past year and 20% at last intercourse, compared to 55% and 14% respectively of women who reported fewer partners over the past 12 months.²⁴

5.1.8 Contextual factors in use of condoms

THE decision to use a condom occurs within a relational context. For example, the ACSF study showed that homosexual men were more likely to report condom use during their most recent sexual encounter with a male partner than their heterosexual counterparts.²⁵

Similarly, condom use is influenced by whether a relationship is long-term/stable or casual/one-night stand. Research has found that consistent condom use is higher in casual relationships or among single people than among people in long-term relationships.⁸ Sheeran, Abraham & Orbell conducted a meta-analysis²⁶ of 30 studies which examined predictors of condom use. They analysed 11 studies which compared people with a steady partner to those with a casual partner. The mean percentage of respondents who always used a condom with a steady partner was 17% compared to 30% among those with a casual partner.

Similarly, the national Irish ICCP study showed that condom use at respondents' most recent sexual encounter was five times more likely among those in casual relationships than among those living together/engaged/married.

Comparisons of behaviour among the Swiss (between 1987 and 1994) found that consistent condom use during casual sex increased from 8% to 56% during this period among those aged 17-30 and from 22% to 42% among those aged 31-45.²⁷

Findings from a national Spanish study were consistent with the Swiss study; 38% of people with a casual sexual partner in the preceding 12 months said they had always used a condom compared to 26% reporting a regular partner. Among those in a regular relationship, failure to always use a condom was related to being older and being married or cohabiting.²²

Buyse²⁸ argued that prototypical features of stable relationships, such as closeness, intimacy and exclusivity, discourage condom use as it may represent mistrust and formality. A national US study of American women found that women in the early stage of a relationship (six months or less) were much more likely than those in a long-standing relationship to use condoms.¹⁴ The ACSF study conducted in late 1991 in France also found that condoms were more likely to be used during the early stages of relationships, and couples tended to use other methods as their relationship became more stable.²⁹ Condom use has been shown to be greater at the start of a relationship, while use of the oral contraceptive pill increases as the relationship develops.³⁰

5.1.9 Use of condoms as a contraceptive or for protection?

THE decision to use a condom within a heterosexual relationship may also be influenced by a desire to prevent an unwanted pregnancy or a sexually transmitted infection, or both.

Bankole *et al*¹⁴ found in their national study of Americans aged 18-59 that 49% of those in ongoing relationships used condoms for disease prevention compared to 88% of those in casual relationships. Dawe and Rainford⁶ found that half the sample of men and women used condoms in the last year to prevent pregnancy, a third of men and two-fifths of women used them to prevent both pregnancy and infection, and less than 10% of men and women used condoms to prevent infection alone. When these reasons were compared by age, an interesting pattern emerged among women: the proportion of those reporting pregnancy prevention as their primary motive for use increased from 18% among younger women (16-19) to 32% among those aged 20-24 and 50% among women aged 25-29. The proportion remained stable for women aged 30-49; two-thirds indicated pregnancy prevention as their motive. In contrast, the proportion of women reporting both pregnancy and infection prevention as their primary motive decreased with age. Less than one third of women aged 30-49 indicated this as their motive for use, compared to 42% of women aged 25-29 and 71% of those aged 16-19.

The authors speculate that younger respondents are more likely to have multiple partners in the last year, thus putting them at higher risk of contracting a sexually transmitted infection than older women.⁶

It appears, therefore, that many younger adults evaluate the risks and take steps to avoid infection.

5.1.10 Condom use and knowledge of STIs and HIV

A PREREQUISITE to awareness of personal susceptibility is awareness about how HIV and STIs are transmitted. It is important to ascertain levels of knowledge regarding HIV and STIs and how this influences behaviour, as gaps in public knowledge may be preventing people from taking steps to protect themselves.

Research has generally found high levels of knowledge about STIs and HIV, including how to prevent them.^{26,31-33} The difficulty seems to be translating this knowledge into action. For example, a school-based study of 13,293 people aged 11-24 in Mexico found that greater knowledge about HIV increased condom use among young men but decreased the likelihood among women, thus highlighting the need to develop social skills in younger women, and specifically the ability to negotiate use of condoms.

Brien *et al*³⁴ argued that people may be aware of the general risks but do not feel at risk in their current situation, based on judgements of their partner. This may be particularly the case among people in regular rather than casual relationships.

5.1.11 Condom use and level of education

LEVEL of education is also related to condom use. People with higher education are more likely to report using condoms. Similarly to the age effect, an almost universal trend has emerged in relation to education; condom use increases with rising level of education.^{17,19,22} For instance:

- A national Belgian study showed that recent condom use increased from 17% among those with low education to 26% among those with medium education and 31% among those with higher education.
- Similar trends were found in studies conducted in France and the Netherlands.¹⁷
- The Sheeran *et al* meta-analysis of 30 studies¹⁷ found that greater education was associated with greater condom use.
- Rundle *et al*¹ found that people with incomplete second-level education were significantly less likely to report using a condom during their most recent sexual encounter than those with complete second-level or third-level education.

However, caution must be applied in interpreting the effects of education on condom use, as education is not a constant for all age groups. For instance, the average level of education of younger generations is higher. This may potentially confound the relationship between education and condom use.¹⁷

5.1.12 Gender and condom use

GENDER differences have also emerged: men are more likely to report condom use than women.^{1,17,26} For instance, condom use during the past year was significantly more likely to be reported by men in several national studies, including those conducted in France and Belgium. Over 36% of French men reported using a condom compared to 26% of French women, in the ACSF study in 1992. For ever using a condom, 69% of French men reported use compared to 56% of women.¹⁷

A national Spanish study²² found that systematic condom use with a casual partner during the last 12 months was higher among men (43%) than women (28%).

The national Irish (ICCP) study, too, found that men were significantly more likely than women to report condom use at their most recent sexual encounter than women.¹ Sheeran *et al*'s meta-analysis²⁶ found gender to be significantly related to condom use, although the association was relatively small.

These findings must be interpreted with some caution as they may be subject to a factor such as the perceived social desirability of condom use. Dubois-Arber & Spencer¹⁷ argued that women may under-report condom use; since it is the man who wears the condom, women may not report they themselves use one, or may be embarrassed to report use. Bajos *et al*³⁵ also postulated that women may feel that reporting use of a condom devalues their relationship, particularly for casual relationships which do not fit society's image of female sexuality.

However, gender differences have been found to be smaller in certain countries, including the Netherlands, West Germany and Switzerland, where lifetime use is high. Similarly, lifetime use is relatively high in the UK and gender differences are marginal.¹⁷ This may reflect a more open society where use of condoms is widely accepted by both men and women.

5.1.13 Situational factors and condom use

ASIDE from individual factors such as gender, age and education, situational or contextual factors may play an important role in condom use. Such factors, which have been found to influence condom use, include: high sexual arousal, alcohol intoxication and being unprepared (i.e. not having a condom available at the time of intercourse).

The following sections (5.2.1 to 5.2.4) focus on the contraceptive practices of ISSHR respondents on their most recent occasion of vaginal intercourse. Predictors of contraception use are examined separately for men and women in relation to various demographic, knowledge, attitudinal and sexual lifestyle factors. Reasons for non-use of contraception are also examined. This is followed by a detailed analysis of use of the oral contraceptive pill, in an attempt to provide a profile of OCP users. Condom use as a means of contraception and protection is analysed separately, in chapter six.

5.2 Contraception and most recent vaginal intercourse

SUMMARY

Once we exclude those respondents who are pregnant, trying to become pregnant or who are infertile, the ISSHR results show that most Irish people used contraception on their most recent occasion of vaginal sex.

Younger people are far more likely to use contraception than older people.

Women with lower levels of education are more likely not to use contraception, even when they do not intend to become pregnant.

Non-married men and women are far more likely than those who are married to use contraception.

Analyses show that sexual knowledge is weakly associated with the probability of using contraception, while believing that the cost of condoms discourages their use is associated with less likelihood of using contraception.

People who had sought advice about contraception were more likely to use it.

Men who had vaginal sex before age 17 were less likely to use contraception currently.

- *Most participants (71.6%) used some kind of contraception during their most recent vaginal sex. Men were more likely to report this than women (73.7% versus 69.1%).*
- *Younger men and women were more likely to report use of contraception than older people.*
- *Lower levels of education among women were associated with less likelihood of using contraception at most recent intercourse.*
- *Non-married men and women were more likely to use contraception than married people.*
- *Sexual health knowledge and attitudes were only weakly related to use of contraception.*
- *Men with more liberal sexual attitudes were more likely to have used contraception at most recent intercourse.*
- *Men who had experienced vaginal sex before age 17 are significantly less likely than those who did not to have used contraception at most recent intercourse.*

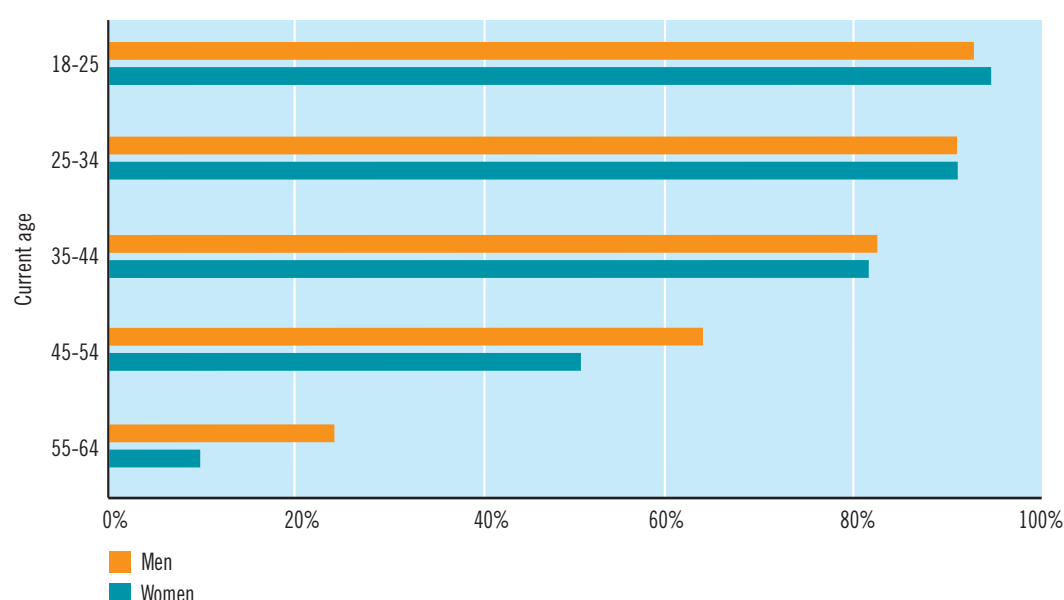
MOST ISSHR participants who reported previous experience of sexual contact (vaginal, oral or anal) reported engaging in vaginal intercourse during their most recent sexual encounter (97.1% of men and 97.2% of women). These participants were asked if any form of contraception had been used (by themselves or their partner) on that most recent occasion of vaginal sex. Those who said it had not because they or their partner were pregnant, trying to become pregnant or could not conceive because of a hysterectomy or infertility were excluded from further analyses. People

who said they were post-menopausal were retained as tests showed that a sizeable proportion of women aged 35 to 45 said they were post-menopausal even though only a minority would actually have been so. (We return to this issue in the analyses.)

Most people who engaged in vaginal intercourse at most recent sexual encounter had used some kind of protection or contraception (71.6%). Men were significantly more likely to report use than women (73.7% versus 69.4%; $p=0.004$). Use of contraception also varied according to age.

Figure 5.1 displays the proportion of men and women who used contraception during their most recent vaginal intercourse, across current age groups.

Figure 5.1: Use of contraception at most recent vaginal intercourse, by gender and current age



As shown by Figure 5.1, more younger participants reported using contraception during their most recent vaginal intercourse. For example, 93% of men and 94% of women aged 18-25 reported use compared to 24.4% of men and 10.1% of women aged 55-64.

The figure also highlights gender differences; more older men, particularly those aged 45-54 and 55-64, reported using contraception than did older women. The differential between men and women in older age groups stems from the fact that, above age 50, men are much more likely to have younger partners who in turn are more likely to require contraception.

Table 5.1 shows the proportion of men and women who reported using some form of contraception at their most recent vaginal intercourse, by a range of demographic factors. It shows that the age relationship found in *Figure 5.1* remains clear and significant even when controlling for other factors, among men. All other age groups are less likely to use contraception than the youngest (aged 18 to 24), although the difference is only significant between the youngest and two oldest age groups.

The proportions of men of different education and social-class groups who use contraception differ substantially, but these patterns are largely a function of the distribution of education and social class across age groups (see chapter two). Once we control for age, neither education level nor social class is significantly related to contraceptive use.

Relationship status on the other hand is significantly related to contraceptive use at most recent vaginal intercourse. Use was least likely among married men and most likely among cohabiting men and those in a steady relationship. Men who reported being in a casual relationship or not in a relationship at the time of interview were also significantly more likely to use contraception than married men.

Similar trends emerged among women. Age is the most important predictor of contraceptive use at most recent intercourse. Younger women (aged 18-24) were most likely to report use, and use decreases as age rises. However, unlike among men, education remains independently significant after controlling for other factors. Women with upper second and third-level education were almost twice as likely to report use of contraception as those with primary education. Women with lower second-level education were also significantly more likely to report use than those with primary education.

Relationship status is also significantly related to use of contraception among women. Married women are the least likely to report use. Women in steady relationships and those not currently in a relationship were significantly more likely to report use than married women. There are no significant differences between married women and those in cohabiting or casual relationships.

Social class, place of residence and religiosity are not significant, after controlling for other demographic factors (*Table 5.1*).

Table 5.1: Proportion of men and women reporting contraception use at most recent vaginal intercourse, by demographic factors

	Men		Women	
	%	N	%	N
All	73.7	2,477	69.1	3,314
Age group				
18-24	93.0c	586	94.3c	698
25-34	90.8n.s	567	90.9n.s	756
35-44	82.4n.s	486	81.3***	765
45-54	63.3***	442	50.2***	593
55-64	24.4***	396	9.9***	502
Education (highest attained)				
Primary	51.5n.s	200	30.4***	226
Lower secondary	72.0n.s	416	62.4n.s	526
Upper secondary	78.8n.s	928	76.0n.s	1,384
Third level	82.2c	933	82.0c	1,178
Social class				
Higher professional	75.7 ns	639	75.8 ns	499
Lower professional	75.0 ns	553	71.9 ns	843
Administrative/clerical	70.8 ns	331	71.5 ns	771
Skilled manual	72.1 ns	469	74.2 ns	230
Semi/unskilled manual	71.7 c	377	64.1 c	676
Place of residence				
Urban	73.7 ns	1,506	69.4 ns	1,819
Rural	73.8 c	970	69.7 c	1,473
Relationship status				
Not in a relationship	84.5 *	595	77.0 *	656
Married	59.5 c	1,160	57.0 c	1,826
Cohabiting	91.6***	195	86.8 ns	217
Steady relationship	90.6**	334	90.6 *	475
Casual relationship	87.9*	193	86.8 ns	122
Religiosity				
Not at all religious	80.4c	650	81.9 c	571
A little religious	75.7 ns	938	73.3 ns	1,300
Quite religious	67.2 ns	659	63.1 ns	1,038
Extremely/very religious	66.0 ns	225	54.6 ns	383

Significance key: n.s=not significant; = $P<0.05$; *= $P<0.01$; ***= $P<0.001$. c=Reference group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

The following analyses examine the association of sexual knowledge and attitudes and other factors with use of contraception, controlling for the socio-demographic variables shown in Table 5.1. They are thus extensions of the analysis shown in that table. They consider, for example,

whether good knowledge of fertility (using the item examined in chapter three) is associated with a higher probability of using contraception. They also examine if sex education and people's beliefs and attitudes have a bearing.

Use of contraception may also be influenced by previous experiences and behaviours. Research in other countries¹¹ has shown that early sexual intercourse is associated with a greater likelihood of risky behaviours later in life, including less probability of using contraception and protection. We can examine this directly using data from the ISSHR survey.

However, many of the knowledge, attitude and behavioural items that were assessed are strongly related statistically. This makes it difficult to examine them simultaneously without elaborate analyses and statistical models. The impact of the different factors is thus examined in groups, while controlling for the demographic factors shown in *Table 5.1* (age, education, social class, relationship status, religiosity and place of residence).

The results for two items representing sexual health knowledge are shown in *Table 5.2*. It shows small differences in contraceptive use by men and women of different levels of knowledge about fertility; this is reflected in the lack of significance for these variables. The variable examining receipt of sex education about contraception, on the other hand, shows large differences in contraceptive behaviour among both men and women. However, when we control for other factors and age in particular, this variable becomes non-significant since younger people, who are most likely to use contraception, are also the most likely to have received education about contraception (see ISSHR Sub-Report 1: 'Learning about Sex and First Sexual Experiences' for a review of data on this issue). *Table 5.2* shows that those who received sex education about contraception were more likely to use contraception at their most recent sexual intercourse. However, the close relationship between age and probability of contraceptive use mean that the relationship is statistically insignificant. *Table 5.2* also suggests that knowledge of a woman's most fertile period is not related to use of contraception at most recent intercourse. However, since knowledge of fertility is just one aspect of sexual health knowledge, this finding does not imply that behaviour is unrelated to knowledge more generally.

Table 5.2: Proportion of men and women reporting contraception use at most recent vaginal intercourse, by knowledge factors+

	Men %	N	Women %	N
Knowledge of fertility				
Accurate	71.4 ns	889	68.8 ns	1,941
Inaccurate	75.0 c	1,585	70.3 c	1,354
Receipt of sex education about contraception				
Yes	88.9 ns	890	88.1 ns	1,239
No	66.2 c	1,582	59.0 c	2,055

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group

+ Results displayed after controlling for demographic factors in *Table 5.1*

A separate set of analyses was used to test the importance of attitudinal factors while controlling for demographic factors. The results are shown in *Table 5.3*. Attitudinal factors of

interest include attitudes to condoms and the oral contraceptive pill, and sexual liberalism. Men were not asked their attitude to the pill in terms of cost, fear of weight gain or potential side-effects, as these are primarily barriers for women. Table 5.3 displays the proportion of men and women who reported using contraception, by the above attitudinal factors.

Among men, sexual liberalism is significant after controlling for demographic factors. Moderately liberal men (i.e. who considered three of the five sexual behavioural items to be never/only sometimes wrong) were significantly more likely to report using some form of contraception than men who ranked low on the liberalism scale (i.e. who considered none or only two of the behaviours to be never/only sometimes wrong).

Sexual liberalism is not significant among women, after controlling for age.

Believing that the cost of condoms would discourage use is not related to use of contraception at most recent vaginal sex, among men or women. However this factor approaches significance ($p=0.06$), which suggests that there is some affect. Analyses of use of condoms later in this chapter show that their cost is a real issue.

Women with positive attitudes to the oral contraceptive pill were more likely to use any form of contraception at most recent intercourse. However, this association is not significant once we control for other demographic factors.

Overall then, attitudes towards condoms are weakly associated with the use of any form of contraception at most recent vaginal sex, and there is some association between liberal attitudes and use of contraception among men.

Table 5.3: Proportion of men and women reporting contraception use at most recent vaginal intercourse, by attitudinal factors+

	Men %	N	Women %	N
Believes cost of condoms would discourage use				
Yes	76.9 ns	351	71.3 ns	477
No	75.7 c	1,943	74.0 c	2,323
Attitude to oral contraceptive pill				
Positive	—	—	75.9 ns	1,985
Negative	—	—	67.1 c	937
Liberalism scale				
High	78.8 ns	1,404	79.8 ns	1,681
Medium	77.2 *	479	68.8 ns	729
Low	58.4 c	488	47.5 c	707

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group

+ Results displayed after controlling for demographic factors in Table 5.1

Finally, the influence of past behaviour or experiences was examined in relation to use of contraception at most recent vaginal sex (Table 5.4). Factors of interest include: having sought advice about contraception, alcohol consumption, age at first sex, multiple partners in the last year, and, for women, experience of a crisis pregnancy.

Among men, after controlling for demographic factors, only age at first sex and having sought advice about contraception are significantly related to use of contraception. Men who reported seeking advice about contraception were almost twice as likely to report using contraception (in multi-variate analyses – not shown) as those who had not sought advice. This big difference stems largely from the fact that the intention to use contraception is far higher among men who have sought advice.

The impact of having a first sexual experience before age 17 reveals an interesting pattern among men. More men who reported this said they had used contraception at most recent intercourse, than did those who had first sex after 17. However, after we control for other variables in a multi-variate model, these men are, in fact, significantly less likely to have used contraception. This change in effect stems from the fact that men who had sex before 17 are more likely to be among the youngest cohort interviewed, but, once we adjust for age, they are less likely than men of their own age to have used contraception at last intercourse.

Among women, seeking advice about contraception is the only behavioural factor significantly related to contraception use, after controlling for demographic factors. Similarly to men, women who reported that they had sought contraceptive advice were one and a half times more likely to report use at most recent sexual encounter (multi-variate analyses not shown).

Table 5.4: Proportion of men and women reporting contraception use at most recent vaginal intercourse, by behavioural factors+

	Men %	N	Women %	N
Sought advice about contraception				
Yes	82.2**	277	77.7 **	1,891
No	73.0 c	2,177	59.4 c	1,367
Alcohol consumption				
Above recommended limit	76.5 ns	309	78.0 ns	438
Below recommended limit	73.3 c	2,168	68.1 c	2,858
Age at first sex				
Before 17 years	77.7 **	549	82.8 ns	386
After 17 years	72.5 c	1,928	67.4 c	2,910
Number of partners in last year				
1 partner	71.3 c	2,023	68.1 c	3,085
1+ partner	85.5 ns	454	89.4 ns	211
Experience of a crisis pregnancy				
Yes	—	—	74.1 ns	454
No	—	—	68.6 c	2,837

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group

+ Results displayed after controlling for demographic factors in Table 5.1

5.3 Type of contraception used at most recent vaginal intercourse

SUMMARY

The most common forms of contraception used by people who reported use at most recent intercourse were condoms and the contraceptive pill.

Patterns of usage are similar among men and women, but the type of contraceptive used varies significantly across age groups; younger people are more likely to use condoms. The proportion using the pill increases with age until age 35, at which point it decreases among both men and women.

In older age groups, the coil/IUD/Mirena and particularly sterilisation become much more common.

The type of contraception used is also strongly related to relationship status. Condoms are the dominant form used among people just beginning a relationship. As the duration and seriousness of the relationship increase, so does the proportion using the pill. Among married people, sterilisation is almost as common as use of the pill.

- *Condoms were the most frequently reported method of contraception: 57% of men and 52% of women reported using condoms on the most recent occasion of vaginal sex*
- *Around 30% of people used the contraceptive pill on the most recent occasion of intercourse.*
- *Younger respondents were more likely to use condoms: 82% of men and 74% of women under 25.*
- *Younger people in more settled relationships used the contraceptive pill more often.*

PEOPLE who said they had used contraception or taken precautions on their most recent occasion of vaginal intercourse were asked to indicate which method they had used. Table 5.5 displays the various methods reported for men and women, across age groups.

Participants could indicate using more than one method in combination; the proportions using various methods thus add up to more than 100%; 7% of men and 11% of women reported using more than one method at most recent intercourse.

Table 5.5 shows that a similar pattern of contraceptive use among men and women. Most reported condom use, followed by the contraceptive pill, sterilisation (vasectomy/tubal ligation) and the coil/IUD/Mirena.

Like previous research (e.g. ICCP), and given the small numbers of participants reporting use of contraceptives other than condoms and the pill, this report focuses on use of these two methods. For clarity and ease of comparison with other national studies, they were considered separately.

Before a detailed analysis of pill and condom use, reasons for not using contraception at most recent vaginal intercourse were examined.

Table 5.5: Type of contraception and precautions (as a proportion of people reporting contraceptive use) on most recent occasion of vaginal intercourse

	Age					
	18-24 %	25-34 %	35-44 %	45-54 %	55-64 %	All %
Men						
Condom/male-female sheath	82.1	59.0	44.1	40.1	38.0	57.0
Contraceptive pill	30.1	35.9	29.1	13.6	23.2	28.5
Coil/IUD/Mirena	0.2	3.5	5.5	4.7	2.9	3.3
Cap/diaphragm	0.0	0.0	0.1	0.4	0.4	0.1
Spermicides (gels/sprays/pessaries)	0.2	0.0	0.1	0.0	0.0	0.1
Persona	0.0	0.0	0.0	0.0	0.0	0.0
Safe period/rhythm/Billings	0.2	1.0	3.8	6.7	1.4	2.4
Withdrawal	0.5	2.9	3.1	3.4	6.4	2.6
Injections/implants/patches/ring	2.2	1.0	0.9	0.8	1.9	1.3
Sterilisation	0.0	2.4	14.3	31.5	25.3	10.6
Emergency contraception	0.3	0.4	0.5	0.0	0.0	0.3
<i>N</i>	551	522	405	275	97	1,850
Women						
Condom/male-female sheath	73.7	49.6	39.7	40.5	44.5	52.1
Contraceptive pill	45.7	42.1	20.8	10.1	31.2	32.4
Coil/IUD/Mirena	0.4	8.1	12.7	9.4	1.5	7.3
Cap/diaphragm	0.0	0.1	0.0	0.7	0.0	0.1
Spermicides (gels/sprays/pessaries)	0.2	0.1	0.0	0.0	0.0	0.1
Persona	0.1	0.6	0.3	0.0	0.0	0.1
Safe period/rhythm/Billings	0.2	1.1	5.1	6.5	7.2	2.9
Withdrawal	0.4	2.1	3.2	7.8	5.3	2.8
Injections/implants/patches/ring	3.1	2.7	1.6	0.7	0.0	2.2
Sterilisation	0.0	4.6	18.8	25.3	14.1	10.5
Emergency contraception	0.2	0.2	0.2	0.0	0.0	0.2
<i>N</i>	662	686	624	295	54	2,321

5.4 Reasons for not using contraception on most recent occasion of vaginal intercourse

SUMMARY

People in the ISSHR survey who did not use contraception were asked why not. The most common reason cited overall was being post-menopausal. While most common among women in the oldest age group, this was cited by a significant proportion of women in younger age groups, even though evidence suggests that only a small proportion of under-45s are post-menopausal.

The most commonly cited reasons among younger age groups were: sex 'not planned', 'no contraception available', or they 'did not think to use' contraception.

Drinking alcohol/taking drugs was quoted as a contributory cause and was the most important factor among men aged 18 to 24.

- Over 22% of women aged 35 to 44 who risked becoming pregnant reported not using contraception because they believed they were post-menopausal.
- Not being prepared for sex or not thinking to use contraception were the most reasons cited by all age groups (11% of men and 9% of women).
- Not being prepared for sex, no contraception was available and 'not thinking to use' contraception were most commonly reported by respondents under 25: 47% of men and 53% of women under 25.
- Drinking alcohol/taking drugs was cited as a contributory cause by 24% of men and 14% of women under 25.

PARTICIPANTS who had not used any method of contraception nor used precautions on the most recent occasion of sexual intercourse, but who were (or whose partner was) not pregnant or trying to become pregnant, not infertile or had not had a hysterectomy, were asked to indicate why they had not used contraception. An open-ended question was used. People could list as many reasons as they felt necessary. These responses were coded and are presented separately for men and women in Tables 5.6 and 5.7.

The most commonly cited reason for non-use by men and women was 'post-menopausal/unlikely to conceive': 50% and 58% respectively. The greatest proportion of participants reporting this reason were those aged 55-64. Many men and women aged 45-54 also gave this reason (53.9% and 63.8% respectively), as did almost 5.9% of men and 22.2% of women aged 35-44.

While a small number of women will enter menopause by their 40s, they clearly do not amount to one in four or one in five. The finding suggests that a substantial minority of women may be taking risks with conception in the false belief that they are no longer fertile. Similar results were reported in the ICCP study.¹

The next most commonly cited reasons among both men and women included 'didn't mind if I/she became pregnant', 'didn't think to use' and 'sex was not planned'.

Table 5.6: Reasons given by men for not using contraception at most recent vaginal intercourse (%)

	Age					
	18-24	25-34	35-44	45-54	55-64	All
Sex not planned/ unexpected	17.2	7.4	4.1	6.3	2.9	5.0
Drinking alcohol/ taking drugs	24.3	0.0	9.7	1.4	1.6	3.9
Couldn't be bothered	0.0	1.7	0.5	0.6	0.0	.03
Didn't think to use	15.3	10.5	7.9	7.0	2.1	5.6
Took a chance/got carried away	0.0	10.8	2.1	0.0	0.0	1.2
Young/naïve/stupid/ careless	3.1	0.0	0.0	0.0	0.09	0.0
No contraception available	14.5	3.4	5.1	1.5	2.0	3.1
Don't like/allergic to contraception	0.0	4.2	4.0	1.6	0.8	1.7
Against beliefs/religion	0.0	2.7	1.3	0.0	0.2	0.5
Thought partner was using contraception	0.0	1.4	0.0	0.0	1.0	0.5
Not my responsibility	0.0	0.0	1.3	0.0	0.0	0.2
Forgot contraception	3.4	6.6	0.0	0.0	0.0	0.7
Too difficult to discuss contraception	0.0	0.0	0.0	0.0	0.0	0.0
Didn't understand risks	0.0	0.0	0.0	0.0	0.0	0.0
Didn't mind if partner became pregnant	0.8	5.9	22.2	6.5	4.1	7.6
Post-menopausal/unlikely to conceive	2.5	1.6	5.9	53.9	76.3	50.0
Can't remember	18.6	14.8	11.4	4.5	2.3	6.1
<i>N</i>	33	45	79	166	297	620

However, a more detailed examination of reasons cited across the age groups reveals interesting differences. For example:

- Lack of concern about the risk of pregnancy was greatest among men aged 35-44 (22.2%) and women aged 25-34 (18.5%).
- In contrast, less than 1% of men and women in the youngest age group reported that they did not mind if they or their partner became pregnant.

Among both men and women, 'didn't think to use' was most frequently cited by younger participants and decreased with age. This may be related to the higher proportion of younger participants indicating that they had failed to use contraception as they had been drinking alcohol or taking drugs. Almost a quarter of men under 25 years cited this, as did almost 14% of women aged 18-24. The above findings are consistent with the ICCP study.¹

It is remarkable that, among both men and women, the significance of alcohol/drug use as a barrier to contraceptive use drops sharply between the youngest age group (18-24) and the next (25-34). The figures for the youngest group involve a small proportion of the overall population of the youngest group, who are the highest users of contraception. Nonetheless, they highlight the role of alcohol/drugs among those younger people who took sexual risks (both pregnancy and STIs) in their last sexual encounter.

Such age effects were also observed in relation to 'sex not planned/unexpected'; more young men and women indicated this as a reason for not using contraception than did older people.

These findings indicate the importance of situational or contextual factors (lack of planning/being unprepared and alcohol/drugs) among younger people who do not use protection or contraception.

Table 5.7: Reasons given by women for not using contraception at most recent vaginal intercourse (%)

	Age					
	18-24	25-34	35-44	45-54	55-64	All
Sex not planned/unexpected	14.8	13.3	9.4	3.0	1.2	4.2
Drinking alcohol/taking drugs	13.8	2.8	0.0	0.8	0.2	1.0
Couldn't be bothered	0.0	0.0	0.0	0.7	0.0	0.2
Didn't think to use	15.1	13.6	6.1	5.0	2.4	4.9
Took a chance/got carried away	0.0	3.8	6.2	0.0	0.1	1.2
Young/naïve/stupid/careless	6.5	0.0	0.0	0.4	0.0	0.4
No contraception available	22.6	6.2	3.4	1.6	0.0	2.2
Don't like/allergic to contraception	11.9	3.1	0.3	1.7	0.3	1.3
Against beliefs/religion	0.0	1.1	1.5	0.6	2.6	1.6
Thought partner was using contraception	0.0	0.0	0.0	0.0	0.0	0.0
Not my responsibility	0.0	0.0	0.0	0.0	0.0	0.0
Forgot contraception	5.6	1.9	0.0	0.0	0.0	0.3
Too difficult to discuss contraception	0.0	0.0	0.0	0.0	0.0	0.0
Didn't understand risks	0.0	3.7	0.0	0.3	0.0	0.3
Didn't mind if became pregnant	0.0	18.5	14.7	5.9	5.4	7.6
Post-menopausal/unlikely to conceive	0.0	0.8	22.2	63.8	78.7	58.0
Can't remember	14.1	16.1	5.9	3.3	0.8	3.7
<i>N</i>	32	70	140	288	435	965

5.5 Use of the oral contraceptive pill on most recent occasion of vaginal sex

SUMMARY

Around a third of ISSHR respondents reported that they or their partner used the oral contraceptive pill (OCP) on the most recent occasion of vaginal sex. Younger age groups and those in steady or cohabiting relationships were most likely to use it.

Married respondents were less likely to use the OCP than cohabitees or people in a steady relationship, while men not in a relationship were least likely to report its use by their last partner.

Among women, positive attitudes to the OCP or having sought advice about contraception are both strongly related to use.

Having experienced a crisis pregnancy, on the other hand, is negatively related to OCP use.

- *29% of men and 32% of women said they or their partner had used the oral contraceptive pill on their most recent occasion of vaginal intercourse.*
- *The pill was most likely to be used by young women in steady or cohabiting relationships.*
- *Women concerned about the side-effects and cost of the pill were much less likely to use it.*
- *Women who used methods other than the pill were more likely to report a previous crisis pregnancy.*

IN line with previous research, use of the oral contraceptive pill (OCP) at most recent vaginal sex is examined according to important demographic factors. As in previous analyses in this chapter, the influence of knowledge, attitudes and previous behaviour or experiences is investigated. As before, the groups of factors are examined in separate models, while controlling for the basic demographic factors. The influence of these basic factors was examined first.

Table 5.8 shows the proportion of men and women who reported using the OCP at most recent vaginal intercourse, by a number of factors.

Among men, a higher proportion of younger participants reported that their partner used the pill on the most recent occasion than of the two oldest age groups, although only the difference between the oldest and youngest age groups is significant.

There is also some variation across education groups in use of the OCP by the men's partners; partners of men with less education are less likely to use the OCP. This difference is not large, however, and once we control for the man's age these differences are not significant.

Men from the higher professional class are significantly less likely to report that their partners had used the OCP, than men from the unskilled/semi-skilled class. No other significant differences were observed across social class groups.

In contrast, relationship status is strongly related to OCP use. Men who were not in a relationship were least likely to report that their most recent sexual partner was using the pill, followed by men in casual relationships. This stems from the fact that these men were more likely to be younger and their partnerships relatively short. As section 5.3 showed, they were more likely to have used a condom. Men in cohabiting or steady relationships are over twice as likely to report that their partner used the pill as married men. Again, as shown by section 5.3, use of the pill increases as the length of the relationship increases, but once married, couples, and particularly older couples, are more likely to move to other forms of contraception such as the coil/IUD or sterilisation.

The results for women are very similar to those for men. Younger women were significantly more likely to report using the OCP than older women, and particularly those aged 45 to 54. As among men, it is interesting to note that use of the OCP is higher among those aged 55 to 64 than among those aged 45 to 54.

Differences by educational level are pronounced among women, but the close association between age and education means that these differences are not significant once we control for age and other factors. As found for men, married women are less likely than those who are cohabiting or in a steady relationship to use OCP (and for the same reason), although it is interesting to note that women not in a relationship have (non-significant) higher rates of usage.

As in previous sections a range of other items were added to the analyses in blocks to test the relationship between use of OCP and attitude, knowledge and behavioural factors.

The results for the addition of two knowledge-related items (knowledge of fertility and receipt of sexual education about contraception) to the basic demographic analyses in *Table 5.8* are shown in *Table 5.9*.

Among men, *Table 5.9* shows that those with accurate knowledge of fertility have partners who are less likely to use the OCP. However, once we control for age and relationship status, this group are significantly more likely to use the pill than those with inaccurate knowledge. As found with the age of first sex in section 5.2, once we control for age group, men with accurate knowledge of a woman's fertility cycle are more likely to have a partner who uses the OCP.

Table 5.8 Proportion of men and women reporting use of the oral contraceptive pill at most recent vaginal intercourse, by demographic factors

	Men		Women	
	%	N	%	N
All	28.5	1,850	32.4	2,321
Age group				
18-24	30.1 c	551	45.7c	662
25-34	35.9ns	522	42.1 ns	686
35-44	29.1ns	405	20.8***	624
45-54	13.6***	275	10.1 ***	295
55-64	23.2 ns	97	31.2 ns	54
Education level (highest attained)				
Primary	26.7 c	100	16.1 ns	66
Lower secondary	27.9 ns	282	28.5 ns	304
Upper secondary	27.8 ns	714	32.6 ns	1,005
Third level	31.2 ns	754	37.8 c	946
Social class				
Higher professional	24.5*	488	40.1 ns	391
Lower professional	26.5 ns	411	34.1 ns	600
Administrative/clerical	26.8 ns	234	28.5 ns	542
Skilled manual	32.3 ns	351	37.0 ns	175
Semi/unskilled manual	31.2 c	278	31.2 c	446
Relationship status				
Not in a relationship	14.6***	511	29.4 ns	527
Married	24.9c	683	22.7 c	1,064
Cohabiting	53.5***	174	43.2 ns	188
Steady relationship	52.2***	305	53.8 ***	435
Casual relationship	26.7ns	177	32.0 ns	107
Place of residence				
Urban	27.6 ns	1,124	33.2 ns	1,287
Rural	29.7 c	726	31.3 c	1,032
Religiosity				
Not at all religious	31.4 ns	528	37.3c	473
A little religious	27.2 ns	720	33.5 ns	971
Quite religious	29.2 ns	453	31.5ns	664
Extremely/very religious	22.9 c	147	18.2 **	210

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

Table 5.9 shows that a woman's knowledge of the most fertile period does not help predict her use of OCP. Nor is receipt of sexual education significantly related to use of the pill, for men or women.

Attitude items included in the analysis include degree of sexual liberalism and attitudes to the oral contraceptive pill. Attitudes to the pill were examined among women only (the necessary questions were not asked of men). The male model includes only the variables for demographics (as in Table 5.8), plus the liberalism scale. Results for this analysis are shown in Table 5.10.

Table 5.9: Proportion of men and women reporting use of the oral contraceptive pill at most recent vaginal intercourse, by knowledge+

	Men %	N	Women %	N
Knowledge of fertility				
Accurate	26.6 *	637	31.1 ns	1,341
Inaccurate	29.3 c	1,213	34.0 c	979
Received sexual education about contraception				
Yes	31.8 ns	799	38.4 ns	1,090
No	26.2 c	1,046	27.4 c	1,229

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group

+ Results displayed after controlling for demographic factors in Table 5.8

Table 5.10 shows that degree of sexual liberalism is unrelated to patterns of OCP use for men or women. A woman's attitudes about the OCP, on the other hand, are significantly related to use. Women with positive attitudes to the pill are three times more likely to report using it, after controlling for other factors (multi-variate analyses not shown). Our measure of a woman's attitudes to OCP is made up of responses to three separate attitude questions. Examining separately the individual attitude items to the oral contraceptive pill revealed interesting results. All three attitude items remain independently significant after controlling for demographic factors and sexual liberalism. In relation to the cost of the pill, women who said they would not be discouraged by cost were almost three times more likely to report using it (39.7% versus 20.1%) ($p<0.001$). Similarly, women who indicated they would not be discouraged by its potential side-effects were almost four times more likely to report using it (50.0% versus 20.4%) ($p<0.001$). Those who said potential weight gain would not discourage use were also more likely to report use (34.4% versus 29.2%). The size of the difference, however, is less than for the other two items (multi-variate analyses not shown).

Table 5.10: Proportion of men and women reporting use of the oral contraceptive pill at most recent vaginal intercourse, by attitudinal factors+

	Men %	N	Women %	N
Attitude to oral contraceptive pill				
Positive	—	—	40.7 ***	1,518
Negative	—	—	19.4 c	641
Liberalism scale				
High	31.6 ns	1,125	34.0 ns	1,359
Medium	26.6 ns	361	31.3 ns	505
Low	23.1 c	286	27.5 c	346

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group

+ Results displayed after controlling for demographic factors in Table 5.8

The final analysis of use of the pill tested behavioural or experiential factors while controlling for demographic factors. The results are displayed in Table 5.11.

Table 5.11 Proportion of men and women reporting use of the oral contraceptive pill at most recent vaginal intercourse, by behavioural factors+

	Men %	N	Women %	N
Sought advice about contraception				
Yes	25.0 ns	223	35.4 *	1,472
No	29.0 c	1,615	27.4 c	831
Alcohol consumption				
Above recommended limit	29.6 ns	237	38.5 ns	350
Below recommended limit	28.3 c	1,613	31.3 c	1,971
Number of partners in last year				
1 partner	29.8 c	1,448	32.1 c	2,129
2+ partners	23.1 ns	402	35.2 ns	192
Age at first sex				
Before 17 years	34.0 ns	440	37.7 ns	330
After 17 years	26.6 c	1,410	31.4 c	1,991
Experience of a crisis pregnancy				
Yes	—	—	25.1 ***	329
No	—	—	33.7 c	1,989

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group

+ Results displayed after controlling for demographic factors in Table 5.8

Behaviours or experiences analysed include alcohol consumption, number of sexual partners in the last year, age at first sex and having sought advice about contraception. Experience of a crisis pregnancy was examined in relation to women's use of the pill at most recent vaginal intercourse.

Findings among the men showed that, after controlling for demographic factors, none of the behavioural factors is significantly related to OCP use.

Among women, however, factors found to be significantly related after controlling for demographic factors included having sought advice about contraception and having experienced a previous crisis pregnancy. Women who had sought contraceptive advice were significantly more likely to report using the pill. In contrast, women who had had a previous crisis pregnancy were significantly less likely to report use.

5.6 Condom use in the last year

SUMMARY

This section examines the consistency of condom use in the last year. Over half of those who had vaginal intercourse (56%) said they had never used a condom in the last year, 25% always used one and 20% sometimes used one.

Men were significantly more likely than women to report always using a condom (28% versus 23%).

Younger men and women and people in casual relationships are more likely than those in steady or cohabiting relationships to use condoms. Married people are least likely to do so.

Although level of sexual knowledge and the perceived risk of infection do not influence the consistency of condom use, perceiving the cost of condoms as an issue is related to less consistency of use among both men and women.

Individuals who began having vaginal sex before age 17 are less likely to have consistently used condoms in the last year, as are men who have been diagnosed with an STI and women who have experienced a crisis pregnancy.

Condom use among those who had engaged in anal sex in the last year was no more consistent than among those engaging in vaginal sex alone.

- *Men were more likely than women to report consistently using condoms in the last year.*
- *Younger respondents were more likely to consistently use condoms in the last year.*
- *Men and women in less formalised relationships were more likely to use condoms than those who were married or cohabiting.*
- *The cost of condoms was a significant predictor of inconsistent use.*
- *Women who had experienced a crisis pregnancy were significantly more likely to be inconsistent condom users.*
- *Having experienced sex education on STIs and safe sex is associated with a significant increase in consistency of condom use.*
- *Having experienced sex before 17 is associated with a greater likelihood of inconsistent use.*

THIS section investigated to what extent participants used condoms consistently in the last year.

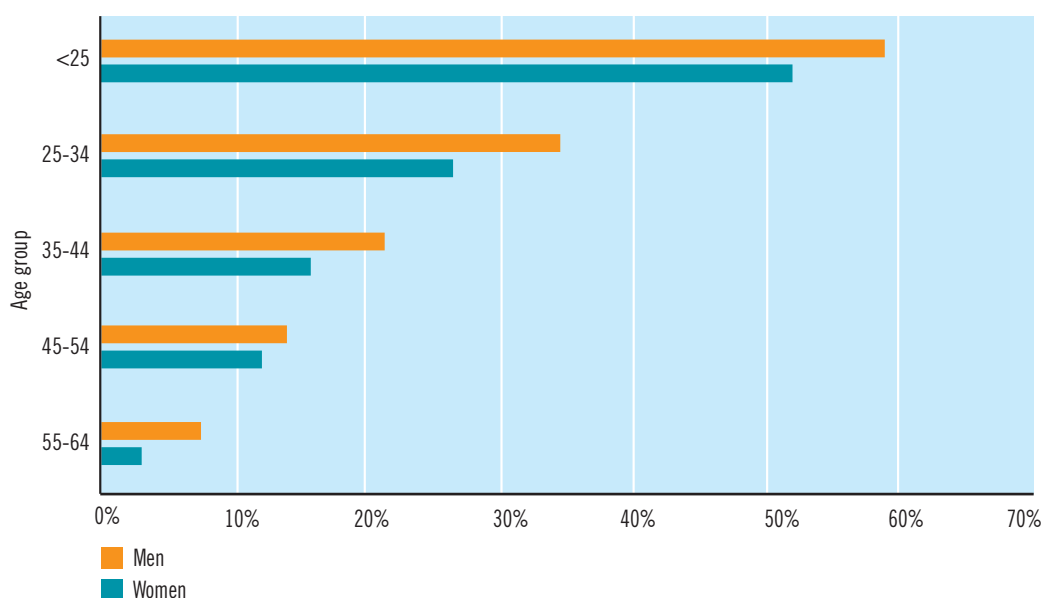
Of those who reported heterosexual intercourse in the last year (N=7017), 86.5% reported vaginal intercourse and 4.9% reported anal intercourse. However, 99% of those who engaged in anal sex also reported vaginal intercourse during the same period.

In relation to homosexual intercourse in the last year, only 31 men reported anal intercourse, 71.2% of whom said they always using condoms. Almost 17% indicated that they never used condoms and 12% reported using condoms sometimes. Due to the small number of men reporting homosexual anal intercourse, further analysis is confined to condom use among people who reported heterosexual intercourse in the last year. Analysis of condom use was conducted separately for those who engaged in vaginal intercourse only and those who engaged in both vaginal and anal intercourse.

5.6.1 Condom use by people who reported vaginal intercourse in the last year

OF participants who reported heterosexual intercourse in the last year, 85.9% reported engaging in vaginal intercourse only (i.e. they did not engage in anal sex) (n=5,832).

Figure 5.2: Proportion of men and women who reported always using a condom during vaginal intercourse in the last year, by age group



This section examines the frequency of condom use in the last year among people who engaged in vaginal intercourse.

Over half of those who had vaginal intercourse (55.5%) said they had never used a condom (55.5%) in the last year, 25.1% always used one and 19.5% sometimes used one.

Men were significantly more likely than women to report always using condoms (27.5% versus 22.6%; $p < 0.001$).

Large variations in condom use were observed across age groups for both men and women.

Figure 5.2 displays the proportion of men and women who reported always using a condom, by age group. It shows that the proportion of men and women reporting condom use decreases with rising age. For example:

- 58.5% of men under 25 reported consistent condom use, compared to 34.3% and 21.1% of men aged 25-34 and 35-44 respectively
- less than 15% of men aged 45-54 and 7.5% of men aged 54-64 reported consistent use

Similar trends are found among women:

- 51.7% of women under 25 reported consistent condom use
- among 25-34 year-olds 26.4% reported consistent use, after which the proportion steadily declined, from 15.5% among 35-44 years-olds to 12.3% among 45-54 year-olds and 3% among those aged 55-64

These age effects for both men and women remained after controlling for the influence of other demographic factors, as displayed in Table 5.12. Among men, consistent condom use declined with age. Younger men were most likely to report consistent use in the last year and men aged 55-64 were least likely.

Among men, level of education, social class, place of residence and religiosity all failed to remain significant after controlling for other demographic factors. In contrast, relationship status remained significant. Relative to married men, those in casual relationships or not in a relationship were most likely to report consistent condom use in the last year. For example:

- men who were not in a relationship were almost six times more likely than married men to always use a condom
- men in a casual relationship were five times more likely to report consistent use than married men

Men in steady relationships were also significantly more likely to always use a condom than married men.

The higher consistency of condom use among men in casual relationships, compared to the married or cohabiting, is a good indication that such individuals are aware of the greater risks of STIs that they face, although this consistency is also related, to some degree, to the fact that condom use is more common anyway in relationships of a short duration. It is interesting, however, that less than half of men in casual relationships reported consistently using a condom.

Similar patterns are found among women. Age effects remained strong after controlling for other factors. Using the youngest age group as a comparison, all other age groups are significantly less likely to always use a condom during vaginal intercourse.

As among men, women who were not in a relationship or were in casual relationships are significantly more likely to report consistent condom use than married women. Relative to married women, those not in a relationship are six times more likely to report consistent use and those in a casual relationship three times more likely. Women in a steady relationship are also significantly more likely to report consistent use than married women, though not to the same extent.

As with men, social class, religiosity and place of residence are unrelated to consistent condom use after controlling for other factors. Unlike among men, level of education does seem to play a role. Compared to women with third-level qualifications, all other groups are less likely to consistently use condoms, and women with lower secondary education significantly so.

Four items measuring sexual health knowledge (knowledge of fertility, knowledge of Chlamydia, knowledge of HIV and receipt of sex education about safe sex and STIs) were added to the basic demographic analyses shown in *Table 5.12*. The results are shown in *Table 5.13*. After controlling for the demographic variables, none of the four knowledge related items is significantly related to consistent condom use in the past year among men or women.

Table 5.12: Proportion of men and women who always used a condom during vaginal intercourse in the last year, by demographic factors (as a proportion of those who engaged in vaginal intercourse only)

	Men %	N	Women %	N
All	27.5	2,480	22.6	3,339
Age group				
18-24	58.5 c	529	51.7 c	634
25-34	34.3*	567	26.4***	808
35-44	21.1***	546	15.5***	882
45-54	14.0***	466	12.3***	605
55-64	7.5***	372	3.0***	410
Education level (highest attained)				
Primary	17.4 ns	197	8.5 ns	206
Lower secondary	23.5ns	436	13.2 *	511
Upper secondary	31.6 ns	914	26.4 ns	1,423
Third level	31.3 c	933	30.0 c	1,199
Social class				
Higher professional	30.4 ns	628	29.3 ns	494
Lower professional	28.1 ns	568	20.8 ns	877
Administrative/clerical	27.9 ns	335	22.3 ns	807
Skilled manual	22.4 ns	476	34.9 ns	231
Semi/unskilled manual	26.5 c	378	18.2 c	484
Relationship status				
Not in a relationship	61.9 ***	444	58.1***	389
Married	12.4 c	1,353	11.2 c	2,146
Cohabiting	24.7 ns	190	24.0 ns	234
Steady relationship	36.7 **	317	34.1 **	456
Casual relationship	48.8***	176	46.3***	114
Place of residence				
Urban	27.8ns	1,497	23.0 ns	1,829
Rural	27.1 c	982	22.1 c	1,507
Religiosity				
Not at all religious	33.4 ns	641	31.6 ns	567
A little religious	27.3 ns	962	24.0 ns	1,317
Quite religious	23.2 ns	670	17.6 ns	1,077
Extremely/very religious	24.5 c	203	17.3 c	375

Significance key: n.s.=not significant; = $P<0.05$; *= $P<0.01$; ***= $P<0.001$

c=Reference group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

The inclusion of attitude items to the basic demographic model is displayed in *Table 5.14*. Attitude items tested include: attitude to the cost of condoms, sexual liberalism and perceived risk of HIV infection. After controlling for demographic factors, sexual liberalism and perceived risk of HIV infection are not significantly related to either men's or women's condom use in the last year.

Table 5.13: Proportion of men and women who always used a condom during vaginal intercourse in the last year, by knowledge factors (as a proportion of those who engaged exclusively in vaginal intercourse)+

	Men %	N	Women %	N
Knowledge of fertility				
Accurate	22.2 ns	912	20.2 ns	2,047
Inaccurate/don't know	30.1 c	1,565	26.4 c	1,291
Knowledge of Chlamydia				
Good knowledge	31.4 ns	1,019	25.6 ns	2,176
Limited knowledge	29.6 c	446	19.1 c	414
Knowledge of HIV				
Good knowledge	27.6 ns	2,313	23.4 ns	3,095
Limited knowledge	25.8 c	157	14.5 c	230
Received sex education on safe sex and STIs				
Yes	44.1 ns	765	36.6 ns	1,056
No	21.0 c	1,713	16.6 c	2,280

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group

+ Results displayed after controlling for demographic factors in *Table 5.12*

However, believing that the cost of condoms would discourage use is significantly related. Men and women endorsing this view were significantly less likely to report consistent use in the last year. This is an important finding, since consistent condom use is an important dimension of safer sexual practices. If the expense of buying condoms leads to less use, this should be a serious concern for policymakers.

The inclusion of past behaviours or experiences revealed interesting results. The proportion of men and women reporting consistent condom use according to various behavioural and experiential factors is displayed in *Table 5.15*.

Among men, when controlling for other factors, age at first sex and diagnosis with an STI are significantly related to consistent condom use.

Table 5.14: Proportions of men and women who always used a condom during vaginal intercourse in the last year, by attitudinal factors (as a proportion of those who engaged exclusively in vaginal intercourse)+

	Men %	N	Women %	N
Perceived risk of HIV infection				
High perceived risk	51.1 ns	130	39.9 ns	138
Low perceived risk	26.1 c	2,341	21.9 c	3,195
Cost of condoms discourages use				
Yes	27.0 *	352	22.4*	475
No	30.0 c	1,934	26.5 c	2,363
Liberalism scale				
Low	19.1 c	480	14.0 c	731
Medium	29.6 ns	499	21.2 ns	739
High	30.5 ns	1,393	27.5 ns	1,700

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group

+ Results displayed after controlling for demographic factors in Table 5.12

Although Table 5.15 shows that a higher proportion of men and women who reported first sexual experience before 17 consistently use condoms, once we control for age, this effect is reversed and this group are significantly less likely than those who first had vaginal sex after 17 to consistently use condoms.

Men who reported a previous STI are also significantly less likely to report that they always used a condom in the last year.

Table 5.15: Proportions of men and women who always used a condom during vaginal intercourse in the last year, by behavioural factors (as a proportion of those who engaged exclusively in vaginal intercourse)+

	Men %	N	Women %	N
Age at first sex				
Before 17 years	28.0 ***	529	25.5**	387
After 17 years	27.3 c	1,951	22.2 c	2,952
Number of partners in last year				
1 partner	23.0 c	2,071	21.1 c	3,150
2+ partners	51.0 ns	409	47.4 ns	189
Alcohol consumption				
Above recommended limit	29.9 ns	304	29.3 ns	430
Below recommended limit	27.1 c	2,176	21.6 c	2,909
Experience of a crisis pregnancy				
Yes	—	—	17.0*	453
No	—	—	23.6 c	2,880
Previous STI diagnosis				
Yes	20.8 *	71	25.0 ns	64
No	27.7 c	2,404	22.6 c	3,269
Previous HIV test				
Yes	26.4 ns	196	20.8*	276
No	27.5 c	2,274	22.8 c	3,053

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group

+ Results displayed after controlling for demographic factors in Table 5.12

Unlike men, women who reported an HIV test are significantly less likely to report consistent condom use than those who did not. This result is a concern since it is likely that women who had taken a test for HIV did so because they felt they had been exposed to the virus. Such women might be expected to use condoms consistently. The results suggest they do not.

Table 5.15 also shows that women who reported a crisis pregnancy in the past are also less likely to use condoms consistently. We saw earlier in this chapter that past crisis pregnancy is also linked to less likelihood of using any form of contraception. This result for condom use is one dimension of this.

5.6.2 Condom use among those who reported anal sex in the last year

THIS section examines the frequency of condom use in the last year, among those who engaged in heterosexual anal intercourse.

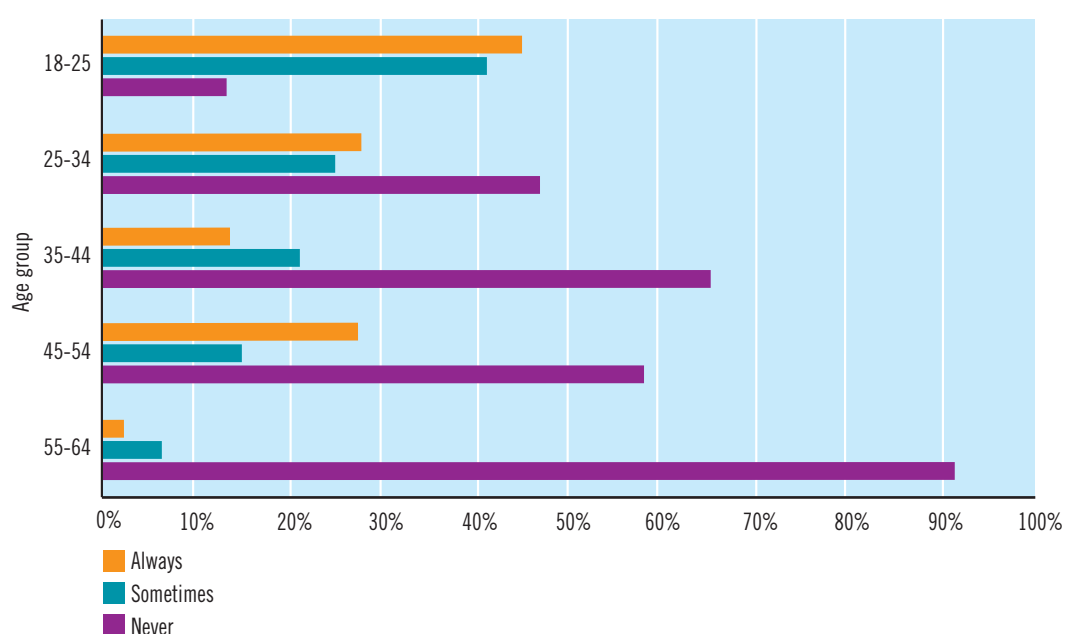
Of participants who reported heterosexual intercourse in the last year, 4.9% reported engaging in anal intercourse (n=343). Men were almost twice as likely to do so (6.2% versus 3.6% - $p<0.001$). As already mentioned, 99% of these participants also engaged in vaginal intercourse. This group was not included in the previous analysis of condom use.

- Less than half of those who had anal intercourse indicated that they never used a condom (42.4%) in the last year, 29.7% always used one and 27.9% sometimes used one.

These proportions are similar to those for people who engaged in vaginal intercourse only. Given the inherently higher risks of infection associated with anal sex, this could be a concern, particularly as analyses (not shown) show that those having anal sex are likely to be younger and in casual relationships.

Among this group, there are no significant gender differences in relation to always using a condom ($p=0.34$). Analysis of condom use was not conducted separately for men and women since small numbers reported anal sex in the last year. Splitting the sample would reduce the cell size significantly, thus unacceptably increasing confidence intervals in any results. In any case, men and women who engaged in heterosexual anal sex did not differ significantly in their consistent use of condoms in the last year.

Figure 5.3: Proportion of participants who reported consistent condom use in the last year, by age group (as a proportion of those who engaged in anal sex in the last year)



There was great variation in consistent condom use across age groups, as displayed in *Figure 5.3*.

- A greater proportion of participants under 25 reported consistent condom use (45.2%), followed by those aged 25-34 and 45-54.
- The smallest proportion reporting consistent use was among those aged 55-64 (2.4%).

Age remained significantly related to consistent condom use after controlling for the influence of other demographic factors, as displayed in *Table 5.16*.

Relative to older participants aged 55-64, the youngest age groups (18-24 and 25-34) were most likely to report consistent use. Those aged 45-54 were also significantly more likely to report consistent use. There are no significant differences between those aged 35-44 and those aged 55-64.

Education is not related to consistent condom use after controlling for other demographic factors, although patterns suggest more consistent use among better educated groups.

Social class is marginally significant. Participants from the lower professional class were significantly more likely to report consistent use than those in the semi/unskilled manual classes. No other significant findings emerged in relation to social class.

Relationship status and place of residence are not related to consistent use. However, religiosity *is* related. Compared with 'not at all religious' people, all other categories were significantly more likely to report consistent use.

Again, we tested for the influence of other knowledge, attitude and behavioural factors, using separate analyses for the different groups of factors. *Table 5.16* shows the results for the items measuring sexual knowledge (knowledge of Chlamydia and HIV/AIDS and having received education on safe sex and STIs).

Table 5.16: Proportion of men and women who always used a condom in the last year, by demographic factors (as a proportion of those reporting anal intercourse)

	Always used %	N
All	29.7	342
Age group		
18-24	45.2 c	117
25-34	28.0 ns	112
35-44	13.6**	61
45-54	27.1 ns	37
55-64	2.4 **	15
Education level (highest attained)		
Primary	20.7 ns	10
Lower secondary	19.4 ns	43
Upper secondary	33.2 ns	155
Third level	33.3 c	134
Social class		
Higher professional	35.4 ns	90
Lower professional	35.1 **	78
Administrative/clerical	30.4 ns	47
Skilled manual	30.8 ns	49
Semi/unskilled manual	17.0 c	58
Relationship status		
Not in a relationship	51.4 ns	67
Married	17.2 c	128
Cohabiting	21.5 ns	48
Steady relationship	37.5 ns	65
Casual relationship	29.9 ns	34
Place of residence		
Urban	28.1 ns	212
Rural	32.9 c	130
Religiosity		
Not at all religious	21.7 c	102
A little religious	33.5**	130
Quite religious	29.1*	86
Extremely/very religious	45.2*	24

Significance key: n.s.=not significant; *= $P<0.05$; **= $P<0.01$; ***= $P<0.001$

c=Reference group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

Table 5.17 shows that good knowledge of neither Chlamydia nor HIV/AIDS is associated with a significant difference in use of a condom during anal sex.

On the other hand, having received sex education on STIs and safe sex is associated. Whereas 29% of people who had not received this sex education consistently used condoms in the last year, this was true of 41% of those who had. These relationships are significant even controlling for the socio-demographic factors analysed in Table 5.16.

Table 5.17: Proportion of men and women who always used a condom during vaginal intercourse in the last year, by knowledge factors (as a proportion of those reporting anal intercourse)

	Always used %	N
Knowledge of Chlamydia		
Good knowledge	30.0ns	204
Limited knowledge	28.4c	44
Knowledge of HIV/AIDS		
Good knowledge	28.3ns	324
Limited knowledge	53.9c	18
Received sex education about safe sex and STIs		
Yes	40.7*	156
No	20.8c	186

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group

+ Results displayed after controlling for demographic factors in Table 5.15

Table 5.18 gives the results for the analyses of the ISSHR items relating to sexual beliefs and attitudes: perceived risk of HIV infection, belief about the cost of condoms discouraging condom use, and level of sexual liberalism. The small number of respondents (who had had anal sex in the last year) who believed they had a high risk of HIV infection (=3) meant that this variable could not be tested in a multi-variate model. However, the small number of people reporting that they were at high risk shows that almost all respondents view their behaviour as relatively benign.

Table 5.18: Consistent condom use (as a proportion of those reporting anal intercourse) in the last year, by attitude

	Always used %	N
Perceived risk of HIV infection		
High perceived risk	12.7	3
Low perceived risk	29.9	339
Cost of condoms discourages use		
Yes	13.3**	61
No	35.5c	260
Sexual liberalism scale		
Low	27.9c	91
High	31.0ns	234

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group

+ Results displayed after controlling for demographic factors in Table 5.15

People who reported that the cost of condoms would discourage them from using them were significantly less likely to use them than those who did not agree. The differential between these groups is substantial (13.3% v 36%). This is further evidence that the cost of condoms may lessen the use of protection during sex, particularly by lower-income groups.

Lastly, we found no significant relationship between a person having highly liberal sexual attitudes and use of condoms during anal sex.

Table 5.19 Consistent condom use (as a proportion of those reporting anal intercourse) in the last year, by behavioural factors

	Always used %	N
Age at first sex		
After 17 years	29.5c	238
Before 17 years	30.1n.s	104
Number of partners in last year		
1 partner	23.0c	249
2+ partners	49.4 n.s	93
Alcohol consumption		
Below recommended limit	30.3c	275
Above recommended limit	27.7 n.s	67
Experience of a crisis pregnancy#		
No	17.7	55
Yes	27.4	28
Previous STI diagnosis		
No	30.2c	321
Yes	22.4 n.s	21
Previous HIV test		
No	30.7c	295
Yes	23.6 n.s	47

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group

+ Results displayed after controlling for demographic factors in Table 5.15

#Women only

Lastly in this section, Table 5.19 shows the results for the analyses concerning past behaviours: age at first vaginal sex, number of partners in the last year, alcohol consumption, experience of crisis pregnancy, previous diagnosis of an STI and having requested an HIV test again controlling for the socio-demographic factors in Table 5.16. Men were not asked if their partner had experienced a crisis pregnancy, so this variable could not be used in the multi-variate analyses.

Table 5.19 shows distinct patterns across a number of the factors, although after controlling for socio-demographic factors none remains significant. For example, the proportion of respondents with two or more partners in the last year who consistently used a condom is almost twice that of respondents reporting a single partner. However, the number of sexual partners is strongly associated with age group, as is use of condoms; thus, the relationship between condom use and number of partners is not significant after controlling for age.

Experience of a crisis pregnancy also appears to be associated with more consistently using a condom. However, the differences are not significant, possibly because few women reported anal sex in the previous year.

5.7 Condom use and most recent sexual encounter

SUMMARY

Patterns of condom use on the last occasion of vaginal or anal sex largely replicate the patterns found for consistency of use in the last year.

Again, men (37%) are more likely to report condom use than women (31%), as are younger individuals and those in casual relationships.

Higher levels of education are also associated with higher condom usage, even across age and relationship-status groups.

The cost of condoms emerged as an important issue. Men who reported that the cost of condoms would discourage use are one-third less likely to have used them on the last occasion of sex.

Both men and women who first had vaginal sex before age 17 were significantly less likely to use a condom on the last occasion, as were those reporting drinking alcohol above the recommended limit.

Women who reported a higher number of partners in the last year were more likely to have used a condom on the last occasion.

- *Younger respondents are more likely than older people to have used condoms on the last occasion of sex.*
- *Partners in a casual relationship were more likely to have used condoms on the last occasion of sex than cohabiting or married people.*
- *Respondents for whom the cost of condoms was an issue were significantly less likely to have used condoms.*
- *Having experienced sex before age 17 is associated with less likelihood of having used a condom.*
- *Among men, drinking alcohol above the recommended limit is associated with a lower probability of having used a condom.*

THIS section investigates use of a condom on the last occasion of vaginal or anal sex. The findings are similar to those found for consistency of use in the last year.

Over one-third (34.3%) of participants reported using a condom at their most recent sexual encounter (See Table 5.20). This figure includes those who had homosexual anal, and heterosexual vaginal and anal intercourse.

Of the 31 men reporting only homosexual experiences in the last year, nine said they had anal sex at their most recent encounter. Of these, 81.6% (seven men) said they had used a condom.

Similarly, among men reporting sex with both men and women in the past, 11 said they had anal sex with another man at their most recent encounter. Eight of these (79.3%) reported using a condom.

Since the number of men reporting homosexual anal sex is small, further analysis was confined to condom use during heterosexual intercourse at most recent sexual encounter. However, of those reporting heterosexual intercourse in the last year, only 62 reported engaging in anal sex. Of these 62, 43.3% used a condom. Because of the small number reporting anal intercourse, further analysis of this group alone is not possible. Anal and vaginal sex are thus combined in the analyses. These show that people reporting anal sex on their most recent occasion are no more likely to have used a condom than those reporting vaginal sex alone.

Men were significantly more likely to report using a condom (37.3%) compared to women (31.4%) ($p < 0.001$). Table 5.20 displays the proportions who reported using a condom at most recent vaginal intercourse by various demographic factors. Older men were significantly less likely to report using condoms at the last occasion than the youngest age group.

An initial model tested both social class and education, but this resulted in no significant results. The inclusion of education with the other demographic variables, excluding social class, revealed that, after controlling for other factors, men with third-level education were significantly more likely to report using a condom than those with lower-secondary education. Tested without social class, but with other socio-demographic variables, social class is not a significant predictor.

Stronger effects were observed across relationship status:

- Compared with married men, those not in a relationship or in a casual relationship were significantly more likely to report using a condom.
- Men who reported not being in a relationship or in a casual relationship were more than three times more likely to use a condom than married men.
- Men in a casual relationship were three times more likely to report using a condom.

There are no differences between married and cohabiting men. However, those in a steady relationship were significantly more likely to report using a condom than married men.

There are no differences according to place of residence after controlling for other demographic factors among men, but more religious men were less likely to report using condoms at the last occasion, even controlling for age.

Similar patterns emerged among women. Age, education and relationship status remain independently significant after controlling for other factors. Level of religiosity and place of residence are not related to condom use on the last occasion, but use decreased significantly with older age.

Table 5.20: Proportion of men and women who used a condom at most recent vaginal intercourse, by demographic factors

	Men %	N	Women %	N
All	37.3	2,784	31.4	3,833
Age group				
18-24	75.5c	592	67.6c	716
25-34	47.3***	639	38.7***	901
35-44	30.2***	588	26.4***	953
45-54	22.1***	518	17.0***	714
55-64	8.2***	447	4.0***	549
Education level (highest attained)				
Primary	17.9n.s	228	11.0*	268
Lower secondary	31.5*	485	22.8n.s	597
Upper secondary	43.6n.s	1,033	35.1n.s	1,586
Third level	46.1c	1,035	43.2c	1,356
Social class				
Higher professional	40.4	696	39.6	570
Lower professional	40.3	624	31.4	992
Administrative/clerical	36.7	374	30.6	904
Skilled manual	32.2	545	45.6	255
Semi/unskilled manual	34.9	433	25.9	801
Relationship status				
Not in a relationship	71.1***	609	57.9***	692
Married	17.1c	1,414	15.6c	2,276
Cohabiting	29.1n.s	221	36.9**	252
Steady relationship	53.5***	342	46.7***	489
Casual relationship	64.0***	198	60.3***	124
Place of residence				
Urban	38.3n.s	1,695	32.4n.s	2,128
Rural	35.7c	1,088	30.1c	1,701
Religiosity				
Not at all religious	40.3c	723	42.0c	640
A little religious	37.8n.s	1,050	34.5n.s	1,485
Quite religious	34.1**	753	25.8n.s	1,249
Extremely/very religious	36.2*	253	21.0n.s	455

Significance key: n.s=not significant; = $P<0.05$; *= $P<0.01$; ***= $P<0.001$

c=Reference group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table except social class.

To determine the influence of knowledge on condom use, four knowledge-related items (knowledge of fertility, Chlamydia and HIV, and receipt of sexual education about safe sex and STIs) were examined simultaneously with the demographic factors displayed in *Table 5.21*. After controlling for demographic factors, knowledge-related items are not significantly related to condom use among either men or women. This is a common finding in the international literature and underlines the complexity of determinants of sexual behaviour. Although knowledge is important for shaping protective behaviour and forming intention, its impact is mediated through a thick layer of experiential and contextual effects, which strongly affect behaviour.

Table 5.21: Proportion of men and women who used a condom at most recent vaginal intercourse, by knowledge factors +

	Men %	N	Women %	N
Knowledge of fertility				
Inaccurate/don't know	39.6c	1,769	35.0c	1,526
Accurate	32.5n.s	1,012	28.8 n.s	2,306
Knowledge of Chlamydia				
Limited knowledge	38.9c	501	28.9c	465
Good knowledge	42.4 n.s	1,145	36.9 n.s	2,452
Knowledge of HIV				
Limited knowledge	33.6c	687	25.9c	1,040
Good knowledge	38.5 n.s	2,082	33.9 n.s	2,777
Received sex education about safe sex and STIs				
No	28.6c	1,906	24.0c	2,659
Yes	58.8 n.s	876	49.7 n.s	1,171

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group

+ Results displayed after controlling for demographic factors in *Table 5.20*

The proportions of men and women reporting condom use across attitude items are displayed in *Table 5.22*.

Among both men and women, neither perceived risk of HIV infection nor sexual liberalism is related to condom use, after controlling for demographic factors. But those who said the cost of condoms would discourage use were less likely to use a condom at most recent vaginal intercourse: men 34% and women 20%, in multivariate analyses). Among women, this relationship is only significant at the 9% rather than 5% level routinely used in analyses in this report.

The final model in this section tested the influence of behavioural and experiential factors such as: age at first vaginal sex, number of partners in the last year, alcohol consumption, previous diagnosis of an STI and experience of an HIV test. Previous experience of a crisis pregnancy was also examined among women.

Among both men and women, early age of first vaginal intercourse is related to a lower probability of having used a condom, even controlling for other factors. Early sexual experience is most likely among younger cohorts who are also more likely to use a condom; thus *Table 5.23* shows that those people reporting early sexual experience were more likely to use a condom. However, once we control for age in a multivariate model of condom use, we find that this group are less likely than others their own age to have used a condom on the last occasion of vaginal sex.

Table 5.22 Proportion of men and women who used a condom at most recent vaginal intercourse, by attitudinal factors +

	Men %	N	Women %	N
Perceived risk of HIV infection				
High perceived risk	66.4c	157	51.5c	154
Low perceived risk	35.5n.s	2,617	30.6n.s	3,669
Cost of condoms discourages use				
No	37.4c	2,392	31.6c	3,294
Yes	36.2*	392	30.4n.s	539
Sexual liberalism scale				
Low	26.8c	551	18.7c	845
Medium	38.8n.s	552	30.4n.s	846
High	41.0n.s	1,556	38.3n.s	1,941

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group

+ Results displayed after controlling for demographic factors in *Table 5.20*

Table 5.23: Proportion of men and women who used a condom at most recent vaginal intercourse, by behavioural factors +

	Men %	N	Women %	N
Age at first sex				
After 17 years	37.2c	2,174	31.1c	3,386
Before 17 years	37.5***	610	33.7**	447
Number of partners in last year				
0-1 partner	32.0c	2,324	29.4c	3,618
2+ partners	66.1n.s	456	65.3**	212
Alcohol consumption				
Below recommended limit	37.5c	2,439	30.4c	3,339
Above recommended limit	35.5*	345	38.2n.s	494
Previous STI diagnosis				
No	37.3c	2,688	31.3c	3,746
Yes	35.7n.s	89	38.2n.s	80
Previous HIV test				
No	37.1c	2,526	31.2c	3,517
Yes	38.6n.s	246	34.7n.s	305
Experience of a crisis pregnancy				
No	—	—	18.6c	2,006
Yes	—	—	30.5n.s	502

*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=comparison group

+ Results displayed after controlling for demographic factors in Table 5.20

Table 5.23 also shows that men who reported drinking alcohol above the recommended limit are significantly less likely to report using a condom.

Women with two or more partners in the last year, even controlling for age and relationship status, are significantly more likely to report using a condom on the last occasion.

5.8 Reasons for not using a condom at most recent vaginal/anal intercourse

SUMMARY

Most people who had not used a condom on the last occasion of sexual intercourse said this was because they trusted their partner not to have an STI. This proportion is lower among younger age groups and those in casual relationships but, even among those who had just met their partner, a substantial minority cited trust in their partner as the main reason.

- *Trust that one's partner did not have an STI was the most commonly cited reason for not using protection on the most recent occasion of sex.*
- *The proportion trusting their partner varied by age and nature of relationship: 37.7% of men and 27.8% of women who had not previously had a sexual relationship with their partner reported not using a condom because they trusted that the partner would not have an STI.*
- *14.6% of men and 27.7% of women who had only just met their partner reported not using a condom because they trusted they would not have an STI.*

THIS section investigates the reasons that people gave for not using a condom at most recent sexual intercourse. The reasons given are displayed in *Tables 5.24 and 5.25*, for men and women respectively.

Table 5.24: Reasons given by men for not using condoms at most recent vaginal intercourse (%)

	18-24	25-34	35-44	45-54	55-64	All
Sex not planned/ unexpected	9.2	0.6	1.1	0	0.1	0.8
Drinking alcohol/ taking drugs	6.6	0	2.1	0	0	1.1
Couldn't be bothered	1.8	0	0.1	0.2	0.2	0.3
Didn't think to use	14.0	2.3	3.5	2.0	1.7	2.8
Took a chance/Got carried away	0.0	0.1	0.0	0.0	0.3	0.1
Young/naïve/stupid/ careless	0.0	0.3	0.0	0.0	0.3	0.1
No condoms available	17.7	2.4	0.5	0.5	0.0	1.3
Don't like/allergic to condoms	10.4	6.1	2.1	0.5	0.6	2.0
Against beliefs/religion	0.0	0.0	0.2	0.0	0.0	0.04
Didn't know about protection/didn't understand risks	0.0	0.0	0.4	0.0	0.1	0.1
Didn't think was at risk from STIs	14.0	20.3	19.8	15.4	7.8	14.5
Trusted partner not to have STI	70.3	82.0	81.5	79.8	75.2	78.9
Tested/checked	2.9	0.2	0.3	0.4	0.0	0.4
Can't remember	35.6	34.5	23.0	21.5	17.7	23.0

Overall, the most common reason cited for not using condoms at most recent intercourse was trusting that one's partner did not have an STI: 78.9% of men and 79.2% of women. However, the proportions varied considerably across age group; more men and women aged 25-34 and 35-44 cited trust than did older age groups.

Gender differences also emerged. Men under 25 were less likely than other age groups to cite trust (70.3%), but among women the lowest proportion citing this reason is found in the 45-54 age group.

Over 80% of men and women in steady/cohabiting or married relationships cited trust, but so did a sizeable proportion of those who had just met their partner (14.6% of men and 27.7% of women) or who knew their partner but were not in a steady relationship (37.7% of men and 27.8% of women).

Table 5.25: Reasons given by women for not using condoms at most recent vaginal intercourse (%)

	18-24	25-34	35-44	45-54	55-64	All
Sex not planned/ unexpected	12.8	0.9	0.4	0.2	0.2	0.8
Drinking alcohol/ taking drugs	2.2	0.1	0.0	0.4	0.0	0.3
Couldn't be bothered	0.0	0.3	0.0	0.0	0.0	0.1
Didn't think to use	11.2	4.5	3.1	1.3	1.4	2.5
Took a chance/got carried away	0.0	0.5	0.4	0.1	0.0	0.2
Young/naïve/stupid/ careless	0.5	0.3	0.0	0.3	0.0	0.2
No condoms available	13.2	0.4	0.0	0.0	0.0	0.5
Don't like/allergic to condoms	4.8	1.7	0.4	0.5	0.3	0.7
Against beliefs/religion	0.0	0.1	0.1	0.0	0.0	0.1
Didn't know about protection/didn't understand risks	0.0	0.0	0.0	0.0	0.0	0.0
Didn't think was at risk from STIs	25.0	27.9	16.3	14.1	6.3	14.5
Trusted partner not to have STI	78.9	82.7	82.6	75.1	76.9	79.2
Tested/checked	4.4	1.2	0.2	0.1	0.0	0.7
Can't remember	44.4	26.7	28.4	21.5	13.3	22.2

The next most frequently cited reason (after 'can't remember') was 'didn't think I was at risk from STIs': 14.5% of both men and women. This reason is similar to the belief that one's partner does not have an STI.

Large variations in age were observed in relation to whether sex was planned, use of alcohol or drugs, and availability of condoms. Younger age groups cited these reasons more frequently than their older counterparts.

5.9 Summary and conclusions

THIS chapter related to sexual behaviours the patterns of sexual knowledge and attitudes described in chapters three and four. It examined the extent to which contraception and protection are used within sexual relationships in Ireland and how this varies across a number of dimensions.

After a review of the extensive literature in this area, use of protection at most recent vaginal sexual intercourse was assessed. This showed that most people who were not pregnant or trying to become pregnant used some form of contraception, but that this varied significantly across the age range. Younger groups were far more likely to do so than older groups. Section four revealed several reasons for this difference. First, older people were more likely to view pregnancy as a positive event than younger people, even if they were not planning to become pregnant at the time.

Section four also showed that many women aged 35-45 assumed that they were menopausal and so unlikely to conceive. While a small number of women enter menopause by their forties, this would not be true of the 22% of women aged 35 to 44 (who risked becoming pregnant) who reported not using contraception because they believed they were post-menopausal. This suggests that a substantial minority of women may risk conception in the false belief that they are no longer fertile.

Analysis also showed that women with lower levels of education were much less likely to have used contraception on the most recent occasion, controlling for a number of factors including age and marital status. This finding supports a great deal of research both in Ireland and in other countries which suggests that low education and socio-economic position is associated with a greater propensity to take risks with sexual health, including less use of contraception and protection. Such findings underline the relationship between poor life chances and unintended pregnancy, and the processes that consolidate this pattern.

One of the aims of this report was to relate an individual's sexual knowledge and attitudes to their behaviours and outcomes. Evidence showed, however, that knowledge about contraception and sexual attitudes are very weakly related to an individual's contraceptive behaviour. As discussed, this is a pattern found in the international literature which underlines the complexity of determinants of sexual behaviour. Although knowledge is important for shaping protective behaviour and forming intention, its impact is mediated through experiential and contextual effects which strongly affect behaviour. This is clearly shown in the findings that respondents who had sex at an early age (before age 17), or who did not use contraception on this first occasion, were much less likely to have used contraception on the most recent occasion of intercourse. On the other hand, people who had sought contraceptive advice, and who thus were actively seeking protection, were more likely to use contraception.

Analysis of the forms of contraception used showed that condoms and the contraceptive pill were most frequently used, and that the distribution of methods is significantly influenced both by age and relationship status. Individuals in casual relationships are more likely to use condoms, while married or cohabiting people are more likely to use other methods such as the contraceptive pill. The coil/IUD and Mirena and more permanent methods such as contraceptive implants and sterilisation are more common among older individuals and married people. Such differences across the population underline the need for a tailored approach to the supply of contraception and contraceptive advice, as individuals may well have different preferences and circumstances to take into account.

The strong relationship between attitudes to the contraceptive pill and actual use provides evidence of the strength of different factors. Women indicating concern about the cost of the pill were significantly less likely to use it. This is an important finding, particularly in the light

of evidence that suggests women who have experienced a crisis pregnancy are less likely to use the pill. This may indicate that relying on other forms of contraception such as the condom may result in a higher likelihood of crisis pregnancy. Condoms have a very low failure rate when used properly, but they require more discipline from individuals than other methods used before arousal.

It is also clear that worries, perhaps unfounded, about the side-effects of the pill lead to less use of it. This is a concern, particularly as there is also a significant relationship between having experienced a crisis pregnancy and not using the pill.

Analysis of those who did not use contraception at their last vaginal intercourse showed a range of reasons as to why this was so. A large proportion did not mind becoming pregnant. Discounting this group, it is interesting that a large proportion 'did not think to use' contraception, said sex had not been planned, or had been drinking/taking drugs. These responses were particularly common among people under 25. Alcohol and drug use was the most common reason given in this age group. This finding replicates that found in the ICCP survey. ISSHR shows that young people are more likely than older people to use contraception – for example, they reported more consistent use of condoms in the previous year than older respondents. Encouragingly, this was particularly so in casual relationships and in those with a steady partner. However, it is clear that a significant minority of young people do not use protection. This fact, and the reasons often cited – 'didn't think to use', unplanned sex and use of alcohol or drugs – underline a serious issue in Irish society: the need to persuade young people to protect themselves from both unintended pregnancy and infection from STIs.

It was important to find out if use of condoms is also influenced by people's knowledge about the risks of unprotected sex. However, the relationship between professed knowledge and behaviours is weak. On the other hand, there is a strong relationship between consistent use of condoms in the last year and sensitivity to cost. In the context of increasing rates of reported STIs, and where use of condoms is being promoted, this is a major concern which should be examined urgently. The finding that diagnosis of an STI is associated with less consistent use of condoms among men reinforces the need for action.

Past behaviour and background are also related to use of condoms. As with use of contraception in general, vaginal sex before age 17 is strongly associated with less likelihood of consistent use of condoms later in life. The ISSHR Main Report and Sub-Report One: 'Learning About Sex and First Sexual Experience' show that early sexual initiation is strongly associated with lower levels of education and the manual-working class. Although the relationship between socio-economic disadvantage and health behaviours is not fully understood, it is clear from these results that its influence persists well into adulthood.

Results also showed that women who had previously experienced a crisis pregnancy were significantly more likely not to use condoms consistently, even controlling for a range of other factors. It is a concern that these women may continue to be exposed to a higher risk of unintended pregnancy, although this depends on a number of factors. More research on this relationship would be valuable.

The final section of the chapter examined the reasons people gave for not using condoms. The primary reason was trust that one's partner would not have an STI. The proportions of people citing trust in their partner increased with the duration and formalisation of the relationship. However, around a quarter of those who had unprotected sex with someone they did not have a steady relationship with said they trusted them. Around 15% of men and 28% of women reporting unprotected sex with a casual partner also said they did not use a condom because they trusted their partner.

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Experience of crisis pregnancy and STIs

6.1 Introduction

THIS chapter examines the patterning of two challenges to sexual health: crisis pregnancy and sexually transmitted infections. It builds on the last chapter by relating two outcomes of sexual behaviour to current patterns of sexual knowledge, attitudes and behaviours. The first chapter in this report underlined the complexity of this task, but it is only by examining the relationship between sexual knowledge, attitudes and behaviours that initiatives to improve sex education and prevent crisis pregnancy and STI can be developed.

6.1.1 Crisis pregnancy and outcomes

THE main reason for a pregnancy to be experienced as a crisis pregnancy is that it was unintended.¹ The statutory instrument which founded the Crisis Pregnancy Agency (CPA) defined a crisis pregnancy as: “a pregnancy which is neither planned nor desired by the woman concerned, and which represents a personal crisis for her” (Statutory Instrument No. 446, 2001:1). But the term encompasses a far broader set of circumstances. The CPA has suggested that it should also include the experience of women for whom a planned or desired pregnancy develops into a crisis over time due to a change in circumstances (Crisis Pregnancy Agency 2004 (2):6).

Replacing the terms ‘unplanned’ or ‘unintended’ with ‘crisis’ pregnancy allows us to examine a broader set of issues. Rundle *et al*¹ found a wide range of reasons reported by women as to why their pregnancy was a crisis. Some suggested that circumstances changing was the primary reason why the crisis emerged. Most indicated that unintended pregnancy at the wrong moment in their life was the most important factor. Further evidence of this comes from the ISSHR survey. It shows that 91% of women said their crisis pregnancy had been such from the beginning and only 9% that it subsequently became so. Given this, in this chapter we build on the ICCP survey¹ and analyse the influence of factors associated with use of contraception on the experience of crisis pregnancy. We do not attempt to tease out the other factors that may turn a pregnancy into a crisis pregnancy.

The ICCP study found that, of the 54% of participants who had experienced a pregnancy, 28% of women and 23% of men reported experiencing a crisis pregnancy. Importantly, men and women aged 18-25 were more likely to report this than older people (36-45),¹ although it should be noted that younger women were less likely to have already been pregnant, and thus the number of pregnancies, of which a proportion would be crisis pregnancies, was smaller among younger respondents.

The ICCP study examined the antecedents and outcomes of participants' most recent crisis pregnancy. As regards the outcomes, of the 245 women who reported a crisis pregnancy, 75% gave birth, 15% had an abortion, 6% had a miscarriage, 1% had a stillbirth and 3% were pregnant at the time of interview. Those who had given birth further specified the outcome after the birth; 57% raised the child with the birth father, 2% raised the child with another partner and 38% raised the child alone; 1% said the child had been adopted and a further 1% said another family member had raised or was raising the child.

The low proportion of women who reported adoption (1%) in the ICCP data confirmed annual figures from the Adoption Board which show that just 1.4% of non-marital births resulted in adoption in 2002.³ Rundle *et al*¹ concluded that the reduction in adoption rates in Ireland was due to increasing numbers of women choosing to keep their child and an increasing rate of abortion.

Significant age differences emerged in relation to abortion; 22% of 18-25 year-olds chose abortion compared with 7% of those under 18, 7% of 26-35 year-olds and 8% of 36-40 year-olds. There was no difference in education level between those who chose an abortion and those who gave birth (1).

The proportion of women choosing abortion over giving birth has increased over time. Rundle *et al*¹ found that 80% of crisis pregnancies in the last 10 years resulted in birth and 20% in abortion. In contrast, between 11 and 20 years ago, 89% of crisis pregnancies resulted in birth and 11% in abortion. Of crisis pregnancies reported 21-30 years ago, 97% resulted in birth and 3% in abortion. The increased proportion of abortions may be due to greater ability to travel for abortion coupled with its greater acceptability. As we saw in chapter four, attitudes to abortion have become more accepting in recent decades among all age groups, but particularly among younger people.

6.1.2 Sexually transmitted infections in Ireland

ALONG with its positive and pleasurable aspects, sex can be associated with the transmission of infections and viruses, which sometimes have serious health implications. Common STIs such as Chlamydia, herpes simplex and human papilloma virus can have long-term consequences. For example, untreated Chlamydia may result in pelvic inflammatory disease, ectopic pregnancy and infertility in women.⁴ In Ireland, a number of STIs are legally notifiable by doctors and laboratories. They are reported to the Health Protection Surveillance Centre (HPSC, formerly the National Diseases Surveillance Centre). Its figures provide the best profile of patterns of notified STIs in Ireland over time.

There has been a steady increase in STIs notified to the HPSC/NDSC since 1989. The total number of new notified STIs increased from 2,228 in 1989 to nearly 10,500 in 2003. Rates of non-specific urethritis, genital warts and Chlamydia Trachomatis have increased considerably, particularly since 1994.

Notifications of Chlamydia were relatively stable, at around 200 per year, from 1989 to 1994. From 1995 however, rates increased each year, rising to over 2,700 cases in 2004 alone.⁵ In keeping with international prevalence studies, young adults in Ireland have the highest levels of Chlamydia infection. Over 80% of infections occur among adults under 30 (where age was known).^{6,7} These figures represent cases mainly reported by genitourinary medicine (GUM) clinics. However, many cases are diagnosed outside GUM clinics and may not be routinely notified to relevant authorities. It is thus likely that figures for Chlamydia infection underestimate the true levels. As well, a significant proportion of infected men and women will have asymptomatic infection; it is estimated that up to 70% of women and 75% of men are asymptomatic.⁸

A number of small studies in Ireland, as recently summarised in the report, 'The Need for Chlamydia Screening in Ireland',⁹ provide more population-based estimates of the prevalence of Chlamydia. The report lists two published studies: one of teenage girls attending an STI clinic in 1991¹⁰ and the other of men attending a sports centre or orthopaedic out-patient service in 2003),¹¹ as well as six unpublished studies.

Prevalence rates for the more 'general population' samples ranged from 1% to 6%. Those of 'at risk' groups, e.g. those attending sexual health-related services, were 6-17%. These figures must be treated with caution because of the small, non-random samples. They are however of sufficient magnitude to warrant a more definitive assessment of the prevalence and patterning of Chlamydia in Ireland, a recommendation which was made recently by the Chlamydia Screening Sub-group of the HPSC.⁹

Because Chlamydia can cause serious problems in women, many countries have established opportunistic screening programmes. In Ireland, hospital discharge figures for pelvic inflammatory disease (per 100,000 total hospital discharges) increased by 3.2% from 1999 to 2003 while figures for tubal (ectopic) pregnancy rose by 28% in the same period.⁹ While these increases cannot be definitively linked to Chlamydia as a cause, the parallel increase in presentation of all three problems is a significant concern. A study of the current prevalence of Chlamydia would inform decisions about the value and nature of a national screening programme for Chlamydia in Ireland.

6.1.3 STI differences across sub-groups

FACTORS such as ethnicity or country of origin or residence may be important factors to consider when examining risk and targeting interventions. The British Natsal 2000 study shows how knowledge of ethnic differences in STI rates can provide useful information to service planners.

Acknowledging the fact that ethnic minorities are often not included in large enough numbers in national surveys to allow conclusions to be drawn, Natsal 2000 had a booster sampling strategy for black Caribbean, black African, Indian and Pakistani participants. Thus, an additional 949 participants were added to over 11,000 in the main study.¹² The number of sexual partnerships over lifetime was highest among black Caribbean and African men and white and black Caribbean women. Rates of STIs were highest in the black Caribbean and African communities. Indian and Pakistani men and women reported fewer and later relationships and, fewer STIs. The difference in STI rates across groups was not as large, however, as had been found in clinic-based studies, suggesting differential use of such services by different ethnic groups.

The Natsal report emphasised the need for prevention and service provision strategies to be culturally competent in order to reduce the extent of sexual ill health in various communities. With increasing cultural diversity and movement of people to and from Ireland in recent years, a rapid increase in foreign travel by Irish residents, the return of many Irish emigrants and reports of increasing numbers of sexual partners in Ireland in recent years, there is reason to seriously consider the influences of these patterns on the sexual behaviour and health of the Irish population.

6.1.4 Chapter content

THIS chapter unfolds as follows:

- Section 6.2 examines the factors associated with crisis pregnancy. As well as measuring the impact of socio-demographic factors such as age, education and social class, we examine the association of sexual health knowledge, attitudes, beliefs and past behaviours/experiences.
- Section 6.3 investigates the outcomes of crisis pregnancy –the extent to which women choose to have the child, have a termination, or have the child adopted.
- Section 6.4 examines the current and past predictors of experiencing a sexually transmitted infection and in particular whether sexual health knowledge, sexual attitudes or past behaviours are associated with STIs.
- Section 6.5 summarises the results of the chapter and offers some conclusions.

6.2 The experience of crisis pregnancy

SUMMARY

Around one in eight women in the ISSHR survey have experienced a crisis pregnancy. The proportion is highest among women aged 25 to 34 and falls thereafter with age. This suggests that crisis pregnancies have become more common over time. Women born after 1970 are both more likely to have experienced a crisis pregnancy and to have done so at an earlier age than women born before that. This may stem in part from the higher levels of education and employment among younger women. Whether or not a pregnancy is defined as a crisis depends on context and this has changed radically for young women in recent decades.

Neither education, class or relationship status predicts experience of crisis pregnancy, but it is more likely among women with negative attitudes towards the oral contraceptive pill.

Women who had vaginal sex before 17 and those with more sexual partners are also more likely to experience a crisis pregnancy.

- *One in eight women (13%) had experienced a crisis pregnancy.*
- *A larger proportion of young women's pregnancies were experienced as a crisis (56% among those aged under 25) than of older women's (16% for those aged 35 to 54).*
- *The highest proportion of crisis pregnancies was found among women aged between 25 and 34.*
- *The age for crisis pregnancy has decreased. Median age at crisis pregnancy for women aged 18 to 24 and 25-34 is 19 and 22 respectively, compared to 26 for women aged 35-44, 25 for those aged 45-54 and 32 for women aged 55-64.*
- *Women living in urban areas were more likely to report a crisis pregnancy than those in rural areas (15% v 10%).*
- *A negative attitude towards the contraceptive pill is associated with a higher likelihood of crisis pregnancy.*
- *Women with accurate knowledge of emergency contraception are more likely than women with inaccurate knowledge to have had a crisis pregnancy, after controlling for other factors (16% v 11%).*
- *Women who had vaginal sex before 17 are almost twice as likely to experience a crisis pregnancy.*
- *Women who reported more sexual partners were significantly more likely to report a crisis pregnancy.*
- *Women who currently had children were 18 times more likely than women who had not to report a crisis pregnancy (after controlling for other factors).*

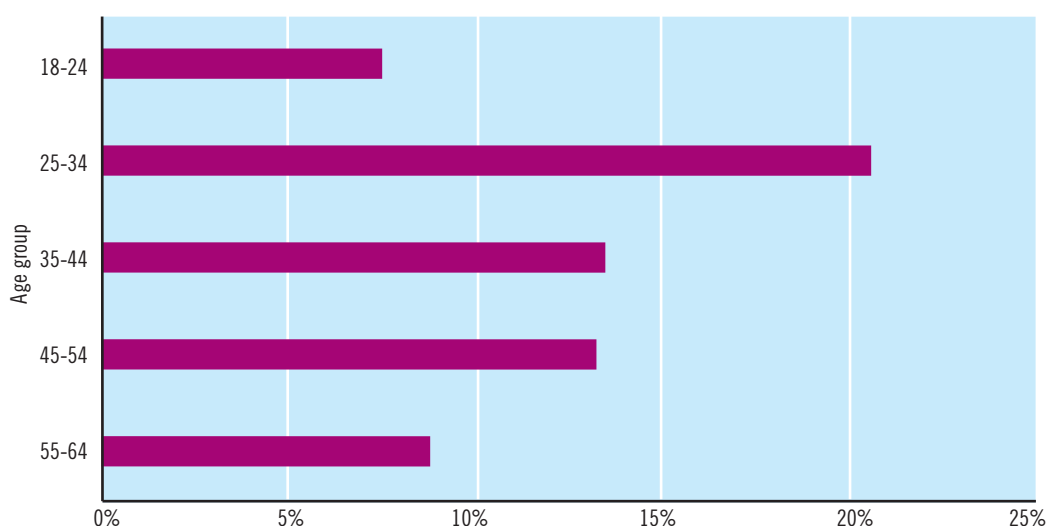
IN the ISSHR survey, all women were asked if they had ever had sex that resulted in a pregnancy (including any that led to miscarriage or abortion). Over two-thirds of women (67%) indicated that they had been pregnant. This figure is consistent with international and national studies. For

example, the ICCP study found that 61% of women aged 18-45 had had sexual intercourse resulting in pregnancy. ISSHR may have yielded a larger proportion reporting pregnancy due to its wider age range. But these figures are slightly lower than those in international studies such as the 1992 US National Health and Social Life Survey (NHSLS) which found that 72% of women aged between 18 and 59 had experienced a pregnancy.¹³ ASHR (2003) reported that 71% of women aged 16-59 had been pregnant at least once.¹⁴

Women who had experienced pregnancy were asked if they would describe their pregnancy or any of their pregnancies as a crisis pregnancy. It was explained that a crisis pregnancy is a pregnancy that represents a personal crisis or causes emotional trauma. It was also explained that it can be a pregnancy that began as a crisis, even if this was later resolved, or a pregnancy that develops into a crisis due to a change of circumstances. A history of crisis pregnancy experiences and outcomes was recorded. Women who defined a crisis pregnancy as such because of a miscarriage or stillbirth were excluded.

The proportion of all women who reported a crisis pregnancy is displayed in *Figure 6.1*.^D A higher proportion of women aged 25-34 reported a crisis pregnancy (20.7%), followed by women aged 35-44 (13.5%) and 45-54 (13.2%). The proportion of women aged 55-64 (8.8%) was similar to that among the youngest age group (7.5%).

Figure 6.1: Proportion of women reporting a crisis pregnancy, by age group (as a proportion of all women)



^D In this report, women who experienced a crisis pregnancy are considered in comparison to all other women. The ISSHR Main Report and Overview focuses on women who reported a crisis pregnancy as a proportion of all those who had ever been pregnant.

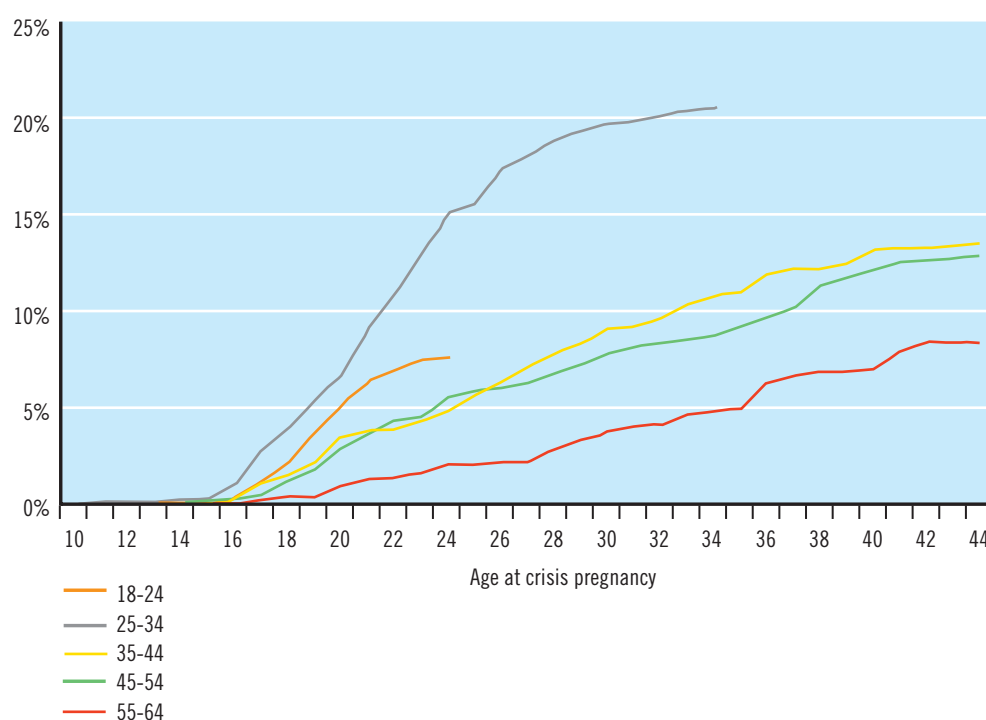
Table 6.1 displays the proportion of women who reported a crisis pregnancy, by demographic factors. The age effects remained significant after controlling for other demographic characteristics in a multivariate analysis. In relation to age:

- women aged 25-34 were three times more likely to report a crisis pregnancy than women aged 55-64 (multivariate analyses not shown)
- women aged 34-44 and 45-54 were almost twice as likely to report a crisis pregnancy as older women

Younger women were also found to be significantly more likely to experience a crisis pregnancy.

The fact that women aged 25 to 34 were most likely to report a crisis pregnancy suggests that rates of crisis pregnancy may be increasing, particularly given the increase in rates of crisis pregnancy as age decreases (see Figure 6.1). Although the youngest age group have the lowest rate of crisis pregnancies in Figure 6.1, they may have a similar prevalence of crisis pregnancies over time to that of women aged 25 to 34, or higher.

Figure 6.2: Age at crisis pregnancy for women, by current age group



It is possible to investigate in more detail using 'failure curves'. These will plot the proportion of women having a crisis at any particular age. We can thereby examine if the age at which women in younger age groups have crisis pregnancies is lower on average than in older groups, controlling for the fact that most women in all cohorts will never experience a crisis pregnancy. By using different lines to represent women of different age cohorts, we will be able to see if younger women are having crisis pregnancies earlier and at a greater rate.

The results are shown in *Figure 6.2*. The most noticeable pattern is the difference in the track of the two lines for women aged under 25 and aged 25-34 compared to those for women aged 35 or more (and particularly women aged 55-64). The lines for the two youngest age groups rise earlier and much more quickly than those of later cohorts. This suggests that younger women (born after 1970) are having crisis pregnancies at a younger age than later cohorts.

Analysis of the age of crisis pregnancy shows this as well:

- Women aged 18-24 and 25-34 have median ages of 19 and 22 at the time of crisis pregnancy, compared to 26 for women aged 35-44, 25 for women aged 45-54 and 32 for women aged 55-64.

It is clear, too, that women aged 25-34 are more likely than women over 34 to experience a crisis pregnancy. The youngest cohort seems to be following the same track.

Both these findings show substantially different patterns among women under 35. This could be because they are more likely than older women to have risky behaviours, to have vaginal sex earlier and to have more partners (see first ISSHR report¹⁵). However, younger women are also more likely to use contraception both at first sex and in the 'recent' period (as shown in chapter five). This suggests that some of the other risk factors will be moderated.

If younger women do not have a higher risk profile overall, they may instead be more likely than older generations to define a pregnancy as a 'crisis'. A much larger proportion of young women now enter higher education and look to establish themselves in a career than was true of any past cohort.¹⁶ This changing context may colour the view they have of their pregnancies.

As already argued, the vast majority of crisis pregnancies are defined as such because they occur at a point in the woman's life when conditions are not appropriate or her future opportunities would be limited. Changing the average conditions of Irish women's lives would be likely to lead to a change in their perception of whether a pregnancy is a crisis or not. If this hypothesis is correct we could expect that women with higher levels of education in the younger age groups would be more likely to define a pregnancy as a crisis.

In fact, as shown in *Table 6.1*, there are no significant differences between women of different education or social class groups. However, the effect of social class may be partially obscured by the analysis of all women in *Table 6.1*; analyses of women who had been pregnant in the first ISSHR report (Layte *et al* 2006) showed that women in the professional class were significantly more likely to report a crisis pregnancy.

Relationship status and religiosity are not related to experience of a crisis pregnancy.

Women living in an urban area were significantly more likely than those in rural areas to report a crisis pregnancy.

Women who reported having children were almost 18 times more likely to report a crisis pregnancy than women who did not, in multivariate analyses, controlling for other factors (not shown).

Table 6.1: Proportion of women who reported a crisis pregnancy, by demographic factors (as a proportion of all women)

	%	N
Total	12.9	4,253
Age group		
18-24	7.5c	908
25-34	20.7***	966
35-44	13.5***	1,014
45-54	13.2***	755
55-64	8.8*	610
Education level (highest attained)		
Primary	12.2 ns	305
Lower secondary	15.4 ns	657
Upper secondary	12.9 ns	1,780
Third level	11.3 c	1,511
Social class		
Higher professional	9.9 c	642
Lower professional	14.1 ns	1,097
Administrative/clerical	12.2 ns	978
Skilled manual	14.5 ns	296
Semi/unskilled manual	13.9 ns	892
Place of residence		
Urban	14.8 *	2,362
Rural	10.4 c	1,887
Relationship status		
Not in a relationship	12.2 ns	961
Married	11.7 c	2,361
Cohabiting	24.1 ***	270
Steady relationship	15.3 **	520
Casual relationship	7.9 ns	141
Religiosity		
Not at all religious	16.1 c	701
A little religious	12.6 ns	1,620
Quite religious	12.9 ns	1,390
Extremely/very religious	9.9 *	537
Children		
Yes	17.6 ***	2,755
No	3.6 c	1,498

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

As in the previous chapter, the influence of sexual knowledge, attitudes and previous behaviours is examined. This is achieved by adding groups of variables to the basic analysis shown in Table 6.1. This allows control for socio-demographic factors while avoiding problems of 'correlation' which occur when the effect of similar predictors is estimated simultaneously.

The first analyses are of items relating to sexual knowledge (Table 6.2). After controlling for demographic factors, knowledge of fertility and receipt of sexual education about contraception are not significantly related to experience of a crisis pregnancy. We have discussed the complex relationship of sex education and knowledge to outcomes earlier in this report. We have here another example of this complexity. It would be useful to analyse this issue further.

In contrast, women with accurate knowledge about the effective time-limit of emergency contraception were almost twice as likely as those who did not to report a crisis pregnancy, even controlling for age. This finding is a good example of the challenge of working with cross-sectional evidence, as it is not possible to ascertain if women became better informed after their experience or had already been aware before it.

Table 6.2: Proportion of women reporting a crisis pregnancy, by knowledge factors (as a proportion of all women)+

	%	N
Knowledge of fertility		
Inaccurate	12.3c	1,764
Accurate	13.5ns	2,488
Knowledge of time-limit for effectiveness of emergency contraception		
Inaccurate	10.6c	2,360
Accurate	16.1***	1,885
Received sexual education about contraception		
No	13.9c	2,623
Yes	11.3ns	1,627

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

+ Results displayed after controlling for demographic factors in Table 6.1

A separate model tests the importance of attitudinal factors, while controlling for demographic factors. Attitudinal factors of interest include: attitudes to condoms (cost as a discouragement), to the oral contraceptive pill (a composite of views on side-effects, cost and weight gain – see chapter four) and sexual liberalism (Table 6.3).

The belief that the cost of condoms would discourage use is not related to the probability of reporting a crisis pregnancy.

Women with negative attitudes to the oral contraceptive pill were significantly more likely to report a crisis pregnancy, after controlling for demographic factors. Chapter five showed that

such women were also less likely to use the pill as a method of contraception. The finding shown in Table 6.3 adds a new dimension to this, by showing that negative attitudes and non-use may make a woman more likely to experience a crisis pregnancy. This could be the case if, for example, women not using the pill were relying on condoms instead. Though reliable in themselves, condoms are often applied after coitus has begun, thus undermining their effectiveness.¹⁷

Table 6.3 also shows that women who score high on the sexual liberalism scale (saying that at least four of five sexual behavioural items are never/only sometimes wrong) were twice as likely to report a crisis pregnancy as those who ranked low on the liberalism scale (saying that none or fewer than two of the behaviours are never/only sometimes wrong). This effect may arise as a result of the relationship of more liberal attitudes to risky behaviours and earlier experience of sex.

Table 6.3 Proportion of women reporting a crisis pregnancy, by attitudinal factors (as a proportion of all women)+

	%	N
Cost of condoms discourages use		
Yes	15.4 ns	584
No	12.8 c	3,000
Attitude to oral contraceptive pill		
Positive	12.3 c	2,547
Negative	15.2 *	1,188
Liberalism		
High	16.5 ***	2,115
Medium	11.7 ns	940
Low	8.0 c	971

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

+ Results displayed after controlling for demographic factors in Table 6.1

The final model tested the influence of past behaviours and experiences while controlling for demographic factors. Factors of interest included: having sought advice about contraception, alcohol consumption, age at first vaginal sex and number of lifetime partners. The results are displayed in Table 6.4.

After controlling for demographic factors, age at first sex is significantly related to crisis pregnancy. It was suggested above that the impact of liberal attitudes could work through the greater likelihood of liberal women having earlier sexual experiences. Table 6.4 shows that these earlier experiences are themselves very predictive of a crisis pregnancy. Women who reported having vaginal intercourse before age 17 were over twice as likely to report a crisis pregnancy as those who began sex later. Early sexual intercourse is independently associated with crisis pregnancy among all age groups. Thus, even among older age groups, women who had sex before 17 were more likely to report a crisis pregnancy.

Table 6.4: Proportion of women reporting a crisis pregnancy, by behavioural factors (as a proportion of all women)+		
	%	N
Age at first sex		
Below 17 years	24.0 **	462
Above 17 years	11.5 c	3,791
Alcohol consumption‡		
Below recommended limit	12.8 c	3,708
Above recommended limit	14.3 ns	545
Number of lifetime partners		
Less than 5 partners	11.5 c	3,591
5 + partners	21.2***	662
Ever sought advice about contraception		
No	8.1 c	1,899
Yes	17.6***	2,300

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

+ Results displayed after controlling for demographic factors in Table 6.1

‡ Alcohol recommended limit refers to international standards on weekly consumption.

Table 6.4 also shows that more sexual partners over lifetime is also related to crisis pregnancy. Whereas 22% of women who reported five or more partners reported a crisis pregnancy, the figure is 12% among women reporting fewer than five.

Lastly, Table 6.4 shows that women who had sought advice about contraception were also more likely to have experienced a crisis pregnancy. This counter-intuitive result may stem from the fact that women who have had a crisis pregnancy are more likely to then seek advice about reliable methods of contraception. It is not possible to investigate if taking advice preceded or followed the crisis pregnancy.

6.3 The outcomes of crisis pregnancy

SUMMARY

This section examines the outcomes of crisis pregnancy and focuses in detail on the factors predicting abortion.

Of the 13% of women who had experienced a crisis pregnancy, 75% had the baby, 15% chose to terminate the pregnancy and 8% miscarried (2% were either still pregnant or experienced a still birth).

The proportion of women choosing to have an abortion increased strongly after 1980, while the proportion choosing to give birth and have the child adopted fell.

Analysis confirms that younger age at crisis pregnancy is associated with more likelihood of abortion, as are a higher level of education and/or a higher social class position.

Currently married or cohabiting women were significantly less likely than those in casual relationships or not in a relationship to choose abortion.

Attitudes toward abortion are crucial; more accepting attitudes are associated with a higher probability of abortion.

- *75% of women who had a crisis pregnancy reported giving birth to the child.*
- *15% of women who had had a crisis pregnancy reported having an abortion.*
- *Abortion has become a more likely outcome of crisis pregnancy over the last two decades.*
- *Women under 25 are more likely than older women to opt for abortion, as are women with higher levels of education and/or of higher social class.*
- *Married women and those in steady/cohabiting relationships were less likely to opt for an abortion.*

To investigate the outcomes of crisis pregnancy, the 513 women who reported a crisis pregnancy (see last section) were asked about the outcome.

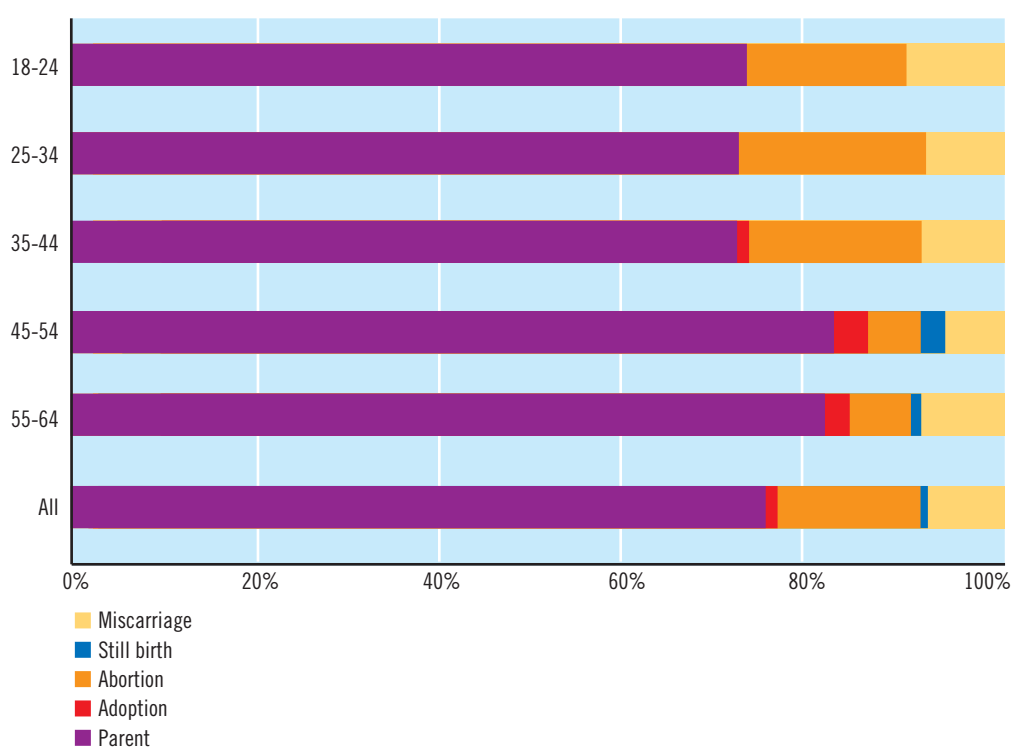
- The most frequently reported outcomes were that the baby was born (74.5%), aborted (15.1%) or miscarried (8.1%).

Almost 2% of women said they were currently pregnant and less than 1% reported a stillbirth.

These findings are consistent with those of the ICCP, particularly for the rates of birth and abortion.¹

Figure 6.3 shows the proportions of women, across age groups, who reported becoming a parent, having the baby adopted, having an abortion, experiencing stillbirth or having a miscarriage.

Figure 6.3: Outcomes of crisis pregnancy, by age group



The proportion of women who became a parent increases with current age, whereas the proportion having an abortion decreases with age. Figure 6.3 shows that termination became a much more common option for women born after 1960 who are likely (given the results in Figure 6.2) to have been experiencing their crisis pregnancies after 1980.

There is also a clear relationship between current age and having the baby adopted. Among women under 35 who had a crisis pregnancy, the proportion having the baby adopted falls to zero in the two youngest age groups. This reflects the sharp fall in the number of children offered for adoption in recent decades, itself an outcome of changing attitudes in Irish society (Rundle 2004).

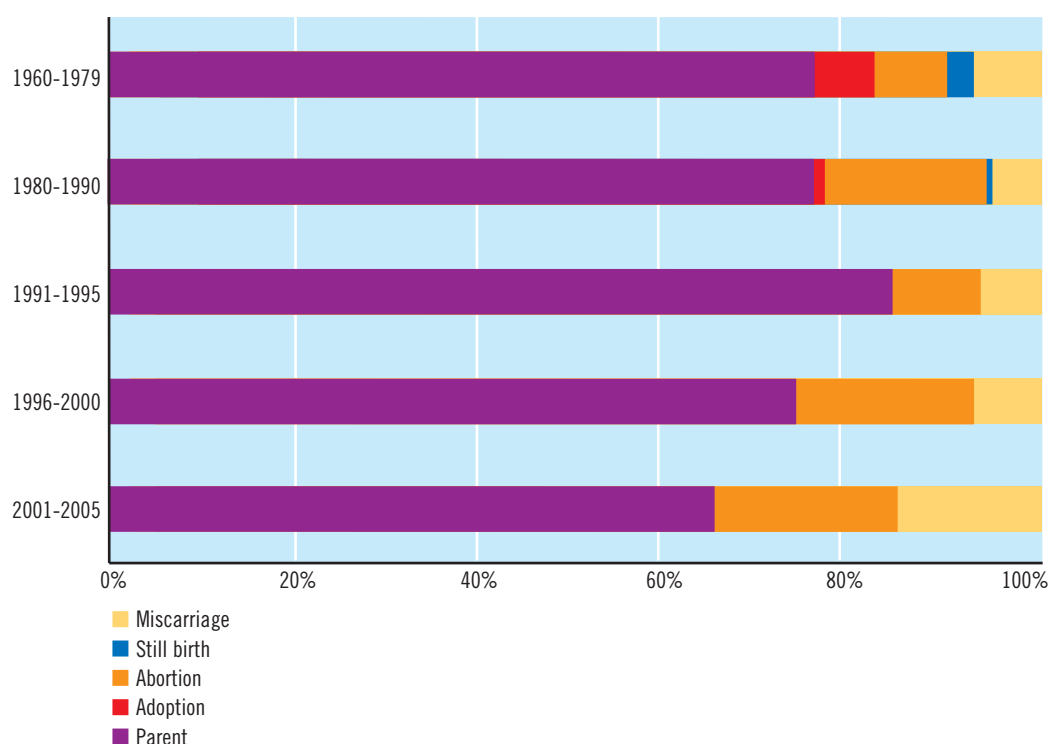
Given the patterns shown in Figure 6.3, it is important to investigate the factors which predict a woman having an abortion rather than giving birth to the child. Figure 6.4 below displays the pattern of outcomes of crisis pregnancy over four periods from 1960 to 2005. It would have been useful to differentiate between abortions which occurred before legal abortion became

available in Britain (1967) and after, but there were not enough cases to do this. Instead we are forced to use a longer period, from 1960 to 1979, to avoid having insufficient numbers for analysis.

Figure 6.4 shows that the proportion of women choosing abortion as a result of crisis pregnancy increased from 8% before 1980 to 17% in 1980-1990 and 20% in 2001-2005. Between 1991 and 1995, the proportion falls substantially to 9%, before rising again in the next period. It is difficult to explain this pattern, although it may simply arise from statistical variation as the number of cases available for analysis in 1991-1995 is lower than in the other periods.

Over the same period, the proportion of women choosing to have the child decreased from 82% (parenthood and adoption) in 1960-79 to 65% in 2001-2005. Adoption fell precipitously from 6% and 1% in the first two periods to zero thereafter (i.e. to less than one case among 4,253 women). Overall, we see the same pattern as found in Figure 6.3; crisis pregnancies further back in time were more likely to result in live births and adoptions, while those closer to the present were more likely to end in abortion.

Figure 6.4: Outcomes of crisis pregnancy over four periods



6.3.1 Abortion as an outcome of crisis pregnancy

THIS section examines the factors related to abortion as an outcome of crisis pregnancy. The ISSHR Main Report (section 11.4) includes an analysis of the predictors of experiencing an abortion among all women. Here we examine the predictors of abortion among women who reported a crisis pregnancy.

First, we investigate the influence of socio-demographic characteristics, then of knowledge, attitude and behaviour items. *Table 6.5* displays the proportion of women who reported choosing abortion over giving birth, by demographic factors. Several variables were collapsed to facilitate multivariate analysis, since few cases are associated with certain characteristics.

Table 6.5 disaggregates the likelihood of choosing an abortion by the woman's age at the time of the crisis pregnancy and the year in which it occurred. The results show that women who experience their crisis pregnancy before age 25 are more likely to have an abortion. Although this effect is not significant, it comes close to significance and would probably achieve it if the data set used was larger.

Table 6.5 also shows that the proportion choosing an abortion increases as the year when the crisis pregnancy occurred comes closer to the present (excepting in 1990-1995; see above). Although these effects are not significant in the table, tests showed that they only become insignificant once we add in current relationship status, which is closely related to age and thus the period of crisis pregnancy.

This same transformation in the significance of the result occurs for the variable representing educational level. Women with higher levels of education (particularly third-level) were much more likely to choose abortion rather than giving birth. Without the addition of relationship status to the model, these effects for education are significant, even controlling for age at crisis pregnancy and year of occurrence. This pattern stems from the fact that women with higher levels of education tend to marry later and have children later, so as to achieve their career aspirations, whereas women with lower qualifications have fewer career opportunities and are thus more likely to marry and have children earlier.^{18;19, 20}

The higher probability of abortion among the better-educated is also one of the reasons why the proportion opting for this outcome is higher among women from the professional and clerical classes than among those in manual positions. However, these effects are not significant once we control for current relationship status.

Table 6.5: Proportion of women with a crisis pregnancy opting for abortion, by demographic factors

	%	N
All	16.8	455
Age at crisis pregnancy		
18-24	18.68 ns	256
25+	14.74 c	196
Year of crisis pregnancy		
1960-1979	8.8 ns	63
1980-1990	18.3 ns	130
1991-1995	10.0 ns	71
1996-2000	20.8 ns	101
2001-2005	23.2 c	87
Education level (highest attained)		
Primary/lower secondary	11.0 c	118
Upper secondary	17.7 ns	200
Third level	25.9 ns	137
Social class		
Higher professional	20.5 ns	57
Lower professional	20.8 ns	128
Administrative/clerical	19.9 ns	97
Skilled manual	16.1 ns	37
Semi/unskilled manual	10.7 c	101
Place of residence		
Urban	19.9 ns	286
Rural	10.6 c	169
Current relationship status		
Not in a relationship	16.2 ns	96
Married	9.8 c	238
Cohabiting/steady relationship	27.1 *	113
Casual relationship	61.8 **	8
Religiosity		
Not at all religious	27.6 c	89
A little/quite religious	14.5 **	319
Extremely/very religious	11.0 *	47
Children		
Yes	10.5 ***	416
No	98.0 c	39

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

Table 6.5 shows that women who were currently in a casual relationship were far more likely than all other groups, particularly the married, to have chosen abortion. We should take caution in interpreting these effects since the current relationship status may not have applied at the time of the crisis pregnancy. However, research shows that relationship status is an important factor in a woman's decision to pursue a pregnancy. The absence of a relationship between the partners or a woman's dissatisfaction with the partnership are likely to increase the probability that she will opt for abortion^{21,22} and these are the results we see in Table 6.5.

Women with children were significantly less likely to report abortion as the outcome of their crisis pregnancy. This is likely to stem from the same process just discussed. Women with children are more likely to be in a relationship and to have reshaped their life with the presence of children. This makes it much more likely that a subsequent pregnancy will be pursued. However, the small number of women without children in this analysis (=39) should caution us against drawing firm conclusions.

People reporting a higher level of religiosity were also significantly less likely to opt for abortion over child birth.

As previously, we are interested in the impact of current knowledge and attitudes as well as past experiences and behaviours on the choice of abortion over parenthood. Table 6.6 shows the results of the addition of three measures of current knowledge to the demographic items just analysed. These items include knowledge of fertility, knowledge of the correct time for the effectiveness of the emergency contraceptive pill, and receipt of sexual education on contraception. After controlling for other factors, none of the knowledge items is significantly related to the choice of abortion, apart from that measuring knowledge of fertility. Women with better knowledge of fertility were more likely to seek an abortion. This stems largely from the fact that such women were likely to have less negative attitudes to abortion, rather than it being a direct effect of better knowledge about abortion.

Table 6.6: Proportion of women with a crisis pregnancy opting for abortion, by knowledge+

	Women %	N
Knowledge of fertility		
Inaccurate	12.8c	171
Accurate	19.8*	284
Knowledge of emergency contraception		
Inaccurate	12.4c	210
Accurate	20.8n.s	243
Received sexual education about contraception		
No	15.5c	308
Yes	19.8n.s	147

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

+ Results displayed after controlling for demographic factors in Table 6.5.

We also examined the influence of sexual attitudes and beliefs on women choosing abortion over birth. To do this, attitudes to the cost of condoms discouraging use, to the oral contraceptive pill and to abortion were entered into the analysis containing the basic socio-demographic variables shown in *Table 6.5*. The results are shown in *Table 6.7*.

Feeling that the cost of condoms would discourage use is a significant predictor (controlling for other factors) of choosing to have an abortion, but a negative attitude to the contraceptive pill is not. Unsurprisingly, *Table 6.7* also shows that women who currently have less negative attitudes to abortion were also more likely to have chosen it.

Table 6.7: Proportion of women with a crisis pregnancy opting for abortion, by attitudes+

	Women %	N
Cost of condoms discourages use		
No	17.5 _c	317
Yes	18.6 [*]	74
Attitude to oral contraceptive pill		
Positive	18.2 _c	249
Negative	18.2 _{ns}	151
Current attitude to abortion		
Never wrong	40.0 ^{***}	76
Sometimes wrong	18.3 [*]	191
Mostly wrong	10.8 _{ns}	80
Always wrong	2.9 _c	106

^{*}= $p<0.05$; ^{**}= $p<0.01$; ^{***}= $p<0.001$; _{ns}=not significant; _C=comparison group to which all other groups are compared.

+ Results displayed after controlling for demographic factors in *Table 6.5*.

A final model examined the relationship between various behavioural factors and abortion after controlling for age, class and relationship status (*Table 6.8*). Included are items on age of first sex, alcohol consumption, number of heterosexual partners over lifetime and having sought contraceptive advice.

Table 6.8: Proportion of women with a crisis pregnancy opting for abortion, by behavioural factors+

	%	N
Age at first sex		
Below 17 years	23.1 ns	95
Above 17 years	15.0 c	360
Alcohol consumption		
Below recommended limit	15.3 c	397
Above recommended limit	26.7 n.s	58
Number of lifetime partners		
Less than 5 partners	9.4 c	306
5 + partners	33.0***	149
Ever sought advice about contraception		
No	15.1 c	135
Yes	17.6ns	317

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

+ Results displayed after controlling for demographic factors in Table 6.5.

After controlling for demographic factors, age at first sex, alcohol consumption and having sought contraceptive advice are not related to opting for abortion. In contrast, number of partners over lifetime is significantly related. Women reporting more than five partners in their life so far are over four times more likely to report abortion as a result of a crisis pregnancy. This effect occurs largely because women with more partners over their lifetime are also likely to be more accepting of the possibility of abortion.

6.4 Sexually transmitted infections

SUMMARY

A small number of people reported being diagnosed with an STI. Infection across all current age groups is most likely to have occurred when people were in their 20s, but infection rates among current or recent 20-30 year-olds are higher and rates among those aged under 20 are increasing sharply. This suggests that younger people are taking risks.

Individuals in casual relationships were over three times more likely than married people to report infection.

Women who said the cost of condoms would discourage use were significantly more likely to report STI diagnosis.

Both men and women with a high number of partners over lifetime and men who began having sex before age 17 are more likely to have been diagnosed with an STI. So are men who reported a same-sex partner.

- *3.4% of men and 1.8% of women had been diagnosed with an STI.*
- *Experience of STIs was most likely among men and women aged 25 to 34.*
- *Higher education and non-manual social class are associated with likelihood of STI diagnosis among women.*
- *Men and women in a casual relationship or not in a relationship were most likely to report an STI.*
- *Both men and women who had sex before 17 were more likely to report an STI.*
- *A higher number of sexual partners is associated with STI diagnosis.*
- *Inconsistent condom use is a strong predictor of STI infection.*
- *Men who had ever had a same-sex partnership were nine times more likely to report an STI than men without same-sex experience.*

THIS section analyses the ISSHR data on sexually transmitted infections (STIs). Our aim here, as in previous chapters, is to analyse the role of sexual knowledge, attitudes and behaviours. ISSHR Sub-Report 2: 'Sexual Health Challenges and Related Service Provision' provides a more in-depth comparison of Irish results with those from other countries and discusses the impact of testing and surveillance in Ireland on reported STIs.

Less than 3% of the entire sample reported experience of a STI. Men were almost twice as likely as women to report STI diagnosis (3.4% versus 1.8% - $p < 0.001$).

Table 6.9 displays the proportion of men and women who reported having been diagnosed with an STI, across socio-demographic characteristics. The associated levels of significance derive from multivariate analyses, controlling for all factors in the table.

Among men, age and relationship status are most predictive of STI diagnosis. Experience of STI diagnosis increases with age, up to age 44, and then decreases, although the rate rises marginally again among the oldest cohort.

Relative to men under 25, men aged 25-34 and 35-44 were most likely to report STI diagnosis. For example, controlling for other factors:

- men aged 35-44 were almost six times more likely than men under-25 to report such STI diagnosis (not shown)
- men aged 45-54 and 55-64 were between three and four times more likely than men under-25 to report an STI

This difference is largely due to the different lengths of time that the various age groups have had in which to contract an STI, although the peak rate among men aged 25 to 44 suggests that this group have a differentially higher risk. This could be due to the fact that they have had more time to contract an infection than younger men, combined with a change in behaviour among this group compared to older men (i.e. more partners and/or less propensity to use protection).

The ISSHR questionnaire asked respondents when they were diagnosed with an STI (most recent). Cross-tabulating this variable with current age gives some indication of the most common age when people are likely to experience an STI. However, interpretation is problematic since individuals may have had more than one STI and the time since the last diagnosis is truncated at 10+ years. It is not possible to disaggregate the age groups further given the relatively small number reporting experience of an STI.

Figure 6.5: Most recent STI diagnosis among men, by current age

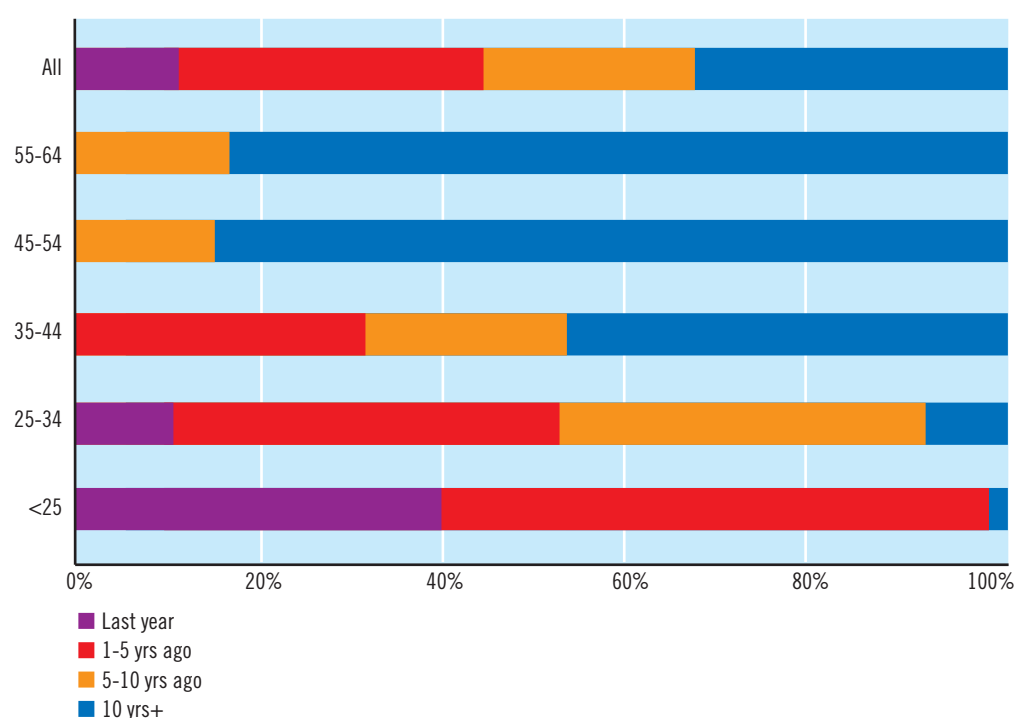


Figure 6.5 indicates that men are most likely to experience an STI during their 20s. Among men over 45, 85% reported an STI more than 10 years previously, as did 47% of those aged 35 to 44. Among those aged 25 to 34, on the other hand, 41% experienced an STI in the last five years and a further 39% between five and 10 years ago.

These results support those released by the National Disease Surveillance Centre (now the HPSC) which showed the highest rates of diagnosed STIs among men aged 20-29. The HPSC has warned, however, that rates among men under 20 are growing strongly.²³

Going back to *Table 6.9*, we see that married men were least likely to report experience of an STI. Using these men as the comparison group in multi-variate analyses, those not in a relationship or a casual relationship were most likely to report an STI. (Men who are not in a relationship may, of course, still be having sexual intercourse. The ISSHR Main Report¹⁵ showed, for instance, that men who were not in a relationship were more likely than men in a relationship to have paid for sex with a woman.)

Men who reported being in a casual relationship at the time of interview were almost six times more likely than married men to report an STI, after controlling for other factors (not shown). Men who were not in a relationship were almost five times more likely to report an STI.

Men in steady relationships were also significantly more likely to report an STI, although the size of the effect was slightly smaller than among those in less stable or committed relationships.

The small numbers involved and the fact that the data refer to current relationship status (not that at the time of diagnosis) means that these results should be interpreted cautiously. However, the ISSHR Main Report and Sub-Report 2: 'Sexual Health Challenges and Related Service Provision' show that risk factors for STI transmission – such as number of partners, number of concurrent partners and payment for sex – are all more likely among those who are currently in casual relationships or who are not in a relationship. It should also be said that these groups are also more likely to use protection, which will mitigate the risk to some extent. However, results in this report (chapter five) showed that 38% of men not in a relationship and 51% of those in a casual relationship reported not always using a condom during sex in the last year.

Including education and social class together did not come up with any significant results, therefore two separate models were tested which examined the effects of each variable in conjunction with the other demographic variables. Education was found to be unrelated to the risk of diagnosis with an STI. In contrast, for social class some significant variations arose: after controlling for other factors (excluding education), men in the skilled manual group were significantly more likely to report an STI than those in the semi/unskilled manual group.

Neither religiosity nor location of residence is significantly related to the probability of STI diagnosis.

Table 6.9: Proportion of men and women reporting STI diagnosis, by demographic factors

	Men %	N	Women %	N
All	3.4	3,176	1.8	4,238
Age group				
18-24	2.0c	755	2.6c	908
25-34	4.8***	700	3.6 ns	964
35-44	4.8***	645	1.1 ns	1,006
45-54	2.1*	571	1.4 ns	755
55-64	2.5 **	505	0.1 *	605
Education level (highest attained)				
Primary	3.3	263	0.4	303
Lower secondary	4.1	544	0.8	656
Upper secondary	2.7	1,192	1.9	1,772
Third level	3.9	1,177	3.4	1,507
Social class				
Higher professional	3.2ns	786	3.3 *	639
Lower professional	2.9 ns	730	2.2 ns	1,092
Administrative/clerical	3.7 ns	427	2.0 ns	974
Skilled manual	5.0 *	611	0.6 ns	296
Semi/unskilled manual	2.1 c	491	1.1 c	891
Relationship status				
Not in a relationship	4.9 ***	852	2.2 ns	957
Married	1.8 c	1,495	1.0 c	2,350
Cohabiting	3.4ns	239	3.4 ns	270
Steady relationship	4.7***	370	2.6 ns	520
Casual relationship	6.5***	220	5.8**	141
Place of residence				
Urban	3.7ns	1,921	2.1 ns	2,350
Rural	2.6 c	1,254	1.5 c	1,885
Religiosity				
Not at all religious	2.8 c	805	3.2 c	701
A little religious	4.3 ns	1,164	1.7 ns	1,616
Quite religious	3.2 ns	884	1.8 ns	1,384
Extremely/quite religious	1.7 ns	319	0.7 ns	534

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared

NOTE: Significance given adjusting for all variables in the table except education level.

A similar demographic model of STI diagnosis was examined among women. Variation across age is different among women; the rates are highest among women aged 25 to 34 and fall thereafter.

It is also notable that rates among women aged 18 to 24 are already higher than among women aged 35 or more. This suggests (as among men) that risky behaviours are more prevalent among young women than they were among older women at the same age. As noted before, this would confirm findings from the HPSC which show increasing rates of infection among people aged 20 to 29.

Compared with women aged 55-64 (after controlling for other factors in a multi-variate model (not shown):

- women aged 25-34 were 25 times more likely to report an STI
- women under 25 were almost 14 times more likely to report an STI
- women aged 35-54 were significantly more likely to report an STI

The effects of relationship status are less pronounced than among men. Compared to married women, only those in a casual relationship at the time of interview were significantly more likely to report an STI – i.e. four times more likely.

Place of residence and religiosity are not significantly related after controlling for other factors.

To determine the influence of knowledge, three knowledge-related items (knowledge of Chlamydia and HIV, and receipt of sex education about safe sex and STIs) were examined with the demographic factors displayed in *Table 6.9*. *Table 6.10* displays the proportion of men and women who reported STI diagnosis, across these knowledge items plus the significance of these factors, controlling for all the variables in both *Tables 6.9* and *6.10*.

Table 6.10 shows that none of these knowledge items is significantly related to men's experience of STI diagnosis (after controlling for demographic factors). However, among women, knowledge of Chlamydia is significantly related: women with good knowledge were three times more likely to report an STI (after controlling for other knowledge and demographic items). We have already come across in this report the pattern of higher risks among individuals with greater knowledge. We would expect greater knowledge to be associated with more protective behaviour (although analyses in chapter five show no significant increase in condom use among people with more knowledge). However, it may be that people with more risky practices are also more knowledgeable about matters that have become pertinent to them, or because they have learnt by experience after contracting an STI.

Knowledge of HIV is not significantly related to STI diagnosis. Nor is receipt of sex education about safe sex and STIs. However, this factor was approaching significance ($p=0.7$); women who had received such education were less likely to report an STI. This is an important finding since having received sex education has rarely proved to be a good predictor in this report once we control for age (partially because age is highly related to whether individuals will have received sex education and also because the relationship of behaviour to knowledge is complex).

The role which sexual attitude items may play in shaping the risk of contracting an STI, and results for three related attitude items, are displayed in *Table 6.11* (perceived risk of HIV infection, belief that the cost of condoms would discourage use, and sexual liberalism). Among men, only sexual liberalism is significantly related to STI diagnosis (after controlling for demographic and other attitude items). Men who got a low score on the liberalism scale were least likely to report an STI. Compared with them, men who scored highly on the liberalism scale were almost four times more likely to report an STI (controlling for other factors; multi-variate analyses not shown). This stems from the fact that men with more liberal attitudes are also more likely to have riskier sexual behaviours than less liberal men.

Table 6.10 Proportion of men and women reporting STI diagnosis, by knowledge factors +

	Men %	N	Women %	N
Knowledge of Chlamydia				
Limited knowledge	3.3 c	554	0.8 c	522
Good knowledge	5.6 ns	1,322	2.9*	2,695
Knowledge of HIV				
Limited knowledge	2.0 c	220	0.2 c	364
Good knowledge	3.5 ns	2,947	2.0 ns	3,862
Received sex education about safe sex and STIs				
No	3.6 c	2,144	1.8 c	2,858
Yes	2.8 ns	1,029	2.0 ns	1,375

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

+ Results displayed after controlling for demographic factors in *Table 6.9*.

Different attitudinal effects were found among women. After controlling for demographic factors, all three attitudinal items are significantly related to STI diagnosis. First, women who considered the cost of condoms a barrier to use were significantly more likely to report an STI. This is an important finding since this attitude is also associated with less likelihood of using condoms (see chapter five). This higher risk of infection may arise from such women using condoms less, or less consistently (see below).

Women who considered their risk of infection with HIV to be high were almost four times more likely to report an STI (controlling for other factors, not shown), which suggests that these women have a fairly realistic notion of their actual risk, since the ways that other STIs are contracted are similar to those for HIV. (In fact, infection with an STI increases the probability of infection with HIV.) Finally, similarly to men, women who got high scores on the sexual liberalism scale were 13 times more likely to report an STI than those who scored low (controlling for other factors).

Table 6.11: Proportion of men and women with STI diagnosis, by attitudinal factors +

	Men %	N	Women %	N
Perceived risk of HIV infection				
High perceived risk	6.9 ns	198	7.3**	182
Low perceived risk	3.1 c	2,966	1.6 c	4,041
Cost of condoms would discourage use				
Yes	5.0 ns	442	3.0*	584
No	3.0 c	2,479	1.8 c	2,989
Liberalism scale				
Low	1.3 c	650	0.1 c	966
Medium	2.0 ns	619	0.7ns	936
High	4.7 **	1,767	3.2*	2,110

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

+ Results displayed after controlling for demographic factors in Table 6.9.

The final model in this section examines the influence of past experiences and behavioural factors, after controlling for demographic characteristics. The proportion of men and women reporting an STI diagnosis by behavioural factors is presented in Table 6.12 (age at first vaginal sex, number of heterosexual partners in lifetime, alcohol consumption, condom use in the last year, ever having a same-sex partner).

Among men, after controlling for demographic factors, age at first sex, experience of same-sex intercourse and condom use are significantly related to STI diagnosis. Men who reported first sexual intercourse before age 17 were almost three times more likely than those who began sex later to report an STI (after controlling for other factors, not shown). We have repeatedly seen in this report that early sexual initiation is strongly related to both less likelihood of using protection and adverse outcomes. This is another instance.

Table 6.12 Proportion of men and women reporting STI diagnosis, by behavioural factors +

	Men %	N	Women %	N
Age at first sex				
Above 17 years	2.5 c	2,540	1.5 c	3,778
Below 17 years	6.6 *	636	4.5 n.s	460
Number of lifetime partners				
Fewer than 5 partners	0.8 c	1,735	0.7 c	3,440
5+ partners	6.6***	1,441	6.5**	798
Alcohol consumption				
Below recommended limit	3.2 c	2,802	1.7 c	3,697
Above recommended limit	4.4 ns	374	2.7 ns	541
Condom use (last year)				
Always	2.6 c	755	2.0c	806
Sometimes	7.4**	595	3.5n.s	666
Never	2.1 ns	1,326	1.3 ns	2,051
Ever had same-sex partner				
Yes	19.2 ***	145	6.5 ns	56
No	2.6 c	3,031	1.8 c	4,182

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

+ Results displayed after controlling for demographic factors in Table 6.9.

Both ISSHR and research internationally shows less sexual competence among people who start sex at an early age, including less use of protection and more poor outcomes such as unintentional conception and infection with STIs.²⁴

Table 6.12 shows a very strong relationship between same-sex experience and STI diagnosis. Men with same-sex experience were 10 times more likely to report an STI. This indicates a very high relative level of risk. The absolute risk is also quite substantial at 19%. The ISSHR Main Report and Sub-Report 2: 'Sexual Health Challenges and Related Service Provision' show that the vast majority of men who have sex with men also have sex with women and tend to have more partners on average than men who have heterosexual sex alone. They are also more likely to have concurrent relationships. All these factors would lead to a higher probability of infection with STIs.

Finally, in relation to condom use, men who only sometimes used a condom in the last year were three times more likely to report an STI than men who had always used a condom (controlling for other factors). This is an important finding since it directly links less use of condoms to the likelihood of contracting an STI.

Among women, only the variable measuring the number of sexual partners in lifetime proved to be a significant predictor of STI diagnosis. Women who reported five or more partners were almost three times more likely to report an STI (controlling for other factors), although the absolute risk for this group is less than 5%.

Interestingly, sex before age 17 is also a significant STI predictor among women as well as men, but it becomes insignificant when number of lifetime partners is controlled for. This suggests that the factors leading to earlier sexual initiation among women are strongly related to those which led later to a higher number of sexual partners (leaving no independent effect for the former).

6.5 Summary and conclusions

THIS chapter has extended the analyses of chapter five by investigating the factors associated with having experienced a crisis pregnancy, abortion resulting from crisis pregnancy and diagnosis of an STI. In particular, it sought to investigate if the experience of these adverse outcomes is related to the sexual knowledge, attitudes and previous experiences of respondents.

The examination of the pattern of crisis pregnancies showed that around 13% of women interviewed had experienced one, but that this varied considerably by age group. The youngest age group were the least likely to have experienced a crisis pregnancy, which is understandable given that they had less time in which to become pregnant or have a crisis pregnancy. However, it is clear that younger age is directly related to a higher risk; women aged 25 to 34 have the highest rate of crisis pregnancies among women who have been pregnant. This stems from the fact that the circumstances most likely to lead to a crisis pregnancy are also most likely among young women, including an unstable or no relationship, unfinished education and unrealised career aspirations. Although the rate of crisis pregnancies among young cohorts will fall as they have more pregnancies which are not crises, analysis of the age profile of crisis pregnancies did suggest a possible cohort change: younger women are more likely to experience crisis pregnancy at a younger age than those in older cohorts – that is, they have more crisis pregnancies earlier than women of previous generations. If so, the rate of crisis pregnancy among the youngest age group should increase over time.

The reasons for this increase are difficult to determine. Changes in the circumstances of young women could contribute, since a 'crisis' is what is perceived as such by the individual concerned. Most crisis pregnancies are defined as such because the conception occurs at a time which is not right for the woman concerned, perhaps because of the status of her relationship or because the pregnancy disrupts her education and career plans. Since more Irish women are now entering both higher education and careers in each successive cohort, a pregnancy which was not seen as a crisis in previous generations may now be defined as such; the woman is less likely to be in a formalised relationship and more likely to be concentrating on advancing her education and career. The impact of these pressures on child-bearing has been well documented. The average age of Irish mothers at first birth rose by 1.5 years in 1995-2004, from 27 to 28.5 years.²⁵

On the other hand, it could be argued that the definition of crisis pregnancy may have become narrower over time, that women are less likely to define an unplanned pregnancy as a crisis because of more social supports, from financial to aid for lone parents to more social acceptance of pregnancy outside marriage.

However, even if the perception of what amounts to a crisis pregnancy has changed, the challenge remains that more pregnancies are now seen as a crisis for the woman involved.

Surprisingly, analysis showed that having greater knowledge about emergency contraception is associated with more risk of a crisis pregnancy. While knowledge is a prerequisite for protective behaviours, it may also derive from negative experience. And it was found in the last chapter that having received sex education does not seem to predict outcomes. However, rather than concluding that such education is of no value, more research needs to be carried out. It may be, for example, that sex education has its impact through other factors and this would only become evident with more in-depth research. The potential for receipt of poor-quality sex education must also be considered – an issue not fully explored in this study.

It is clear, however, that negative attitudes to the oral contraceptive pill are associated with a greater likelihood of crisis pregnancy. Much of this association is due to cost being seen as a barrier to use. This issue needs more research, but the findings indicate that cost discourages use of the pill, and this is a matter of concern for policymakers.

As in the previous chapter, there is a very strong relationship between early sex (before 17) among women and a negative outcome – in this case, a crisis pregnancy. It might be thought that this was just an effect of age, since younger women were more likely than older women to have early sex and to have a crisis pregnancy. However, even controlling for age in a multi-variate analysis, findings showed that having sex before age 17 is strongly predictive of a crisis pregnancy. This is worrying, since many of the women who reported early sexual intercourse in this study came from less advantaged backgrounds; thus crisis pregnancy adds to the difficulties that they face.

Measures of women's knowledge about fertility and contraception proved to be complex measures from which it was difficult to infer a causal process using cross-sectional data. Although the combination of relevant factors is complex and still poorly understood, it seems that some process – perhaps including learning, attitude formation and socio-economic circumstances – leads from early experience to later outcome. This socio-economic differential is common in a number of areas of health and is examined in more detail in the ISSHR Main Report.

The chapter also examined the various outcomes of crisis pregnancy, in particular abortion. Analyses showed that the probability of abortion as an outcome of crisis pregnancy has grown over recent decades as the probability of birth and adoption has fallen. The fall in adoptions is particularly steep (in the ISSHR data they fall to zero in the 1990s). This has been discussed in more detail in the ICCP study¹ which showed a substantial change in attitudes to adoption since the 1970s.

Analysis of the predictors of opting for abortion show that the woman's age is important; younger women were more likely to opt for abortion. Higher levels of education and higher social class are also predictors of a greater likelihood of abortion, although this effect is complex and interacts with the woman's current relationship status.

Unsurprisingly, the analysis of sexual attitudes showed that women who currently had more accepting attitudes to abortion were more likely (than women who saw abortion as always or mostly wrong) to choose abortion.

The analysis of reported STIs found that just over 3% of men and 2% of women reported an STI diagnosis in their lifetime. The peak age for men was between 25 and 44, but under age 35 among women. People were most likely to have been diagnosed with an STI when aged between 20 and 30, a result which confirms the statistics produced by the HPSC.

Among men, relationship status appears to be a factor; men who were not in a relationship and those in a casual relationship were most likely to report an STI. Among women, only those in a casual relationship were significantly more likely to report this than married women.

The strong association between relationship status and STI diagnosis suggests that the higher risk profile of people who are not married or cohabiting contributes to their risk of infection. Certainly, results from the ISSHR Main Report and chapter seven of this report indicate that people in casual relationships have more partners, are more likely to have concurrent partners and, among men at least, are more likely to pay for sex. All these factors would contribute to the risk of infection.

As in previous analyses, knowledge of STIs proved to have a complex relationship with experience. Better knowledge was once again associated with a higher risk of adverse outcomes. As before, this may be a selection effect – that is, more risky behaviours are associated with higher levels of education (although we controlled for education), or it may be that experience of an STI itself leads to better knowledge.

As with crisis pregnancy, analyses of STI risk showed that income and affordability may be an issue. Women who reported that the cost of condoms would discourage use were significantly more likely to report an STI diagnosis. This is a fundamental issue in the promotion of safer sexual practices since no amount of health promotion will increase rates of condom use if individuals cannot afford to buy them. This issue should be looked at urgently by policymakers.

Age of first intercourse once again emerged as a strong predictor in the case of STI diagnosis among both men and women (although among women the effect became insignificant when we controlled for their number of sexual partners in lifetime). This is an interesting finding, since it suggests that the same factors that promote early sexual initiation also lead to more sexual partners. Among both men and women, having more sexual partners was strongly associated with more risk of contracting an STI. This association has been found internationally.²⁶ Use of barrier protection can cut this risk dramatically, if used consistently. Analyses showed that people who reported inconsistent use of condoms in the last year were significantly more likely to also report an STI diagnosis.

Lastly, analyses showed that, among men reporting a same-sex partner is a very significant predictor of STI diagnosis, even controlling for many other factors. In fact, they were 10 times more likely to report an STI.

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Sexual partnerships

7.1 Introduction

THE examination of sexual partnerships in national surveys has generally involved analysis of number of partners over the participant's lifetime, in the past five years and in the past year.¹ This tiered level of analysis allows for the identification of patterns of partner change and possible trends.² Such patterns would be impossible to identify if the data were restricted to shorter periods such as one year. However, the results for lifetime partners may be subject to recall bias.

Such data provides invaluable information about the nature of social relations and how these may have changed over the generations. It allows us to determine if changes in social attitudes to sexual practices are related to actual sexual behaviours.

The number of sexual partners is also used as a marker of increased risk of sexually transmitted infections. For instance, the 1996 Swedish national sex survey suggested that interventions aimed at people with a large number of sexual partners would have the greatest impact on the spread of HIV/STIs.³

National studies of sexual partnerships and practices have also begun to focus on the prevalence of commercial sex.^{2,4} Magnus⁵ argued that the prevalence and characteristics of paying for sex are poorly understood due to the frequently illegal nature of much activity in the sex industry. At present there is no representative data about the practice of commercial sex in Ireland.

- This chapter examines the number of sexual partners that ISSHR participants had over three different periods.
- The first three substantive sections analyse the number of heterosexual partners.
- Section two examines number of partners over lifetime and, in particular, the determinants of having a high number of partners.
- The third section examines the number of partners over the last five years, and section four investigates the number of heterosexual partners in the last year.

- Section five considers the pattern of homosexual partnerships and predictors of same-sex relationships, in the last five years. The aim here is not ‘prediction’ in the sense of providing an understanding of what influences a person to have more partners of the same gender, but to examine the relationship of knowledge, sexual attitudes and past behaviours with the dependent variable (e.g. having same-sex partners).
- The sixth section analyses commercial sex and section seven summarises the chapter and draws conclusions.

7.1.1 Number of lifetime heterosexual partners

International studies have consistently found that men are significantly more likely to report more opposite-sex partners over their lifetime.^{2,6,4,7} For example, Copas *et al* 2001⁴ found that 81.9% of men and 76.4% of women reported more than one partner in lifetime; men were significantly more likely to report multiple partners. Over one-third of men reported at least 10 lifetime partners compared to 19.4% of women.⁴ Similar results emerged from a national study of sexual behaviour in New Zealand, which found an average of 10 lifetime partners among men and just over four among women.⁸ To account for a skewed distribution of cases (since some participants report extreme numbers of partners which inflates the mean score), median scores were also presented. Gender differences were maintained when comparing median scores, with men reporting a median of five lifetime partners compared to two for women.

A number of explanations have been suggested to account for such gender differences. In a ‘closed’ population, the average number of heterosexual partners for men and women in a given period should be the same. However, the conditions of a closed society are rarely met, especially with increased international travel. For example:

- Some participants may have partners outside the sample population, such as partners abroad or partners who fall outside the study’s age range.
- The minimum age for inclusion in surveys may have an effect, as men usually have younger female partners. Men aged 18-20 may report relationships with women under 18, who are not included in the sample.⁷
- As well, female partners, such as prostitutes, who are under-represented in the sample may account for some of the gender discrepancy.²
- Finally, it has also been postulated that men are likely to exaggerate the number of sexual partners whereas women are likely to under-report. This may be influenced by current social attitudes which often condone the sexual behaviour of men with several partners. Johnson *et al* (1994)² suggested that such attitudes are reflected in language used to describe such practices among men (particularly young men). For example, men with several partners are often referred to as ‘studs’. In contrast, women with several partners are often subject to more pejorative terms such as ‘slag’ or ‘tart’, terms which often have no male equivalent. This double standard persists despite more liberal attitudes towards female sexuality and sex before marriage.

Variability in number of sexual partners (across all time periods) has been consistently found to be influenced by age. For example, international studies have revealed that men and women in the youngest age groups report significantly fewer heterosexual partners as they have had less time to acquire many partners. As well, many have not begun their sexual ‘career’. The 1990 Natsal data showed that participants under 24 reported fewer lifetime partners than those

aged 25-44. The proportion reporting 10 or more partners peaked among those aged 25-34 (9.7% of women and 31.4% of men). Despite having had more time to accumulate a greater number of partners, men and women aged 45-59, reported fewer than people aged 25-44. Less than 5% of women and one-fifth of men aged 45-59 reported 10 or more partners in lifetime.²

These findings suggest the influence of generational effects, highlighting the liberalisation of sexual attitudes, particularly to the number of sexual partners among younger age groups.

Similar age patterns emerged from the Australian study ASSHR. The mean lifetime number of female partners was 3.3 for men aged under 19, 7.7 for men aged 20-29, 9.1 for those aged 40-49 and 8.4 for men aged 50-59. The mean lifetime number of partners for women under 19 was two; it increased to 4.3 for women aged 20-29 and 4.7 for those aged 30-39. The mean number then declined among older women: 4.3 for women aged 40-49 and 2.9 for those aged 50-59.⁶

These patterns, of fewer partners among older men and women, indicate changing patterns in partnership practices in recent years.

Similarly to age, relationship status is an important variable to consider when examining number of sexual partners. Changes in partnership patterns in recent years (such as less marriage or at least later marriage and more cohabitation) may have a significant impact on number of sexual partners. For example, Johnson *et al* (1994)² showed that unmarried participants were significantly more likely to report 10 or more partners in lifetime than married people. This finding emerged after controlling for age, social class and age at first intercourse.²

7.1.2 Number of heterosexual partners over the last five years

INTERNATIONAL studies have found that men are significantly more likely to report more opposite-sex partners than women 'in the last five years'.^{6,2} Copas 2001⁴ reported a consistent decline in the mean number of partners 'in the last five years' with increasing age for both men and women.⁹ Comparisons of Natsal 2000 with Natsal 1990 revealed increases in the number of heterosexual partners 'in the past five years'. Leridon *et al* (1998)⁷ reported on data from Belgium, France and Britain, on number of sexual partners 'in the past five years'; they found that the mean number of partners was very consistent across countries, ranging from 3.1 to 3.7 among men and from 1.5 to 1.8 among women. Thus, the number of partners reported by women was about half that reported by men.

Studies have also found age effects in relation to number of partners in the last five years; younger participants report more. For example, for men aged 25 in the French study, the mean of partners in the past five years was five, compared to 2.1 for women of the same age. The mean decreased to 2.6 for men and 1.5 for women aged 35 and to 1.8 for men and 1.4 for women aged 45.⁷ Similar findings emerged from the 1990 Natsal; men and women aged 16-24 years were consistently more likely to report the greatest number of sexual partners in the past five years, despite having the highest proportion of respondents who had not yet experienced sexual intercourse.² The authors concluded that such age differences may have emerged because younger people were starting their sexual careers and may have explored a series of relationships before adopting a long-term relationship. They also speculated that such age differences may

reflect a generational gap in sexual behaviour, influenced by various social and legislative issues (e.g. contraception).²

7.1.3 Number of heterosexual partners in the last year

The results for 'in the last year' are consistent with those for the other periods. International research has shown that men are significantly more likely to report sex with more than one partner 'in the last year'.^{1;7} The rate of multi-partnership (more than one sexual partner in the last year) was found to be higher among men in Spain and Finland; about one-third reported two or more partners. However, women in Spain and Finland also reported more multi-partnership than those in other countries; 17% reported more than one partner. In other European countries, including France, Belgium and the UK, the rate of multi-partnership varied from 11% to 19% among men and 2% to 8% among women.⁷

Significant associations between age and number of opposite-sex partners 'in the last year' have also been found^{6,7,10}

- From their analysis of data from several European studies, Leridon *et al*⁷ concluded that the proportion of both men and women reporting multi-partnerships declines with age. However, the proportion was sometimes lower among people aged 18-19 than among those aged 20-24, probably because they had been sexually active for less time.
- Results from ASHR are consistent with this view. It found the mean number of female partners 'in the last year' to be 1.3 for men aged 16-19, 1.5 for men aged 20-29, 1.2 for those aged 30-39, 1.1 for men aged 40-49 and 1 among men aged 50-59. Similarly, among women, the mean number of male partners was 1 for those aged 16-19, 1.1 for women aged 20-29, 1 for those aged 30-39 and less than 1 for women aged 40-49 and 50-59.⁶
- Natsal 1990 found similar age effects. The likelihood of reporting two or more partners 'in the last year' decreased with age. For example, women aged 16-24 were almost four times more likely to report two or more partners than women aged over 45.²

As well, relationship status has been identified as an important predictor of number of sexual partners in the last twelve months.^{6;7}

- ASHR showed that unmarried men and women were significantly more likely to report multiple partners in the last year.⁶ A national survey of the sexual behaviour of US adults found that being divorced or never having been married was significantly related to the likelihood of more than one sexual partner in the past year.¹¹
- Natsal 1990 showed that participants who were neither married nor cohabiting were more likely to have had either no sexual partners or multiple partners 'in the past year'. For example, more than one-quarter of single men and almost one-fifth of single women reported two or more partners in the last year, whereas 1.2% of married men and 0.2% of married women did so.²
- In their analysis of several European countries, Leridon *et al*⁷ concluded that people living with steady partners are significantly less likely to report two partners than those who are not cohabiting.
- Johnson & Wadsworth² found that cohabiting couples were less likely than single couples and more likely than married couples to report multiple partners: 15.3% of cohabiting men and 8.2% of cohabiting women reported two or more partners in the last year.

Johnson & Wadsworth also found that men who had experienced sexual intercourse before age 16 were 2.7 times more likely to report multiple partners in the last year (than those who experienced first intercourse later). Similarly, women who experienced first sex before 16 were almost four times more likely to do so.

The Leridon *et al* analysis of various European countries found that the number of partners increased with level of education.

Social class, too, has also been found to be significantly related to number of sexual partners in the last year.^{6,12} For example, Johnson & Wadsworth found that men and women in the manual social classes were less likely to report two or more partners than those in social classes I and II. However, they found that the influence of social class was weak compared with that of age and marital status.

7.1.4 Commercial sex

The study of commercial sex in KAB studies has generally been confined to analysis of men paying for sex, since few women report doing so.⁶ European national studies have revealed great variability in the proportion of men who have ever paid for sex. For example, 6.8% of British men reported having done so at some time in their life, compared to 39% of men in Spain.⁷ The ASHR figure for men in Australia was 15.6%.⁶

In all national surveys of commercial sex, more men report having paid for sex at some point in their life than report having done so in the recent past (e.g. in the last year). The proportion for 'in the last year' varies from country to country. For example, 1.8% of men in the Natsal study reported paying for sex in the past year compared to 11% of men in Spain.⁷ The ASHR total was similar to the British one: 1.9%.⁶

Older men have been found to be significantly more likely to have paid for sex. For example, Australian men over 30 were significantly more likely than younger men to have done so.¹³ Similarly, Johnson & Wadsworth² reported from the 1990 Natsal data that men over 45 were five times more likely to report having paid for sex than men under 25 (10.3% compared to 2.1%). The opposite trend emerged in relation to commercial sex in the recent past; younger men were significantly more likely to report paying for sex than to older men.² Similarly, Rissel *et al*¹³ found no significant relationship between men's age and payment for sex in the past year, despite younger men being significantly less likely to report ever paying for sex.

Rissel *et al*¹³ (13) found that men with no regular partner were significantly more likely to report paying for sex in the past year. They were also significantly more likely to report alcohol consumption in excess of the recommended limits. Also found to be related to commercial sex was STI diagnosis; for example, in the French ACSF study, men who had paid for sex were significantly more likely to have had an STI in the previous five years.¹⁴ Similarly, in ASHR, men who had paid for sex were significantly more likely to have been diagnosed with an STI.¹⁵

ASHR also found that men who had paid for sex were significantly more likely to have had vaginal intercourse before age 16 and to report more partners in lifetime and the past year.¹³ Johnson & Wadsworth² reported similar findings from the 1990 Natsal data; the proportion of men who reported paying for sex increased with the number of female partners ever; for example, 1.7% of men with two lifetime partners compared to 17% of men with 10 or more.

The next sections outline the ISSHR results, making comparisons where appropriate with other studies.

7.2 Findings: Number of lifetime heterosexual partners

SUMMARY

The overwhelming majority of Irish men and women have had vaginal, oral or anal sex. Around a third of men and over half of women have had a single sexual partner in their life so far. A quarter of men and 6% of women report 10 or more partners.

The average number of sexual partners is influenced substantially by a small number of men and women who report a large number of partners.

Both men and women with more liberal attitudes were more likely to report 10 or more partners in their life so far, as were those who began having sex before 17 or who currently drink more than the recommended amount of alcohol.

Men who have paid for sex are more likely to have had 10 or more partners, even if only unpaid partners are counted.

Women who have ever had a same-sex partner are over three times more likely to have had 10 or more partners in their life so far.

- *Around 94% of men and women reported at least one sexual partner in their lifetime.*
- *29% of men and 51% of women reported a single partner in their lifetime.*
- *Far more respondents over age 44 reported a single partner in their life so far than did younger people.*
- *25% of men and 6% of women had 10 or more partners so far.*
- *The proportion with 10 or more partners is highest among men and women aged 25 to 34 and lowest among those aged 55 to 64.*
- *Having first vaginal sex before 17 is strongly associated with a higher number of sexual partners over lifetime.*
- *Women with same-sex experience were more likely to have had a high number of sexual partners.*
- *Men who had paid for sex were more likely to report a large number of both paid and unpaid partners.*

THIS section examines the number of heterosexual partners in lifetime reported by the ISSHR participants.

The number of reported partners over lifetime varies substantially. Almost 6% of both men and women said they never had a sexual partner. In contrast, 25% of men and over 6% of women reported 10 or more partners in lifetime.

Tables 7.1 and 7.2 display numbers of partners for men and women by age group. The most frequently cited number of partners was one. Women were more likely to report one partner over lifetime (50.8%) than men (29%).

Both tables present the mean and median number of partners by age group. The median value is discussed here, as it is considered more representative (as explained earlier). Gender differences are still maintained in the median scores: men report a median of four partners (mean of nine) compared to one for women (mean three). This pattern of greater numbers of partners among men is consistent with international studies.^{4,6-8}

Table 7.1: Distribution of number of heterosexual partners in lifetime among men, by age group (%)

	Age					
	18-24	25-34	35-44	45-54	55-64	All
0	11.9	4.3	2.9	5.5	7.3	6.3
1	22.6	17.7	27.2	37.3	45.8	29.0
2	7.2	6.7	7.1	5.2	7.6	6.8
3-4	18.0	12.8	15.1	11.6	8.9	13.6
5-9	19.3	25.3	19.5	19.2	13.2	19.6
10+	21.0	33.2	28.3	21.2	17.1	24.8
Median	3	5	4	3	1	4
Mean	6.0	11.0	11.4	8.8	7.2	9.05
Base	759	701	647	574	507	3,188

Differences across age groups are also consistent with previous research. For example, a higher proportion of men and women under 25 reported no sexual partners so far in their life. A higher proportion of people aged 55-64 reported one partner. The proportion reporting 10 or more partners peaked in the 25-34 age group (33.2% of men and 20.4% of women), and declined markedly among 45-54 year-olds (19.2% of men and 4.4% of women).

Despite having had more time to acquire more partners, fewer men and women aged 54-65 reported 10 or more partners (17.1% of men and 1.2% of women) than those aged 25-54.

Table 7.2: Distribution of number of heterosexual partners in lifetime among women, by age group (%)

	Age					
	18-24	25-34	35-44	45-54	55-64	All
0	15.3	3.1	2.8	2.2	5.6	5.8
1	34.5	32.7	53.7	65.2	75.6	50.8
2	12.2	12.9	11.0	7.7	7.3	10.5
3-4	17.6	20.3	14.6	10.6	6.9	14.5
5-9	12.4	20.4	12.5	10.0	3.4	12.3
10+	8.1	10.6	5.5	4.4	1.2	6.2
Median	2	3	1	1	1	1
Mean	3.6	4.2	2.9	2.4	1.5	3
Base	908	966	1,014	755	610	4,253

It is likely that generational differences in attitudes and behaviours can contribute to the explanation for these findings, such as changes in attitude to sex before marriage and a rising trend in cohabitation among younger generations. However, little is known about the influence of such factors on sexual partnership in Ireland.

This section of the report examines the influence of current knowledge, attitudes and behaviours on multiple lifetime partners. Consistent with international research, multiple here is defined as 10 or more partners in lifetime.^{8,9}

As previously, we examine the impact of a range of socio-demographic factors before focusing on that of specific knowledge, attitudinal and behaviour factors.

Table 7.3 displays the proportion of men and women who reported 10 or more lifetime partners, by various demographic variables.

Men were four times more likely to report 10 or more partners in lifetime than women (24.8% versus 6.2%). This is consistent with findings from Natsal.²

Multivariate logistic regression analysis was conducted to identify factors independently related to 10 or more partners, after controlling for other factors.

Among men, age, social class, relationship status, location and religiosity remained significantly related to 10 or more lifetime partners.

Table 7.3 shows that the probability of men having 10 or more partners increases initially with age, but falls after age 44. Once we control for other factors, however, analyses show that, compared to men aged 18 to 24, all older age groups are significantly more likely to have had 10 or more partners.

Relatively weak effects were found for social class. Using the unskilled manual as the comparison group, only those in the administrative/clerical group were significantly different.

In contrast, strong effects for relationship status were observed after controlling for other factors. Married men were the least likely to report 10 or more lifetime partners. Relative to them, men currently in a casual relationship were five times more likely to report 10 or more partners, controlling for other factors (not shown). Men not in a relationship and those cohabiting or in a steady relationship were significantly more likely.

As religiosity increased, the proportion of men reporting 10 or more partners decreased. Men living in an urban area were significantly more likely to report 10 or more partners than men currently living in rural areas.

Among women, age, education, class, relationship status and location remained independently significant, after controlling for other factors.

Women aged 25-34 were most likely to report 10 or more partners. As with men, adjustment for other factors changes the pattern of results: women aged 18 to 24 were significantly less likely to report 10 or more partners than all other groups except women aged 55-64.

Women with higher levels of education were also significantly more likely to report 10 or more partners. For example, the probability of women with third level education reporting this is six times that of women with primary education alone (once we control for factors such as age, not shown).

Table 7.3: Proportion of men and women who reported 10 or more partners in their lifetime

	Men %	N	Women %	N
All	24.8	3,188	6.2	4,253
Age group				
18-24	21.0c	759	8.1c	908
25-34	33.2***	701	10.6***	966
35-44	28.3***	647	5.5*	1,014
45-54	21.2***	574	4.4*	755
55-64	17.1**	507	1.2n.s	610
Education level (highest attained)				
Primary	19.5n.s	263	1.2**	305
Lower secondary	23.5n.s	544	3.1**	657
Upper secondary	26.5n.s	1,198	6.5*	1,780
Third level	26.8c	1,183	11.3c	1,511
Social class				
Higher professional	25.7n.s	790	11.9*	642
Lower professional	24.0 n.s	731	7.1n.s	1,097
Administrative/clerical	18.1*	428	5.0 n.s	978
Skilled manual	27.2 n.s	611	4.8 n.s	296
Semi/unskilled manual	23.7c	492	4.4c	892
Relationship status				
Not in a relationship	26.3***	854	9.4***	961
Married	19.1c	1,502	2.6c	2,361
Cohabiting	39.0***	239	14.2***	270
Steady relationship	27.7**	371	8.5***	520
Casual relationship	40.5***	222	13.6***	141
Place of residence				
Rural	21.0c	1,257	4.9c	1,887
Urban	27.3*	1,930	7.2n.s	2,362
Religiosity				
Not at all religious	32.1c	809	11.2c	701
A little religious	27.6n.s	1,166	6.5*	1,620
Quite religious	19.0***	887	4.3**	1,390
Extremely/quite religious	12.5***	321	3.6*	537

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

As with men, strong effects for relationship status are found among women after controlling for other factors.

Compared to married women, those in cohabiting and casual relationships were most likely to report 10 or more partners. Women not in a relationship and those in a steady relationship were significantly more likely to do so than married women. Women with higher levels of religious belief were far less likely to report having 10 or more partners.

As multiple partnerships are considered a risk factor for infection, an analysis of the association of knowledge items was carried out, including knowledge of Chlamydia and HIV, and having received sex education on safe sex and STIs.

Table 7.4 displays the proportion of men and women who reported 10 or more partners in lifetime across these knowledge items. A multivariate logistic regression analysis was conducted to determine the influence of the knowledge items on multiple partnerships, after controlling for the demographic factors shown in Table 7.3.

Table 7.4 does, however, show that, among women, knowledge of Chlamydia is significantly related to having 10 or more partners. A significantly higher proportion of women with accurate knowledge reported 10 or more partners than of those without such knowledge.

There are at least two possible ways in which sexual knowledge could be related to number of sexual partners. The first way is through some form of 'selection effect'. Chapters three and four consistently showed that people with higher levels of education are more likely to have both more liberal attitudes and better knowledge of the items investigated. However, if we are controlling for age and education (Table 7.4), there must also be an independent relationship between having a higher number of partners and better knowledge. A second way could thus be that better knowledge stems from having experienced an STI such as Chlamydia since (as the last chapter also showed) more partners in lifetime is associated with a higher probability of being diagnosed with an STI.

Table 7.4: Proportion of men and women who reported 10 or more partners in lifetime, by knowledge items+

	Men %	N	Women %	N
Knowledge of Chlamydia				
Limited knowledge	22.4c	1,862	2.8c	1,552
Good knowledge	28.7n.s	1,326	8.5***	2,701
Knowledge of HIV				
Limited knowledge	16.2c	220	2.7c	364
Good knowledge	25.6n.s	2,948	6.6n.s	3,867
Received sex education about safe sex and STIs				
No	23.7c	2,154	5.5c	2,868
Yes	27.3n.s	1,031	7.8n.s	1,379

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

+ Results displayed after controlling for demographic factors in Table 7.3.

The proportions of men and women reporting 10 or more partners across attitude items are displayed in Table 7.5. Among both men and women, only sexual liberalism is significantly related, after controlling for demographic and other attitude items. People who scored high on the liberalism scale were significantly more likely to report 10 or more partners than those with low sexual liberalism.

To develop a profile of individuals who report 10 or more lifetime partners, a model examining basic demographic factors with behavioural factors was examined. Age at first sex, alcohol consumption, ever having a same-sex partner and ever paying for sex were included in this model (Table 7.6). Among men, when controlling for other factors, all the behaviour items are significant apart from ever having a same-sex partner.

Men who reported first sexual intercourse before 17 were almost five times more likely to report 10 or more partners, once we control for other factors in a multivariate model (analyses not shown).

Table 7.5: Proportion of men and women who reported 10 or more partners in lifetime, by attitudinal items+

	Men %	N	Women %	N
Perceived risk of HIV infection				
Low perceived risk	24.6c	3,149	6.2c	4,211
High perceived risk	38.0n.s	38	10.1n.s	41
Cost of condoms would discourage use				
No	24.6c	2,489	6.4c	3,000
Yes	28.2n.s	444	7.7n.s	584
Liberalism scale				
Low	12.5c	654	0.7c	971
Medium	20.6n.s	619	3.4**	940
High	31.8***	1,767	10.3***	2,115

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

+ Results displayed after controlling for demographic factors in Table 7.3.

Similarly, more men who reported drinking above the recommended limit also reported 10 or more partners. Multi-variate analyses showed that this was almost twice as likely. Men who had ever paid for sex with a woman were much more likely to report 10 or more partners (by multi-variate analyses, seven times more likely). Paid sexual partners were included, but the ISSHR Main Report showed that, even if only unpaid sexual partners were included, men who had paid for sex were more likely to have had 10 or more partners.

A very similar pattern was found for women; age at first sex, alcohol consumption and ever having a same-sex partner are all significant. The variable representing ever paying for sex could not be included in this multivariate analysis; just one woman reported ever paying for sex.

As found for men, women who reported first sex before 17 were almost five times more likely to report 10 or more lifetime partners, controlling for other factors (multivariate analyses not shown). Those who reported drinking in excess of the recommended limits were twice as likely.

Table 7.6: Proportion of men and women who reported 10 or more partners in lifetime, by behavioural items+

	Men %	N	Women %	N
Age at first sex				
After 17 years	17.8c	2,552	4.5c	3,791
Before 17 years	50.3***	636	19.1***	462
Alcohol consumption				
Below recommended limit	22.4c	2,808	5.2c	3,708
Above recommended limit	41.7***	380	13.4***	545
Same-sex partner (ever)				
No	24.2c	3,043	5.9c	4,197
Yes	36.9 n.s	145	33.9***	56
Ever paid for sex				
No	22.0c	2,974	6.3	4,213
Yes	69.1***	188	0.0	1

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

+ Results displayed after controlling for demographic factors in Table 7.3.

'Ever paid for sex' omitted from multi-variate model for women due to small numbers.

7.3 Findings: Number of heterosexual partners in the past five years

SUMMARY

Most Irish men and women will have had a single sexual partner over the last five years. The proportion having a higher number varies greatly by gender; for example, 56% of men and 35% of women aged 18 to 24 reported three or more partners in the last five years.

Relationship status is also important. Only 4% of married men and 1% of married women reported three or more partners, rising to 61% of men and 44% of women in a casual relationship.

Among all age groups, people with higher levels of religiosity are less likely to have a high numbers of partners.

Both men and women with a high number of partners perceive that they have a higher risk of HIV infection.

Individuals who reported first sex before 17 were more likely to report a higher number of partners, as were women whose drink alcohol above the recommended limits and men who reported paying for sex (discounting paid partners).

- The median number of partners in the last five years is one, for both men and women.
- Younger respondents were more likely to report had a higher number of sexual partners in the last five years.
- Relationship status is an important determinant of number of partners. Casual and no relationship are associated with a higher number of partners.
- More liberal attitudes are associated with more partners, even controlling for other factors.
- Having ever paid for sex is associated with more partners among men.

THIS section investigates numbers of heterosexual partners 'in the last five years'. Almost 10% of men and 13.3% of women reported no sexual partners in that period.

Similar to the number of lifetime partners, the most frequently reported number of partners over the last five years was one, for both men (54.1%) and women (67.7%) (Tables 7.7 and 7.8). Consistent with previous studies, more men reported multiple partners than women; for example, 10.6% of men reported three to four partners, 7.8% reported five to nine and 6.6% reported 10 or more. Among women, 7% reported three to four partners, 3.7% reported five to nine and less than 2% reported 10 or more.

Age differences were also found. A higher proportion of men and women under 25 reported 10 or more partners in the last five years. (This finding is consistent with findings from the Natsal² studies in Britain.) Among older people, 1.1% of men aged 45-54 reported 10 or more partners and 0.2% of those aged 55-64.

Similarly, no women aged 35-64 reported 10 or more partners, suggesting that the prevalence among women is very low. As speculated by Johnson *et al* (1994),² such findings may reflect genuine generational differences or may highlight the experimental nature of sexual partnerships among the younger cohort.

Table 7.7: Distribution of number of heterosexual partners in the last five years among men, by age group (%)

	18-24	25-34	35-44	45-54	55-64	All
0	12.2	6.6	6.4	9.8	16.4	9.9
1	24.7	46.8	71.7	76.5	75.4	58.1
2	7.6	10.8	6.1	5.7	3.7	7.0
3-4	18.7	16.4	8.1	4.8	2.8	10.6
5-9	18.7	10.9	4.3	2.0	1.5	7.8
10+	18.1	8.5	3.4	1.1	0.2	6.6
Median	3	1	1	1	1	1
Mean	5.2	3.5	2.3	1.7	1.1	2.8
Base	758	700	645	573	506	3,182

Table 7.8: Distribution of number of heterosexual partners in the last five years among women, by age group (%)

	18-24	25-34	35-44	45-54	55-64	All
0	15.8	4.9	9.2	14.1	27.1	13.3
1	36.6	66.7	82.1	81.1	71.6	67.7
2	12.8	11.2	4.6	3.1	0.7	6.8
3-4	17.9	11.0	2.8	1.4	0.64	7.0
5-9	11.2	4.9	1.3	0.2	0.0	3.7
10+	5.7	1.2	0.0	0.0	0.0	1.4
Median	1	1	1	1	1	1
Mean	2.8	1.7	1.1	0.9	0.7	1.5
Base	908	966	1,014	753	610	4,250

To identify what factors are significantly related to multiple partners in the last five years, multivariate analyses were conducted of the probability of having three or more partners over period. The threshold of three or more partners was chosen because few participants reported more than five.

Men were significantly more likely to report three or more partners in the past five years (25%) than women (12.1% ($p < 0.001$)).

Table 7.9 displays the proportion of men and women who reported three or more partners, by demographic factors. Age has strong effects for both men and women, after controlling for other factors. The proportion of men reporting three or more partners fell with age. Compared with the youngest age group of men, all groups aged 35 or more were significantly less likely to report three or more partners (multivariate analyses not shown).

Neither social class nor education is significantly related, even when both were tested alone with other demographic variables.

In contrast, large effects were observed across relationship status. Compared with married men, all other groups were significantly more likely to report three or more partners. Men in a casual relationship at the time of interview were most likely to report three or more partners; they were 27 times more likely to do so than married men. Men who were not in a relationship were 14 times more likely. The effects are smaller among men in more steady relationships (steady or cohabiting), although they remained significantly more likely to report three or more partners than married men.

Finally, religiosity remained independently significant after controlling for other factors. The proportion of men reporting three or more partners increased as religiosity decreased. For example, relative to men who identified themselves as extremely/very religious, those who considered themselves to be not at all religious were almost four times more likely to report three or more partners. Place of residence was not found to be significantly related.

Similar effects were observed among women. As with men, the proportion of women reporting multiple partners declined with age. For example, women aged 55-64 were 94% less likely than the youngest age group (18-24) to report three or more partners over the last five years (analyses not shown).

Unlike among men, there is a significant effect for class among women. Those in the higher professional social class were almost twice as likely to report three or more partners as unskilled/semi-skilled manual workers. No other effects were observed across social class, after controlling for other factors.

Consistent with findings among men, women in a casual relationship or not in a relationship were most likely to report three or more partners and married women least likely. Relative to married women, those in a casual relationship were 58 times more likely to report three or more partners and those not currently in a relationship 34 times more likely. Women in steady and cohabiting relationships were significantly more likely to do so.

Women who identified as not at all religious or a little religious were also significantly more likely to report three or more partners than those identifying as extremely/very religious. Place of residence is not significant after controlling for other factors.

Table 7.9: Proportion of men and women who reported three or more partners in the last five years, by demographic factors

	Men %	N	Women %	N
All	25.0	3,182	12.1	4,250
Age group				
18-24	55.5 c	758	34.8c	908
25-34	35.7ns	700	17.1ns	965
35-44	15.8**	645	4.1***	1,014
45-54	8.0***	573	1.6***	753
55-64	4.5***	506	0.6***	610
Education level (highest attained)				
Primary	10.2 ns	262	2.0 ns	304
Lower secondary	21.5 ns	544	6.6 ns	656
Upper secondary	29.7 ns	1,196	13.6 ns	1,780
Third level	31.0 c	1,180	19.8 c	1,510
Social class				
Higher professional	27.7 ns	790	23.2**	642
Lower professional	26.8 ns	727	11.8 ns	1,095
Administrative/clerical	21.6 ns	427	9.2 ns	977
Skilled manual	21.0 ns	611	23.5 ns	296
Semi/unskilled manual	25.4 c	492	8.3 c	892
Relationship status				
Not in a relationship	45.2 ***	853	24.5***	960
Married	3.8 c	1,498	0.5 c	2,359
Cohabiting	31.9***	239	12.5***	270
Steady relationship	43.0***	370	26.2***	520
Casual relationship	60.7***	222	44.2***	141
Place of residence				
Urban	27.3ns	1,926	13.8 ns	2,361
Rural	21.7 c	1,255	10.0 c	1,885
Religiosity				
Not at all religious	35.9***	807	23.3***	701
A little religious	27.5***	1,165	13.7*	1,620
Quite religious	16.9*	885	7.5 ns	1,389
Extremely/quite religious	12.1 c	320	4.7 c	535

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group

Table 7.10 displays the proportion of men and women reporting three or more partners in the last five years by three knowledge items (knowledge of Chlamydia and HIV and receipt of sexual education on safe sex and STIs), controlling for the socio-demographic variables shown in

Table 7.9. None of these knowledge items is significant among men. However, among women a good knowledge of Chlamydia is related to an increased likelihood of reporting three or more partners, as found in the model of 10 or more partners over lifetime.

Table 7.10: Proportion of men and women who reported three or more partners in the last five years, by knowledge items+

	Men %	N	Women %	N
Knowledge of Chlamydia				
Limited knowledge	26.7 c	556	8.2 c	527
Good knowledge	31.5 ns	1,322	16.7 *	2,699
Knowledge of HIV				
Limited knowledge	23.2 c	220	3.6 c	364
Good knowledge	25.2 ns	2,942	13.2 ns	3,864
Received education on safe sex and STIs				
No	17.7 c	2,151	7.7 c	2,865
Yes	43.0 ns	1,028	22.4 ns	1,379

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

+ Results displayed after controlling for demographic factors in Table 7.9.

The inclusion of attitudinal items in the demographic model resulted in some interesting findings, as displayed in Table 7.11. Among men, all three attitudinal items are significantly related to reporting three or more partners in the last five years. Men who perceived themselves as having a high risk of contracting HIV were significantly more likely to report three or more partners. This result is interesting as it suggests that men with a higher number of partners know that they have a higher risk of infection, *ceteris paribus*. If so, they may be more likely to use a condom, although analyses in chapter five showed no significant relationship between a higher number of partners in the last year and consistent condom use. Worryingly, chapter five also showed that concern about the cost of condoms is also associated with lower use. Table 7.11 shows that men who believed that the cost of condoms would discourage them from using them are significantly more likely to have had three or more partners.

Table 7.11 shows that men who scored medium and high on the sexual liberalism scale are significantly more likely to have had three or more partners than those who scored low.

The patterns for women are similar, except that belief that the cost of condoms would discourage use is not significant. Higher perceived risk of HIV infection is strongly related to an increased likelihood of reporting three or more partners, as is scoring high on the liberalism scale. Women scoring high were almost three times more likely to report three or more partners, after controlling for other factors in multivariate analyses (not shown).

Table 7.11: Proportion of men and women who reported three or more partners in the last five years, by attitudinal items+

	Men %	N	Women %	N
Perceived risk of HIV infection				
Low perceived risk	22.7 c	2,971	10.7 c	4,053
High perceived risk	57.3**	199	46.1***	182
Cost of condoms would discourage use				
No	25.5 c	2,483	14.0 c	2,997
Yes	32.5*	444	13.6 ns	584
Liberalism scale				
Low	9.2 c	654	2.9 c	970
Medium	23.1 **	618	8.5ns	940
High	32.3***	1,763	18.9***	2,114

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

+ Results displayed after controlling for demographic factors in Table 7.9.

The inclusion of behavioural factors (age at first sex, alcohol consumption and ever paying for sex) yielded significant results among men and women. (Paying for sex was not examined among women as only one individual reported this.) Table 7.12 shows that men who reported having their first sexual intercourse before 17 were almost three times more likely to report three or more partners over the last five years. Men who reported having ever paid for sex were almost five times more likely to do so. Alcohol consumption is not significantly related to multiple partners in this time period.

Table 7.12: Proportion of men and women who reported three or more partners in the last five years, by behavioural items+

	Men %	N	Women %	N
Age at first sex				
After 17 years	19.1 c	2,547	9.3 c	3,789
Before 17 years	46.9***	635	33.8***	461
Alcohol consumption				
Below recommended limit	23.4 c	2,802	9.8 c	3,705
Above recommended limit	36.8ns	380	28.2***	545
Ever paid for sex				
No	25.2 c	2,790	13.0	4,009
Yes	49.1 ***	187	0	1

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

+ Results displayed after controlling for demographic factors in Table 7.9.

Both age at first sex and alcohol consumption are significantly related to women's reports of multiple partners over the past five years, after controlling for other factors. Consistent with findings for men, women who reported sex before age 17 were almost four times more likely to report three or more partners. Women who reported drinking in excess of the recommended limits were twice as likely.

7.4 Findings: Number of heterosexual partners in the last year

SUMMARY

The vast majority of men and women report a single partner in the last year. Those aged 18 to 24 are over twice as likely as all older groups to have had multiple sexual partners in the last year. The probability falls quickly among older groups.

Young men are more than twice as likely as young women to report multiple partnerships in the last year.

Relationship status is crucial; people in casual relationships are far more likely to have had two or more partners in the last year.

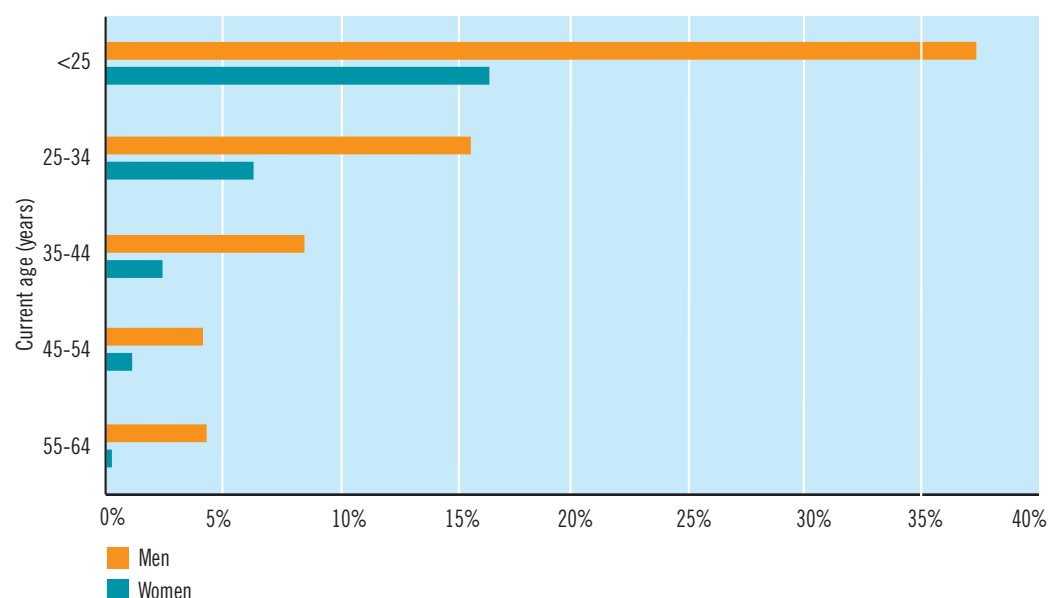
Men and women with more liberal attitudes and those having sex before age 17 are significantly more likely to report multiple relationships in the last year, as are men who have paid for sex.

- *The proportion of respondents with two or more partners in the last year is strongly related to age. Younger people were most likely to report this.*
- *46% of men in casual relationships had two or more partners in the last year.*
- *Drinking more than the recommended level of alcohol is strongly associated with multiple partners in the last year, among men and women.*

THIS section examines the likelihood of multi-partnerships in the last twelve months. As in international studies, predictors are examined in relation to having had two or more partners in the last year.

Figure 7.1 displays the proportion of men and women reporting two or more partners in the last year, by age group. Men are significantly more likely to report this, across all age groups ($p < 0.001$).

Figure 7.1: Proportion of men and women reporting two or more sexual partners in the last year, by age group



Among both men and women, the proportion reporting multiple partners decreased with age. For example:

- 37.1% of men under 25 reported two or more partners in the last year, compared with 15.5% and 8.2% of men aged 25-34 and 35-44 respectively.
- The proportion of men reporting multiple partners further declined to 3.9% and 4% among men aged 45-54 and 55-64 respectively.

Similarly, the proportion of women reporting multiple partners fell with age:

- Over 16% of women aged under 25 reported multiple partners, compared to 6% of 25-34 year-olds, 2.3% of 35-44 year-olds, 1% of 45-54 years-olds and less than 1% of women aged 55-64.

Table 7.13: Proportion of men and women who reported multiple heterosexual partners in the last year, by demographic factors

	Men %	N	Women %	N
All	14.3	3,181	5.4	4,250
Age				
18-24 years	37.1c	758	16.4c	908
25-34 years	15.5***	700	6.0n.s	965
35-44 years	8.2**	644	2.3n.s	1,014
45-54 years	3.9***	573	0.9n.s	753
55-64 years	4.0***	506	0.2**	610
Education level (highest attained)				
Primary	5.9n.s	262	0.0n.s	304
Lower secondary	12.9n.s	544	3.0n.s	656
Upper secondary	17.1n.s	1,196	6.8n.s	1,780
Third level	16.7c	1,179	7.8c	1,510
Social class				
Higher professional	16.2n.s	790	9.7n.s	642
Lower professional	14.7n.s	727	5.1n.s	1,095
Administrative/clerical	11.3n.s	426	4.4n.s	977
Skilled manual	14.0n.s	611	9.2n.s	296
Semi/unskilled	12.9c	492	3.7c	892
Current relationship status				
Not in a relationship	30.2***	852	12.1***	960
Married	1.9c	1,498	0.2c	2,359
Cohabiting	5.4***	239	2.3**	270
Steady relationship	14.2***	370	8.4***	520
Causal relationship	45.5***	222	29.3***	141
Religiosity				
Not at all religious	18.9c	807	9.5c	701
A little religious	17.0n.s	1,165	6.7n.s	1,620
Quite religious	9.4**	884	3.4n.s	1,389
Extremely/very religious	6.7***	320	1.3**	535
Place of residence				
Rural	13.7c	1,254	5.0c	1,885
Urban	14.7n.s	1,926	5.7n.s	2,361

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

Table 7.13 shows the proportions reporting two or more partners in the last year across socio-demographic characteristics; the associated levels of significance are derived from multi-variate analyses. It shows a large difference between men and women ($P<0.001$).

Younger men were significantly more likely to report two or more partners in the last year. Those aged 18 to 24 were over nine times more likely to do so than men aged 55 to 64.

Although there appears to be some differentiation between educational groups and social classes, with higher groups having a greater probability, once we control for other factors these differences are not significant.

Relationship status is a very important predictor. Compared to married men, all other groups were much more likely to report two or more partners. For instance, almost half of men in casual relationships reported this, compared to just 1.9% of married men.

Religiosity also appears to be a significant predictor, even controlling for other factors such as age. Multi-variate analyses (not shown) showed that very religious men were 66% less likely to report two or more partners than men with no religiosity, controlling for other factors. Lastly, urban or rural location has no impact.

Among women, patterns are almost identical to those found among men, although *Table 7.13* shows that there is substantially less age differentiation than among men. For example, only women aged 55 to 64 were significantly less likely to report two or more partners than women aged 18 to 24.

As with men, neither education nor social class is significant, but relationship status is, with large differences between married women and those in other groups. The proportion of women currently in casual relationships who reported two or more partners in the last year is 29% compared to just 0.2% among married women.

Women who reported being very religious were far less likely to report two or more partners in the last year.

Table 7.14: Proportion of men and women who reported multiple heterosexual partners in the last year, by knowledge items+

	Men %	N	Women %	N
Knowledge of Chlamydia				
Limited knowledge	12.3c	1,589	2.6c	1,551
Good knowledge	17.8n.s	1,322	7.3n.s	2,699
Knowledge of HIV				
Limited knowledge	13.2c	220	2.5c	364
Good knowledge	14.5n.s	2,941	5.8n.s	3,864
Received sex education about safe sex and STIs				
No	10.3c	2,150	2.9c	2,865
Yes	24.0n.s	1,028	11.1n.s	1,379

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

+ Results displayed after controlling for demographic factors in *Table 7.13*.

Table 7.14 gives the results of analyses that add knowledge items (knowledge of Chlamydia and HIV, and having received sex education on safe sex and STIs) to the basic socio-demographic factors shown in Table 7.13. It shows that the knowledge items have no significant association with behaviour among either men or women.

On the other hand, sexual attitude items, as shown in Table 7.15, do have an impact. Among men and women, higher sexual liberalism is associated with a higher number of partners.

Table 7.15: Proportion of men and women who reported multiple heterosexual partners in the last year, by attitudinal items+

	Men %	N	Women %	N
Perceived risk of HIV infection				
Low perceived risk	14.0c	3,142	5.3c	4,208
High perceived risk	37.8n.s	38	17.4*	41
Cost of condoms would discourage use				
No	14.8c	2,483	6.5c	2,997
Yes	17.5n.s	444	5.0n.s	584
Liberalism scale				
Low	5.8c	653	1.1c	970
Medium	13.4*	618	4.4n.s	940
High	18.6**	1,763	8.1*	2,114

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

+ Results displayed after controlling for demographic factors in Table 7.13.

Among women, having a higher perceived risk of HIV infection is also associated with having multiple partners in the last year. This replicates the result found for number of partners over the last five years (see previous section). Unlike in the last section, however, men with multiple partners in the last year perceived no greater risk of HIV.

Table 7.16: Proportion of men and women who reported multiple heterosexual partners in the last year, by behavioural items+

	Men %	N	Women %	N
Age at first sex				
After 17 years	10.2c	2,546	4.2c	3,789
Before 17 years	29.5***	635	14.7***	461
Alcohol consumption				
Below recommended limit	12.8c	2,801	4.0c	3,705
Above recommended limit	24.9**	380	15.0***	545
Same-sex partner in the last year				
No	14.4c	3,096	5.3c	4,218
Yes	11.2***	85	13.3ns	32
Ever paid for sex				
No	13.4c	2,971	5.5	4,210
Yes	30.1*	187	0.0	1

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table except ever paying for sex among women.

+ Results displayed after controlling for demographic factors in Table 7.13.

Lastly in this section, we examine the relationship between a number of items detailing past and current behaviours and having multiple partners in the last year (age of first sex, alcohol consumption, same-sex partnerships and paying for sex). Table 7.16 shows many interesting relationships. Among men, all the variables are significantly associated with higher numbers of partners. For example, the proportion of men who had sex before age 17 and who had more than one partner in the last year is almost three times that of men who had their first sexual relationship after age 17.

High alcohol consumption is also significantly associated with higher numbers of partners; men who drink above the recommended level are twice as likely to have more than one partner.

Interestingly, men who had a same-sex partner in the last year are 60% less likely, controlling for other factors (not shown), to have had two or more heterosexual partners in the last year. Further analyses (not shown) show that two-thirds of men who had a same-sex partner in the last year only had (a) same-sex partner(s) in the year, while a further third also had a single opposite-sex partner. Only 11% of men with same-sex genital contact in the last year also had two or more opposite-sex partners.

Among women, the pattern is very similar. Homosexual status alone predominates; 53% only had same-sex partners and 34% had a single opposite-sex partner.

Among men, ever paying for sex is significantly associated with a higher number of partners in the last year, just as it was associated with higher numbers of partners in the last five years.

For women, age of first vaginal intercourse also proves to be a very significant predictor, as does drinking alcohol above the recommended guidelines.

Women who had sex before age 17 are almost four times more likely (than those who first had sex after 17) to have had two or more partners in the last year. Controlling for other factors (not shown), this probability falls to three times the risk.

Women who reported drinking more than the recommended limit of alcohol are over 2.5 times more likely to have more than one partner in the last year (compared to women drinking within the limit), when controlling for other factors.

7.5 Findings: Homosexual partnerships

SUMMARY

This section examines the number of partners over different periods experienced by men and women who reported at least one same-sex partner over lifetime so far.

Men with same-sex contact tend to have as many (male) partners as men who have only had sex with women. However, around a third report 10 or more partners, a larger proportion than that found among men with opposite-sex experience alone.

The absolute number of women who report same-sex contact is small, but results suggest that they tend to have had a smaller number of partners than women with heterosexual experience alone.

Analyses of the probability of having a same-sex partner in the last five years show that only relationship status is predictive among socio-demographic factors. Men and women who were cohabiting or not in a relationship were significantly more likely than married people to report a same-sex relationship in the last five years.

Men with a higher perceived risk of HIV infection were more likely to report a same-sex experience, as were women who began having sexual intercourse before age 17 and men who had paid for sex.

- *Two-fifths of men who had ever had a same-sex partner reported only one such partner in the last five years.*
- *Less than one-third of men with same-sex experience had 10 or more partners in the last five years.*
- *The proportion with a single partner becomes larger and more predominant with more recent period (last year vs. last five years, for instance).*
- *Most women with same-sex experience had only one such partner in the last five years.*
- *Men who had ever paid for sex were more likely (than those who had not) to have had a same-sex partner in the last five years.*

THIS section focuses on numbers of sexual partners among people who reported ever having a same-sex partner (i.e. with whom they had anal or oral sex). Only such people are included. *Table 7.17* and *7.18* display the number of partners reported across the three time points (ever, last five years and the last year).

Over two-fifths of men (41.4%) reported one same-sex partner in their lifetime; around one-fifth reported between two and four, and almost one-third reported 10 or more partners (*Table 7.17*).

A similar pattern emerged in relation to the last five years. Over half of men reported one same-sex partner (59.6%), while almost 15% reported 10 or more partners. Despite these similar trends being shown, the actual proportion of men reporting 10 or more same-sex partners is lower in the more recent period of five years. This pattern is confirmed further in relation to number of same-sex partners in the last year. The highest proportion reported a single partner (76.2%); 7.4% reported 10 or more and 6% three to four. However, it is clear that the proportion reporting 10 or more partners is further reduced in this more recent time frame.

Table 7.17: Distribution of number of same-sex partners over three periods, among men

Men	Ever %	N	Last 5 Years %	N	Last Year %	N
0	-	-	1.3	2	1.5	2
1	41.4	39	59.6	49	76.2	59
2	11.7	12	11.8	11	5.1	6
3-4	8.7	12	8.1	7	6.2	7
5-9	5.3	7	4.6	6	3.5	4
10+	31.8	34	14.6	20	7.4	8
	100	104	100	95	100	86

NOTE: Only those who have ever had a genital same-sex partner are included.

These proportions are made slightly problematic by missing data on the questions in the ISSHR project dealing with number of sexual partners. Of respondents reporting some same-sex genital contact in their life, in 41 cases among men the response to the question of number of partners was missing, while it was missing in 13 cases among women. This is a small number absolutely, but large relative to the numbers reporting same-sex contact. Analysis of these cases suggests, however, that they are unlikely to have had large numbers of partners as almost all had their same-sex experience more than five years ago. Assuming that all of these missing cases had a single same-sex partner means that the proportion with a single partner in their life so far (as shown in *Table 7.17*) increases substantially from 41% to 57%.

Sigma Research, which has carried out several studies among men who have sex with men in Ireland, has found substantially higher numbers of same-sex partners over the last year.¹⁶ Around one-quarter of their sample reported 5-10 partners in the last year and 25% reported 11 or more. This was significantly higher than the 3.5% reporting 5-9 partners in ISSHR and the 7.4% reporting 10 or more partners. These differences are likely to be influenced by methodological differences across the studies. For instance, the Sigma studies recruit men who have or intend having sex with men to an online, web-based survey that is promoted on gay health websites. As well, it is likely that the Sigma study showed higher figures given their more general definition of 'sex' than that in ISSHR, which was limited to oral and anal sex.

The patterns of number of same-sex partners among women differed greatly from those among men. For example, less than 4% of women reported 10 or more partners and almost half reported a single partner in their lifetime (*Table 7.18*). If respondents with same-sex contact who did not report number of partners are added and assumed to have had a single partner, the proportion for women with a single partner over lifetime rises to 58%.

These patterns are quite similar to those found for women's heterosexual partnerships. However, a smaller proportion of women with homosexual experience reported 5-9 or 10+ same-sex partners than women reporting on heterosexual partnerships (12.3% reported 5-9 and 6.2% reported 10+).

Similar patterns are found for number of partners over the last five years and the last year. The highest proportion of women reported a single partner, followed by two partners and 3-4 partners. Unlike men with same-sex partnerships, no women reported more than five partners for either the past five years or the past year.

Table 7.18: Distribution of number of same-sex partners over three periods, among women

Women	Ever %	N	Last 5 Years %	N	Last Year %	N
0	-	-	4.0	1	5.3	1
1	47.1	25	62.4	25	76.9	22
2	19.0	7	22.3	6	13.4	3
3-4	24.8	8	11.4	5	4.4	1
5-9	2.1	1	0.0	0	0.0	0
10+	3.6	2	0.0	0	0.0	0
	100	43	100	36	100	26

NOTE: Only those who have ever had a genital same-sex partner are included.

Further analysis of predictors of number of same-sex partners among people reporting ever having a same-sex partner is precluded by the small number of participants indicating such an experience. As outlined in the ISSHR Main Report, these small numbers severely limit the analyses that can be performed as the samples cannot be disaggregated since cells become perilously small and statistical inference breaks down.

However, analyses of factors associated with same-sex experience can be conducted. Of particular interest are the associations with knowledge, attitude and behavioural factors since these are likely to be related to risk behaviours. Although finding predictors of same-sex experience would be interesting, this task is far beyond the capabilities of a national interview survey. Instead, the analyses focus on the association of same-sex experience with risk factors for STI infection. They are thus concentrated on the recent period in the respondent's life and examined the probability of same-sex experience in the last five years.

It could be argued that the risks arising in same-sex experience are mostly confined to men who have sex with men, but same-sex contact among women is also associated with a higher number of opposite-sex contacts.

Table 7.19 shows the proportions of people reporting same-sex genital contact in the last five years across socio-demographic characteristics. For both men and women, there are no significant differences across age groups, except that men aged 35 to 44 were more likely to report a same-sex partner in the last five years than the youngest age group. The small number of women with homosexual experience means that group differences have to be very large before they become statistically significant.

Table 7.19: Proportion of men and women who reported same-sex partners in the last five years, by demographic factors

	Men %	N	Women %	N
All	3.0	3,188	1.1	4,253
Age				
18-24 years	2.4c	759	1.4c	908
25-34 years	3.5n.s	701	1.6n.s	966
35-44 years	4.3*	647	1.5n.s	1,014
45-54 years	3.0n.s	574	0.8n.s	755
55-64 years	1.4n.s	507	0.0n.s	610
Education level (highest attained)				
Primary	2.3n.s	263	0.0n.s	305
Lower secondary	2.6n.s	544	0.5*	657
Upper secondary	3.0n.s	1,198	1.3n.s	1,780
Third level	4.1c	1,183	2.0c	1,511
Social class				
Higher professional	3.2	790	1.4	642
Lower professional	2.0	731	2.1	1,097
Administrative/clerical	2.4	428	1.1	978
Skilled manual	2.8	611	1.5	296
Semi/unskilled	3.2	492	0.4	892
Current relationship status				
Not in a relationship	5.3***	854	2.0***	961
Married	1.2c	1,502	0.3c	2,361
Cohabiting	6.3***	239	2.7***	270
Steady relationship	2.8*	371	1.9*	520
Causal relationship	4.0**	222	1.5*	141
Religiosity				
Not at all religious	3.2c	809	2.1c	701
A little religious	3.0n.s	1,166	1.1n.s	1,620
Quite religious	2.4n.s	887	0.6n.s	1,390
Extremely/very religious	4.4n.s	321	1.3n.s	537
Place of residence				
Rural	1.7c	1,257	1.2c	1,887
Urban	3.9**	1,930	1.1n.s	2,362

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table except for social class.

Table 7.19 shows that differences across educational groups are significant among women only – and only among those with lower secondary qualifications or less compared to women with third-level education. However, among both men and women, the probability was

highest for those with higher levels of education. The strong relationship between educational level and class means that the impact of both variables cannot be estimated simultaneously. However, analyses (not shown) found that class has no significant impact even when excluding education (but including other factors).

Relationship status, on the other hand, is strongly associated with same-sex contact in the recent period. Male and female respondents who were cohabiting, not in a relationship or in a casual relationship were significantly more likely to report recent same-sex relationships than married respondents.

Interestingly, *Table 7.19* also shows that men in urban areas were significantly more likely to have had a same-sex contact in the last five years, but this was not true for women. Analyses in the ISSHR Main Report showed that this 'urban' effect was largely confined to large Irish cities.

Table 7.20: Proportion of men and women who reported same-sex partners in the last five years, by knowledge items+

	Men %	N	Women %	N
Knowledge of Chlamydia				
Limited knowledge	1.8c	1,862	0.2c	1,552
Good knowledge	5.1**	1,326	1.7**	2,701
Knowledge of HIV				
Limited knowledge	1.4c	220	0.1c	364
Good knowledge	3.2n.s	2,948	1.2n.s	3,867
Received sex education about safe sex and STIs				
No	3.0c	2,154	1.0c	2,868
Yes	3.1n.s	1,031	1.4n.s	1,379

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

+ Results displayed after controlling for demographic factors in *Table 7.19*.

The main interest in this section is to analyse the relationship of knowledge, attitude and past behavioural influences on same-sex partnerships, controlling for socio-demographic variables. This was done for knowledge factors first. *Table 7.20* shows the impact of knowledge of HIV/AIDS, belief that the cost of condoms would discourage use, and sexual liberalism. Good knowledge of Chlamydia is significantly associated with a higher prevalence of same-sex relations among both men and women; the difference is most marked among men. None of the other two knowledge items has a significant impact and entering the knowledge items did not affect the results shown in *Table 7.19*.

Table 7.21 shows the results for ISSHR items on sexual attitudes. It shows that, among men, high perceived risk of HIV is very strongly associated with having had a same-sex partner in the last five years. Over a fifth of men who saw themselves as at a high risk of HIV had had a male partner.

Interestingly, more liberal men have a significantly lower probability of having a male partner in the last five years than men with more conservative attitudes. Among women, neither the liberalism scale nor perceived risk of HIV could be entered into a multi-variate analysis because of the small number of cases. The entry of these attitude items did not change the pattern of findings among the socio-demographic variables.

Table 7.21: Proportion of men and women who reported same-sex partners in the last five years, by attitudinal items+

	Men %	N	Women %	N
Perceived risk of HIV infection				
Low perceived risk	2.8c	3,149	1.1	4,211
High perceived risk	20.1**	38	0.0	41
Cost of condoms would discourage use				
No	3.2c	2,489	1.1c	3,000
Yes	3.0n.s	444	1.3n.s	584
Liberalism scale				
Low	3.5c	2,386	1.6	3,055
High	1.3*	654	0.0	971

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table except for perceived risk of HIV and liberalism among women due to small numbers in cells.

+ Results displayed after controlling for demographic factors in Table 7.19.

Table 7.22: Proportion of men and women who reported same-sex partners in the last five years, by behavioural items+

	Men %	N	Women %	N
Age at first sex				
After 17 years	2.9c	2,552	0.8c	3,791
Before 17 years	3.6n.s	636	3.4***	462
Alcohol consumption				
Below recommended limit	2.9c	2,808	1.0c	3,708
Above recommended limit	4.2n.s	380	2.0n.s	545
Ever paid for sex				
No	2.7c	2,974	1.1c	4,213
Yes	8.9**	188	0.0	1

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table except for ever paying for sex among women.

+ Results displayed after controlling for demographic factors in Table 7.19.

Table 7.22 shows the results of analyses including past and current behavioural items (age of first vaginal intercourse, current alcohol consumption and ever paying for sex) and the socio-demographic predictors shown in Table 7.19. Having begun intercourse before age 17 is a significant predictor of same-sex relationships in the recent period among women, but not among men. Drinking alcohol above the recommended limit is not significant among either men or women, but ever having paid for sex is significant among men. Controlling for other factors, men who had ever paid for sex are almost three times more likely to have had same-sex relationships in the last five years.

When these results are combined with those from previous sections, it appears that there is a 'core' group of men where a number of risk factors coalesce. These men are more likely to have a high number of unpaid female sexual partners, to have paid for sex with women, and to have male partners.

7.6 Findings: Commercial sex

SUMMARY

A small but significant proportion of Irish men have paid a woman for sex at some time. A smaller proportion have done so recently.

The oldest age group are most likely to have ever paid a woman for sex, but men aged 25 to 34 are most likely to report doing so in the last five years or last year. Men aged 18 to 24 are the second most likely group to have paid for sex over the same periods.

The results suggest that there may be an increasing trend of payment for sex among younger men.

The small absolute number of men who reporting paying for sex makes analyses problematic, but men in the higher professional occupations were most likely to report paying for sex, as were those not in a relationship or in a casual relationship.

Men who reported 10 or more female partners in their lifetime are significantly more likely to report paying for sex, even if paid partners are excluded.

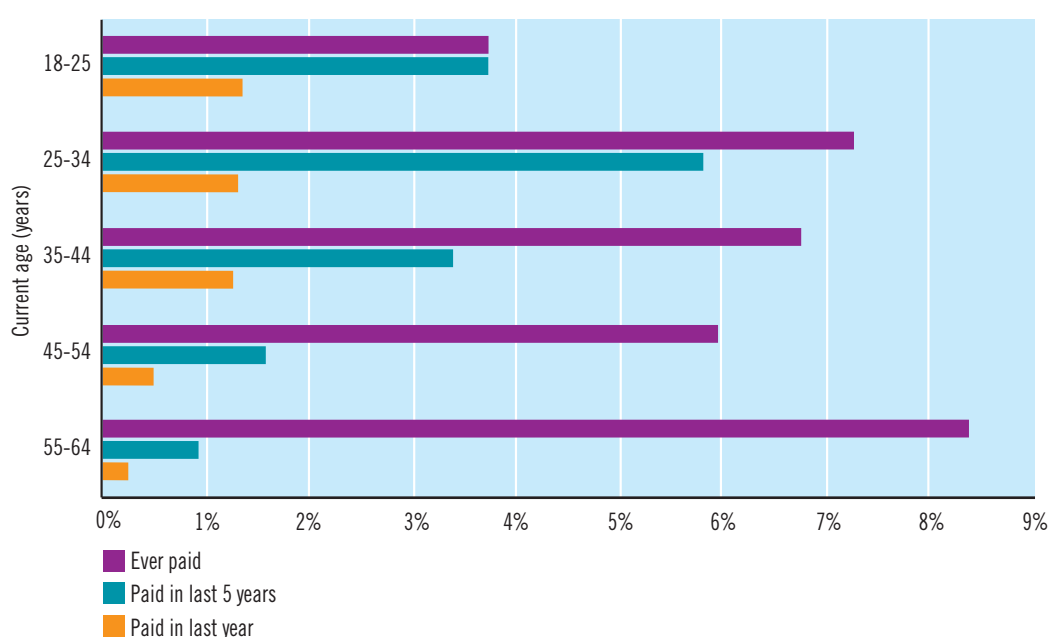
- *6% of men had paid for sex in their lifetime and 3% had done so in the last five years.*
- *Although men aged 55-64 were most likely to have ever paid for sex, men aged 25 to 34 were most likely to have done so recently.*
- *Men in higher professional occupations were those most likely to have paid for sex.*
- *Men with a high number of unpaid sexual partners were also more likely to have paid for sex in the last five years.*
- *Men who had ever had a same-sex partner were more likely (than those who had not) to have paid for sex in the last five years.*

EXPERIENCE of commercial sex was measured at three time points in participants' lives: ever, in the last five years and in the last year. Analysis was confined to paying for heterosexual intercourse as only two men reported ever paying for sex with another man.

Men were significantly more likely to report paying for sex ($p < 0.001$) as the period measured lengthened: 6.4% reported having ever paid for sex, 3.3% reporting payment for sex in the last five years and 1% in the last year. Only one woman reported ever having paid for sex (0.02%) and no women reported this in the past five years or in the past twelve months. Due to the paucity of data among women, further analysis was confined to men.

The proportions of men reporting experience of commercial sex across the three periods are presented in *Figure 7.2*, by age group.

Figure 7.2: Proportion of men reporting experience of commercial sex over three periods (ever, in last 5 years and in last year)



As displayed in *Figure 7.2*, older men are more likely to have paid for sex. For example, men aged 55-64 were twice as likely to report this as men under 25 (8.4% compared to 3.7%). This finding is consistent with international studies.^{2,17} However, the variability across age is greater in the British study, where older men were five times more likely to report experience of commercial sex than those aged under 25 (10.3% compared to 2.1%).

Similar to Natsal, in ISSHR this age effect was reversed for commercial sex in the recent past; a higher proportion of younger men reported payment for sex in the last five years and last twelve months. For example:

- men aged 25-34 were six times more likely to report payment in the last five years than those aged 55-64 (6% compared to 1%)

- men aged under 25 years were four times more likely to report commercial sex in the last five years than men aged 55-64 (4% compared to 1%)

Similarly, a higher proportion of younger men reported paying for sex in the last year. However, less than 2% in each age group reported payment in the last year. The main interest here is in recent paid sex as a risk factor for STIs, but due to the small numbers of men reporting this in the last year (n=29), further analysis focused on payment in the last five years (n=98).

Table 7.23: Proportions of men who have paid a woman for sex in the last five years, by demographic factors

	%	N
All	3.3	3,096
Current age		
18-24	6.0c	721
25-34	5.8*	687
35-44	3.4n.s	629
45-54	1.6n.s	562
55-64	0.9n.s	497
Social class		
Higher professional	4.5*	765
Lower professional	3.9n.s	710
Administrative/clerical	1.8n.s	411
Skilled manual	2.7n.s	603
Semi-skilled/unskilled manual	2.1c	479
Education (highest level attained)		
Primary	0.6n.s	256
Lower secondary	3.6n.s	535
Higher secondary	3.9n.s	1,159
Third level	3.6c	1,146
Current relationship status		
Not in a relationship	5.8***	804
Married	1.5c	1,483
Cohabiting	4.8*	231
Steady	2.5 n.s	366
Casual relationship	6.1**	212
Religiosity		
Not at all	3.1c	787
A little	4.5n.s	1,139
Quite	2.3n.s	858
Extremely/very	1.3n.s	308
Place of residence		
Rural	2.7c	1,224
Urban	3.7n.s	1,871

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

Table 7.23 displays the proportions of men who reported paying for sex in the last five years by various socio-demographic characteristics. There is little variability overall in the proportion of men paying for sex according to social class or education level, although those in higher professional occupations were more likely to report paying for sex in the last five years. A higher proportion of men not currently in a relationship, in a casual relationship or cohabiting reported paying for sex.

Table 7.24 gives the results of analyses in which knowledge items were added to the basic analysis in Table 7.23. It shows that there is no significant relationship between paying for sex and sexual health knowledge among men, although, at a descriptive level, those groups with high levels of knowledge were more likely to report paying for sex. When controlling for socio-demographic characteristics, however, none of these differences is significant. Controlling for knowledge items did not change the patterns found for socio-demographic predictors.

Table 7.24: Proportions of men who have paid a woman for sex in the last five years, by knowledge items+

	Men %	N
Knowledge of Chlamydia		
Limited knowledge	2.3c	1,820
Good knowledge	4.8n.s	1,276
Knowledge of HIV		
Limited knowledge	2.5c	214
Good knowledge	3.3n.s	2,865
Received sex education about safe sex and STIs		
No	3.0c	2,097
Yes	3.9n.s	997

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table.

+ Results displayed after controlling for demographic factors in Table 7.23.

Table 7.25: Proportions of men who have paid a woman for sex in the last five years, by attitudinal items+

	Men %	N
Perceived risk of HIV infection		
Low perceived risk	3.2c	3,061
High perceived risk	7.4ns	34
Cost of condoms would discourage use		
No	3.3c	2,411
Yes	4.3ns	436
Liberalism scale		
Low	3.8c	2,316
High	1.5ns	636

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table except for perceived risk of HIV and liberalism among women due to small numbers in cells.

+ Results displayed after controlling for demographic factors in Table 7.23.

Adding items related to sexual attitudes (perceived risk of HIV infection, belief that cost of condoms would discourage use, and level of sexual liberalism) in Table 7.25 again provided little insight. None of the variables is a significant predictor of commercial sex.

Table 7.26: Proportions of men who have paid a woman for sex in the last five years, by behavioural items+

	Men %	N
Age at first sex		
After 17 years	3.0c	2,460
Before 17 years	4.3ns	636
Alcohol consumption		
Below recommended limit	3.0c	2,722
Above recommended limit	5.1ns	374
Number of heterosexual partners in lifetime		
Less than 10	1.6c	2,312
10 or more	8.0***	784
Ever had homosexual partner		
No	2.8c	2,984
Yes	14.6***	112

*= $p<0.05$; **= $p<0.01$; ***= $p<0.001$; ns=not significant; C=comparison group to which all other groups are compared.

NOTE: Significance given adjusting for all variables in the table except for ever paying for sex among women.

+ Results displayed after controlling for demographic factors in Table 7.23.

Lastly, in this section, items relating to current or past behaviours (age of first vaginal intercourse, current alcohol consumption, number of lifetime heterosexual partners, same-sex experience) were added, while controlling for socio-demographic variables. Having a high number of sexual partners over lifetime is associated with paying for sex in the last five years. This variable included partners who were paid, but, even if only unpaid partners are included, men with 10 or more unpaid partners were significantly more likely to have also paid for sex in the last five years.

Table 7.26 also shows a very strong relationship between ever having a same-sex partner and paying for sex in the recent period.

7.7 Summary and conclusions

THIS chapter has examined the patterning of sexual partnerships, both heterosexual and homosexual. The primary aim has been to examine the association between the pattern of sexual partnerships and sexual knowledge, attitudes and behaviours.

The chapter began by examining the patterning of heterosexual partnerships over three different periods: in lifetime, last five years and last year.

Studies in various countries have shown that the distribution of number of partners is not normal in the statistical sense. Most people will have relatively few partners over lifetime and just one partner in the last five years or last year. However, a minority will have a very high number of partners. This tends to make problematic standard measures such as the mean, since a small number of very high values artificially inflate the average.

Analysis has found the same patterns in Ireland. About a third to a half of the population have a single partner over their lifetime so far, but one in four men and one in 16 women have 10 or more partners. The ISSHR Main Report, comparing Ireland to the UK, US, France and Australia, shows that Irish people are more likely to have a single partner in lifetime and less likely to have had two or more partners. However, analysis of last five years and last year by age group shows that young Irish people have converged with their peers in other countries in terms of numbers of partners.

As in other countries, the emergence of larger numbers of young people with many partners points to the development of an important sub-population for the spread of STIs.

This change in behaviour is particularly stark when compared to that of older Irish generations, who are more likely than those in other countries to report a single partner and to remain celibate throughout their life. This leads to a very rare pattern internationally; among the oldest age groups in Ireland, the proportion ever having had a sexual partner increases with age initially and then decreases.

Analysis of factors other than age which are associated with number of partners showed that relationship status is the most powerful predictor. People who are not in a relationship or in a less formalised relationship are far more likely to have had a higher number of partnerships over all periods. As expected, in moving from number of lifetime partners to partnerships in the recent period, the patterning by relationship status becomes stronger. These results confirm those found in studies in other countries. They consistently find that numbers of sexual partners are higher among younger respondents, partly as a result of changing cohort patterns, but also because younger people are still 'searching' for a more stable relationship. Changes in attitudes and expectations among younger people mean that this 'search process' is likely to involve a higher number of sexual partners than in previous generations, but once a stable relationship becomes established, even young people are much more likely to have monogamous relationships than not.

There was also some suggestion of a relationship between higher social class and educational levels, and more sexual partners, but this relationship was quite weak.

As in previous chapters, there is very little relationship between people's sexual knowledge and their reported behaviours, except for an association between better knowledge of Chlamydia and more partners among women. This is interesting, but the most likely reason for this better knowledge is that this group are more likely to have experienced an STI (see chapter six).

On the other hand, attitudes did prove to be a good predictor, particularly the score for sexual liberalism. Even controlling for a number of other factors, findings consistently show that people with more liberal attitudes are far more likely to have a higher number of partners. Thus, even among younger respondents, who are more likely anyway to have more partners, people with more liberal attitudes tended to have a still higher number. While the study cannot determine where these more liberal attitudes came from, it did seem that they had a strong relationship to behaviour.

Interestingly, this chapter also found that the respondents' beliefs about their perceived risk of HIV were generally in line with their reported behaviour; people with a higher perceived risk were more likely to report a higher number of partners over different periods. It should be said that the overwhelming proportion of respondents saw themselves as having a low or average risk, even if they had a high number of partners, but they were still more likely to see their behaviour as entailing an above-average risk.

This higher level of perceived risk was also found among men who have sex with men (MSM). As before, most MSM perceived their risk of HIV to be average or low, but those who had a high perceived risk were more likely to have had a same-sex partner in the last five years than those with a low perceived risk. This increased level of risk perception could translate into a greater propensity to use protection, but, as we saw in chapter five, the relationship is not direct. We found no significant difference in condom use between those with different levels of perceived risk.

The respondent's age of first vaginal intercourse was found to be a very important factor in a number of analyses in this chapter. People who had sex before 17 are significantly more likely to have more sexual partners across all periods than those whose first sex began at or after 17. This pattern has been found in sex surveys in a number of countries. It reinforces evidence from

the ISSHR survey that early sexual initiation is associated with a higher risk profile across a number of dimensions. For example, early initiation is associated with less consistent use of condoms (chapter five) and is strongly associated with poor outcomes such as crisis pregnancy and STI infection (chapter six).

The analyses of number of partners also showed that high current alcohol consumption is associated with having more sexual partners in the recent period. This association is very strong and clear for both men and women. It could suggest that many sexual relationships begin after the partners have been drinking, although there is no direct evidence of this (in this chapter). However, there is clear evidence that alcohol consumption is a significant factor in the non-use of contraception and protection, particularly among the youngest age group (chapter five).

As well as looking at heterosexual partnerships, this chapter examined same-sex partnerships. Analyses show that the pattern of partnerships among men who have had sex with men (MSM) is quite different from that found for male heterosexual relationships. The picture is to a significant extent bipolar. On the one hand, the proportions of men with same-sex contact having four or fewer partners are very similar to those found among all men having heterosexual partnerships. On the other hand, a far larger proportion have 10 or more partners. This shows that most MSM have similar partner numbers to heterosexual men, a large minority have a very high number of partners: 10% have 30 partners or more over lifetime so far and 5% have over 100 partners.

Among women, on the other hand, homosexual contact is associated with fewer partners than in heterosexual partnerships. The proportion of women with more than four sexual partners over lifetime so far is low, at around 6%, although the small numbers of individuals involved makes clear analyses problematic.

The last section of the chapter examined the extent of and patterning of commercial sex among men in the ISSHR data (there were too few women who paid for sex to carry out analyses). The extent of payment for sex and the characteristics of those who pay for sex have never been studied in Ireland before, in a representative national study. Given this, the ISSHR results are very important, for understanding both the social patterning of sex and the pattern of risk of STIs in the Irish population.

Analyses showed that around 6% of Irish men have paid for sex. Just over 3% have done so in the last five years. Men over 54 are most likely to have paid for sex, but there is evidence that paying for sex has become more common in younger cohorts; the highest proportion doing so in the last five years is among men aged between 25 and 34. The proportion among men under 25 is now greater than that among men aged over 35.

Analysis of the other predictors of ever paying for sex show that single men, men in casual relationships and those cohabiting are most likely to have paid for sex in the last five years, as are men with professional and managerial occupations.

One very important finding is that men who also report same-sex genital contact in their lives are 80% more likely to have recently paid for sex. Men who have had a higher number of heterosexual partners are also more likely to have paid for sex. This is true even if we only include those partners who were not paid. This means that payment for sex is not confined to men who

cannot find a partner to have unpaid sex with them. Quite the opposite – men who have the highest numbers of partners are also those who are most likely to pay for sex.

Overall, these results suggest that multiple risk factors for the transmission of STIs tend to coalesce around a relatively same small group of individuals.

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Conclusions and recommendations

8.1 Introduction

THIS chapter draws together the evidence and discussion of the last seven to derive conclusions about the patterning of contemporary sexual knowledge and attitudes in Irish society and how these are related to sexual behaviour. Rather than summarising the material from previous chapters, we focus on key patterns and draw on material from the whole report and beyond to outline the issues and recommend possible responses in policy and service provision.

8.2 Social and cultural change in Ireland

THE current patterns of sexual knowledge, attitudes and behaviours in Ireland can only be fully understood in the light of Irish economic, social and cultural history. Most Irish adults learnt about and experienced sex and sexual relations in a society still deeply influenced by a Roman Catholic moral framework, but this influence has weakened considerably over the last four decades or so. This change has intensified in recent years as Ireland has become an increasingly multinational, multicultural and multi-faith society.

As discussed and explained extensively in chapters one and four, sexual attitudes are still more conservative in Ireland (north and south of the Irish border) than in other Western European states. However, as chapter four also showed by comparing ISSHR results to previous surveys, there has been enormous change. Attitudes have become increasingly liberal on issues such as sex outside marriage, homosexuality and abortion. Present trends suggest, as with many other aspects of Irish life, that sexual culture in Ireland is moving closer to that of the UK and continental Europe. Depending on the observer, this could be viewed as a positive or negative development, but it is undeniable that Irish attitudes to sex and sexual relations are changing, and changing quickest among younger people. Across the age range, Irish people are now more accepting of a greater range of sexual behaviours and orientations.

Such large-scale social and cultural change is likely to have been accompanied by changes in sexual behaviour, although this relationship is not simple. The chapters of this report have provided ample evidence that younger generations of Irish people have significantly different behaviours to those of older people.

8.3 Socio-economic status and sexual health

SURVEYS of sexual behaviour in a number of countries have shown that young men and women from lower social-class backgrounds and those with lower educational qualifications are more likely both to have higher risk behaviours and to experience negative outcomes. For example, lower socio-economic groups have sexual intercourse at an earlier age than their more advantaged peers and are less likely to use contraception when they do so. Results from both this report and the ISSHR Main Report show that the pattern in Ireland is similar.

International academic and policy research has found that these behaviours are embedded in complex socio-economic processes that are difficult both to unravel and alter. However, it is clear that coming from a poorer social group can have direct effects on behaviour. For instance, the cost of contraception and protection is a real issue for young people and those with lower levels of education (see chapter four). In this case, reducing the cost or providing protection for free might have a significant effect on behaviour (we discuss this in more detail below).

Other processes are not as simple and amenable to intervention. Lower education and social class are associated with less sexual knowledge (see chapter three). This may be related to the significantly poorer parent-child communication about sex found in the ISSHR Main Report. If so, targeting interventions to increase communication in these households might be beneficial, although this might not be an easy task.

International research suggests an even more complex and nuanced relationship between socio-economic status and protective behaviour. It has shown that social deprivation and limited lifetime opportunities for advancement are associated with increased fatalism among young people from lower socio-economic backgrounds. This may mean that they do not protect themselves against risks because they perceive that they have fewer opportunities than young people who come from more advantaged backgrounds.

If the above is true in the Irish context, it suggests that attempts should be made to tailor RSE to the needs of young people from disadvantaged backgrounds and those who leave school before upper-secondary education. However, a truly effective response would require a more structural intervention, such as an increase in the proportion of young people achieving higher levels of education along with increased social mobility. Of course these actions are not mutually exclusive. A combination of targeted and improved sex education plus a changed opportunity structure would be most effective.

Such structural changes are difficult to bring about. The National Anti-Poverty Strategy (NAPS 2003) has targets for increasing social-welfare rates and lowering the proportions of the population in poverty and of young people leaving school early. This should bear fruit in future years. However, such policies are a first step. They need to be augmented by long-term social and government commitment to reducing social inequalities.

Overall, both the ISSHR project and research from further afield show that simple explanations that 'blame' lower socio-economic groups and view their behaviours as reckless are naïve and less than helpful.

8.4 Sexual health knowledge

KNOWLEDGE is taken to be a prerequisite for good sexual health among individuals and the population overall. Yet this report shows (chapter three) that levels of sexual knowledge in the Irish population are not good.

Knowledge was worst on the issue of emergency contraception; just 21% of men and 42% of women could correctly identify the effective time limits for its use. Almost half (44%) of women could not correctly identify their most fertile period in the monthly cycle; this applied to 57% among women under 25. Comparisons with previous studies suggest that the level of knowledge on fertility has worsened since the early 1990s.

Similarly, just over half of male and around three-quarters of female respondents had heard of the STI Chlamydia, but, of those that had, 30% of men and 18% of women had 'poor' knowledge (in both absolute terms and in relation to the UK).

Knowledge of HIV/AIDS is also limited among many Irish people; 10% to 15% of men and women were unable to correctly answer each of three basic questions about HIV/AIDS. Even among respondents under age 25, who were most likely to have received sex education on STIs and HIV/AIDS, 28% of men and 25% of women gave a wrong answer to at least one of the three questions on the subject.

It is difficult to measure levels of knowledge in a structured social survey and our questions covered only a small number of issues, but the results indicate serious gaps in sexual knowledge among quite large proportions of the Irish adult population. Good sexual knowledge is an essential ingredient for maintaining good sexual health. For example, the ICCP survey (2004)¹ showed that most Irish crisis pregnancies came about because contraception had not been used as the partners were not prepared or sex occurred unexpectedly. The lack of preparedness raises issues in its own right, but the pregnancy could have been avoided if emergency contraception had been used. Steps need to be taken to improve knowledge about sexual health among both schoolchildren and adults. School-based sex education, in the form of RSE (Relationships and Sexual Education), includes a module on human growth and development that covers fertility and family planning, plus modules on STIs and protection, but the programme has not been fully implemented nationally. In an evaluation of sex education in Irish schools in 2000, for example, Morgan² found that 42% of primary and 34% of post-primary schools had not drafted an RSE

policy document, and around a quarter of both primary (26%) and post-primary (28%) schools had not established an RSE policy committee. It is unclear if there has been much change since this review.

Knowledge deficits in the adult population also suggest that public campaigns and programmes to improve knowledge may be required, particularly among lower-educated/disadvantaged groups where larger deficits were found. The ISSHR Main Report showed that substantial minorities of respondents supported learning more about contraception and safer sex. This desire for more knowledge could be addressed through innovative public education campaigns on specific health risks. Such campaigns would also need to reach and interest people with low levels of knowledge who were not interested in further education. Only 23% of people with poor knowledge wanted to learn more.

8.4.1 Sexual health knowledge and lower socio-economic status

The low levels of sexual health knowledge described above were particularly marked among ISSHR respondents with lower educational qualifications or in the manual social classes. Analyses showed that these groups were also significantly less likely to have good knowledge about fertility, emergency contraception, STIs and HIV/AIDS than more educated/higher social class groups (chapter three). This knowledge deficit may be one of the reasons why there are higher levels of risk behaviours among these groups (chapter five), although analyses of the knowledge variables did not find any strong relationship between knowledge and behaviours across the sample at large (more research is needed on the impact of knowledge deficits in lower socio-economic groups). Nonetheless, it is worrying that the group with the highest risk behaviours are also those who seem to have the lowest levels of knowledge.

8.5 Changing attitudes and increasing risk behaviours in the Irish population

The ISSHR survey is the first Irish national study of sexual, knowledge attitudes and behaviours. Thus it is not possible to say with certainty that the levels of sexual risk behaviours found have increased over time. This report has presented a large amount of evidence that sexual attitudes in Ireland have changed substantially in the last three decades (chapter four). Successive social-attitude surveys make it clear that attitudes to sexual behaviour have significantly liberalised across the Irish population. Whereas a large majority of Irish people, if asked in the 1970s, would have said sex before marriage, 'casual sex' and homosexual relationships are wrong, by the time of the ISSHR survey in 2004/5 those seeing these behaviours as wrong were in the minority. Perhaps more importantly, the rate of liberalisation accelerated across age groups with younger age. That means that the gap in sexual attitudes between younger and older generations of Irish people has grown over time.

It would be simplistic and misguided to suggest that this liberalising trend would translate directly into a higher rate of risky behaviours. As evident throughout this report, sexual attitudes are often a poor predictor of actual behaviours. The relationship between attitudes and behaviours is complex. However, the separation of sex from the context of marriage and the

weakening force of moral obstacles to sex with casual partners is likely to have at least contributed to an increase in the average number of partners among Irish men and women. For instance, even among younger age groups, individuals with more liberal attitudes are more likely to report a higher number of both lifetime and recent sexual partners (chapter seven).

However, the pattern of increasing liberalism with younger age is the dominant process. Whereas older Irish people were less likely than their peers in other countries to have had a high number of partners, the behaviour of younger age groups in Ireland has largely converged with that of their peers in other countries. Interestingly, the sexual attitudes measured among younger people in Ireland are still significantly more conservative than those reported in other European countries.

As shown clearly in the ISSHR Sub-Report 1: 'Learning About Sex and First Sexual Experiences', this cohort change in attitudes means that younger age groups in Ireland are beginning their sexual careers at a lower age. However, first sexual experience is now much more likely to have been with a casual partner or one the individual was not having a relationship with before they engaged in sex. Younger age groups are also more likely to engage in behaviours such as anal sex and to report concurrent sexual relationships. There is some evidence that use of commercial sex among men is increasing among younger age groups (chapter seven). Each of these behaviours is associated with a higher risk of STIs.

On the positive side, evidence from this and other ISSHR reports shows that younger age groups were more likely to use contraception at first intercourse and both contraception and protection in later relationships, particularly where the relationship was casual or short-lived. This suggests that younger people are more aware of safer-sex messages. There is added evidence of this in younger age groups' better knowledge about sexual health issues.

However, a significant proportion of around 10% of young people still did not use contraception 'in the last year' – even when they wanted to avoid pregnancy. A similar proportion failed to consistently use a condom for contraception and/or protection during sex.

8.6 High levels of negative attitudes to same-sex relationships

THIS report has found evidence that Irish attitudes to sex between two people of the same gender have become more liberal over time (chapter four). By 2005, over three-quarters of Irish people did not regard consensual same-sex intercourse as always wrong. Among the youngest age group, where attitudes were most liberal, around 87% did not think such behaviour was always wrong. Yet analyses have shown that Irish attitudes on questions of sexual behaviour are still generally more conservative than in other countries and particularly so on the question of homosexual relationships.

Analyses from the ISSHR Main Report show that experience of same-sex partnerships is as common in Ireland as it is in the UK, North America, Australia and a number of European countries. There is even evidence that young women were increasingly likely to report a same sex

experience, although most were likely to end up in long-term heterosexual relationships. Young women were the most likely of all groups to express liberal attitudes to same-sex relationships, but this is not true of their young male peers. Women were generally more liberal on the issue of homosexuality, but the gap between the genders is largest in the youngest age group, where men had moved a shorter distance along the continuum toward a more tolerant position. This was shown clearly in the ISSHR Main Report; young men were the least likely to support the inclusion of modules on homosexuality in sex education in schools. In a reversal of the typical liberal gradient with younger age, men under 25 were even less likely to support sex education on homosexuality in schools than men aged over 54. Such statistics could suggest that levels of intolerance on same-sex relationships are increasing among young men.

Such statistics underline the fact that sexual orientation, identity and expression do not occur in a neutral environment where sexual diversity (in the sense of having sexual relationships with both men and women) is seen as a simple matter of individual choice. Instead, 'homosexuality' is still clearly something with which many people, in particular young men, feel uncomfortable.

8.7 Alcohol and planning for sexual encounters

A SUBSTANTIAL minority of ISSHR respondents reported that they did not consistently use contraception and protection during sexual intercourse. As also found in the 2004 ICCP survey, results showed that a general lack of planning and preparation were the main reasons why both men and women did not use contraception at most recent intercourse (chapter five).

The importance of being able to negotiate safer-sex practices (including abstinence) and to prevent crisis pregnancy is vital. Aspects of self-efficacy (believing that one can do something) need to be combined with attitudes about risk (believing that it is important to do something) if consistently protected sexual encounters are to be achieved.

The Crisis Pregnancy Agency already funds a public education campaign on the need for people to anticipate unplanned sexual encounters. However, the impact of this campaign may be limited by sexual attitudes among at least some Irish men and women. The ICCP survey (2004) found strong agreement, even among younger Irish people, that a woman carrying condoms was judged negatively. This finding may not be unique to Ireland. A recent qualitative study of 41 young British women identified 'positive sexual identity' as an important social goal for these women.³ While use of contraception was seen as uniformly positive for people in ongoing relationships, using emergency contraception was seen by many as negative – something to be ashamed of needing. Other people could build use of EC into a positive sexual identity, by seeing risky sex as negative and emergency contraception as a positive feature in that scenario. If young Irish people are to protect themselves consistently during sex, it is essential that they see having condoms available and using them as part of a positive sexual identity.

There is some evidence from qualitative studies in Ireland that attitudes among men from more disadvantaged backgrounds tend to militate against the use of condoms, which are seen as reducing pleasure and impinging on their sexual expression. Given this, there may be a need to

develop more positive attitudes toward responsibility for contraception and protection in possible sexual encounters. Public campaigns used in other countries which focus on the irresponsibility of unprotected sex (in terms of conception and possible STIs) could be considered. These could parallel current Irish campaigns on the irresponsibility of risky behaviours such as drinking and driving. Focused public campaigns may need to be targeted at specific sub-groups where negative attitudes to condoms are most common.

8.7.1 Alcohol and non-use of contraception and condoms

Planning for safe sex needs to take into account the fact that the context in which an encounter occurs may not be conducive to responsible behaviour. Of particular concern is the role of alcohol and illicit drugs in shaping behaviour. This report has shown that intoxication from alcohol and/ or illicit drugs is one of the major reasons given by respondents for not using contraception and condoms (chapter five). Reducing the negative impact of alcohol and drugs on contraceptive and safe sex practices needs a stronger, clearer policy focus by all sectors providing education, information and services relating to sexual health and contraception.

The roll-out of plans from the National Alcohol Policy should take account of the clear link between alcohol and unprotected sexual behaviour. Similarly, the life-skills programmes provided as part of the RSE and SPHE programmes in schools (which include an exploration of the impact of alcohol on sexual behaviour and particularly risk-taking behaviour) need to be reconsidered, to determine how best to address the problems of use of alcohol/drugs in sexual situations. For young people who leave school early, an alternative to the current RSE and SPHE strategies needs to be developed, to convey important messages about contraception and safe sex generally, including the issue of the influence of alcohol and drugs.

8.8 Addressing contraceptive choice

MOST women in all age groups agreed that the medical side-effects of the oral contraceptive pill discouraged their use of it (chapter four). Around one in 10 women, particularly those with lower educational qualifications, said that possible weight gain would discourage them from using the pill. Such evidence builds on that found in the ICCP survey where about half of women felt that the pill had dangerous side-effects and that taking a break from the pill was a good idea. The ICCP survey also showed that a considerable proportion of respondents had reservations about using condoms; many men and older respondents agreed that condoms reduce sexual pleasure.

In common with ICCP, this study showed that a significant proportion (i.e. one in five) of women in the pre-menopausal age group (35-44) believed themselves not to be at risk of pregnancy and thus were not using contraception (or other protection).

These results combine to underline the need for contraceptive choices that suit the sexual lifestyle and beliefs of individuals, if the prevalence of crisis pregnancy and levels of STIs are to be reduced. It was found that negative beliefs about the side-effects of the pill were associated with a higher risk of crisis pregnancy (chapter six). Health professionals should explore contraceptive choices that most suit an individual's lifestyle choices. This may require additional training or support for some professionals.

8.9 The cost of contraception and protection

THE individual and social costs of unplanned pregnancy and infection with STIs and HIV are substantial. Yet the ISSHR results show that the cost of contraception and protection may lessen the impact of sexual-health promotion. For instance, a third of women agreed that the cost of the contraceptive pill discouraged their use of it. This proportion rose to almost 43% among women with lower levels of education, who are also most likely to have less income (see chapter four). Although a smaller proportion of people agreed that the cost of condoms would discourage use, the proportion was still substantial, at 17% of men and women. The proportion seeing cost as an issue was higher among younger men and women and those with lower levels of education and/or in a manual occupation – exactly the groups that have less income.

This evidence alone suggests that the cost of contraception and protection is a serious issue that should be examined more closely by the Government. But analyses in this report also show that people who said the cost of condoms discouraged use were also less likely to consistently use them. Analyses also found a link between the issue of cost and greater risk of STI infection. People who believed that the cost of condoms would discourage use were almost twice as likely (as those who did not agree that cost was an issue) to report being diagnosed with STI.

Since a pack of three condoms cost around €7 in 2005, it is not surprising that cost may be a disincentive to people on low incomes when deciding whether or not to buy protection. Given the increasing incidence of STIs in Ireland, particularly among young people, it seems imperative that the Government investigate ways in which the cost of condoms could be reduced substantially or condoms made freely available. For instance, since treating increasing numbers of individuals with STIs is costly, it does not make sense to levy value-added tax on condoms, as if they were a luxury.

8.10 Early first sexual experiences and higher levels of later risk behaviours

ACROSS age cohorts, there has been a clear and steady trend toward younger age at first sex. Young men currently under 25 have intercourse an average of five years earlier than did their peers currently aged between 55 and 64. The difference among young women is even more pronounced; the gap between the oldest and youngest age groups is now six years.

This trend means that an increasing proportion of young people in Ireland are having their first sexual intercourse before the legal age of consent. Whereas just 11% of men currently aged 55 to 64 and 2% of women of the same age had intercourse before their 17th birthday, this is now true of 31% of men and 22% of women currently under 25. The gap between behaviour and the legal situation is a concern, but perhaps of more concern is the association between early sexual intercourse and poorer sexual-health profiles both at the time and later in life. Analyses in ISSHR Sub-Report 1: 'Learning About Sex and First Sexual Experiences' show that early sexual initiation is associated with less probability of using protection and contraception and more probability of a person being less than fully consenting and regretting the experience later. In

addition, the analyses in this report have consistently shown that early sexual experience is a strong predictor of later risk behaviours, including:

- lower probabilities of using contraception when not wanting conception
- less likelihood of consistent use of condoms
- a higher likelihood of experiencing crisis pregnancy, abortion and an STI

Leaving aside the issue of improving sexual competence at first sexual intercourse (discussed in more detail in the ISSHR Main Report and Sub-Report 1), research using the ISSHR data shows that early sexual experience and later risk behaviours are strongly associated with social and economic disadvantage.

The socio-economic processes that make early sexual experience more likely also increase the probability that the person will not use or inconsistently use contraception and protection later in life. These processes were outlined well in this report. It has shown that individuals with higher levels of education are more likely to have more partners over all time periods, yet are also more likely to protect themselves and thus less likely to experience outcomes such as crisis pregnancy and a sexually transmitted infection. Some risky sexual behaviours such as anal sex and use of commercial sex were more common among more educated individuals, but more use of condoms and contraception among them means that the risks and poor outcomes are reduced.

8.10.1 Lower use of protection/contraception and lower socio-economic status

THE reasons for the differential across class and education groups is not entirely clear, although findings from this report suggest that it is not simply a matter of knowledge deficits. Research in other countries has suggested that disadvantaged young people tend to be more fatalistic about their behaviours and do not protect themselves against risks because they perceive that they have fewer opportunities to protect than young people who come from more advantaged backgrounds. It is difficult to test such hypotheses in a large-scale and general social survey such as ISSHR. There is a need for more focused and in-depth research on this issue in contemporary Ireland.

In terms of response, it is clear that some attempt should be made to tailor RSE to the needs of people from disadvantaged backgrounds and those who leave school before upper-secondary education. However, if – as suggested by research in the UK and elsewhere – lack of perceived opportunities is the primary reason why disadvantaged young people do not protect themselves, a more structural change, such as an increase in the proportion of young people achieving higher levels of education plus increased social mobility, would be part of a truly effective response. Of course, these actions are not mutually exclusive. A combination of targeted and improved sex education plus a changed opportunity structure would be most effective.

Structural changes are difficult to bring about. The present National Anti-Poverty Strategy⁴ has targets for increasing social-welfare rates, lowering the proportion of the population in poverty and reducing the proportion of young people leaving the school system early. These should bear fruit in future years. However, such policies are a first step and need to be augmented by long-term social and government commitment to lessen inequalities between social groups. These may be costly for advantaged groups (in terms of increased taxes and more competition between social groups) as well as requiring high levels of inter-agency cooperation.

8.11 Information needs into the future

HAVING access to up-to-date, valid and reliable information is a prerequisite of effective policy and planning. The ISSHR survey and study provides a much-improved database of information on sexual knowledge, attitudes and behaviours in the Irish population. However, the study raises as many questions as it answers and the large-scale survey research provided by ISSHR needs to be followed up with more detailed research.

There is a particular need for more detailed research on specific sub-groups of the population, such as lower socio-economic groups, where the prevalence of risk factors is higher but where the reasons for this are not made clear in this type of large-scale research. Future research on this and other groups should attempt where possible to use compatible concepts and develop from the research carried out by ISSHR and other recent research such as the ICCP survey.

The ISSHR survey should also be seen as the baseline data for future research on sexual knowledge, attitudes and behaviours. It is clear from our findings that both sexual attitudes and behaviours have been rapidly changing in Ireland, particularly among young people. It is imperative that we build on the work of the ISSHR study by collecting evidence on trends on a regular basis. This will provide the evidence necessary to develop and amend policies for maximum effectiveness.

Lastly, the extent of change across age cohorts in the Irish population underlines the pace of change in sexual knowledge, attitudes and behaviours. It is clear that early sexual experiences are strongly associated with poor sexual-health outcomes both at the time and later in life. In this regard, effective sexual-health intervention among young people requires an evidence base. As novel as the study and the data presented here are, in Irish terms, and as much as they provide a heretofore unknown profile of the sexual attitudes and behaviours of young Irish adults, it is important to remember that virtually all participants in the survey left primary and early secondary school more than a decade ago. Hence, using this profile to plan strategies for today's children now coming into adolescence could not be defended.

At present there is no national source of information on the sexual knowledge, attitudes and behaviours of people under 18. This is a major gap in the evidence base. It is imperative that a national survey, along the lines of the ISSHR study, but designed with the needs of young people in mind, be carried out among them.

8.12 Recommendations

RECOMMENDATION: A holistic programme of relationships and sexuality education needs to be fully implemented as appropriate to all primary and secondary schools nationally. The capacity of these programmes to increase sexual knowledge and competence should also be evaluated and augmented where necessary.

RECOMMENDATION: The delivery of sex education needs to ensure effective tailoring to the needs of all groups, with specific efforts to ensure coverage for disadvantaged groups in particular.

RECOMMENDATION: Innovative methods of providing adult education on sexual health generally should be developed to improve levels of sexual-health knowledge across all groups. Specific attention should be directed at vulnerable groups, particularly those in lower socio-economic classes.

RECOMMENDATION: Public education campaigns should be used to alert all groups, but particularly younger age groups, that unprotected sex carries with it the double risks of unintended pregnancy and sexually transmitted infections, including HIV.

RECOMMENDATION: Actions should be taken to increase tolerance and acceptance of diversity in sexual orientation.

RECOMMENDATION: Health-promotion strategies need to foster more responsible public attitudes to individual planning for safe sex, including consistent use of effective methods of both contraception and protection.

RECOMMENDATION: Health-promotion strategies need to foster more responsible public behaviour concerning alcohol and illicit drug use, given their role in unprotected sexual encounters.

RECOMMENDATION: Health-promotion strategies need to encompass the concept of contraceptive choice, given the varied range of attitudes about the acceptability of various forms of contraception. Professionals may need training to be able to assist the individual to select from the range of options available.

RECOMMENDATION: Serious attention should be given to reducing further the cost of contraception and protection. At a minimum, value-added tax should not be levied on contraception or protection. After this report was written, the VAT on condoms and all non-oral contraception was reduced from 21% to 13.5%. The impact of this should be assessed to inform future policy on this issue.

RECOMMENDATION: Research on sexual knowledge, attitudes, behaviours and health in Ireland should be integrated to ensure best use of public resources in developing a knowledge base capable of informing policy and practice.

RECOMMENDATION: More detailed research needs to be carried out into the sexual knowledge, attitudes and behaviours of disadvantaged socio-economic groups.

RECOMMENDATION: A national survey of sexual knowledge, attitudes and behaviours should be carried out among young people in Ireland.

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