The Irish Study of Sexual Health and Relationships

Sub-Report 2:

Sexual Health Challenges and Related

Service Provision

Hannah McGee

Kay Rundle

Claire Donnelly

Richard Layte

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Foreword by Minister for Health and Children, Mary Harney TD

I WELCOME the publication of *Sexual Health Challenges and Related Service Provision*, which is Sub-Report 2 of the Irish Study of Sexual Health and Relationships (ISSHR).

The National AIDS Strategy Committee (NASC), in its report *Aids Strategy 2000*, recommended that a national survey be undertaken of sexual knowledge, attitudes and behaviours in Ireland. In 2003, my Department and the Crisis Pregnancy Agency commissioned the Irish Study of Sexual Health and Relationships.

To shape policy and practice, it is essential that we understand the factors that contribute to sexual ill-health, and its consequences. Risk factors, such as lack of knowledge, can be identified and targeted. This sub-report provides us, for the first time, with nationally representative data about the main sexual-health challenges in the Irish population.

These range from HIV/AIDS to STIs and crisis pregnancy, which affect many Irish people, to problems relating to sexual performance and fertility. The report also provides policymakers and service providers with new understanding about the need for, and use of, related services.

As a result, they will be able to plan and develop these services and shape prevention activities that will help to improve the sexual health of Irish people and reduce the number of negative outcomes. In particular, they will be able to target programmes at people who are disadvantaged and most at risk.

I commend all those who helped to plan and carry out the survey, and who prepared the report; the Economic and Social Research Institute (ESRI) and the Royal College of Surgeons in Ireland (RCSI), who conducted the report; the 7,441 participants who responded openly to questions about an intimate area of their lives, and the 27 interviewers.

Thanks to the data that this report provides, we are now well placed to develop policies and services that will improve the sexual health of our citizens.

Mary Harney TD

Minister for Health & Children

Introduction

IT is a great pleasure for me to welcome the publication of Sub-Report 2 of the Irish Study of Sexual Health and Relationships (ISSHR): *Sexual Health Challenges and Related Service Provision.*

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 of 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.

The ISSHR findings have been outlined in a suite of reports – the Main Report, the Summary Report and three sub-reports; the latter provide detailed information in defined areas of interest. This, the second sub-report, focuses on the area of sexual risk-taking and the use of relevant services.

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 the research teams, led by Professor Richard Layte of the Economic and Social Research Institute and Professor Hannah McGee of the Royal College of Surgeons in Ireland, and the team at Trinity College Dublin. 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 graciously 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

About the authors:

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.

Kay Rundle is a research psychologist and researcher at the Health Services Research Centre, RCSI. Her research focus is on sexual health and patient experiences of healthcare. Recent work includes a national study of contraception and crisis pregnancy and a review of renal patient services.

Dr **Claire Donnelly** is a consultant in infectious diseases at the Royal Victoria Hospital, Belfast. Her current research examines the distribution of behaviours which confer an increased risk of STI infection in the population and the implications this pattern has for the societal burden of STIs.

Professor **Richard Layte** is a sociologist at the Economic and Social Research Institute. His work examines the way in which health and the use of health care services are influenced by socioeconomic factors. Recent work includes papers on smoking and social class, contraceptive use and class, unemployment and mental health, and equity in health care utilisation in Ireland. He is the co-principal investigator on the ISSHR Study.

Acknowledgements

Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ASHR	Australian Study of Health and Relationships
CATI	Computer-aided telephone interview
CPA	Crisis Pregnancy Agency
DoHC	Department of Health and Children
ESRI	Economic and Social Research Institute
GMHP	Gay Men's Health Project
GUIDE clinic	Genito-urinary infectious disease clinic
GUM	Genito-urinary medicine
HIV	Human Immunodeficiency Virus
HPSC	Health Protection Surveillance Centre (formerly the NDSC)
HSE	Health Service Executive
ICCP	Irish Contraception and Crisis Pregnancy Study
IDU	Intravenous drug user (IVDU)
IFPA	Irish Family Planning Association
ISSHR	Irish Study of Sexual Health and Relationships
ISSP	International Social Survey Project
IVDU	Intravenous drug-user (IVU)
KABS	Knowledge, attitudes and behaviour surveys
MSM	Men having sex with men
NASC	National AIDS Strategy Committee
NATSAL	National Survey of Sexual Attitudes & Lifestyles
NDSC	National Disease Surveillance Centre
NHSLS	National Health and Social Life Survey
ONS	Office of National Statistics (UK)
RANSAM	Sample selection programme developed at the ESRI
RCSI	Royal College of Surgeons in Ireland
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

Cohort

A generational group.

Concurrency

Simultaneous occurrence (in ISSHR, of more than one sexual relationship).

Confidence interval

Quantifies the uncertainty in a measurement. The probability (between 0% and 100%) that an observed value is the true or actual value.

Dichotomised

Separated into two parts or classifications.

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.

Survivor curve

The generic name for a technique that examines the rate of change in a variable over time. A survivor curve usually plots the proportion of a population who have not yet experienced some outcome. It may also be used to plot a 'failure rate': the proportion who do not experience some outcome.

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1.1 The current study

THE Irish Study of Sexual Health and Relationships is the first national study of sexual health in Ireland. The value of a sexual-health study lies in its ability to examine the complex interplay between individual factors and social relationships within a social, economic and healthcare context.

The effectiveness of any strategy for knowledge, attitude and behavioural change is sensitive to context. It is thus essential to understand the patterns, contributors to and consequences of sexual health and ill-health in order to shape policy and practice. The challenge is to identify and understand unmodifiable risk factors (such as age) and modifiable factors (such as knowledge), so that these can be either taken into account or targeted for change, as appropriate, in sexual-health promotion and treatment activities.

This report is one of three specialist sub-reports that supplement the main overview report which examines the information produced by the first representative sexual-health study of the general adult population in Ireland: the Irish Study of Sexual Health and Relationships (ISSHR). This was an anonymous telephone survey of over 7,000 adults aged 18-64 in the Republic. The data was collected in 2004/5.

The specialist reports one and three focus on:

- early sexual experiences, and their correlates and variations in current sexual health as related to early experience: ISSHR Sub-Report 1: 'Learning About Sex and First Sexual Experiences'
- the social construction of sexuality in Ireland in sexual knowledge, attitudes and behaviours: ISSHR Sub-Report 3: 'Sexual Knowledge, Attitudes and Behaviours – A Further Analysis'

This specialist report, ISSHR Sub-Report 2: 'Sexual Health Challenges and Related Service Provision', addresses the main sexual-health challenges in the Irish population and the service provision for these challenges. These range from the more serious and also least common challenge (HIV/AIDS) and the more common problems arising from unprotected sex (STIs and crisis pregnancy) which directly affect a substantial proportion of Irish people, to problems which

affect the individual as a sexual being (e.g. sexual performance and fertility problems).

The report also assesses service need and use in relation to these challenges, in order to inform the planning for developments in sexual-health services.

The content of chapters is as follows:

- **Chapter one** provides a general background.
- **Chapter two** describes the survey methodology.
- **Chapter three** focuses on heterosexual behaviour and sexual health. This includes an examination of: number of sexual partners, experience of concurrent relationships, paying for sex, and contraceptive use.
- **Chapter four** provides a similar analysis for homosexual behaviour.
- **Chapter five** examines similar sexual behaviours among younger participants (aged 18-29).
- **Chapter six** focuses on patterns of sexually transmitted infection across the population and socio-demographic and behavioural determinants.
- **Chapter seven** describes the prevalence and population profiles of crisis pregnancy and abortion.
- **Chapter eight** presents an outline of common sexual problems that individuals may experience over the course of their adult lives, such as those relating to sexual performance and satisfaction.
- **Chapter nine** focuses on use of services, and considers it in relation to each of the challenges outlined in previous chapters.
- **Chapter ten** draws together the findings of this report and the complementary ISSHR main report and sub-reports to make general and specific recommendations concerning sexual health in Ireland.

1.2 Background

SEXUALITY is a core aspect of the experience of being human. Human sexuality is experienced at many levels: thoughts, beliefs, attitudes, values, desires, behaviours, roles and relationships. An individual's sexuality is shaped by complex interactions between biological, psychological, social, economic, cultural and religious factors.

Sexual health has a public dimension. The World Health Organisation (WHO) has proposed a working definition of sexual health in terms of psychological, social and physical well-being. As with more general definitions of health, it is not merely the absence of disease or dysfunction:

"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]

WHO argues that promoting sexual heath requires a comprehensive, cross-cutting set of activities that include the health, educational, political, economic and legal sectors of society. Consideration of sexual-health issues has evolved in many countries from an earlier focus on

reproductive health. This evolution has been primarily driven by the emergence of HIV and also by increasing awareness of sexual violence as a pervasive phenomenon in both civil society and in situations of conflict and war. These now feature alongside concerns about reproductive health issues such as crisis pregnancy, teenage births and abortion. Thus core aspects of sexual health are:

- Fertility management (including contraception and infertility)
- Sexually transmitted infections (including HIV/AIDS)
- Sexual function/dysfunction (including aspects of the sequence of human sexual response – desire, sexual arousal and orgasm)
- Sexual violence

Reflecting the increasing awareness of the range of sexual-health issues, many countries have recently developed or are preparing to develop, national sexual-health strategies. Almost all of these have been developed since 2000. Thus sexual-health promotion and protection at national level is truly a 21st century development.

These sexual-health policy developments include the following:

- In 2001, the Department of Health in England launched a national strategy, *Better Prevention. Better Services. Better Sexual Health - The national strategy for sexual heath and HIV.*[2] It was a consultation document which invited feedback and from which a 27-point action plan was published a year later. Since then a range of reports have been produced, setting quality standards, milestones, and training and best-practice guidelines. Resulting initiatives include the establishment of a national Chlamydia screening programme in 2003 and the development of a toolkit for sexual health and HIV prevention aimed at specific groups (e.g. young people, parents, people with learning difficulties, prisoners and intravenous drug users). There has also been a particular focus on teenage pregnancy since rates in the UK generally are notably higher than in other European countries. The English strategy involves a ten-year plan to address teenage pregnancy.
- A Scottish strategy, *Enhancing Sexual Wellbeing in Scotland: A sexual health and relationship strategy,* was launched in 2003. The strategy's vision is to have a society "that accepts sex as a normal and healthy aspect of life, in which people understand the value of their own sexual health, the importance of responsibility and respect for others and have the capacity and means to protect themselves from unwanted outcomes of sexual activity".[3]
- In New Zealand, a *Sexual and Reproductive Health Strategy* was launched in 2001.[4] It was envisaged as phase one of a national strategy. It organised its approach somewhat differently from the above strategies by identifying four strategic directions: societal attitudes, values and behaviour; personal knowledge, skills and behaviour; services; and information.
- In Northern Ireland, a consultation document, *A five-year sexual-health promotion strategy and action plan,* was circulated in late 2003.[5] Four priority groups were identified for attention: people under 20 (teen pregnancy and sexually transmitted infections {STIs}); under-35s (STIs); gay and bisexual men; and commercial sex workers. This plan is currently funded and under way.

Acknowledging the particular sensitivities concerning sexual health, many of the strategies make clear their guiding principles. They highlight the link between sexual-health problems, poverty and social exclusion. A challenge for research and researchers is to highlight

the difficulties in particular groups in a way that supports services and other interventions to assist these groups, without implying any blame. In other words, as stated in the English strategy: "Sexual ill health is not equally distributed among the population. The highest burden is borne by women, gay men, teenagers, young adults and black and minority ethnic groups … Girls from the poorest backgrounds [are] ten times more likely to become teenage mothers than girls from wealthier backgrounds." It goes on to state its fundamental aim of fostering "a culture of positive sexual health by making sure that everyone gets the information they need – without stigma, fear or embarrassment – so they can take informed decisions to prevent STIs, including HIV, and about services."[2]

While many of the strategies highlight equity, they also emphasise in various ways the societal cost-effectiveness of promoting good sexual health. Examples include:

- A UK estimate of the value of preventing a single HIV infection is that it "saves £500,000-£1 million [€740,000-€1.5 million] in individual health benefits and treatment costs"[6], not to mention the cost to society and the individual and family when a person's quality and duration of life is reduced in this way.
- The cost of a teenage pregnancy in terms of exclusion from the labour market was calculated in the UK as £17,820 [€26,330] per mother (Department of Health, Social Services and Public Policy, 2003[5]).
- The Northern Ireland strategy calculated that the absence from the workforce of 17-19 year-olds, who could be considered as unavailable because of teenage pregnancy, would have cost the Exchequer in 2001 about £24 million [€35.5 million].[5]

Whatever dimension is calculated, the message is that sexual-health problems are a loss not just for individuals but also for society as a whole.

In Ireland, there have been a number of landmark developments towards a national sexual-heath strategy since 1990.

- The Department of Health's previous health-strategy document, *Shaping a Healthier Future* (1994), formed a general basis for initiatives concerned with sexual health in Ireland.[7] This strategy was developed through extensive consultation. Reproductive and sexual-health issues had a prominent place in the strategy.
- A reflection of increasing interest in the profile of sexual health was a large national survey of women's sexual health and reproductive issues, completed in 1993 to mark the centenary of the National Maternity Hospital in Dublin.[8]
- In line with drivers for development elsewhere, the emergence of HIV triggered the establishment of a National AIDS Strategy Committee (NASC) in 1991; its first report was published in 1992. NASC comprised four sub-committees concerned with surveillance; education/prevention; care and management, and discrimination. Among the recommendations of its second report, *AIDS Strategy 2000*[9], was the need to normalise HIV within the context of other STIs and to obtain nationally representative information on sexual knowledge, attitudes and behaviour in Ireland.
- Since then, a number of reports have addressed key STI-related issues, including a summary report on STI service provision, for the Department of Health and Children (2005)[10], and a Health Protection Surveillance Centre report on a national screening programme for Chlamydia (also 2005)[11]. These reports are discussed in more detail in the relevant chapters that follow.

- The Department of Health and Children launched its current National Health Strategy, *Quality and Fairness: a Health System for You,* in 2001.[12] It identified sexual health as an important focus for attention. Action number 16 of 121 in the strategy's action plan states: "Measures will be taken to promote sexual health and safer sexual practices." In terms of deliverables, an action plan was to be prepared with a target date of 2003, with the Department of Health and Children as the responsible agent. A 2003 progress report on the National Health Strategy reported that the action plan would be developed by late 2004. While this is not yet available, a number of significant components of the plan are now in place.
- In terms of regional strategies, in October 2001 the then Southern Health Board announced that it was developing a sexual-health promotion strategy over 10 years.
- In July 2005, the Health Service Executive (HSE) published a sexual-health strategy for the Eastern Region.[13] This aims to "promote sexual health, prevent and manage infections and prevent unintended teen pregnancies". The HSE signalled that it would place more emphasis on primary care services and aspire to provide services "… in the right place delivered by the right people and at the right time".
- In terms of policy development at national level, the Crisis Pregnancy Agency (CPA) was established in 2001 following the launch of the National Health Strategy. CPA is a planning and co-ordinating body whose aims are to reduce the number of crisis pregnancies (through education, advice and contraceptive services); to reduce the number of women with crisis pregnancies who opt for abortion (through the offer of services and supports which make other options more attractive); and to provide counselling and medical services after crisis pregnancy.

The National AIDS Strategy Committee (NASC) also continues to monitor and inform practice.

Sexual health is of course not just the remit of government health departments. It is a multi-faceted challenge. The Department of Education and Science directly contributes to sexual health through its school and other sex-education programmes. Relationships and Sexuality Education (RSE) has been introduced as part of a wider Social, Personal and Health Education (SPHE) curriculum. The aim is to deliver this programme in all schools to ensure that all young people receive standardised sex education in their school. One of the challenges, as highlighted by NASC (2000), is to educate about sex in a positive context of maintaining sexual health rather than merely preventing disease.

Finally, a number of recent research initiatives have provided nationally representative information that is needed for effective sexual-health planning.

- The first large-scale nationally representative study to address issues of sexual health was the Sexual Abuse and Violence in Ireland (SAVI) report.[14] This examined lifetime experience of sexual abuse and violence in Ireland. It was based on a nationally representative sample of 3,120 adults (aged 18+) using a telephone survey.
- Using a similar methodology, Rundle, Leigh, McGee and Layte (2004)[15] carried out the Irish Contraception and Crisis Pregnancy (ICCP) study, a national survey of 3,317 participants aged 18-45. It examined crisis pregnancy and use of contraception.
- The present study, the Irish Sexual Health and Relationships (ISSHR) study, addresses a wider range of sexual-health issues among a representative sample of people aged 18 to 64 in Ireland.

These are epidemiological studies – large-scale, nationally representative projects which document in the Irish population a range of knowledge, attitudes and behaviours pertaining to sexual health. Each study has been funded by the Government. The first major project (SAVI) also obtained substantial support from Atlantic Philanthropies. The ICCP study is part of a series of studies in the active research programme of the CPA. To date, 21 studies were funded in 2002/3 and a further 10 were commissioned in 2004. These will provide an unprecedented level of contemporary, evidence-based and locally applicable information on crisis pregnancy. Many of these studies provide the in-depth coverage of issues which is not possible with large-scale epidemiological studies, and so provide a greater understanding of findings from studies such as ICCP.

One development in planning is of note when considering the evolving capacity of sexual-health information in this country. Since sexual practices across the age cohorts in Ireland, as is already evident in ICCP, have changed dramatically and since issues such as crisis pregnancy and STIs need to be addressed urgently, a national information system would be incomplete without information on today's younger people. There is a need to focus on adolescents, to determine what they need and how to best support their sexual development into adulthood. While some work on Irish adolescents is available, none has used a nationally representative sample and most report on samples up to the mid-1990s. The CPA is planning a study, similar to the current ISSHR study, to provide this information in Ireland. A scoping exercise has recently been completed on behalf of the CPA to inform the nature of such a study (Layte, Williams, Quail & McGee, 2005).

The focus of the current study is on three of the four WHO-defined aspects of sexual health (sexual violence is not covered as it has been the focus of a specific national study, SAVI, in the recent past). Thus, sexual-health knowledge, attitudes and behaviours are considered in relation to STIs, crisis pregnancy and sexual problems. While the focus is primarily on these challenges to sexual health, the study also aims to develop greater understanding of the nature of the sexual experiences of Irish people today. Thus, levels of partnerships, sexual orientation, attitudes, behaviours and preferences are considered not just in terms of their potential for risk but also in terms of developing a profile of sex as an important dimension of human experience in contemporary Ireland.

One of the markers of change in sexual behaviour is an increase in transmission of STIs including human immunodeficiency virus (HIV). Many countries, including Ireland, have seen an increase in STIs in recent years. This increase is undoubtedly a combination of increased prevalence and increased awareness, testing and notification.

In Ireland, STIs are notifiable to the Health Protection Surveillance Centre (formerly National Disease Surveillance Centre). Reported levels are at an all-time high, with more than 10,000 notifications per year. (Further details of levels of STIs in Ireland are summarised in chapter six.)

STIs can have significant consequences for sexual and reproductive health, including pelvic inflammatory disease (PID), infertility, ectopic pregnancy and cervical cancer. Although deaths from acquired immunodeficiency syndrome (AIDS) have decreased with the introduction of highly active anti-retroviral drugs in 1996, HIV remains an incurable infection requiring lifelong treatment.

To improve understanding of national HIV epidemiology, the World Health Organisation has published updated guidelines on HIV surveillance. The purpose of these guidelines was to improve surveillance methods for monitoring HIV infection and to tailor these methods to the specific epidemic state in each country. Surveillance has generally consisted of recording the prevalence of reported STIs and AIDS cases and, more recently, reported cases of HIV infection. Prevalence[A] data provides useful information on the epidemiology of STIs and HIV infection. However, infections such as HIV can be asymptomatic for many years, so current HIV prevalence data gives no information on current transmission levels. Moreover, prevalence data cannot provide information about the future course of the epidemiology of HIV and STIs.

Behavioural studies are an important aspect of the 'second generation' surveillance methods. Changes in behaviour over time can explain changes in trends in the epidemiology of STIs and HIV. Most importantly, behavioural studies give a current picture of sexual behaviour. This can identify sub-populations who are at higher risk of STI/HIV transmission and acquisition, thus identifying targets for possible interventions to reduce transmission rates. Behavioural studies can also assist in the forward planning of service provision. The Irish National AIDS Strategy Committee recommended that a national study on sexual knowledge, attitudes and behaviour (KAB) be conducted in this context.[16]

Ireland has consistently had the highest birth rate in Europe throughout the 20th century. Births in the Republic of Ireland reached an all-time low in 1993 (184 births per 100,000 women) but increased again by 25% over the following decade, despite predictions that widespread economic developments would not support previous birth rates (Fahey, 2005).

However, crisis pregnancy is still a serious personal and societal problem in Ireland. While rates of teenage pregnancy (as one marker of pregnancies viewed as a 'crisis' by society) have remained relatively stable in recent decades, they and the numbers of Irish women seeking abortion in Britain indicate significant levels of unwanted pregnancy. Figures for 2004 indicate 3,353 known teenage pregnancies, with 798 (24%) of these resulting in terminations in Britain. But crisis pregnancies are not just of concern for teenagers; abortions for teenagers represented just 12% of all terminations to Irish women in Britain in 2005 (694 teenagers out of 5,585 terminations in total). (Chapter seven provides more detailed information on crisis pregnancy and abortion.)

Annual reports of the CPA (see www.crisispregnancy.ie) show the extent of the challenge. For instance, over 61,000 mobile-phone texting requests for information on crisis-pregnancy counselling services were made within the first seven months of 2005. Significant numbers of Irish women travel, predominantly to Britain, to seek a termination. Moreover, many of the women affected by crisis pregnancy are still in adolescence. Thus the consequences for their educational and career development, as well as their interpersonal networks, can be profound. One sexual risk often goes with another; those at risk of unintended or crisis pregnancy are also at risk of STIs. For illustration, Adams *et al* have shown that women seeking termination in the UK have higher levels of Chlamydia infection. An expert advisory group on Chlamydia in the UK has considered it prudent to recommend testing of women seeking terminations for Chlamydia infection.[17,18]

Sexual-health challenges other than those already described are also assessed in this study. There are many types of sexual-health problems, some of which concern the sexual

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[A] *Prevalence* is the ratio of the overall number of individuals with a particular characteristic in the population to the overall number of individuals in the population at that time. Its corollary – *incidence* – is the ratio of new cases displaying the characteristic in a particular year to the overall number of individuals in the population in that year.
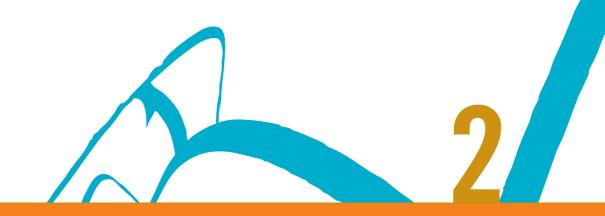
response cycle of desire, arousal and orgasm. Others concern challenges relating to an individual's sexual orientation, preferences and personal relationships. Still other challenges are concerned with reproduction. This study aims to briefly assess a number of these issues from the perspective of the participants themselves.

Finally, the study will focus on service provision in relation to each of the challenges outlined. Service provision needs a strategic approach. Much of the work of national health strategies elsewhere has been to develop these. For instance, in England there are now *Recommended standards for sexual-health services* (Medical Foundation for AIDS and Sexual Health, 2005), which support the national sexual-health strategy. The goal is to have prompt and convenient access to consistent, equitable and high-quality sexual-health care. Standards are to be delivered through sexual-health service networks (i.e. comprehensive local services linking primary care and specialist services). They should serve to promote sexual heath by: empowering and involving people who use services; identifying sexual-health needs; ensuring access to services; detecting and managing STIs; providing contraception advice and provision, pregnancy testing and support, and abortion services; and ensuring protection and optimal use of sexual-health information.

Increased documentation of service availability and use can lead to increases in service provision through, at minimum, pointing out deficiencies in current services. For instance, in the UK, it has been clear that unacceptable waiting times for urgent STI appointments exist in many centres – in a 2001 study, over two-thirds of STI clinics reported delays of over a week for what should have been emergency STI treatments (*BMJ* editorial, 2001). Similar concerns have been expressed in Ireland. For example, the 2004 annual report of the Dublin Well Woman Centre reported high demands on its service because of waiting times of up to eight weeks in public hospitals. It also reported that significant proportions of the women attending their Sunday services for emergency contraception were from outside Dublin, since service provision was scant in rural areas, particularly at weekends.

This study aims to assess service use from the perspective of the user. While some frequency data will be assessed, barriers to seeking services and service acceptability will also be examined. This information is essential in shaping plans for an integrated sexual-health service in Ireland.

The next chapter describes the study methodology.

Designing the ISSHR study

2

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[19], 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 cultures[20] and Irish society is no different. 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 the survey and 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 adopted a check-back system developed and used successfully in previous Irish research (described further in section 2.7).

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. Further problems include 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.[21-23] In general, these have shown a high level of agreement. A number of studies that used a test-retest approach[22,24,25] 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.[26] 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 on[27] 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. Even cursory analysis shows, however, that if these groups made up a small part of the Irish population[B], 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 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* 2003[27]). A more difficult question was the maximum age. The initial aim was that all those aged 18 or more should in principle be able to be selected for inclusion. However, resources were limited and evidence from elsewhere suggested that those 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.

[B] 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.

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 (NHSLS 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.[28] 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).

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)[29] 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. A higher number of interviews can thus be completed for a given budget. The centralised call location means that interviewers can be monitored and given appropriate support. 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 Australia[30] and France[31]. It has also been used successfully in Ireland for surveys on sensitive issues (e.g. the Irish Contraception and Crisis Pregnancy Survey {ICCP} 2004[19] and the Sexual Abuse and Violence in Ireland {SAVI} Study[32]). 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.

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.[33] 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.[34] 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.

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. Thus, the data fully represents 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. (Further information about the re-weighting procedure can be found in section 2.11.)

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 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.

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2.5.4 Sample size

The feasibility study for the ISSHR project[27] 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 could be 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 also 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 relatively less sensitive 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.[30] 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[35,36] 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.[37] 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.

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 made 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 these 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%.

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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. This 'conversion call' procedure is standard in telephone surveys.

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

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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[C]. 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.

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 matches 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 less than 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.)

[C] 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 (%)						
	Men (n=3,188)			Women (N=4,253)		
Demographic characteristics	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 the international research literature. 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.

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.

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2.11.3 Religious beliefs

ISSHR respondents were asked whether they would describe themselves as a religious or spiritual person. 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 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 2.5*, 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 2.5: 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 2.6: 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 2.6 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 a post-industrial economy 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.[38] This is shown in *Table 2.7*, 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 2.7: Highest social level 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.[39,40] It can be seen clearly in *Table 2.8*, 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 2.8: 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, the variables are therefore analysed in separate multivariate models.

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 2.9: 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 2.9*, 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 2.9*, 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 Statistical analysis and presentation of findings

QUANTITATIVE analysis of the data was performed using the Stata statistical programme. This provided basic descriptive statistics (percentages, means, medians) and allowed for more complex analyses to address research questions. Relationships between variables were analysed using chi-squared tests (unless otherwise stated) as they were considered to provide the best measure of significance without making assumptions concerning the direction of any possible relationship. Chi-squared test results are not listed, since the test results for weighted survey data cannot be interpreted in the usual way.

Most analyses are also presented graphically across important socio-demographic characteristics, such as gender or age, to display the percentage of participants within each socio-demographic category (e.g. age group or male/female) who reported the sexual behaviour or experience of interest.

Where relevant, this is followed by more complex multivariate analyses, which test the relationship of particular variables to the outcome of interest, while controlling for other factors. The ability to control for some variables in order to identify the independent effect of another variable is important because of the relationships between the variables themselves. For example, section 2.12.1 showed that younger individuals are far more likely to have higher levels of education. A simple examination (using a chi-squared test for example) of the relationship between education and a variable of interest (such as use of contraception) may identify that there is a significant relationship. However, it is possible that any relationship between the variable and educational level may actually result from the fact that different age groups are unevenly distributed across the education categories, and thus that age is the more important variable in determining contraceptive use.

The use of multivariate statistical models controls for the influence of age when examining the relationship with education. An example of such a model is given in *Table 2.10*, which has been reproduced from *Table 6.4* (chapter six) in ISSHR main report, showing contraceptive use at first intercourse. Reading from the top line, this table gives the overall proportion of men and women ('all participants') who used contraception at first intercourse, i.e. 66.7% of men and 74.1% of women. Beside this proportion, the actual number of men or women involved in the analysis (the 'N' or 'base') is given, e.g. 2,752 men. Below the top line, the percentage of men or women in different age groups who used contraception at first intercourse and the actual number involved in the analysis are given. For example, 87.8% of all men aged 18-25 used contraception at first intercourse. Each line can thus be read independently of all others to give the simple probability of the sexual behaviour of interest (in this case, use of contraception at first intercourse) being true or occurring.

While it was possible to present the results of multivariate analyses next to the percentages, it was agreed that this format could be confusing for the reader. Instead the report presents the statistical significance of differences between groups, after controlling for all other variables in the table (in the column titled 'MV'). This significance is represented using asterisks (explained in the key at the bottom of each table), as in *Table 2.10*. The more asterisks next to a proportion, the more significant is the difference after controlling for other factors, in a multivariate model.

Some cautions are needed with regard to this method of presentation. Statistical differences between groups may not be reflected in the actual percentages in the table; what appears to be a large difference in percentages on one variable might not be statistically 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. Additionally, 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 whether a group is statistically different from the reference category and not necessarily all other categories. For instance, in *Table 2.10*, the reference category for education is primary level, with 42.7% of men with primary education reporting contraceptive use at first intercourse. When compared to this reference group, there was no difference (*ns: not significant*) for men with lower secondary education, but there were significant differences for men with higher secondary and third-level education. Each of these refers to a significant difference from the reference category (primary level), after controlling for the other variables in the table (current age and relationship status). Where possible the reference category used is consistent across analyses.

Table 2.10: Use of contraception at first vaginal intercourse among those at risk of unintended pregnancy, by socio-demographic variables

	Men			Women		
	Used contraception (%)	Base	MV+ contraception (%)	Used (%)	Base	MV+ (%)
All participants	66.7	2,752		74.1	3,522	
Current age (years)						
18-24	87.8	625	***	94.1	730	***
25-34	77.4	654	***	86.0	905	***
35-44	66.6	601	***	73.4	918	***
45-54	50.7	511	*	57.9	614	***
55-64	38.8	361	C	39.8	355	C
Education (highest level attained)						
Primary	42.7	206	C	42.1	207	C
Lower secondary	60.1	471	ns	66.0	506	**
Higher secondary	72.7	1,035	**	78.6	1,497	***
Third level	78.7	1,040	***	85.8	1,312	***
Relationship with first sexual partner						
Just met/did not know each other	53.3	239	***	77.0	45	ns
Knew each other, not steady relationship	60.3	819	***	70.3	460	***
Steady relationship/ cohabiting/engaged	72.6	1,563	ns	77.5	2,587	ns
Married	61.1	121	C	58.8	427	C

+ Multivariate analysis: logistic regression adjusting for all variables in the table
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=comparison group

Analyses relating to age at first intercourse were based on a 'hazard rate' calculation. When analysing age at first sex across a population in which some members have not yet experienced first intercourse, a simple estimation of the median or mean age at first sex is likely to be inaccurate because those who have not yet experienced first intercourse may subsequently report a later age at first sex. Therefore, such an estimate of the median or mean would be lower than the final ('true') value for the population. A 'hazard rate' statistic overcomes this problem by adjusting findings to take account of participants who have not yet experienced first intercourse.

The next chapter introduces the research findings in the heterosexual population.

3

Heterosexual behaviour and sexual health

STUDIES have shown that some key individual and behavioural characteristics are associated with an increased risk of sexually transmitted infection (STI) or crisis pregnancy. This chapter outlines heterosexual practices and attempts to determine characteristics associated with an increased risk of STI or crisis pregnancy. The focus here is on behaviour as distinct from labels which people use to define their sexual orientation.

First, the introduction provides background information relating to sexual-risk behaviours. The ISSHR results are found in section 3.2. They begin with an analysis of the rate of partner change over lifetime and the last five years. Findings are compared with those of national behavioural studies in other countries. There is evidence that having more than one partner in the last year is associated with STI acquisition; partnerships over the last year are thus examined in more detail by looking at socio-demographic and behavioural determinants of having multiple partners. Experience of concurrent sexual partners in the last year is then investigated, again across various socio-demographic and behavioural characteristics.

With the increase in international travel, it is important to examine to what extent people acquire new partners when abroad, since this has consequences for the management of STIs. The use of commercial sex (and associated condom use) by participants will be analysed across important socio-demographic and behavioural variables.

The remainder of the results section looks at various aspects of contraceptive use. Predictors of contraceptive use at most recent vaginal intercourse are analysed, followed by an examination of the types of contraception used. The reasons given for non-use of contraception can provide additional information about issues surrounding non-use, and this is also examined. Condoms are an important component in the prevention of STIs and HIV, as well as being effective contraceptives. Condom use is therefore analysed in greater detail. Consistency of condom use over the last year is investigated across socio-demographic and behavioural characteristics. This is followed by an overview of condom use at most recent intercourse and reasons for not using a condom on the most recent occasion of intercourse. The chapter findings are summarised in section 3.3.

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3.1 Introduction

WHILE most Irish people have not and will not experience outcomes such as STI, HIV and crisis pregnancy, an important minority will. This proportion seems to be increasing. Possible reasons for this are the changing patterns of sexual behaviour among younger people. However, such behaviours will not affect the prevalence of STIs and crisis pregnancy if they are accompanied by adequate risk-reduction, i.e. use of contraception and protection in the form of condoms and other barrier methods. This chapter examines various aspects of heterosexual behaviour in relation to sexual-health risks.

3.1.1 Number of sexual partners

The number of sexual partners *per se* is not a cause of STIs. Unprotected sex is the cause. However, many studies have shown that an increased rate of partner change is associated with an increased risk of STIs such as Chlamydia Trachomatis.[41,42] Furthermore, a study correlating the prevalence, distribution and associated demographic and behavioural factors of self-reported STIs from the British Natsal study with attendances at genitourinary medicine (GUM) clinics calculated that 41.6% of all reported STIs in the previous five years were reported by the 4% of women who reported having 10 or more partners.[43]

Patterns of recent 'new partner acquisition' provide information about recent sexual behaviour and are more informative in determining the current and future course of STI epidemiology. There is a possibility that such patterns are more reliably reported than patterns of unprotected sex. Infections such as gonorrhoea have high infectivity and hence transmissibility. However, gonorrhoea also has a short duration of infectiousness, so a high rate of 'new partner acquisition' is required to maintain transmission.[44] Consequently, gonorrhoea is often maintained in core groups (i.e. a group of people in a sexual network) who have multiple partners over a short time.

Chlamydia is of intermediate infectiousness and duration.[45] For instance, a study in the Netherlands, following asymptomatic women with Chlamydia over a year, found that only 44.7% of women cleared the infection without treatment.[46] The persistence of Chlamydia and the asymptomatic nature of the infection have contributed to the more widespread establishment of Chlamydia outside well-defined core groups.[45] Having had more than one partner in the last year has been found to be associated with Chlamydia infection.[42,47]

3.1.2 Concurrency

Concurrency is the overlap of sexual partnerships in time. This has been associated, in a number of studies, with an increased risk of STI acquisition.[42,48] Mathematical modelling has shown that an HIV epidemic is accelerated by concurrency.[49] A review of recently diagnosed patients with HIV infection in the US showed a high prevalence of reported concurrent partnerships.[50]

3.1.3 Sexual partnerships outside Ireland

Increasing international travel allows infections to be easily transported between countries, as was seen in the SARS outbreak. Many countries have higher STI and HIV prevalence

levels than Ireland. Thus, it is important to consider travel history when assessing STIs in Ireland. A recent study of Irish college students showed that 30% of participants had had casual sex with a new partner while abroad, and 35% of these had unprotected intercourse.[51] UK figures show that 20% of all heterosexually acquired HIV in people born in the UK had been acquired outside the UK.[52]

3.1.4 Use of commercial sex

The ASHR study in Australia found that 15.6% of all men had paid for sex and, of these, 97% had paid female sex workers.[53] No research is available on rates of use of commercial sex in Ireland. Nor is there any data on STI and HIV rates among commercial sex workers in Ireland. Commercial sex is a major factor in the transmission of HIV in many developing countries such as Thailand, India and countries in sub-Saharan Africa. However, in developed countries commercial sex work does not appear to have been such a significant factor in HIV transmission.

In Europe, commercial sex workers can be divided into two groups. The first group may be organised in brothels, promote high use of condoms and have low prevalence of HIV. The second group is more likely to consist of intravenous drug users (IVDUs), who are more likely to have HIV+ and/or hepatitis C, and have usual partners who are also IVDUs. A study in Spain prospectively followed female commercial sex workers over a 10-year period. Over this time, there were 8.8 new cases of HIV per 1,000 women years. Acquiring HIV in this study was mainly related to injecting drugs and having a usual partner who injected drugs.[54]

A prevalence study in Italy found that female commercial sex workers had an overall HIV prevalence level of 16%. However, among commercial sex workers who were also IVDUs, the prevalence was 39%.[55]

A study in London showed a low HIV prevalence in female commercial sex workers (0.2%). While there was a high prevalence of acute STIs, STI risk was associated with the number of non-commercial partners (where condoms were used with 12% of non-paying partners) and not associated with the number of clients (where condoms were almost always used – with 98% of all clients).[56]

The conclusion from several studies such as these in Europe was that high levels of condom use were adopted in commercial partnerships, and that HIV risk was mainly related to injecting drugs or having usual partners with risks for HIV, where condom use was less prevalent.

3.1.5 Condom use as contraception or protection

Barrier methods of protection offer combined defence against unintended pregnancy and STIs. Studies have identified a lower risk of STIs among people who report using condoms.[41,42]

- In Australia, the ASHR study found that younger age, higher education, residence in major cities, lower income, white-collar occupation and having more partners in the last year were associated with condom use in the last year. There was also an association between condom use and relationship type: higher levels of condom use in casual partnerships and lower levels of condom use in co-habiting couples. Condom use at most recent intercourse was associated with younger age, residing in a major city, lower income and casual partnership.[57]

- In 2000, the British Natsal study analysed condom use over the last four weeks in relation to number of partners over the last year. Overall, 33% of men and 24.1% of women who reported more than one partner in the last year reported always using condoms in the last four weeks.[58]

The method of contraception used is also of interest as research has shown that this varies across the population. There is also substantial evidence that patterns of contraceptive and protection use have changed substantially over time in Ireland as the legal and social position of contraception has changed:

- The sale of contraception was limited in law until the Health (Family Planning) Amendment Bill legalised the sale of non-medical contraception (i.e. condoms and spermicidal creams) to those over 18 in 1985.
- The 1992 Health Amendment Bill allowed all contraceptives (including the contraceptive pill) to be bought by people over 17.
- In terms of indicators of more recent social change, the main TV channel in Ireland, RTE, lifted a 20-year ban on advertising condoms in November 2005. Condoms had been on a list of banned products in an advertising code developed in 1985.

Given the restrictions of access to contraception in the Republic of Ireland until the quite recent past, it is not surprising that there is little evidence on contraception use over an extended period.

- The Wilson-Davies (1974) survey of married women found that natural methods (following a woman's menstrual cycle) were the most commonly used method (used by 55% of women), followed by oral contraception (16%) and withdrawal (10%) (cf. Mason 2003[59]).
- O'Neill (1985) reported that, of 198 women, following childbirth, 39% were using an oral contraceptive, 30% rhythm methods, 19% condoms and 27% no method (cf. Mason 2003[59]).
- By 1993, the Wiley and Merriman study found that 22% used condoms, 22% oral contraceptives and 14% the rhythm method.[8]
- In the most recent Irish study prior to the ISSHR study, the ICCP survey of those aged 18-45 (data collected in 2003) found that, of those who had used contraception at most recent intercourse, 53% used condoms, 34% the contraceptive pill, 10% sterilisation, 6% the coil/IUD/Mirena, 3% the safe period (rhythm method), 3% injections/implants and 2% withdrawal.[15]

Table 3.19 provides an overview of contraceptive use at the most recent occasion of vaginal sexual intercourse, in the ISSHR sample.

The next section examines heterosexual behaviours and experiences among ISSHR participants, beginning with an overview of the number of sexual partners over lifetime and the last five years.

Classifications such as 'heterosexual', 'homosexual' and 'bisexual' can be complicated since they are sometimes used to describe behaviour and sometimes in relation to persons. The focus of this chapter is on the behavioural definition, since the report concerns sexual-health challenges which are a function of behaviour rather than of individuals.

Chapter five of the main ISSHR report addresses the relationship between a person's self-description as a sexual being (heterosexual, homosexual, etc) and their sexual behaviour profile. This relationship is considerably more complex than might be expected and reflects a similar overlap of people and behaviours in studies in other countries.

3.2 ISSHR results

3.2.1 Number of sexual partners over lifetime and the last five years

SUMMARY

Participants were asked how many sexual partners (with whom they had engaged in vaginal, oral or anal sex) they had had in their lifetime and in the last five years.

• *Men reported more sexual partners than women over their lifetime.*

• *In total, 6% of both men and women had never had a sexual partner; 25% of men and 6% of women reported 10 or more partners in their lifetime. Half (51%) of women and 29% of men had one lifetime sexual partner.*

• *Men and women aged 25-34 reported a higher median number of partners than younger or older groups.*

• *All age groups reported a median one partner in the last five years, except for men aged 18-24 who had a median three partners.*

THE numbers of sexual partners reported over lifetime by men and women are shown in *Tables 3.1* and *3.2* respectively. The mean and median number of partners is also displayed. The mean number of partners was larger than the median for all age groups and for both men and women, indicating that the data is skewed, i.e. that a small number of participants reported a large number of partners.

Table 3.1: Number of heterosexual partners in lifetime among men, by age group (%)						
Partners	**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
2-9	44.5	44.7	41.6	36.0	29.8	40.0
10+	21.0	33.2	28.3	21.2	17.1	24.8
Median	4	6	4	3	1	4
Mean	6.0	11.0	11.4	8.8	7.2	9.1
N	759	701	647	574	507	3,188

Table 3.2: Number of heterosexual partners in lifetime among women, by age group (%)						
Partners	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
2-9	42.2	53.6	38.0	28.3	17.5	37.2
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	3.0
N	908	966	1,014	755	610	4,253

There was considerable variation in number of partners across the sample. For example:

- 6.3% of men and 5.8% of women had never had a sexual partner
- 24.8% of men and 6.2% of women reported 10 or more partners
- 50.8% of women and 29.0% of men had one lifetime sexual partner
- 37.2% of women and 40.0% of men had between two and nine partners

Significant gender differences were identified. Men were more likely to report 10 or more lifetime partners and less likely to report only one lifetime partner (p<0.001). These gender differences have also been reported in other studies, in which men report more lifetime partners than women.[58,60]

Among men and women, those aged 25-34 reported a higher median number of partners than all other age groups.

Table 3.3 compares the number of lifetime partnerships reported by ISSHR participants with the results of national behavioural studies in other countries. Irish participants were more likely to report one lifetime partner (29% of men and 50.8% of women). The percentage of men and women who reported five or more lifetime partners was similar to that in the 1990 British Natsal[61] and the French ACSF[62] studies. However, men and women in the Natsal 2000[58] and the US NHSLS[63] studies were more likely to report five or more partners. The variation in age range of participants across the studies is assumed to account for some of the differences. For example, the Natsal 2000 study interviewed participants aged 16-44, compared with the 18-64 age range in the ISSHR study. It is likely that more participants in the Natsal study (aged 16-44) would report more partners since older age is associated with higher levels of monogamy and fewer partners. The Australian ASHR study interviewed participants aged 16-59, which is more comparable to the range in the ISSHR study. ASHR participants reported more lifetime partners than ISSHR participants.

Table 3.3: Number of lifetime heterosexual partners in national studies (%)						
		Number of partners				
		0	**1**	**2-4**	**5+**	**N**
Men						
Ireland – ISSHR		6.3	29.0	20.4	44.3	3,188
GB – Natsal 1990[61]		6.6	20.6	29.0	43.8	8,384
GB – Natsal 2000[58]		7.2	11.0	22.1	59.8	4,661
US – NHSLS[63]		3.4	19.5	20.9	56.2	1,394
France – ACSF[62]		4.5	21.4	29.1	45.0	8,772
Australia – ASHR[60]		6.4	10.3	83.3		9,728
Women						
Ireland – ISSHR		5.8	50.8	25.0	18.5	4,253
GB – Natsal 1990[61]		5.7	39.3	35.1	19.8	10,492
GB – Natsal 2000[58]		5.3	18.3	30.5	45.9	6,275
US – NHSLS[63]		2.6	31.4	36.4	29.6	1,732
France – ACSF[62]		5.7	46.1	34.4	13.7	10,449
Australia – ASHR[60]		7.2	22.9	69.9		9,578

Tables 3.4 and *3.5* display the number of heterosexual partners reported over the last five years for both men and women. Again, a variation in the number of sexual partners across the sample is clear:

- 9.9% of men and 13.3% of women had no sexual partners in the last five years
- 58.1% of men and 67.7% of women had one partner
- 25.4% of men and 17.6% of women had between two and nine partners
- 6.6% of men and 1.4% of women had 10 or more partners in the last five years

Table 3.4: Number of heterosexual partners in last five years among men, by age group (%)						
Partners	**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
2-9	44.9	38.0	18.6	12.6	8.0	25.4
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
N	758	700	645	573	506	3,182

Among both men and women, all age groups reported a median one partner in the last five years, except for men aged 18-24, who reported a median three partners. More younger than older men and women reported more than one partner in the last five years. While this may represent an age-cohort change, with younger participants more likely to have more sexual partners, it is also the case that older groups were more likely to be in a steady relationship or married, and thus to have experienced a reduction in acquisition of new partners.

Table 3.5: Number of heterosexual partners in last five years among women, by age group (%)						
Partners	**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
2-9	41.9	27.2	8.7	4.8	1.3	17.6
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	0.8	1.5
N	908	965	1,014	753	610	4,250

The difference in numbers of partners over the last five years between ISSHR participants and those in Natsal 2000 and ASHR was less marked. Men in the ISSHR study reported a mean 2.8 partners and median one partner in the last five years. The corresponding figures for Natsal 2000 were a mean 3.8 and a median one partner. Similarly, the ASHR study reported a mean 3.9 partners and a median one partner. Women in ISSHR reported a mean 1.5 partners and median one partner in the last five years, compared with a mean 2.4 partners and a median one partner in Natsal 2000, and a mean 1.9 and a median one partner in ASHR.

Thus, ISSHR participants reported fewer lifetime partners than international equivalents. However, when examining recent sexual behaviour, and acknowledging some difficulty in direct comparison because of differences in age groups sampled, the gap between ISSHR participants and participants in other countries appears to be less marked.

3.2.2 Partnerships in the last year

SUMMARY

ISSHR participants were asked how many heterosexual partners (vaginal, oral or anal sex) they had had in the last year.

- *Men and women in all age groups reported a median of one partner in the last year.*

- *In total, 15.4% of men and 19.7% of women reported no partners and 70.3% of men and 74.9% of women reported one partner in the last year. Very few men (0.8%) or women (0.1%) had 10 or more partners in the last year.*

- *Men were more likely than women to have had more than one sexual partner in the last year.*

- *Younger participants were more likely than older participants to report more than one partner in the last year. For example, 37.1% of men and 16.4% of women aged 18-24 reported more than one partner, compared with 4% of men and 0.2% of women aged 55-64.*

- *There were no significant educational-level or social-class differences in experience of more than one heterosexual partner in the last year, for men or women.*

- *Men in a steady or casual relationship or not in a relationship were more likely than married men to have had more than one partner in the last year. Women who were cohabiting, in a steady or casual relationship or not in a relationship were more likely than married women to report multiple partners in the last year.*

- *Men and women whose weekly alcohol intake was above the recommended limits were about twice as likely as those whose intake was below the limits to report multiple partners in the last year.*

- *Participants who experienced first intercourse before 17 were around three times more likely to have had multiple partners in the last year.*

TABLES 3.6 and *3.7* outline the number of partners over the last year by age group for men and women. For both, the median number of partners reported by all age groups was one.

- Overall, 15.4% of men and 19.7% of women reported no partners and 70.3% of men and 74.9% of women reported one partner in the last year.
- Very few men (0.8%) or women (0.1%) had 10 or more partners in the last year.

Table 3.6: Number of heterosexual partners in last year among men, by age group (%)						
	18-24	**25-34**	**35-44**	**45-54**	**55-64**	**All**
0	17.3	13.6	9.8	15.3	23.8	15.4
1	45.6	71.0	82.0	80.8	72.2	70.3
2-9	34.7	14.4	8.2	3.7	4.0	13.5
10+	2.5	1.1	0.0	0.2	0.0	0.8
Median	1	1	1	1	1	1
Mean	1.9	1.3	1.1	1.0	0.8	1.3
N	758	700	644	573	506	3,181

When the figures are analysed by age group, it is clear that younger participants were considerably more likely than older participants to have had more than one partner in the last year. For example:

- 37.2% of men and 16.3% of women aged 18-24 reported more than one partner in the last year, compared with 4% of men and 0.2% of women aged 55-64.

Table 3.7: Number of heterosexual partners in last year among women, by age group (%)						
	18-24	**25-34**	**35-44**	**45-54**	**55-64**	**All**
0	22.2	11.1	14.9	21.0	34.5	19.7
1	61.5	82.9	82.8	78.1	65.4	74.9
2-9	15.9	6.0	2.3	0.9	0.2	5.3
10+	0.4	0.0	0.0	0.0	0.0	0.1
Median	1	1	1	1	1	1
Mean	1.1	1.0	0.9	0.8	0.7	0.9
N	908	965	1,014	753	610	4,250

The findings from ISSHR are compared with findings from national studies in other countries in *Table 3.8*. Again, differences in sample age ranges across the studies contribute uncertainty to these comparisons. Across all studies, most men and women had one or no partners in the last year; a smaller proportion reported multiple partners. ISSHR participants reported a similar number of partners over the last year to those in other countries, except for the US, where participants reported more partners. This contrasts with the finding that ISSHR participants reported fewer lifetime partners, and suggests that recent sexual behaviour in Ireland could be similar to that in other countries, while past sexual-behaviour patterns indicate that ISSHR participants acquired fewer partners in their lifetime. Alternatively, this could imply that, once partnerships had been established, ISSHR participants were less likely to acquire new

partners. Conclusive evidence of a change in Irish sexual behaviour would require repeat studies in the future for comparison.

Table 3.8 Number of partners in the last year: comparison with other countries (%)						
		Partners in the last year				
		0	**1**	**2-4**	**5+**	**N**
Men						
Ireland – ISSHR		15.4	70.3	11.3	3.0	3,181
GB – Natsal 1990[61]		13.1	73.0	12.3	1.5	8,384
GB – Natsal 2000[58]		-	-	-	-	-
US – NHSLS[63]		9.9	66.8	18.3	5.1	1,408
France – ACSF[62]		11.1	77.5	10.3	1.0	8,942
Australia – ASHR[60]		12.1	74.6	13.3		9,728
Women						
Ireland – ISSHR		19.7	74.9	4.8	0.6	4,250
GB – Natsal 1990[61]		13.9	79.4	6.4	0.0	10,492
GB – Natsal 2000[58]		-	-	-	-	-
US – NHSLS[63]		13.6	74.6	10.0	1.7	1,747
France – ACSF[62]		17.3	78.0	4.5	0.2	11,104
Australia - ASHR[60]		13.5	79.1	7.4		9,578

Socio-demographic variables were further examined in order to determine factors associated with experience of multiple partners in the last year (*Table 3.9*). Experience of multiple partners was defined as 'more than one partner in the last year'.

Gender differences in experience of more than one partner were significant ($p<0.001$); men were more than twice as likely as women to have had multiple partners in the last year (14.3% vs. 5.4%). Compared with the youngest age group (aged 18-24), men in all other age groups were significantly less likely to report more than one partner, whereas women aged 18-24 were significantly more likely than women aged 45-64 to have had multiple partners.

There were no significant social-class differences among men or women. Relationship status was strongly associated with multiple partners. Both men and women in a steady or casual relationship or not in a relationship were more likely than married participants to report more than one partner in the last year. Women who were cohabiting were also more likely than married women to report multiple partners in the last year.

Due to the close association between education and social class, a separate model examined the relationship between educational level and experience of more than one heterosexual partner in the last year, controlling for current age and current relationship status. There were no significant educational differences in experience of more than one heterosexual partner in the last year for men or women.

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Table 3.9: Profile of those with more than one heterosexual partner in the last year, by socio-demographic variables						
	Men			**Women**		
	%	**Base**	**MV+**	**%**	**Base**	**MV+**
All participants	14.3	3,188		5.4	4,253	
Current age (years)						
18-24	37.1	759	C	16.4	908	C
25-34	15.5	701	***	6.0	966	ns
35-44	8.1	647	**	2.3	1,014	ns
45-54	3.9	574	***	0.9	755	*
55-64	4.0	507	***	0.2	610	***
Social class						
Higher professional	16.2	790	C	9.7	642	C
Lower professional	14.6	731	ns	5.0	1,097	ns
Administrative/clerical	11.3	428	ns	4.4	978	ns
Skilled manual	14.0	611	ns	9.2	296	ns
Semi-skilled/unskilled manual	12.9	492	ns	3.7	892	ns
Current relationship status						
Married	1.9	1,502	C	0.2	2,361	C
Cohabiting	5.4	239	ns	2.3	270	**
Steady relationship	14.2	371	***	8.4	520	***
Casual relationship	45.5	222	***	29.3	141	***
Not in a relationship	30.1	854	***	12.1	961	***

+ Multivariate analysis: logistic regression adjusting for all variables in the table (excluding those marked '-')
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=comparison group

The addition of geographical location of households to the model in *Table 3.9* showed that, in their experience of multiple partners in the last year, men and women who lived in a city were not significantly different to those who resided in towns/rural areas.

Behavioural variables were next added to the model. After controlling for the socio-demographic variables in *Table 3.9*, men and women whose weekly alcohol intake was above the recommended limits were over twice as likely as those whose intake was below the limits to report multiple partners.

Similarly, men and women who experienced first intercourse before 17 were around three times more likely to report multiple partners in the last year than men and women whose first intercourse occurred after 17 (p<0.001 for men and women).

In summary, the strongest predictors of having multiple partners in the last year were younger age and casual relationship or not being in a relationship. Also predictors were early sexual initiation and higher alcohol intake.

Multivariate analysis of experience of STIs among ISSHR participants (investigated in chapter six) found that having multiple partners was associated with a higher likelihood of STI diagnosis.

Participants were also asked how many of their partners in the last year had been new partners *in the last year*.

- Of participants who had only one partner in the last year (N=5,476), 15.5% of men and 10.2% of women reported that this partner was a new partner within the last year.
- Of those who had more than one partner in the last year (N=704), 21.6% of men and 31.3% of women reported one new partner in the last year and 72.3% of men and 59.4% of women reported more than one.

3.2.3 Frequency of oral, vaginal and anal sex

> **SUMMARY**
>
> *This section examines the frequency of various heterosexual practices reported by ISSHR participants.*
>
> • *94% of men and women had experienced vaginal sex in their lifetime.*
>
> • *76% of men and 61% of women had experienced oral sex in their lifetime.*
>
> • *11% of men and 8% of women had experienced anal sex in their lifetime.*
>
> • *Around half of men (47.7%) and women (51.1%) reported vaginal sex in the last week and 68% of both men and women reported vaginal sex in the last month.*
>
> • *39% of men and 29% of women had experienced oral sex in the last month.*
>
> • *Very few (less than 2% for both men and women) had experienced anal sex in the last month.*

Table 3.10 shows the last occasion of various sexual practices reported by men in ISSHR.

Table 3.10: Last occasion of various heterosexual practices reported by men (%)					
	Vaginal sex	Gave oral sex	Received oral sex	Any oral sex	Anal sex
Last 7 days	47.7	15.8	16.7	19.5	0.5
Last 4 weeks	20.3	18.2	19.0	19.6	1.1
Last 3 months	8.7	10.6	11.5	11.2	1.2
Last 6 months	3.7	5.8	6.3	5.5	1.4
Last year	3.9	6.0	6.8	6.4	1.7
Last 5 years	5.4	7.5	9.0	8.3	3.5
Ever	3.3	4.6	5.3	5.3	2.0
Total	93.1	68.5	74.6	75.8	11.4
N	3,152	3,122	2,986	3,123	3,147

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Vaginal sex was the most common practice: 48% of men reported vaginal sex in the last week and 68% in the last month. These proportions are marginally lower than those found in the Natsal survey (56% in the last seven days and 73% in the last month). Interestingly, of those men who reported ever having vaginal sex, around 10% reported not having done so in the last year.

Although most men had experienced oral sex, only a fifth had done so in the last week and two-fifths in the last month. Overall, fewer men reported that they had given oral sex than had received oral sex, the opposite of that found for the British sample in Natsal. Slightly fewer men in ISSHR reported experience of anal sex than did men in Natsal (11% and 14% respectively).

Table 3.11 displays the last occasion of various sexual practices reported by women in ISSHR.

Table 3.11: Last occasion of various heterosexual practices reported by women (%)					
	Vaginal sex	Gave oral sex	Received oral sex	Any oral sex	Anal sex
Last 7 days	51.1	13.4	13.4	15.5	0.5
Last 4 weeks	16.6	13.0	13.1	13.9	0.7
Last 3 months	6.0	9.1	9.4	9.4	0.7
Last 6 months	3.8	5.6	5.3	5.6	0.8
Last year	3.5	5.6	5.6	5.3	0.8
Last 5 years	6.5	6.7	6.5	6.5	2.3
Ever	6.0	4.6	4.7	4.6	2.3
Total	93.7	58.0	58.0	61.0	8.1
N	4,154	4,146	3,859	4,149	4,193

A similar proportion of men and women (over 93%) had ever experienced vaginal sex, similar to the 92% percentage reported in the 1990 British Natsal study. The percentage of women who had experienced oral sex was slightly lower in ISSHR compared with Natsal (61% and 69% respectively). Natsal reported that both recent and lifetime experience of oral sex was strongly related to age, and there was considerable evidence of both time and cohort effects: older people were less likely to have experienced oral sex either recently or ever. This suggests an increase in the popularity of oral sex across time in Britain. Slightly fewer women in ISSHR reported experience of anal sex than did women in Natsal (8% and 13% respectively).

3.2.4 Concurrency

SUMMARY

The social implications of a higher number of sexual partners are related to aspects of the relationships, such as whether these were experienced sequentially with no overlap, or whether two or more were held concurrently. Concurrency has implications for STI transmission, since concurrent unprotected sexual relationships increase the risk of STI transmission between partners (assuming one partner has an STI) compared to sequential sexual relationships.

Participants who had reported more than one partner in the last year were asked if any of these partnerships overlapped in time.

- *There were significant gender differences in experience of concurrency: 4% of all men and 1% of all women reported concurrency in the last year.*

- *Men aged 18-44 were over twice as likely to report concurrency in the last year as men aged 45-64.*

- *Men in the semi-skilled/unskilled manual class were less likely to report concurrency in the last year.*

- *Men in a casual relationship were over 14 times more likely than married men to have experienced concurrency; men who were not in a relationship were four times more likely, and men in a steady relationship or cohabiting were over three times more likely.*

- *Men who lived in a city were more likely than those who lived in a rural area/town to have experienced concurrency in the last year.*

- *Early sexual initiation (sex before 17) and consuming more than the recommended weekly alcohol intake were associated with experience of concurrency in the last year.*

THE group who reported more than one partner in the last year was relatively small, at 14% of men and 5% of women. However, analyses provide important information about the extent to which those with higher numbers of partners have concurrent relationships and can identify socio-demographic determinants of relationship concurrency.

First, *Table 3.12* shows the pattern of concurrency by number of partners in the last year among men and women. All participants who had two or more heterosexual or homosexual partners in the last year were asked about concurrency. The table therefore displays the results by total number of heterosexual partners and total number of partners (both homosexual and heterosexual).

For both heterosexual partnerships and all partnerships, concurrency was significantly associated with number of partners among men (although the numbers involved are relatively small). Those with higher numbers of partners were more likely to have had a concurrent relationship with two or more of these partners. Among women, there was a pattern of increasing concurrency with higher numbers of partners, but the relationship was not significant. Again, participant numbers were small. In summary, it appears that higher number of partners is related

to an increased likelihood of concurrency, particularly among men, thus increasing the risk of STI transmission.

| | Heterosexual partnerships | | | | All partnerships | | | |
| | Men | | Women | | Men | | Women | |
	%	N	%	N	%	N	%	N
2	19.4	205	12.8	136	17.9	207	13.6	139
3-4	26.0	170	21.4	62	26.6	181	21.5	67
5-9	43.9	68	33.1	23	43.5	70	26.6	23
10+	60.6	30	12.0	3	61.4	38	36.5	4

Table 3.12: Proportion having concurrent sexual relationships in the last year, by number of heterosexual partners and all partners

The following analyses examined concurrency further by identifying groups within the whole population that were more likely to report concurrency in the last year. There were significant gender differences: 4.1% of all men and 1% of all women reported concurrency in the last year (p<0.001). The small number of women reporting concurrency (N=39) excluded them from further analysis. While the number of men reporting concurrency was also relatively small (N=132), further analysis was considered possible. *Table 3.13* shows the level of concurrency in the last year among all men, across socio-demographic factors.

After adjusting for the variables in *Table 3.13*, men aged 18-29 and 30-44 were over twice as likely as men aged 45-64 to report concurrency in the last year. After adjusting for the other variables, men in the semi-skilled/unskilled manual class were considerably less likely than men in the highest social class to report concurrency. There were no differences between the highest social class and all other classes.

After controlling for other variables, men in a casual relationship were over 14 times more likely than married men to have experienced concurrency. Men who were not in a relationship were four times more likely, and men in a steady relationship or cohabiting were over three times more likely. Men who lived in a city were more likely than those who lived in a rural area/town to have experienced concurrency in the last year.

Table 3.13 Profile of men reporting concurrency in the last year, by socio-demographic variables			
	%	Base	MV+
All men	4.1	3,188	
Current age (years)			
18-29	6.9	1,213	**
30-44	4.3	894	**
45-64	1.3	1,081	C
Social class			
Higher professional	4.7	790	C
Lower professional	4.0	731	ns
Administrative/clerical	4.0	428	ns
Skilled manual	5.2	611	ns
Semi-skilled/unskilled manual	1.9	492	*
Current relationship status			
Married	1.2	1,502	C
Cohabiting	4.3	239	*
Steady relationship	5.1	371	**
Casual relationship	17.9	222	***
Not in a relationship	5.3	854	***
Area of residence			
City	5.9	1,149	*
Rural/town	3.1	2,038	C

+ Multivariate analysis: logistic regression adjusting for all variables in the table
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

An additional model, which substituted social class with educational level, identified that educational level was not independently associated with concurrency.

Behavioural variables were next added to the model in *Table 3.13*. After controlling for the socio-demographic variables, men who had experienced early sexual initiation (before 17) were over four and a half times more likely to have experienced concurrency than men whose sexual initiation occurred after 17 (p<0.001). Similarly, men who consumed above the recommended weekly alcohol intake were twice as likely to have experience of concurrency in the last year as those whose weekly intake was below recommended levels (p<0.005).

3.2.5 Sexual partnerships outside Ireland and the UK

SUMMARY

Participants who reported more than one lifetime partner and who were sexually active in the last five years were asked if they had travelled outside Ireland or Britain, either for a holiday or for work, in the last five years. If participants had travelled, they were asked if they had had unprotected sexual intercourse (vaginal or anal) with a new partner while abroad (i.e. outside Ireland or Britain).

- *There were significant gender differences in experience of unprotected sex abroad: 3.5% of all men and 1.2% of all women reported unprotected sex abroad with a new partner in the last five years.*

- *Men aged 18-29 were more likely than men aged 45-64 to have had unprotected sex abroad with a new partner; there was no difference between men aged 18-29 and those aged 30-44.*

- *There were no differences in experience of unprotected sex abroad between men in the highest social class (higher professional) and those in the lower professional, administrative/clerical or skilled manual classes, but men from the lowest social classes (semi-skilled/unskilled manual) were significantly less likely than those from the highest social class to have had unprotected sex with a new partner abroad.*

- *Cohabiting men and those in a steady relationship were over four times more likely than married men to have had unprotected sex abroad; those in a casual relationship were eight and a half times more likely, and those who were not in a relationship were nearly six times more likely.*

- *Men who lived in a city were more likely than those who lived in a rural area/town to have had unprotected sex abroad.*

- *Men whose weekly alcohol intake was above the recommended limit were more likely than those whose alcohol intake was below the limit to have had unprotected sex abroad.*

- *Men who experienced sexual initiation before 17 were more likely than those whose first intercourse occurred after 17 to have had unprotected sex abroad with a new partner.*

IN total, 79.6% of participants who reported more than one lifetime partner and were sexually active in the last five years had travelled outside of Ireland or Britain in the last five years.

- Of the participants who had travelled abroad in the last five years, 7.2% of men and 3.6% of women reported unprotected sex with a new partner while abroad.
- Overall, 3.5% of all men and 1.2% of all women in ISSHR had unprotected sex abroad in the past five years.

Further analyses were carried out to examine the profile, across the whole population (i.e. including all men and women), of those reporting unprotected vaginal or anal sex abroad (outside of Ireland or Britain) with a new partner in the last five years. Obviously some groups within the population are more likely to travel abroad than others, but *Table 3.14* is useful as it displays those most likely to engage in unprotected sex while abroad *from the overall population in ISSHR.*

There were significant gender differences: men were more likely than women to have had unprotected sex abroad with a new partner in the last five years (3.5% vs. 1.2%; p<0.001). The small number of women reporting unprotected sex abroad (N=55) meant that determinants of unprotected sex abroad could not be examined among them. While the number of men reporting unprotected sex abroad with a new partner was also low (N=127), analysis of this group was deemed useful.

Table 3.14, with adjustments for the variables, shows that men aged 18-29 were more likely than men aged 45-64 to have had unprotected sex abroad with a new partner. There was no difference between men aged 18-29 and those aged 30-44. Only men from the lowest social class were significantly different to those from the highest social class; the latter were more likely to have had unprotected sex abroad with a new partner.

Table 3.14: Profile of men reporting unprotected vaginal or anal sex abroad (outside of Ireland or Britain) with a new partner in the last five years	%	Base	MV+
All men	3.5	3,188	
Current age (years)			
18-29	7.3	1,213	C
30-44	2.9	894	ns
45-64	0.6	1,081	***
Social class			
Higher professional	4.5	790	C
Lower professional	4.2	731	ns
Administrative/clerical	3.0	428	ns
Skilled manual	3.6	611	ns
Semi-skilled/unskilled manual	1.8	492	*
Current relationship status			
Married	0.8	1,502	C
Cohabiting	4.4	239	**
Steady relationship	5.8	371	**
Casual relationship	9.3	222	***
Not in a relationship	5.8	854	***
Area of residence			
City	4.9	1,149	*
Rural/town	2.8	2,038	C

+ Multivariate analysis: logistic regression adjusting for all variables in the table
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

With adjustment for all other variables, cohabiting men and men in a steady relationship were over four times more likely than married men to have had unprotected sex abroad with a new partner; those in a casual relationship were eight and a half times more likely, and those not

in a relationship were nearly six times more likely. Men who lived in a city were more likely than those who lived in a rural area/town to have had unprotected sex abroad with a new partner.

An additional analysis was carried out to determine the relationship between education and experience of unprotected sex abroad. After controlling for current age and relationship status, men with third-level education were four times more likely than men with primary education to have had unprotected sex abroad with a new partner in the last five years ($p < 0.05$). There were no other educational differences.

Behavioural variables were next added to the model. After controlling for socio-demographic variables, men whose weekly alcohol intake was above the recommended limit were more likely than those whose alcohol intake was below the limit to have had unprotected sex abroad with a new partner ($p < 0.001$).

Finally, participants who experienced sexual initiation before 17 were more likely than those whose first intercourse occurred after 17 to have had unprotected sex abroad with a new partner in the last five years ($p < 0.001$).

Participants with experience of unprotected sex abroad with a new partner in the last five years were asked how many people they had had unprotected vaginal or anal sex with for the first time while abroad in that period. Among this group, men reported a mean 4.83 partners and women a mean 1.60 partners. However, men had a median two partners and women a median one partner, indicating that the mean is skewed to some extent among men due to a small number of participants reporting a higher number of unprotected new partners abroad in the last five years.

3.2.6 Use of commercial sex

SUMMARY

Participants were asked if they had ever paid for sex with a person of the opposite gender. Only one woman reported ever paying for sex. The following analyses thus relate to paying for sex among men.

- *In total, 6.4% of men had ever paid a woman for sex.*

- *Older men were more likely than younger men to have ever paid for sex with a woman. For example, compared with men aged 18-24, men aged 25-54 were over two and a half times more likely to have paid for sex, and men aged 55-64 were over four and a half times more likely.*

- *Men who were not in a relationship or were in a casual relationship were significantly more likely than married men to have paid for sex.*

- *Men who experienced sexual initiation before 17 were more likely to have paid for sex than men whose sexual initiation occurred after 17.*

- *Men whose weekly alcohol intake was above the recommended limit were significantly more likely to have ever paid for sex than men whose alcohol intake was below the limit.*

ISSHR participants were asked if they had ever paid for sex with a person of the opposite gender (same-sex commercial relationships were not investigated because of study time constraints). In total, 6.4% of all men had ever paid a woman for sex. *Table 3.15* displays experience among men of paying for sex over lifetime and in the last five years, by socio-demographic variables.

The table shows, after adjustments for all variables, that experience of ever paying for sex is more likely with older age. For example, compared with men aged 18-24, men aged 25-54 were over two and a half times more likely to have paid for sex, while men aged 55-64 were over four and a half times more likely. Only men in the semi-skilled/unskilled manual class differed significantly from the higher professional class, the former being less likely to have ever paid for sex.

There were few clear trends relating to relationship status, although, after adjustments for all other variables, men who were not in a relationship or in a casual relationship were significantly more likely than married men to have ever paid for sex. A separate model, which substituted education for social class, found no significant educational differences. Additionally, when geographic location of household was added to the model in the table, there were no significant differences between men living in a city and those living in a rural area/town.

Table 3.15: Profile of men reporting having paid a women for sex					
	Ever		In last 5 years		
	%	MV+	%	MV+	Base
All men	6.4		3.3		3096
Current age (years)					
18-24	3.7	C	3.7	C	721
25-34	7.3	**	5.8	*	687
35-44	6.7	**	3.4	ns	629
45-54	5.9	**	1.6	ns	562
55-64	8.4	***	0.9	ns	497
Social class					
Higher professional	7.6	C	4.5	C	765
Lower professional	5.3	ns	3.9	ns	710
Administrative/clerical	5.6	ns	1.8	*	411
Skilled manual	6.7	ns	2.7	ns	603
Semi-skilled/unskilled manual	5.1	*	2.1	*	479
Current relationship status					
Married	5.6	C	1.5	C	1,483
Cohabiting	5.9	ns	4.8	*	231
Steady relationship	4.4	ns	2.5	ns	366
Casual relationship	7.8	*	6.1	***	212
Not in a relationship	8.2	**	5.8	***	804

+ Multivariate analysis: logistic regression adjusting for all variables in the table (excluding those marked '-')
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

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In total, 3.3% of all men had paid for sex in the last five years. Determinants of paying for sex in the last five years were less clear. After controlling for the variables in *Table 3.15*, the major predictor of having paid for sex in the last five years was current relationship status:

- Men in a casual relationship or not in a relationship were about four times more likely than married men to have paid for sex in the last five years.
- Cohabiting men were also more likely to have done so, but there was no difference between married men and those in a steady relationship.

Compared with men aged 18-24, only those aged 25-34 differed significantly; the latter were over twice as likely to have paid for sex in the last five years.

The age pattern of paying for sex ever or in the past five years was inverse, i.e. older men were more likely to have ever paid for sex but younger men were more likely to have paid for sex in the recent past.

After controlling for the variables in *Table 3.15*, men in the administrative/clerical and semi-skilled/unskilled manual classes were significantly less likely than men in the higher professional class to have paid a woman for sex in the last five years.

A further model substituted social class with education, controlling for current age and current relationship status. It showed no significant educational differences among men paying for sex in the last five years. Similarly, the addition of area of residence to the model found no differences between city-dwellers and those who lived in a town/rural area.

Behavioural variables were examined next. After controlling for the variables in *Table 3.15*, men who experienced sexual initiation before 17 were twice as likely to have ever paid for sex as men whose sexual initiation occurred after 17 ($p<0.01$).

Similarly, men whose weekly alcohol intake was above the recommended limit were twice as likely to have ever paid for sex as men whose alcohol intake was below the limit ($p<0.01$). However, age at first intercourse and weekly alcohol intake were not associated with paying for sex in the last five years.

Participants were also asked how many heterosexual partners they had paid in their lifetime. Of men who had ever paid for sex (i.e. 6.4% of all men, N=189), 42.7% had paid for sex with one partner, 44% for sex with 2-4 partners and 13.3% for sex with five or more partners.

The population burden of STI infection associated with commercial sex is related to the use of protection by those who work in prostitution and their clients, and the extent to which those using commercial sex also have high numbers of partners (as well as the number of paid partners). *Table 3.16* provides greater detail on the relationship between number of sexual partners and payment for sex. It displays the percentage of men who had ever paid for sex with a woman across the number of unpaid heterosexual partners over lifetime.

Table 3.16: Percentage of men who had ever paid for sex with a woman, by number of unpaid heterosexual partners over lifetime

Lifetime heterosexual partners	All unpaid heterosexual partners	
	%	N
0	1	22
1	3.1	1,167
2	5.6	247
3-4	4.5	386
5-9	5.2	576
10+	13.6	580
All men	6.6	2,978

The results show that men reporting a higher number of unpaid partners were more likely to have also paid for sex (p<0.001). These results indicate an accumulation of risk factors among a core group of individuals who are not only more likely to have higher numbers of partners, but also more likely to have concurrent sex with these partners (see section 3.2.4) and to have paid for sex. This does not imply that the 'sets' of those with these different risk behaviours directly overlap. A higher number of partners over lifetime, for example, does not imply that the individual also had both concurrent and paid sex; simply that it increases the probability of this being true. *Table 3.16* shows, for example, that only 14% of men who had had 10 or more partners had also paid a woman for sex, and those reporting 10 or more partners make up only 19% of the male population.

Finally, all those who reported having paid for sex were asked about condom use during paid-for sex. *Table 3.17* shows condom use among men who have ever paid a woman for sex.

Table 3.17: Use of condoms during paid-for sex, among men who ever paid a woman for sex

	%	N
Used on every occasion	82.9	150
Used on most occasions	2.4	5
Used on roughly half of occasions	2.0	3
Used on some occasions	2.2	6
Never used condoms	10.5	18

Table 3.17 shows that, while 82.9% of men who had ever paid for sex always used a condom, 6.6% used them inconsistently (i.e. most occasions, roughly half of occasions, or some occasions) during paid-for sex, while 10.5% never used them. However, since the absolute number of individuals used for analysis here is small, confidence intervals around the results are large. For instance, the true proportion never using a condom could vary between 6% and 17% (based on a 95% confidence interval).

As shown in *Table 3.18*, among men with experience of ever paying for sex, 97.9% of those aged 18-29, 86% of those aged 30-44 and 71% of those aged 45-64 had always used a condom during paid-for sex (p<0.005). Of course, these findings may reflect the year in which the sex occurred; research has shown that condom use in intercourse generally has increased dramatically over recent decades. Similarly, changes such as the increased availability of condoms and increased knowledge of STIs may have increased condom use both generally and also specifically during paid-for sex. For these reasons, condom use during paid-for sex in the last five years was also investigated (*Table 3.18*).

Table 3.18: Profile of condom use during paid-for sex, among men reporting having paid a woman for sex, by current age				
	Ever		**In last 5 years**	
	Always used condom %	**N**	**Always used condom %**	**N**
18-29 years	97.9	51	97.7	46
30-44 years	86.0	55	89.1	32
45-64 years	71.0	76	81.5	18
All men	82.9	182	91.5	96

In condom use over the last five years, age-group differences were not significant. However, some interesting differences emerged in condom use when comparing paid-for sex over the last five years and over lifetime. Among younger men, there was little difference in the proportion that had always used condoms across the two periods (ever and last five years). More older men reported always using condoms during paid-for sex in the last five years, compared with over their lifetime. However, the number of participants reporting having paid for sex was relatively small and the results are therefore somewhat unreliable.

3.2.7 Use of contraception at most recent vaginal intercourse

SUMMARY
Contraceptive use can be measured in a variety of ways. Examination of use by ISSHR participants begins with an investigation of use of any form of contraception at most recent vaginal intercourse.

• 74% of men and 69% of women who did not desire pregnancy reported using contraception on their most recent occasion of vaginal sex.

• Use of contraception varied widely by age. Of those who did not desire pregnancy, for example, 93% of men and 94% of women aged 18-24 used contraception at their 'last event', compared with 82% of men and 81% of women aged 35-44.

• Women with primary education only were considerably less likely to have used contraception at most recent intercourse.

THE following sub-sections examine contraceptive methods used and consistency of use over a period (the last year) and then focus specifically on use of condoms.

First, *Table 3.19* provides a profile of the participants who used some form of contraception (including safe period, withdrawal and sterilisation) at 'most recent vaginal intercourse' across a number of socio-demographic variables. Those who were pregnant, trying to become pregnant, or who could not conceive because of hysterectomy or infertility were not included, but those who responded that they were menopausal or post-menopausal were. This decision was taken as some women in younger age groups in ICCP reported that this was their primary reason for not using contraception although research suggests that few women under 45 are post-menopausal.

In total, 73.4% of men and 68.7% of women reported using contraception at most recent vaginal intercourse (p<0.005) (*Table 3.19*). This is slightly less than that found in the ICCP survey, which reported 10% non-use among those at risk of unintended pregnancy.[15] However, the ICCP survey was restricted to people under 45; the steep age gradient seen in the table suggests that the inclusion of older age groups has pushed down the overall proportion using contraception. When the sample was restricted to those under 45, the percentage using contraception rose to 88.4% of men and 87.8% of women. The authors of the 1990 Natsal report estimated that around 10% of British participants at risk of pregnancy did not use any method of contraception or take precautions.[61]

Table 3.19 shows that younger participants were more likely to use contraception, although the difference only becomes significant after age 34 for both men and women. After controlling for the other variables, there were no educational differences among men. Women with primary education alone were significantly less likely to use contraception than women with third-level education, even after controlling for the other factors. Finally, men and women in a steady relationship/cohabiting/engaged at most recent vaginal intercourse were significantly more likely to use contraception than those who were married. There was no difference between those who were married and those in casual relationships (just met/did not know the partner or knew the partner but was not in a relationship).

Table 3.19: Profile of those who used contraception at most recent vaginal intercourse, by socio-demographic variables

	Men			Women		
	%	Base	MV+	%	Base	MV+
All participants	73.4	2,446		68.7	3,245	
Current age (years)						
18-24	93.0	586	C	93.6	699	C
25-34	90.4	564	ns	91.1	746	ns
35-44	82.5	469	*	79.9	748	***
45-54	62.1	436	***	47.3	577	***
55-64	23.9	391	***	10.3	475	***
Education (highest level attained)						
Primary	48.2	201	ns	31.3	217	***
Lower secondary	73.0	406	ns	62.3	508	ns
Higher secondary	78.6	921	ns	74.9	1,359	ns
Third level	82.6	918	C	81.5	1,161	C
Relationship status at time of intercourse						
Just met/didn't know partner	84.9	113	ns	79.7	35	ns
Knew partner but not steady	83.6	369	ns	81.3	221	ns
Steady relationship/ cohabiting/engaged	89.8	774	***	87.9	1,041	**
Married	58.8	1,148	C	55.0	1,885	C

+ Multivariate analysis: logistic regression adjusting for all variables in the table
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

An additional analysis examined the relationship between contraceptive use at most recent vaginal intercourse and social class, controlling for current age and relationship status at the time. There were no significant social-class differences among men or women.

The above analyses examined contraceptive use at most recent intercourse across a number of socio-demographic factors. However, other factors such as sexual knowledge and attitudes may also have a bearing on use of contraception. More detailed analyses in ISSHR Sub-Report 3, 'Sexual Knowledge, Attitudes and Behaviours – A Further Analysis', showed that use of contraception at most recent intercourse was not related to the level of knowledge about fertility or contraception, or attitudes toward contraception.

Research has also examined the extent to which previous behaviours and experiences are related to more recent behaviour, such as contraceptive use. For example, research in Britain[64]

and Australia[65] has shown that early sexual initiation is a risk factor for negative outcomes such as contracting an STI and having a termination later in life. This could suggest that these earlier behaviours are also associated with lower use of protection and contraception. ISSHR's Sub-Report 1, 'Learning About Sex and First Sexual Experiences', provides some evidence of this.

These issues were further examined here, using the ISSHR data, by adding a number of behavioural variables to the model in *Table 3.19*. Due to the close association between some behavioural variables, each was added individually to the model in the table. After controlling for current age, educational level and relationship status at most recent intercourse, men who experienced first intercourse before 17 were less likely to have used contraception at most recent vaginal intercourse than men whose first intercourse occurred after 17 ($p<0.005$). Among women, contraceptive use at most recent intercourse was not related to age at first intercourse.

Women who reported 10 or more heterosexual partners over lifetime were less likely, than those who reported fewer, to have used contraception at most recent intercourse ($p<0.05$). Contraceptive use at most recent intercourse was not related to the number of heterosexual partners over lifetime among men.

Among both men and women, having multiple (more than one) partners in the last year or drinking more than the weekly recommended alcohol limits were not related to contraceptive use at most recent vaginal intercourse.

Reasons for not using contraception will be examined in section 3.2.9.

3.2.8 Type of contraception used at most recent intercourse

SUMMARY

Men and women who had used contraception at most recent intercourse were asked which methods of contraception and protection had been used.

- *Condoms were the most frequently reported method of contraception: 57% of men and 52% of women reported using condoms at most recent vaginal intercourse.*
- *Around 30% of participants (or their partners) used the contraceptive pill at most recent intercourse.*
- *Younger participants were more likely to use condoms: 82% of men and 74% of women aged 18-24 used a condom on the most recent occasion.*
- *The contraceptive pill was more often used by younger participants in more stable relationships.*

TABLE 3.20 finds similar results among men and women for use of most contraceptive methods. Condoms were the most common method, followed by the contraceptive pill, sterilisation and the coil/IUD/Mirena.

Table 3.20: Contraceptive methods (as a proportion of those reporting contraceptive use) on most recent occasion of sexual intercourse (%)

	Age					
	18-24	25-34	35-44	45-54	55-64	All
Men						
Condom/male-female sheath	82.1	59.0	44.1	40.3	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 or 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
N	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 or pessaries)	0.2	0.1	0.0	0.0	0.0	0.1
Persona	0.1	0.1	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	2.8	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
N	662	686	624	295	54	2,321

The percentage using the different methods adds up to more than 100% as around 7% of men and 11% of women reported using more than one method of contraception at most recent intercourse. Almost all (94%) of these cases of multiple protection combine condom and contraceptive pill, although a small number also combine condom with coil/IUD/Mirena or with injections/implants.

• Among contraceptive users, 52.1% of women and 57% of men reported having used a condom at most recent intercourse.
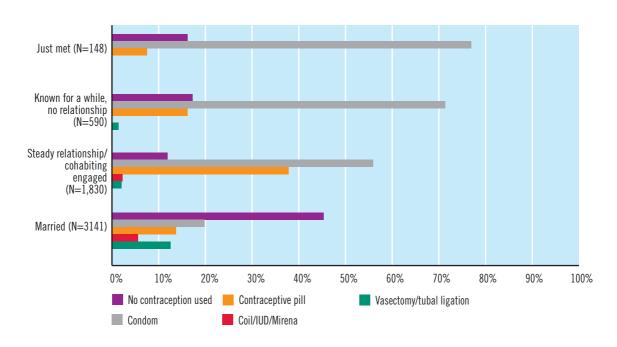
- Condom use varied considerably by age group: the youngest age group was almost twice as likely as the oldest to use this method.

Although there was a trend of decreasing condom use across older age groups, there was an additional differentiation between those aged under 25 and all other age groups. Contraceptive pill use was more complex; around a third of men under 45 reported that their partner used the pill at most recent intercourse, while fewer men aged 45 and above reported use of the pill. Among women, the proportion was highest in the youngest age group, but use decreased after age 34. This is likely to reflect health concerns that result in discontinuation of hormonal contraceptive methods after a certain age.

Among both men and women, use of coil/IUD/Mirena increased with age until age 44 and decreased thereafter. The percentage relying on sterilisation increased with age, up to 54. These findings are almost identical to those found by Rundle *et al* (2004) in the ICCP study.[15]

As well as reflecting considerations to do with health, differences in use of contraceptives across age groups may to some extent reflect differing relationship status. *Figure 3.1* shows use of the most common forms of contraception by relationship status among all those at risk of unintended pregnancy at most recent intercourse (those who did not use contraception because they were pregnant, were trying to become pregnant or were infertile were excluded). It is clear that condom use decreased with increasing relationship 'stability', whereas use of the contraceptive pill moved in the opposite direction, increasing with more relationship 'stability', from casual to steady relationship, and reducing again among married groups.

Figure 3.1: Use of common forms of contraception (among all those at risk of unintended pregnancy) at most recent intercourse, by relationship type

These patterns of contraceptive use have also been found by studies in a number of countries[66] and in Ireland itself in the ICCP study.[15] The pattern reflects the strong association between contraceptive method and relationship status. The condom is the most common choice for those in the early stages of a sexual relationship or in a casual partnership. The contraceptive pill and coil/IUD/Mirena are favoured more as the stability and duration of the relationship increases. In older age groups, sterilisation becomes more common as partners who have already had children seek a more permanent form of contraception. This pattern can be seen clearly in *Figure 3.1.*

Figure 3.1 also shows differences in relationship status among those who do not use contraception (who risk unintended pregnancy). Most notable is the large number of married participants who did not use contraception at most recent intercourse. As noted in the previous section, a larger proportion of older participants did not use contraception – and they are more likely to be married. However, even after controlling for age and other socio-demographic variables, *Table 3.19* in the previous section showed that people in a steady relationship/cohabiting/engaged were still more likely to have used contraception than married people. Reasons for these findings are further investigated in the following section, which examines the reasons given by ISSHR participants for not using contraception at most recent intercourse.

3.2.9 Reasons for not using contraception at most recent intercourse

> **SUMMARY**
>
> *ISSHR participants who reported not using contraception at most recent intercourse were asked for their reasons.*
>
> - *15% of women aged 35-44, who were at risk of unintended pregnancy, reported not using contraception because they believed they were post-menopausal.*
> - *Common reasons that those aged 18-24 (who were at risk of unintended pregnancy) gave for not using contraception were: drinking alcohol/taking drugs (20%), no contraception available (18%), sex unplanned/unexpected (16%) and 'not thinking to use' contraception (15%).*

RESEARCH on the main reasons for not using contraception has only recently been addressed in Irish studies.[15,67-69] Previous research has shown that alcohol often plays a major role.[15] This may be particularly true of first sexual intercourse.[70] There is also evidence that being unprepared is an important issue.[15] Unplanned or unexpected intercourse is less of an issue among older people who are more likely to be in settled relationships.

Different issues have emerged among older individuals. For example, in the recent ICCP study, Rundle *et al* (2004) found that a number of women aged 36-45 believed they were unlikely to conceive because of the menopause. Yet very few women under 45 are likely to be post-menopausal. This quite common belief suggests that more education and information needs to be targeted at women in this age group. A recently developed Crisis Pregnancy Agency leaflet, 'Contraception 35-55', developed following ICCP findings, is one strategy to approach this issue.

Rundle *et al* found that being unprepared was the most common reason given for not using contraception, but also that this reason was far more common among people under 26 (58% of non-users) than older groups and particularly those over 35 (29%).

The next most common reason given was drinking alcohol or taking drugs, which was reported by 21%, though once again this was far more common among the youngest age group (aged 18-25).

On the other hand, as already discussed, older female participants were much more likely to report that they did not use contraception because they were unlikely to conceive.[15]

Table 3.21 provides an overview of reasons given by men and women in ISSHR for not using contraception at most recent intercourse, across age groups. Participants could list a number of reasons for non-use and therefore percentages do not total 100%. Those who had not used any method of contraception but who were (or whose partner was) pregnant or trying to become pregnant, was infertile or who had had a hysterectomy were excluded from these analyses in order to provide an overview of reasons for non-use among those at risk of *unintended* pregnancy. Those who stated that they or partner were post-menopausal were included in the analyses since the pattern of responses was interesting. Similarly, those who said they did not mind or did not care if they became pregnant have been included. While in some instances this may reflect a desire for pregnancy, in others it may indicate a casual or ambivalent attitude towards contraceptive use and pregnancy planning. The responses to the question were entered as open answers and coded following fieldwork to a coding frame created from the answers given.

Table 3.21 shows that being post-menopausal/unlikely to conceive was, at 54%, by far the most common reason for not using a contraceptive at most recent intercourse. The high proportion is mainly due to the large percentage of people over 54 who had not used contraception for the above reasons. This reason for non-use explains to a large extent the high proportion of older participants who reported not using contraception, as noted in the previous sections. However, 59% of people aged 45-54 and 15% of those aged 35-44 also gave this reason. Only a small proportion of women in their 40s would be post-menopausal.

The results therefore suggest that many women may be taking considerable risks in the false belief that their fertility has declined substantially. Rundle *et al* (2004) also found this pattern, although at a lower level because of the different age range used in their survey.[15]

Table 3.21: Reasons for not using contraception at most recent sexual intercourse (%)						
	Age					
	18-24	**25-34**	**35-44**	**45-54**	**55-64**	**All**
Sex not planned/ unexpected	16.1	10.2	6.9	4.3	2.0	4.6
Drinking alcohol/taking drugs	19.7	1.4	4.6	1.1	0.9	2.3
Couldn't be bothered	0.0	0.9	0.3	0.6	0.0	0.3
Didn't think to use	15.2	12.0	7.0	5.8	2.3	5.2
Took a chance/got carried away	0.0	7.4	4.3	0.0	0.0	1.2
Young/naïve/stupid/ careless	4.6	0.0	0.0	0.2	0.0	0.3
No contraception available	18.1	4.8	4.2	1.6	0.9	2.6
Don't like contraception	5.2	3.7	2.1	1.7	0.5	1.5
Against beliefs/religion	0.0	1.9	1.4	0.4	1.5	1.1
Thought partner was using contraception	0.0	0.7	0.0	0.0	0.4	0.3
Not my responsibility	0.0	0.0	0.6	0.0	0.0	0.1
Forgot contraception	4.4	4.3	0.0	0.0	0.0	0.5
Didn't understand risks	0.0	1.8	0.0	0.2	0.0	0.2
Didn't mind if became pregnant	0.5	12.1	18.3	6.1	4.8	7.5
Post-menopausal/ unlikely to conceive	1.4	1.2	14.6	58.9	77.1	54.0
Can't remember	16.6	15.5	8.5	3.7	1.5	4.8
N	67	117	220	465	742	1,611

Table 3.21 shows that 'didn't mind if became pregnant' was the next most common reason, at 7.5%. Of course, while this group did not specifically say they were trying to become pregnant (those who did express a clear desire to become pregnant were removed from this analysis), it is likely that some were expressing at least some desire for pregnancy, particularly since most were aged between 25 and 44. However, it is possible that others were expressing a casual attitude towards contraception and pregnancy.

A number of participants reported not using contraception because they 'didn't think to use' or because sex was not planned/expected. Younger people were more likely to give these reasons.

- Of those aged 18-24, 16.1% gave the reason that sex had not been planned and 15.2% that they 'didn't think to use'.

A large proportion of people aged 18-24 said that 'drinking alcohol/taking drugs' and 'no contraception available' were reasons for non-use (19.7% and 18.1% respectively), while less than 5% of participants in older age groups gave these reasons.

Furthermore, 16.1% of those aged 18-24 gave the reason that sex had not been planned and 15.2% that they 'didn't think to use'.

Taken together, these issues indicate that, among people aged 18-24, a significant proportion experience particular difficulty with using contraceptives because of lack of preparation or even consideration of contraception, and because of alcohol and drug use.

3.2.10 Consistency of condom use 'in the last year'

SUMMARY

The previous sections found that contraceptive use varies across the population along a number of different dimensions. Condom use was investigated as just one form of contraception, but condoms and other similar barrier methods devised for women have been shown to be the most effective means of preventing the transmission of HIV[71] and other STIs[72] during intercourse. From a public health and epidemiological perspective, it is important to understand the factors that influence condom use, particularly in high-risk sexual encounters.

• *Men were more likely than women (27.6% vs. 23.1%) to report consistent condom use in the last year.*

• *Younger participants were more likely to consistently use condoms in the last year, e.g. 57.3% of those aged 18-29 vs. 7.5% of those aged 55-64.*

• *Men and women in less formalised relationships were more likely to use condoms than those in more formal relationships, e.g. 58.2% of those not in a relationship vs. 11.4% of married participants.*

• *Participants who began having sex before 17 were less likely to consistently use condoms in the last year.*

• *Men and women who reported unprotected sex abroad in the last five years were less likely to have consistently used a condom in the last year.*

THE advent of the HIV virus and the public-health campaigns of the late 1980s and early 1990s did much to increase the use of condoms internationally. Research in the US, for instance, showed a significant increase in condom use among men between 1988 and 1995.[73] In Britain, the Natsal surveys of 1990 and 2000 also found a significant increase in consistent condom use.[58] However, these studies also highlighted the fact that condoms were still often used infrequently or inconsistently.[74] Similarly, French, Dutch and Belgian national studies of sexual practices have revealed inconsistent condom use, reporting that between 25% and 30% of adults had used condoms 'in the last year'.[75] A recent British study of adults aged 16-69 found that, of those who reported using condoms in the past year, only 56% of men and 64% of women said they always used a condom when they had sex.[76]

Consistency of condom use was investigated in the ISSHR study. Participants were asked whether a condom was used every time they had vaginal or anal intercourse with a partner of the opposite gender in the last year (see *Table 3.22*). Options were provided to quantify use of condoms if they had been used inconsistently. Of all participants who had had sex in the last year:

- 27.6% of men and 23.1% of women had used a condom on every occasion of intercourse
- 51.6% of men and 58.1% of women had never used a condom in the last year

Table 3.22: Profile of condom use over the last year, by current age (%)						
	18-24	25-34	35-44	45-54	55-64	All
Men						
Used condom on every occasion	57.3	33.1	20.9	14.5	7.5	27.6
Used condom on most occasions	17.0	11.2	5.8	4.0	1.5	8.2
Used condom roughly half the time	5.8	6.1	3.8	2.1	0.9	4.0
Used condom on some occasions	10.3	12.6	7.4	8.4	3.3	8.7
Never used condom	9.7	37.0	62.1	71.0	86.8	51.6
Women						
Used condom on every occasion	50.9	27.3	15.3	13.0	3.1	23.1
Used condom on most occasions	15.7	7.6	6.2	3.6	0.2	7.1
Used condom roughly half the time	5.4	4.8	3.3	1.5	0.4	3.4
Used condom on some occasions	13.7	9.8	8.8	4.1	2.1	8.3
Never used condom	14.4	50.4	66.3	77.8	94.1	58.1

There were wide variations in consistency of condom use reported across the age groups:

- Younger participants were both more likely to report using condoms consistently and also generally more likely to report inconsistent use (most occasions, half the time and some occasions).
- Older participants were more likely to report never having used condoms in the last year.

Some of these differences are likely to reflect differences in relationship status across age group; younger participants are more likely to be in casual relationships and to change partners. This is investigated by examining condom use across important socio-demographic and behaviour variables. For the purposes of further analysis, condom use was defined as always having used condoms in the last year and unprotected sexual intercourse as having experienced some unprotected intercourse in the last year. Hence, some participants in the latter category would have used condoms at some time in the last year.

A significantly higher level of consistent condom use was found among men than women (p<0.005). Gender differences in condom use have been identified by a number of studies, including the Irish Contraception and Crisis Pregnancy survey.[15,75,77] These findings must be interpreted with caution.

First, reporting condom use may be subject to issues such as social desirability. Dubois-Arber and Spencer (1998) argued that women may under-report condom use for a number of reasons; as it is the man who wears the condom, women may not describe themselves as 'using' condoms or may be embarrassed to report using them.[75] Bajos *et al* (1997) 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 some countries, including the Netherlands, West Germany and Switzerland, where lifetime use of condoms is high. Similarly, lifetime use is relatively high in the UK, where there are marginal gender differences.[75] This may reflect a more open society where use of condoms is widely accepted by both men and women.

Secondly, there is commonly an age imbalance in sexual relationships in that typically the woman is younger than her male partner. If condom use is higher in younger groups (as is evident here), then men in ISSHR were likely to be describing sexual partnerships with younger women while women of equivalent age in ISSHR were likely to be describing relationships with older men. It is important that future studies consider this issue of assessing a partnership as distinct from an individual.

Table 3.23 displays the profile of consistent condom users ('always used condoms') in the last year across socio-demographic variables. As *Table 3.22* shows, condom use was increasingly likely with younger age. For example, 57.3% of men and 50.9% of women aged 18-24 reported always using a condom, compared with 7.5% of men and 3.1% of women aged 55-64. After adjustment for all variables in *Table 3.23*, men and women aged 18-24 were more likely than all older groups to have always used a condom in the last year. Research internationally has also found a pronounced age effect, with younger participants reporting higher levels of condom use.[66,76,78-80]

Condom use among Irish men has been found to be lower with older age.[81] Dawe and Rainford (2003) found that 96% of men aged 16-19 reported using a condom in the last year, compared with 74% of men aged 20-24 and 31% of those aged 40-44.[76] The national Australian study also reported a significant relationship between age and condom use; older women reported much lower use over the past year (men were not asked about contraceptive use in the study).[66] Dubois-Arber and Spencer (1998) suggest that this may be due to younger generations being the first to adapt their behaviour in light of the HIV epidemic and exposure to various health-promotion campaigns.[75] This is supported by the reasons given by participants for recent condom use. For example, in France the reasons given by participants aged 18-19 for using condoms during the 12 months previous to the study were: protection against STIs (76%), AIDS (75%) and conception (53%). In contrast, older participants (aged 40-49) indicated AIDS (3%) and STIs (43%) as a concern less frequently, and were more likely to report contraception as a reason for using condoms (60%).

After adjustment for the other variables, educational level was not significantly related to condom use among men or women. There was, however, a clear pattern of condom use across current relationship status; married people were less likely to have always used condoms than those in all other relationship categories (excluding cohabiting men, who did not differ significantly from married men). In fact, men and women who were not in a relationship were over five times more likely than married men and women to have consistently used a condom in the last year. People currently in a casual relationship were over three times more likely and those in a steady relationship nearly twice as likely as married men and women to have used a condom consistently.

Table 3.23: Profile of condom use: always used in last year, by socio-demographic variables						
	Men			**Women**		
	%	**Base**	**MV+**	**%**	**Base**	**MV+**
All participants	27.6	2,682		23.1	3,530	
Current age (years)						
18-24	57.3	596	C	50.9	687	C
25-34	33.1	625	**	27.3	867	**
35-44	20.9	587	***	15.3	914	***
45-54	14.5	492	***	13.0	636	***
55-64	7.5	382	***	3.1	426	***
Education (highest level attained)						
Primary	17.6	206	C	9.0	210	C
Lower secondary	23.2	461	ns	14.0	539	ns
Higher secondary	31.7	1,004	ns	26.6	1,510	ns
Third level	31.5	1,011	ns	30.0	1,271	ns
Current relationship status						
Married	12.7	1,422	C	11.4	2,249	C
Cohabiting	22.7	223	ns	25.2	250	*
Steady relationship	37.0	350	***	34.4	491	***
Casual relationship	46.5	199	***	45.2	125	***
Not in a relationship	61.0	488	***	58.2	415	***

+ Multivariate analysis: logistic regression adjusting for all variables in the table
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

Thus, increasing 'stability' of relationship was related to lower levels of consistent condom use. International research has looked at condom use in terms of the increasing stability or duration of relationship. Consistent condom use has been found to be higher in casual relationships or among people who are single as opposed to those in long-term relationships.[82] A meta-analysis examining predictors of condom use compared use among those with a steady or a casual partner. It found that the mean percentage of participants who always used a condom with a steady partner was 17% compared to 30% among those with a casual partner.[77] Similarly, findings from the national Irish study revealed that condom use during 'most recent' sexual encounter was five times more likely among those in casual relationships than among those living together/engaged/married.

Buysse (1998) has argued that prototypical features of stable relationships, such as closeness, intimacy and exclusivity, discourage condom use as it may represent mistrust and formality.[83] 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.[79] Condom use has been shown to be greater at the start of a relationship, while

use of oral contraceptives increases as the relationship develops.[84] Similarly, the French ACSF study conducted in 1991 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.[85]

While educational level was not found to be a predictor of condom use in ISSHR, it has been identified in research internationally, with higher education related to increased likelihood of condom use. This relationship has been found by studies in a number of countries.[66,75,86] A meta-analysis of 30 studies found that higher education was associated with greater condom use.[77]

These results have shown the relationship between a number of socio-demographic factors and consistent use of condoms in the last year. However, these are 'distal' influences in the sense that they summarise a host of other reasons why behaviours may differ. For example, although age has been found to be a major determinant of condom use, it is unlikely that there is a direct relationship between being older and lower condom use. Older age is an indicator of other differences between individuals (in, for example, sexual behaviours and experiences), but it can also be an indirect indicator of factors such as different attitudes, beliefs and levels of knowledge about the need for protection.

To fully understand the factors influencing consistent condom use, it is necessary to examine both the differences across sexual behaviours and also the role of sexual knowledge, attitudes and behaviour.

In relation to sexual behaviours, it is important to consider condom use in the context of risk behaviour in order to determine whether some people are at greater risk because they combine higher-risk behaviours with inconsistent use of condoms. After controlling for the variables in *Table 3.23*, men and women who experienced first intercourse before 17 were less likely than those who experienced it after 17 to have always used a condom in the last year ($p<0.001$ and $p<0.01$ respectively).

There were no significant differences in condom use between those who reported a weekly alcohol intake above the recommended limits and those who reported an intake below the limits. Similarly, those who reported concurrent relationships in the last year were not significantly different in their consistent use of condoms from those who did not (it should be noted that very few women reported concurrent relationships in the last year).

After controlling for the variables in *Table 3.23*, men and women who reported unprotected sex abroad in the last five years were less likely to have consistently used condoms in the last year (although the number of women reporting the latter was small; N=54).

Finally, experience of multiple partners in the last year was not related to consistent condom use among men or women, and experience of paying for sex was not related to consistent condom use among men.

The higher use of condoms among young people may have been assumed to be related to their higher average number of partners and consequent need for barrier protection. People under 30 tend to report greater numbers of partners, particularly when examined in relation to the 12 months preceding the study.[58,60,87] However, while some studies have found that those who report more than one partner in the previous year are more likely to report condom use[76], and this

condom use is more likely to be consistent[58] (Magnus 1998), this was not seen in the present study. It is possible that people with a higher number of partners in the last year may have used condoms more consistently, but participant numbers were too small to establish this.

The role of sexual knowledge, attitudes and behaviours in consistency of condom use is examined in ISSHR Sub-Report 3, 'Sexual Knowledge, Attitudes and Behaviours – A Further Analysis'. This report found that knowledge of fertility, Chlamydia and HIV/AIDS and perceived risk of HIV infection played no significant role in shaping consistency of condom use in the last year.

Two of the major determinants of consistent condom use have been identified as age and relationship status. Obviously relationship status is an important factor, since contraceptive and protective requirements differ for different relationships, but what explains the age relationships, after controlling for the increased probability of being married among older age groups? Among those who were not in a relationship, older participants were still less likely to use condoms. It appears, therefore, that there was some differential in perceived risk between people of different age groups.

Situational or contextual factors sometimes play an important role in predicting condom use. In the Irish context, Rundle *et al* (2004) found that almost a third of those who did not use condoms at most recent sexual intercourse reported that this was due to simply being unprepared, while a further 15% reported that the reason was that they had been drinking alcohol or taking illicit drugs.[15] This can be investigated further by analysing condom use at most recent event, where participants were asked a subsidiary question that sought the reasons for non-use. This will be examined in the following sections.

3.2.11 Condom use at last occasion of sexual intercourse

> **SUMMARY**
> *Men were somewhat more likely than women to have used condoms on the last occasion of vaginal sex (37.3% vs. 31.4%).*
>
> • *Younger participants were more likely to have used condoms on the last occasion: e.g. 75.5% of men aged 18-29 vs. 8.2% aged 55-64.*
>
> • *Participants in less formalised relationships were more likely to use condoms, e.g. 71.2% of women who had just met a partner vs. 15.7% of married women.*

TABLE 3.24 displays the percentage of all participants who used a condom *at most recent intercourse* across a number of socio-demographic characteristics. It would be expected that the pattern of condom use would be similar to that seen in the analysis of condom use in the last year, although some differences will arise since the previous analysis examined those reporting consistent condom use (using a condom on every occasion of intercourse) *throughout the past year*.

Gender differences were again identified: men were more likely than women to report condom use at most recent intercourse (p<0.001). This difference remained (p<0.05) even after controlling for other factors (current age, educational level and relationship at time of intercourse) in a multi-variate model (not shown).

Similarly, age was once again a significant predictor of condom use: younger participants were far more likely to have used a condom than older participants, a relationship which remained even after controlling for the other variables (*Table 3.24*). For example, young men were still nine times more likely to use a condom at most recent intercourse than men in the oldest age group and young women were almost twice (93%) as likely.

While the previous analysis did not identify any educational differences, some differences were found in relation to condom use at most recent intercourse. Women with third-level education were more likely than those with primary education to have used a condom at most recent intercourse. Among men, only those with lower secondary education were significantly less likely than men with third-level education to have done so.

As in the previous analysis, a clear pattern of condom use at most recent intercourse across relationship status was found. Again, people in more formalised relationships were less likely to use a condom, even after adjusting for all other variables.

Table 3.24: Profile of participants who used a condom at most recent sexual intercourse, by socio-demographic and behavioural characteristics						
	Men			Women		
	%	N	MV+	%	N	MV+
All participants	37.3	2,784		31.4	3,833	
Age group						
18-24 years	75.5	592	C	67.6	716	C
25-34 years	47.3	639	***	38.7	901	***
35-44 years	30.2	588	***	26.4	953	***
45-54 years	22.1	518	***	17.0	714	***
55-64 years	8.2	447	***	4.0	549	***
Education (highest level attained)						
Primary	17.9	228	ns	11.0	268	*
Lower secondary	31.5	485	*	22.8	597	ns
Upper secondary	43.6	1,033	ns	35.1	1,586	ns
Third level	46.1	1,035	C	43.2	1,356	C
Relationship status (at time of intercourse)						
Just met/didn't know partner	78.2	113	***	71.2	35	***
Knew partner but not steady	69.4	373	***	71.3	229	***
Steady relationship	58.7	673	***	55.2	925	***
Cohabiting	33.6	140	ns	41.0	182	***
Engaged	37.4	35	ns	30.6	61	ns
Married	17.0	1,436	C	15.7	2,390	C

+ Multivariate analysis: logistic regression adjusting for all variables in the table (excluding those marked '-')
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

As with condom use in the last year, the ISSHR Sub-Report 3, 'Sexual Knowledge, Attitudes and Behaviours – A Further Analysis', also examined the role of attitudes and knowledge in determining condom use at most recent intercourse. Knowledge of fertility, STIs and HIV/AIDS and perceived risk of contracting HIV/AIDS were not related to condom use at most recent intercourse.

3.2.12 Reasons for not using condoms at most recent intercourse

SUMMARY

This section examines the reasons that people (who had vaginal or anal intercourse and did not wish to become pregnant) gave for not using a condom on the last occasion of sex. There were no gender differences.

- *69% of participants reported that they did not use a condom because they trusted that their partner did not have an STI.*

- *The proportion trusting their partner varied by age and nature of relationship. Only half (54.2%) of the youngest group (18-24) reported trusting their partner, but over two-thirds of all others (68.3%-72.9%) did so. There was no difference in levels of trust in the groups from 25-29 years upwards.*

- *Of people in less established relationships, 27% of those who had not previously had a relationship with their partner reported not using a condom because they trusted that the partner would not have an STI.*

- *14% of participants who had only just met their partner before having sex for the first time with that partner reported not using a condom because they trusted that the partner would not have an STI.*

IN *Table 3.25*, the results are given for the overall sample as there were no significant gender differences. Across all age groups, trust that one's partner did not have an STI was the most commonly given reason (69%). However, the percentage giving this reason varied across age groups: from 73% of those aged 55 or older to 54% of those in the youngest age group. Younger participants were less likely to be in settled relationships and more likely to have met their partner comparatively recently; thus the findings may reflect the different levels of information that participants had about their partners. It is interesting to note, however, that 27% of those who knew their partner, but did not already have a relationship with them, and 14% of those who had just met their partner, reported not using a condom because of trust that the partner did not have an STI.

Table 3.25: Reasons for not using a condom at most recent sexual intercourse, by age (%)

	Age					
	18-24	25-34	35-44	45-54	55-64	All
Sex not planned/ unexpected	3.2	0.3	0.3	0.1	0.1	0.5
Drinking alcohol/taking drugs	4.0	0.1	1.0	0.2	0.0	0.7
Couldn't be bothered	0.8	0.2	0.1	0.1	0.1	0.2
Didn't think to use	3.8	1.3	1.5	1.0	1.4	1.5
Took a chance/got carried away	0.0	0.3	0.2	0.1	0.2	0.2
Young/naïve/stupid/ careless	0.3	0.3	0.0	0.1	0.2	0.1
No condoms available	5.5	0.5	0.1	0.1	0.0	0.6
Don't like/allergic to condoms	2.6	1.4	0.6	0.3	0.4	0.8
Don't believe in condoms/ against religion	0.0	0.1	0.1	0.0	0.0	0.1
Didn't know about protection or didn't understand the risk	0.0	0.0	0.2	0.0	0.1	0.1
Didn't think was at risk from STIs	6.6	11.0	9.2	10.2	6.3	9.0
Trusted partner did not have STI	54.2	68.3	70.0	69.9	72.9	69.0
Tested/checked	3.6	1.0	0.2	0.3	0.0	0.6
Can't remember	14.0	13.2	13.4	14.3	14.0	13.8
N	370	899	1,125	1,003	935	4,332

This result suggests that a substantial minority were placing undue trust in the belief that their sexual partner did not have an STI, on the basis of little or no evidence.

Discounting the 'can't remember' category, the next most common reason given was that the person did not think that they themselves were at risk of an STI.

3.3 Summary

UNDERSTANDING the pattern and distribution of sexual partnerships in a society is important for a number of reasons, not least to determine the pattern of STI risks across a population. Similarly, specific behaviours such as patterns of contraceptive use provide further information about those at higher risk of unintended conception, which is sometimes experienced as a crisis by those involved, and of STIs.

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The findings of this chapter support the view that most Irish people are at low risk for outcomes such as STI or crisis pregnancy. However, a notable proportion of participants reported behaviour that has been shown to lead to an increased risk of such outcomes.

Studies in various countries have shown that most people (particularly women) have relatively few partners over their lifetime; most have had only one partner in the past five years or over the past year. However, a minority have a high number of partners. Analysis of the ISSHR data has also found this pattern in Ireland; 29% of men and 51% of women have had a single heterosexual partner over their lifetime so far, and 25% of men and 6% of women have had 10 or more partners.

Compared to the UK, US, France and Australia, Irish people were more likely to report a single partner over their lifetime so far and less likely to report two or more partners. However, analysis of partnership patterns over more recent periods (last five years and last year) and by age group showed that younger Irish people have largely converged with their peers in other countries in terms of numbers of partners. As in other countries, the emergence of larger numbers of young Irish people with a high number of partners points to the development of an important sub-population at risk for the spread of STIs.

A number of gender differences were found. For example, men were more likely than women to have had more than one partner in the past year. Analysis of factors, other than age, that influenced number of partners found that both men and women in a casual relationship were most likely to have two or more partners in the last year.

Importantly, individuals who first had sex before 17 were about three times more likely to report two or more partners in the past year.

Also significant is the finding that men and women whose weekly alcohol intake was above the recommended limits were about twice as likely as those whose intake was below the limits to report multiple partners.

A higher number of sexual partners increases the risk of transmitting STIs, but the spread of STIs is further increased if multiple partnerships are held concurrently, that is, if an individual has sex with a number of partners at different points over roughly the same period.

Analysis showed that men with a higher number of partners in the last year were more likely to have also had concurrent relationships (although participant numbers were small in some groups). Concurrency was most likely among younger men and men in casual relationships.

Early sexual initiation (before 17) and consuming above the recommended weekly alcohol intake were also associated with experience of concurrency in the last year.

Many countries have higher levels of STI and HIV than Ireland, so experience of unprotected sex abroad is an important issue. Men were more likely than women to have had unprotected sex abroad with a new partner in the last five years. Younger men and those currently in a casual relationship were most likely to have done so. Weekly alcohol intake above the recommended limit and sexual initiation before 17 were also associated with unprotected sex abroad.

The extent of payment for sex and the characteristics of those who pay for sex have not previously been studied in Ireland using a representative national study. Analysis of the ISSHR data showed that over 6% of Irish men had paid for sex (almost no women reported doing so). Men over 54 were most likely to have paid for sex, but there was evidence that paying women for sex was common among younger men – the highest proportion of those paying for sex in the last five years was among men aged between 25 and 34. The proportion among men under 25 was greater than that among men aged over 35.

Again, men who experienced sexual initiation before 17 and men whose weekly alcohol intake was above the recommended limit were more likely to have paid for sex. Men who reported a higher number of heterosexual partners were also more likely to have paid for sex, even after excluding those partners to whom payment was made. While 83% of men who had paid for sex reported always using condoms, a notable 17% used them inconsistently when paying for sex.

While 74% of men and 69% of women who did not wish to become pregnant used contraception on their most recent occasion of vaginal sex, contraceptive use varied widely by age. Younger men and women were more likely to use contraception; almost all of those aged 18-24 reported using contraception at their last sexual encounter.

Findings from the ISSHR data show that a person's level of knowledge about contraception and their attitudes towards it do not predict their contraceptive behaviour (see also Sub-Report 3). On the other hand, their past behaviour was similar to their current behaviour. Specifically, those who had sex at an early age (before 17) or who did not use contraception on this first occasion were much more likely not to use contraception at the most recent event (see Sub-Report 1). Thus past behaviour was the best predictor of current behaviour.

Analysis of the forms of contraception used showed that condoms and the contraceptive pill were the most frequently used, but that choice of contraceptive method was significantly influenced both by age and marital status. Individuals in less formalised relationships, who were more likely to be younger, were more likely to use condoms. In more stable and formalised relationships, other methods were more common, particularly the pill. The coil/IUD and more permanent methods such as contraceptive implants and sterilisation were also more common in older groups.

A range of reasons was given for not using contraception at most recent vaginal intercourse. Apart from those who reported an ambivalent attitude towards pregnancy (which may include, for example, those who were not actively trying to avoid pregnancy as well as those who took a casual attitude to pregnancy planning and contraception), a large proportion said they 'did not think to use' contraception, that sex was not planned or that they had been drinking/taking drugs. These responses were particularly common among people under 25. Alcohol and drug use were the most common answer among this age group. This finding, which replicates that found in the ICCP survey, underlines the serious challenge facing Irish society in persuading young people (under 25) to protect themselves from both unintended pregnancy and infection from STIs. Although young people were more likely to use contraception when having sex than others in the study, this was not true of a significant minority.

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Analysis of condom use showed that young people were more likely to have used condoms at most recent intercourse and to have used them consistently during the past year. Condom use was more likely in casual or less formalised partnerships. As with use of contraception generally, consistency of condom use was related to age at sexual initiation; those who first experienced intercourse before 17 were less likely to consistently use condoms in the past year. Men and women who reported unprotected sex abroad in the last five years were also less likely to have consistently used condoms in the past year.

Finally, reasons for not using a condom at most recent intercourse were examined. The primary reason was trust that one's partner did not have an STI. However, while the level of trust increased with the length and formalisation of the relationship, around a quarter of those having unprotected sex with someone with whom they did not already have a steady relationship said they had trusted their partner. Around 14% of those having unprotected sex with a casual partner also reported that they did not use a condom because they trusted their partner.

In summary, sexual behaviour varied considerably according to age and relationship status. Changes in sexual behaviour over recent decades have been found across a number of measures. Examination of recent sexual behaviour identified similarities with the results of studies in other countries concerning number of partners. It is a matter of concern that this increasingly similar pattern may eventually be matched by STI rates comparable to those in other countries. The low prevalence of STI reported currently in Ireland suggests that this process could take time. But, given the increase in numbers of sexual partners, as shown in ISSHR, reduction of STI risk must be encouraged so that people do not engage in unprotected sex in high-risk situations.

A significant proportion of participants who reported risk factors for STIs also reported not always using condoms in the past year. While most people reported patterns of sexual behaviour that are consistent with health recommendations, a small number of men and women appear to be at risk because of a range of risky behaviours. Two factors consistently associated with risky behaviours are early sexual initiation and high alcohol consumption.

The relationship between homosexual behaviour and sexual health is described next.

Homosexual behaviour and sexual health

THE previous chapter examined the range of heterosexual practices reported by ISSHR participants. This chapter examines homosexual partnerships and practices. After an introduction to the relevant literature, in section 4.1, the ISSHR results begin with an overview of partner numbers over lifetime, last five years and last year. Homosexual practices are then described, with an overview of experience of oral and anal sex among those with same-sex genital experience. A summary of the chapter can be found in section 4.3.

Since only a small proportion of participants reported same-sex experience, there were a number of limitations on analyses. It was not possible to analyse many issues relating to sexual health to the same level of sub-group detail as for heterosexual experience (previous chapter). While the same range of behaviours is examined where possible, it was decided to display the results separately since some behaviours are assumed to differ. For example, both pregnancy and STI concerns influence decisions concerning contraception and protection among those engaging in heterosexual relationships, but STI concerns alone are an issue in homosexual relationships, with barrier methods of protection the only relevant option. It was also thought worthy to examine heterosexual and homosexual behaviours separately because little information about homosexual practices and behaviours exists in Ireland.

4.1 Introduction

THIS chapter provides an overview of same-sex partnerships and practices. In terms of sexual health, this group often experience a disproportionate burden of STI and HIV infection. Recent surveillance data has shown increasing HIV infection in western Europe among men who have sex with men.[88] Studies of incident (recently acquired) infection in the UK have shown increasing levels in recent years.[89] Reported cases of HIV in men who have sex with men in Ireland have also risen, between 1999 and 2004.[90] Rates of gonorrhoea have increased in several European countries in recent years; men who have sex with men are one of the main groups affected.[91] Several countries, including Ireland, have also reported syphilis outbreaks affecting such men.[91-93]

4.1.1 Number of same-sex partners over different periods

Across countries, surveys of sexual health tend to show that men who report same-sex genital experience have a greater number of sexual partners than men who report heterosexual experience alone.[62,94,95] Among women the findings are not as clear; some suggest that women with same-sex experience have a lower number of partners overall.[87]

The Australian ASHR study reported that, over three periods, men had a higher number of same-sex partners than women, although a similar proportion of men and women had two or more same-sex partners over their lifetime (roughly 3%). A greater proportion of men than women reported 10 or more same-sex partners over their lifetime (1.8% vs. 0.2%), but these small proportions have wide confidence intervals around them and the difference is not significant. Men and women who identified themselves as homosexual or bisexual had significantly more same-sex partners than individuals who identified themselves as heterosexual. Men identifying as homosexual had the highest number of same-sex partners, followed by men identifying as bisexual. Both groups of men reported more same-sex partners than women identifying as homosexual or bisexual.[96]

Patterns of recent acquisition of new partners provide information on recent sexual behaviour and are informative in determining the current risk of STI infection. A higher number of partners over lifetime has been associated with a higher STI risk in men who have sex with men.[97] Infections such as gonorrhoea have high infectivity and hence transmissibility. However, gonorrhoea also has a short duration of infectiousness, so a high rate of new-partner acquisition is required to maintain transmission.[44] Consequently, gonorrhoea and syphilis are often maintained in core groups (a group of people in a sexual network) who have multiple partners over a short period. On the other hand, HIV infection may produce no symptoms for many years, so past sexual history is as important as recent sexual history in determining risk.

Information on the rate of partner change among men who have sex with men in Ireland has mainly been provided by Sigma Research. A sexual-health survey was undertaken in 2000 by the Gay Health Network in Ireland, in collaboration with Sigma Research.[98] A self-completion questionnaire was circulated at gay events and venues such as Dublin Pride, bars and clubs. In total, 1,500 forms were printed and 1,420 returned; 90.8% of these were suitable for analysis. Participants were asked how many male partners they had had in the last year. Median number of partners was five; the mean was 17.9, with a standard deviation of 88.4.[98] The large difference between the mean and the median and the large standard deviation are statistical indicators that a small number of men reported a high number of partners in the previous year.

4.1.2 Oral and anal intercourse

Sexual practices are an important determinant of the risk of infection from STIs and HIV. This is particularly true among homosexual men. In sexually acquired HIV infection, anal intercourse is associated with a higher risk of HIV transmission than vaginal intercourse. Furthermore, receptive anal intercourse is associated with a higher risk of transmission than insertive anal intercourse.[99]

The role of anal sex in the transmission of HIV was realised early in the spread of HIV in North America and the UK.[74] Research has shown anal sex to be a core element of homosexual

sex among men in other countries.[74,96] Thus, it is important to establish the frequency of this behaviour among men who have sex with men in Ireland.

Oral sex is also accompanied by risks of STI transmission. Some STIs, such as syphilis and gonorrhoea, can be transmitted via oro-genital contact as well as during anal intercourse.

Condom use is, of course, an important factor in reducing STI risk. Studies have found a lower STI risk for those who report using condoms.[41,42] A study of men who have had sex with men in the UK compared cross-sectional data from annual surveys of such men attending gay venues between 1996 and 1998. It found a significant increase in the levels of unprotected anal intercourse over time among men reporting more than one partner in the last year (from 32% in 1996 to 38% in 1998).[100]

The Gay Health Network/Sigma study asked participants whether they had had anal intercourse in the last year without a condom. Of men who reported anal intercourse in the last year, 54% had had unprotected anal intercourse. This study also found that relationship type was associated with condom use. Men reported higher levels of unprotected sexual intercourse with regular partners than with casual partners (70.5% vs. 36.8%).[98] This was also found in the Australian ASHR study; 86.8% of men who had sex with men always used condoms with casual partners compared to 22.8% with regular partners.[57] The Sigma study also found that 13.4% of men who used condoms reported a condom accident (either the condom split or came off) during intercourse.[98]

4.1.3 Measuring same-sex partnerships and practices in ISSHR

Chapter five of the ISSHR main report showed that the homosexual and heterosexual populations are firmly enmeshed: less than a quarter of men and an insignificant proportion of women who reported homosexual sex (any genital contact) had only ever had contact with the same gender. This means that the overwhelming majority of those with same-sex genital experience had also had sex with the opposite gender. This was found even in analysis of most recent behaviour.

Very few men and women in ISSHR had ever had a same-sex genital experience. Therefore, the numbers of participants available for analysis was very small in absolute terms (N=145 men and N=56 women). This severely limited the analyses that could be performed, since the samples could not be disaggregated without sub-sample sizes becoming perilously small. For example, participants were asked whether a condom was used on every occasion of anal intercourse in the last year. Since very few men reported anal sex in the past year, the small number of participants answering this question (N=31) meant that detailed analysis of condom use was not possible. Similarly, important issues such as experience of commercial sex and unprotected sex abroad could not be examined due to small participant numbers. Therefore, this chapter provides a necessarily brief overview of same-sex partnerships and practices.

As said previously, classifications such as 'heterosexual' and 'homosexual' are sometimes used to describe behaviour and sometimes used in relation to individuals. The focus of this chapter is on the behavioural definition, since the report concerns sexual-health challenges, which are a function of behaviour rather than of individuals. Chapter five of the main ISSHR report addresses the relationship between a person's self-description as a sexual being, i.e. heterosexual, homosexual, etc, and their sexual behaviour.

4.2 ISSHR results

4.2.1 Number of same-sex partners over three periods

SUMMARY

This section examines the number of same-sex partners reported by participants over three periods.

- *Overall, 4.4% of all men and 1.4% of all women reported a same-sex partnership in their lifetime.*

- *Both men and women who had ever had a same-sex partner reported a median of two same-sex partners.*

- *Just over two-fifths (41.9%) of men (who had ever had a same-sex partner) reported a single partner in their lifetime. A further 25.9% reported two to nine partners.*

- *Among women (who had ever had a same-sex partner), 48.8% reported one partner in their lifetime and 47.5% reported two to nine.*

- *Among men (who had had a same-sex partner), 32% reported 10 or more lifetime partners, compared to 4% among women.*

OVERALL, 4.4% of men and 1.4% of women reported a same-sex partnership (i.e. any sexual contact involving the genital area) in their lifetime. Participants who had ever had genital contact with a same-sex partner were asked how many sexual partners they had had in their lifetime, in the last five years and in the last year (*Table 4.1*). Men were asked to report the number of same-sex partners with whom they had had oral and anal sex, while women reported only partners with whom they had had oral sex. Sexual partnerships involving vaginal or anal sex were not included for women, even though this may be an integral part of practices through the use of sex toys. The reported number of same-sex partners over different periods may be lower than would have been the case if a wider definition had been used. This issue is important when comparing the ISSHR findings with those produced by the Sigma study of men; it did not include a breakdown of the behaviours that defined a 'sexual partner'. Instead, Sigma participants were asked "How many men have you had sex with?".[98]

In view of the small number of participants reporting same-sex partnerships, it was not possible to analyse partner numbers in great detail. Furthermore, findings should be used cautiously since the numbers are so small, particularly those relating to women.

Table 4.1: Number of same-sex partners (oral or anal sex) over three periods, by gender

	Ever		Last 5 years		N	Last year
	%	N	%	N	%	N
Men Partners (N)						
1	41.9	39	60.4	49	77.4	59
2	11.8	12	12.0	11	5.2	6
3 or 4	8.8	12	8.2	7	6.3	7
5 to 9	5.3	7	4.6	6	3.6	4
10+	32.2	34	14.8	20	7.5	8
All	100	104	100	93	100	84
Mean	58.5	9.6	9.1			
Median	2		1		1	
Women Partners (N)						
1	48.8	25	65.0	25	81.2	22
2	19.6	7	23.2	6	14.1	3
3 or 4	25.7	8	11.8	5	4.7	1
5 to 9	2.2	1	0.0	0	0.0	0
10+	3.7	2	0.0	0	0.0	0
All	100	43	100	36	100	26
Mean	2.4	1.5	1.2			
Median	2		1		1	

For all periods, men reported more partnerships than women. Mean numbers of partner were greater than median numbers, particularly among men, indicating that a small number of participants reported a high numbers of partners.

- Both men and women (who had ever had a same-sex partner) reported a median of two same-sex partners.
- As regards lifetime partners, just over two-fifths (41.9%) of men (who had ever had a same-sex partner) had had a single partner in their lifetime, while a further 25.9% had had two to nine partners.
- Among women (who had ever had a same-sex partner), 48.8% reported one partner in their lifetime and 47.5% reported two to nine over lifetime.
- Over the last five years and the last year, the median number of same-sex partners among men and women (with experience of a same-sex partner) was one. In total, 60.4% of men and 65% of women (who had had a same-sex partner) reported one same-sex partner over the last five years.
- Concerning same-sex partners over the last year, 77.4% of men and 81.2% of women (who had had a same-sex partner) reported one.

Analysing participants with more than one partner over different periods showed that a significant proportion reported high numbers of same-sex partners:

- Of men who reported experience of a same-sex partner, 37.5% reported five or more lifetime partners, 19.4% reported five or more new partners in the last five years and 11.1% reported five or more new partners in the last year.

    This indicates that a significant proportion of men with experience of a same-sex partner had behaviour patterns that raised their risk of STI. In contrast, few women reported five or more same-sex partners over lifetime (5.9%), and none reported five or more partners during the shorter periods.

    Sigma Research has carried out several studies among men who have sex with men in Ireland and has published figures on numbers of partners. These show substantially higher numbers of partners over the last year than found in the present study. Although the categories used are not strictly comparable, the Sigma study showed that around a quarter of their sample had had between five and 10 partners in the last year and another quarter had 11 or more.[98] This compares to 4% of men in the ISSHR sample having five to nine partners and a further 8% having 10 or more.

- Part of this difference may be accounted for by the more open definition of 'sex' used in the Sigma survey, whereas only oral and anal sex were counted in ISSHR.
- Another possible reason may be the small ISSHR sample and associated confidence intervals; only 84 men had a male partner in the last year, which means that the population proportion having more than nine partners could be anywhere between 3% and 18%.
- A third explanation for the difference may be the sampling strategy used in the Sigma survey. To obtain a large enough sample, the questionnaire was distributed at the Gay Pride parade and in pubs and clubs. Those attending these events and venues were likely to be younger than the general population. There is a difference in average age between the two surveys: a median 29 years in the Sigma sample compared to 43 in the ISSHR sample (of men who have had sex with men). The younger profile and higher level of social participation among the Sigma sample may have led to a greater prevalence of higher reported numbers of partners. If so, the ISSHR data suggest, in contrast to the Sigma survey, that most men who currently have same-sex partners actually have fewer partners, and only a minority have high partner numbers.

    The Australian ASHR study provides data on same-sex partnerships across different sexual identities. Thus, the results are not directly comparable with the present study, but they do indicate a number of differences between Australian and Irish men. For example, among all men in ASHR who identified as homosexual, 91% reported three or more same-sex partners in their lifetime; among men identifying as bisexual, 73% reported three or more. The ISSHR study instead looked at the number of same-sex partners among those with same-sex experience, and found that 46% of Irish men with genital homosexual experience reported three or more partners. The percentage who reported 10 or more partners over lifetime was also very different; 74% of homosexually identifying and 50% of bisexually identifying Australian men had 10 or more partners, compared to 32% of Irish men with any same-sex genital experience.[96] There are a number of difficulties with these comparisons due to the different measurements used in the two studies. The use of sexual identity in the Australian study means that some men with no same-sex experience who identified as homosexual or bisexual were included. Moreover, some men in ISSHR with previous same-sex experience may not have currently considered themselves to be

homosexual or bisexual; similarly, some 'heterosexual' men in ASHR reported same-sex experience.

The small number of men and women with homosexual experience in the ISSHR sample leads to large standard errors and confidence intervals. For example, although the percentage of women who had one partner over lifetime was given as 49% in *Table 4.1*, the wide confidence intervals mean that the actual population percentage could be anywhere from 32% to 66%. Similarly, for those who had 10 or more partners, the population proportion could be as low as 1% and as high as 16%.

4.2.2 Frequency of oral and anal sex

SUMMARY

Frequency of oral and anal sex was assessed among men and women who reported any same-sex genital contact over lifetime. Information was collected on giving and receiving oral or anal sex.

- *A minority of men (33%) who had ever had homosexual contact reported homosexual oral sex in the last year.*
- *17% of men (with homosexual contact) reported homosexual anal sex in the last year.*
- *27% of men (with homosexual contact) reported never having homosexual oral sex and 68% reported never having homosexual anal sex.*
- *20% of women (with homosexual contact) reported never having homosexual oral sex.*

TABLE 4.2 displays the last occasion that men in ISSHR (who had ever had a same-sex genital partner) experienced various sexual practices.

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Table 4.2: Last occasion of various sexual practices reported by men who had had same-sex genital experience in their lifetime

	Received oral sex	Gave oral sex	Received anal sex	Gave anal sex	Any oral	Any anal
	%	%	%	%	%	%
Last 7 days	8.3	8.0	3.1	2.8	8.3	3.1
Last 4 weeks	13.5	13.5	4.4	4.1	13.5	5.2
Last 3 months	3.0	3.7	2.0	1.2	3.7	2.5
Last 6 months	3.6	2.5	2.2	2.5	4.1	2.2
Last year	3.4	4.7	2.7	3.0	3.8	3.7
Last 5 years	9.7	11.2	7.0	6.7	11.2	7.0
Before last 5 years	24.0	21.0	8.7	7.5	28.9	8.7
Never	34.6	35.3	69.9	72.1	26.7	67.7
N	140	141	144	144	141	144

Table 4.2 shows that around a fifth (21.8%) of the sample reported oral sex (given or received) in the last four weeks (this combines the totals for 'last seven days' and 'last four weeks'). A further fifth (22.8%) had experienced oral sex in the last five years, and another 28.9% had last had oral sex (given or received) over five years ago.

These results suggest that, of men who had ever had genital same-sex contact, only around 40% were currently or recently practising oral sex. Perhaps more surprisingly, around a quarter (26.7%) had not experienced oral sex with someone of the same gender.

The pattern of frequency of anal sex was even more polarised:

• 67.7% of men (who had had genital contact with other men) reported that they had never either given or received anal sex.
• Just 23.7% reported anal sex in the last five years.
• Only 8.3% reported either giving or receiving anal sex in the last four weeks.

These results should be interpreted cautiously, since numbers of individuals responding were low, but they suggest that the population frequency of homosexual anal sex is very low, with between 0.5% and 1% of the male population having homosexual anal sex at least once a month (using a 95% confidence interval).

Most men who had ever had same-sex genital experience did not report anal intercourse; many more reported oral sex. There is some evidence that men who have sex with men are much less likely to use condoms for oral-genital contact than for anal intercourse.[101] Recent evidence suggests that oral sex may be an important factor associated with transmitting some STIs – syphilis, gonorrhoea, Chlamydia and hepatitis A, for instance.

Table 4.3 displays the frequency of oral sex among women in ISSHR who had ever had a same-sex genital partner.

Table 4.3: Last occasion of oral sex reported by women who reported same-sex genital experience in their lifetime			
	Received oral sex	Gave oral sex	Any oral
	%	%	%
Last 7 days	2.7	2.7	2.7
Last 4 weeks	0.0	0.0	0.0
Last 3 months	4.5	5.2	5.2
Last 6 months	0.0	0.0	0.0
Last year	20.9	19.8	22.5
Last 5 yrs	23.9	23.2	23.9
Before last 5 yrs	26.8	23.5	26.8
Never	21.2	25.6	18.9
N	56	56	56

The numbers of women available for this analysis were very low, so it is impossible to derive any clear conclusions, but the numbers suggest that a very small proportion of women practise homosexual oral sex regularly (more than once a month). Around a quarter had experienced oral sex in the last year and another quarter in the last five years. Additional sexual practices, such as vaginal or anal sex through the use of sex toys, were not explored. The findings are therefore unlikely to provide a comprehensive picture of same-sex practices among women.

Results from a French survey showed that the most common practice in male same-sex encounters was manual stimulation of the partner, reported by over 70% of respondents at last same-sex experience. The proportions reporting anal sex were much lower: just 36% reported insertive anal intercourse and 28% receptive.[102] These results were closely replicated in the Australian ASHR study. It found that the majority of most-recent male same-sex encounters included manual stimulation (89% received, 90% gave), while 38% involved insertive anal intercourse and 30% receptive. Receiving and giving oral sex was reported by 75% and 76% of men respectively. Among women, over 90% reported manual stimulation at most recent same-sex encounter; around two-thirds both gave and received oral sex.[96]

4.3 Summary

THIS chapter described the data available on the small number of men and women in the ISSHR sample who reported genital contact with a same-sex partner, in order to examine the pattern of homosexual partnership and practices.

As has frequently been seen in sexual-behaviour studies, a large proportion of participants reported low levels of partner change; 42%, 60% and 77% of men reported one same-sex partner over lifetime, in the last five years and in the last year, respectively.

Among women, 49% had one same-sex partner in their lifetime, 65% one partner in the last five years and 81% one partner in the last year.

Among men reporting sex with men, a large minority had high numbers of partners; 32% reported more than 10 partners in their lifetime, 15% more than 10 in the last five years and 8% more than 10 in the last year.

In contrast, just 4% of women who had had sex with women reported more than 10 same-sex partners in their lifetime and none reported more than 10 in the last five years. However, the small number of individuals involved and the limited definition of 'sexual partner' (i.e. those who had had oral sex) makes clear analyses for women problematic.

Analysis of homosexual practices showed that, among those who had ever experienced a same-sex genital event, only a minority had this experience in the recent past. Among men, only 22% reported oral sex and 8% anal sex in the last month. Among women, the proportion reporting recent oral sex was even lower, at 3%. While this suggests that homosexual contact is relatively rare in Ireland, the limited range of sexual practices examined (i.e. oral sex among women and oral and anal sex among men) may have contributed to the low levels of homosexual contact recorded, since a range of other possibly common sexual practices such as mutual masturbation was excluded.

The next chapter focuses on the young adult population.

5

Sexual behaviour among young adults

THIS chapter provides an in-depth examination of sexual behaviour and contraceptive practices among people aged 18-29. Following a brief introduction, the ISSHR results begin in section 5.2 with an overview of number of heterosexual partners over lifetime and over last five years.

Number of partners over the last year is investigated in more detail, with an examination of socio-demographic and behavioural determinants of multiple partners. Due to small participant numbers, only a brief overview of levels of concurrency, experience of unprotected sex abroad and paying for sex could be provided.

The remainder of the results section examines contraceptive use at last intercourse, before focusing more specifically on condom use (consistency of use over last year and use at most recent intercourse). In each case, socio-demographic and behavioural determinants are investigated. Finally, a chapter summary is provided in section 5.3.

5.1 Introduction

CHAPTER three found that the number of sexual partners reported by ISSHR participants over the last five years and the last year increased with younger age. Sexual-behaviour studies internationally have also reported higher partner numbers among younger people. Relationship status is an important factor; older participants were more likely to be married or in a committed relationship, a factor which is associated with lower rates of partner exchange.[60,58]

- Younger participants in ISSHR were more likely to have had unprotected sex with a new partner when abroad, in the last five years.
- However, among those at risk of unintended pregnancy, younger men and women were more likely to have used contraception at most recent vaginal intercourse.
- Asked about the reasons for not using contraception, younger people were more likely to say they had been drinking alcohol/taking drugs, that no contraception was available, that sex was not planned/expected and that they 'did not think to use' contraception.

- Chapter three also found that younger men and women were more likely than older to report consistent condom use in the last year and condom use at most recent intercourse.
- However, young adults still appear to be at higher risk of STIs. International prevalence studies have shown that Chlamydia prevalence is highest in young heterosexual adults. In Ireland, most STIs such as Chlamydia, genital warts and gonorrhoea which have been reported to the HPSC have occurred in adults under 30 (where age was known).

Younger people were over-sampled during ISSHR data collection. Their responses were weighted down in analyses in chapter three so that the general Irish adult population aged 18-64 would be reflected. However, this chapter applies a different weighting system to match those aged 18-29 in ISSHR with the general population aged 18-29 and to allow more detailed analysis of this group. Therefore, some minor differences may occur between the results reported in this chapter and those of the corresponding age groups in chapter three.

Some of the following sections refer specifically to heterosexual behaviours; for example, the sections relating to number of sexual partners. Participants were also asked about the number of homosexual partners they had had, but, due to small participant numbers, it was not possible to analyse this further for this age group.

More generally, some analyses of this 18-29 sub-group resulted in small participant numbers. In such cases, it was not possible to carry out detailed analyses. Where feasible, analyses have been completed and caution noted where necessary. A review of the relevant international literature has been provided in chapter three.

5.2 Results and discussion

5.2.1 Number of heterosexual partners over lifetime and the last five years

SUMMARY
Participants were asked how many sexual partners (involving vaginal, oral or anal intercourse) of the opposite gender they had had in their lifetime, over the last five years and in the last year.

- *Among those aged 18-29, men had significantly more lifetime partners than women.*
- *Men and women aged 25-29 had more partners over lifetime than those aged 18-24.*
- *A fifth (21%) of men aged 18-24 and a third (34%) of men aged 25-29 had 10 or more partners over lifetime.*
- *Among women, 8% of those aged 18-24 and 13% of those aged 25-29 had 10 or more partners over lifetime.*

THE mean, median and number of sexual partners reported over lifetime by men and women are shown in *Table 5.1*. The mean number of partners was larger than the median for all age groups and for both men and women, indicating that a small number of participants reported a large number of partners. There were significant differences in the number of partners reported by men

and women (p<0.001). As seen in the analyses of the whole sample (see chapter three), men reported more partners than women over lifetime.

Table 5.1: Number of heterosexual partners in lifetime among people aged 18-29, by gender and age group (%)				
	Men		Women	
	18-24	25-29	18-24	25-29
0	12.2	4.8	14.0	5.0
1	21.9	15.2	34.2	28.4
2-9	44.6	45.9	43.5	54.1
10+	21.3	34.1	8.4	12.5
Median	4	6	2	3
Mean	6.0	13.0	3.9	4.7
N	759	454	908	587

Even among this younger age cohort, there were significant age-group differences in number of partners for both men (p<0.001) and women (p<0.001). Men and women aged 25-29 reported more partners than their younger counterparts. This is likely to reflect the fact that the older age group had more time to acquire sexual partners.

• One-fifth (21.3%) of men aged 18-24 and over a third (34.1%) of men aged 25-29 reported 10 or more partners over lifetime.
• Among women, 8.4% of those aged 18-24 and 12.5% of those aged 25-29 reported 10 or more partners.

It is clear that a substantial number of men and women of both age groups had had more than one partner over lifetime. *Table 5.2* displays number of heterosexual partners in the last five years.

Table 5.2: Number of heterosexual partners in last five years among people aged 18-29, by gender and age group (%)				
	Men		Women	
	18-24	25-29	18-24	25-29
0	12.4	6.5	14.7	6.4
1	24.3	32.8	36.6	52.0
2-9	45.3	47.7	43.0	39.1
10+	18.1	13.1	5.7	2.5
Median	3	2	1	1
Mean	5.1	4.9	2.8	2.2
N	758	453	908	587

There were significant gender differences in number of partners in the last five years (p<0.001) and significant age-group differences for both men (p<0.01) and women (p<0.001).

Fewer men and women aged 25-29 than those aged 18-24 had not had a sexual partner in the last five years. Among men, there were few age differences in experience of more than one partner in the last five years; 63.4% of men aged 18-24 and 60.8% of those aged 25-29 reported more than one partner. However, men aged 18-24 had a median three partners, compared with a median two partners among those aged 25-29.

Among women, both those aged 18-24 and those aged 25-29 had a median one partner in the last five years. However, more women aged 25-29 than those aged 18-24 reported one partner in the last five years (52.0% vs. 36.6%).

5.2.2 Heterosexual partnerships in the last year

> **SUMMARY**
> *ISSHR participants were asked how many heterosexual partners (vaginal, oral or anal sex) they had had in the last year.*
> - *Among those aged 18-29, men were more likely than women to report more than one partner in the last year (31% vs. 14%).*
> - *Among men and women aged 18-29, current age, educational level, social class and area of residence were not related to experience of multiple partners in the last year.*
> - *Men and women aged 18-29 in less formalised relationships were more likely to report multiple partners in the last year.*
> - *Men and women aged 18-29 who had first intercourse before 17 were more likely to report multiple partners in the last year.*
> - *Among those aged 18-29, men and women who drank above the recommended weekly alcohol intake were more likely than those who did not to have had multiple partners.*

TABLE 5.3 displays the number of partners over the last year among men and women aged 18-29. For both men and women, the median number of partners reported by both age groups (18-24 and 25-29) was one.

Among both men and women, there were significant differences in partner numbers between those aged 18-24 and those aged 25-29 (p<0.001 among men and among women). To some extent, this was due to the higher number of those aged 18-24 who reported no partners in the last year, but it was also because fewer of those aged 25-29 reported more than one partner in the last year. This is particularly the case among men: 36.7% of those aged 18-24 reported more than one partner in the last year, compared with 22% of those aged 25-29. Thus, while 25-29 year-olds reported more lifetime partners, it seems they were less likely than 18-24 year-olds to report higher partner numbers in the last year.

Table 5.3: Number of heterosexual partners in the last year among people aged 18-29, by gender and age group (%)

	Men		Women	
	18-24	25-29	18-24	25-29
0	17.4	11.6	21.5	12.5
1	45.9	66.4	62.9	76.9
2-9	34.3	19.7	15.1	10.6
10+	2.4	2.3	0.4	0.0
Median	1	1	1	1
Mean	1.9	1.7	1.1	1.1
N	758	453	908	587

Socio-demographic variables were also examined in order to determine factors associated with experience of multiple partners in the last year among 18-29 year-olds (*Table 5.4*). Experience of multiple partners was defined as having had more than one partner in the last year. There were gender differences in experience of more than one partner: 31% of men and 13.6% of women reported more than one partner in the last year (p<0.001).

Table 5.4: Profile of 18-29 year-olds who had more than one heterosexual partner in the last year, by socio-demographic variables

	Men			Women		
	%	Base	MV+	%	Base	MV+
All participants	31.0	1213		13.6	1495	
Current age (years)						
18-24	36.7	759	C	15.5	908	C
25-29	22.0	454	ns	10.6	587	ns
Education (highest level attained)						
Primary/lower secondary	32.4	150	C	7.3	125	C
Higher secondary	30.8	528	ns	14.8	634	ns
Third level	30.1	535	ns	14.0	736	ns
Current relationship status						
Married	0.8	91	C	0.0	218	C
Cohabiting	5.0	117	ns	4.3	160	
Steady relationship	13.3	303	**	7.8	431	**
Casual relationship	53.1	157	***	38.4	109	***
Not in a relationship	43.1	545	***	19.7	577	***

+ Multivariate analysis: logistic regression adjusting for all variables in the table
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

After controlling for the variables in *Table 5.4*, among men and women aged 18-29, the only variable independently related to experience of multiple partners was current relationship status:

• Men in a casual relationship or not in a relationship were much more likely to report multiple partners, and men in a steady relationship were also more likely to report multiple partners than married men.
• Similarly, women in a casual relationship were much more likely to report multiple partners, followed by women who were not in a relationship.

Current age and educational level were not related to experience of multiple partners in the last year. Similarly, when geographic area of residence (city or town/rural area) was added to the model, no significant differences in experience of multiple partners were found.

A separate model, which substituted educational level for social class, controlling for current age and current relationship status, also found no social-class differences.

Behavioural variables were next added to the models in *Table 5.4* to determine their effect on experience of multiple partners. After adjusting for the variables:

• men who had first intercourse before 17 were over three times more likely (than men who first had sex after 17) to report multiple partners in the last year (p<0.001)
• women whose sexual initiation occurred before 17 were over two times more likely (than those who first had sex after 17) to report multiple partners in the last year (p<0.001)

Alcohol intake was also associated with multiple partners:

• men who drank above the weekly recommended alcohol intake were one and a half times more likely (p<0.05), and women twice as likely (p<0.01), to have had multiple partners (compared with men and women who drank below the limits)

In summary, relationship status was the strongest determinant of experience of multiple partners among men and women aged 18-29; those in a casual relationship were considerably more likely to report more than one partner in the last year, followed by those who were not in a relationship. Age at first intercourse and alcohol intake were also related to experience of multiple partners in the last year.

5.2.3 Concurrency

As discussed in chapter three, concurrency of sexual partnerships has additional implications for STI transmission. Participants who reported more than one partner in the last year were asked if any of these partnerships had overlapped in time. Significantly, more men (7.1%, n=79) than women (2.1%, n=31) reported concurrent relationships in the last year (p<0.001).

Among both men and women, there were no significant differences in experience of concurrent relationships between 18-24 year-olds and 25-29 year-olds.

Due to the small number of participants who reported concurrency in the last year, further analysis was not possible.

5.2.4 Sexual partnerships outside Ireland

Participants who reported more than one partner over lifetime and had been sexually active in the last five years were asked if they had travelled outside the islands of Ireland and Britain, either for a holiday or for work, in the last five years. If they had, they were then asked if they had unprotected sexual intercourse (vaginal or anal) with a new partner while abroad.

- Significantly more men (7.2%, n=100) than women (3.1%, n=46) reported unprotected sex outside of Ireland and Britain with a new partner in the last five years (p<0.001).

There were no significant differences between those aged 18-24 and those aged 25-29 among men or women. Due to small participant numbers, further analysis was not warranted.

5.2.5 Use of commercial sex

Participants were asked if they had ever paid for sex. Chapter three showed that men aged 18-24 were least likely to report ever paying for sex. In total, 3.6% of 18-24 year-old men and 6.6% of 25-29 year-olds had paid for sex (p<0.05). Of these, 97.4% had used a condom on every occasion. Since the number of men aged 18-29 who had ever paid for sex was small (N=54), further analysis was not possible.

5.2.6 Use of contraception at most recent vaginal intercourse

> **SUMMARY**
> *Participants were asked if they had used contraception or protection at most recent intercourse.*
> - *Men and women aged 18-29 did not differ significantly in their use of contraception at most recent intercourse: 92% used some form of contraception or protection.*
> - *Contraceptive use at most recent intercourse among men aged 18-29 was not related to age, educational level, social class, relationship status or alcohol use.*
> - *Women with higher educational levels were more likely to have used contraception at most recent intercourse. Otherwise the pattern was the same as for men.*

TABLE 5.5 provides a profile of men and women aged 18-29 who used some form of contraception at most recent vaginal sexual intercourse, across a number of socio-demographic variables. As in previous analyses, participants who were pregnant, trying to become pregnant, or who could not conceive because of hysterectomy or infertility were not included (those who said they were menopausal or post-menopausal were included).

In total, 92.2% of 18-29 year-olds had used contraception or protection at most recent vaginal intercourse.

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There were no significant gender differences and no differences between 18-24 and 25-29 year-olds for men or women.

It is interesting that, among men aged 18-29, multivariate analysis found no significant effect for current age, educational level and relationship status at last intercourse. After adjusting for current age and relationship status, the only significant effect among women was for educational level; women with higher educational levels were more likely to have used contraception at most recent intercourse.

Table 5.5: Profile of 18-29 year-olds who reported using contraception at most recent intercourse, by socio-demographic variables

	Men			Women		
	%	Base	MV+	%	Base	MV+
All participants	92.4	970		92.1	1,176	
Current age (years)						
18-24	93.2	587	C	92.8	699	C
25-29	91.1	383	ns	91.0	477	ns
Education (highest level attained)						
Primary/lower secondary	90.2	115	C	80.2	84	C
Higher secondary	92.5	412	ns	93.0	486	**
Third level	93.7	443	ns	94.4	606	***
Relationship status at time of intercourse						
Just met/did not know partner	91.1	91	ns	89.8	27	ns
Knew partner but not steady	91.9	247	ns	90.6	168	ns
Steady relationship	93.2	545	ns	92.3	781	ns
Married	87.3	65	C	91.1	154	C

+ Multivariate analysis: logistic regression adjusting for all variables in the table (excluding those marked '-')
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

Use of contraception at most recent intercourse among 18-29 year-olds was next examined across behavioural variables, to determine if not using contraception was associated with higher-risk behaviours. Multivariate analysis was conducted in each case, controlling for the variables listed in *Table 5.5*. For both men and women, use of contraception at most recent intercourse was not related to age at first intercourse, drinking above or below the recommended weekly alcohol limits or having more than one partner in the last year.

Chapter three found that condoms were clearly the most common form of contraception used by younger people at most recent intercourse (used by 82.1% of 18-24 year-olds and 59.0%

of 25-34 year-olds who had used contraception), followed by the contraceptive pill (used by 30.1% of 18-24 year-olds and 35.9% of 25-34 year-olds who had used contraception). These methods were by far the most common. No other method was used by more than 4% of contraceptive users at most recent intercourse.

Of course, a better understanding of determinants of the use of barrier methods is important since condoms (and other barrier methods such as the Femidom) have been shown to be the most effective means of preventing the transmission of HIV[71] and other STIs[72] during intercourse. The following sections examine consistency of condom use over the last year, followed by determinants of condom use on a specific occasion (most recent intercourse).

5.2.7 Consistency of condom use in the last year

SUMMARY

ISSHR participants were asked if a condom was used every time they had vaginal (or anal) sexual intercourse in the last year. If used inconsistently, participants were given options for answers to quantify use.

However, prevention of STIs requires consistent condom use so, for the purposes of analysis, condom use was defined as 'always used condoms', and unprotected sexual intercourse was defined as unprotected intercourse at some time in the last year. Therefore, some participants reporting unprotected sex in the last year will have used condoms on some occasions in that period.

- *Men aged 18-29 were somewhat more likely than women of the same age (48.8% vs. 41.8%) to have consistently used condoms in the last year.*

- *Both men and women aged 18-24 were more likely than those aged 25-29 to have consistently used condoms in the last year.*

- *People aged 18-29 in less formalised relationships were more likely to have used condoms consistently.*

- *Women aged 18-29 who drank more than the recommended weekly alcohol intake were less likely to have consistently used a condom than those who drank below the recommended limits.*

- *Participants aged 18-29 who experienced first intercourse before 17 were significantly less likely to have consistently used a condom in the last year.*

CHAPTER three found that younger participants were more likely to use condoms consistently over the last year. However, a substantial number did not use condoms consistently. In many cases this is likely to represent differences in requirements for contraception and protection, but it is important to determine factors associated with non-use of condoms and higher-risk groups. *Table 5.6* displays the profile of participants who used condoms consistently (on every occasion) in the last year.

- In total, 48.8% of men and 41.8% of women used a condom consistently in the last year (p<0.01).

Table 5.6: Profile of condom use (always used in last year) among 18-29 year-olds by socio-demographic variables						
	Men			**Women**		
	%	**Base**	**MV+**	**%**	**Base**	**MV+**
All participants	48.8	1003		41.8	1216	
Current age (years)						
18-24	56.9	596	C	48.9	687	C
25-29	37.4	407	**	32.2	529	*
Education (highest level attained)						
Primary	48.1	16	ns	30.6	10	ns
Lower secondary	43.7	103	ns	29.4	83	ns
Higher secondary	50.1	430	ns	43.0	513	ns
Third level	49.2	454	C	44.0	610	C
Current relationship status						
Married	27.3	90	C	16.0	215	C
Cohabiting	30.5	115	ns	32.2	154	*
Steady relationship	39.3	288	ns	35.9	411	**
Casual relationship	55.4	142	*	45.7	97	**
Not in a relationship	62.7	368	**	65.0	339	***

+ Multivariate analysis: logistic regression adjusting for all variables in the table
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

After controlling for educational level and current relationship status, men and women aged 18-24 were more likely to have used a condom than those aged 25-29. Educational level was not independently related to condom use. However, relationship status was a determinant of condom use:

- Men currently in a casual relationship were two and a half times, and those not in a relationship over three times, more likely to have consistently used a condom than married men and women.
- Among women, married women were less likely to have used a condom than all other relationship types.
- Women who were not in a relationship were over seven times more likely to have used a condom than married women, and women in a casual relationship three and a half times.

Of course, relationship status refers to current relationship, which may not reflect relationship status throughout the previous year. It does, however, indicate the important role of relationship status in determining condom use.

The role of behavioural variables in determining condom use was examined next.

First, after controlling for the variables in *Table 5.6*, women who drank above the weekly recommended limits were significantly less likely than those who drank below the limits to have consistently used a condom in the last year ($p<0.05$). No differences were found among men.

The number of men aged 18-29 who had ever paid for sex was small (N=49), but this group were still around half as likely to have used a condom consistently in the last year as those who had not paid for sex, after adjusting for the other variables ($p<0.05$).

Men and women who experienced first intercourse before 17 were significantly less likely (than those who first had sex after 17) to have consistently used a condom in the last year, after controlling for the variables ($p<0.05$ for both men and women).

There was no significant difference in condom use between those who had and had not had multiple partners in the last year.

While participant numbers are small, experience of unprotected sex abroad with a new partner in the last five years (N=98 men and N=45 women) was associated with a considerably decreased likelihood of consistently using condoms in the last year, among both men ($p<0.001$) and women ($p<0.05$).

In summary, among 18-29 year-olds, those aged 18-24 were more likely to have used a condom consistently, as were those in less formalised relationships. A number of behavioural variables were associated with inconsistent condom use, including:

• higher alcohol intake among women
• having paid for sex among men
• younger age at sexual initiation
• experience among men of unprotected sex abroad in the last five years

These findings indicate that small groups within the population are at an increased risk of STIs through not using condoms consistently combined with additional risk behaviours.

Of course, relationship status would be expected to be an important factor in condom use because the contraceptive and protective requirements differ across relationship types. However, it is interesting that differences persist between the younger (18-24) and older (25-29) age groups even after controlling for factors such as relationship status. The role of relationship status can be examined more accurately by investigating a specific sexual event. The following section looks at condom use at most recent intercourse in relation to factors such as relationship status, which can be more precisely defined when examining one specific sexual encounter.

5.2.8 Condom use at last occasion of sexual intercourse

SUMMARY

It is important to understand the factors that promote or decrease the use of condoms, particularly in higher-risk sexual encounters. This section examines condom use at most recent intercourse across a number of socio-demographic variables. It would be expected that the pattern of condom use would be similar to that seen in the analysis of condom use in the last year, although some differences will arise since the previous analysis examined those reporting consistent condom use (i.e. using a condom on every occasion of intercourse) throughout the last year.

• Men aged 18-29 were more likely than women of the same age to report condom use at most recent intercourse.

• Participants aged 18-24 were more likely than those aged 25-29 to have used a condom at most recent intercourse.

• Participants aged 18-29 in less formalised relationships were more likely to have used condoms at most recent intercourse.

• Men and women aged 18-29 who drank above the weekly recommended alcohol limits were less likely to have used a condom at most recent intercourse than those who drank below the limits.

• Participants aged 18-29 who experienced first intercourse before 17 were significantly less likely (than those who experienced it later) to have used a condom at most recent intercourse.

TABLE 5.7 displays the percentage of participants who used a condom at most recent intercourse across a number of socio-demographic characteristics. Gender differences were again found: men were more likely than women to report condom use at most recent intercourse (p<0.001).

As seen previously in relation to consistency of condom use, men and women aged 25-29 were about half as likely as 18-24 year-old men and women to have used a condom at most recent intercourse, even after controlling for socio-demographic variables.

Educational level was not a significant predictor of condom use among men aged 18-29. However, women aged 18-29 with lower educational levels were significantly less likely to have used a condom at most recent intercourse, after adjusting for age and relationship status. This finding differs from that of the previous section which found no significant educational differences in consistency of condom use over the last year. It seems that educational level influences condom use among women generally, but is not related to consistent condom use over a defined period.

As seen in the previous section, less formal relationship status was associated with an increased likelihood of condom use among men and women. For example:

• Men who had just met/did not know their partner were eight times more likely and those who knew their partner but were not in a steady relationship with them were four and a half times more likely to have used a condom than married men.

- Women who had just met/did not know their partner were 13 times more likely; those who knew their partner but were not in a relationship were seven and a half times more likely, and those in a steady relationship were two and a half times more likely than married women to have used a condom at most recent intercourse.

It is important to note the small participant numbers in some groups.

Table 5.7: Profile of condom use by 18-29 year-olds at most recent sexual intercourse, by socio-demographic characteristics

	Men			Women		
	%	Base	MV+	%	Base	MV+
All participants	66.1	1007		57.5	1260	
Age (years)						
18-24	75.9	592	C	66.3	715	C
25-29	53.1	415	***	45.7	545	**
Education (highest level attained)						
Primary	43.5	15	ns	26.1	12	*
Lower secondary	63.1	105	ns	44.6	86	*
Upper secondary	68.4	434	ns	58.3	518	ns
Third level	66.6	453	C	62.1	644	C
Relationship status (at time of intercourse)						
Just met/did not know partner	87.9	91	***	84.4	27	**
Knew partner but not steady	80.1	248	***	80.8	172	***
Steady relationship/ cohabiting	61.2	556	ns	58.1	799	***
Married	35.9	86	C	26.5	213	C

+ Multivariate analysis: logistic regression adjusting for all variables in the table (excluding those marked '-')
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

Behavioural variables were also examined in relation to condom use at most recent intercourse. Condom use at most recent intercourse was associated with alcohol intake for both men and women aged 18-29. After adjusting for the other variables in *Table 5.7*, men and women who drank above the weekly recommended alcohol limits were less likely (than those who drank below the limits) to have used a condom at most recent intercourse (p<0.001 and p<0.05 respectively).

Men who had paid for sex were not significantly different from men who had not paid for sex in condom use at most recent intercourse. This contrasts with findings relating to consistency of condom use, where men who had paid for sex were less likely to have consistently used condoms over the last year. However, the small number of men in this age group who had paid for sex (N=52) makes findings unreliable.

Similarly to what was found in the previous section in relation to consistency of condom use, men and women who experienced first intercourse before 17 were significantly less likely to have used a condom at most recent intercourse, after controlling for the variables (p<0.05 and p<0.01 respectively).

Again, there was no significant difference in condom use between those who did and did not report multiple partners in the last year. Experience of unprotected sex abroad with a new partner in the last five years was associated with a considerably decreased likelihood of consistently using condoms in the last year among men (p<0.01) but not among women. However, participant numbers relating to experience of unprotected sex abroad are small (N=98 men and N=45 women).

5.3 Summary

MEN aged 18-29 reported more partners than women over lifetime, and men and women aged 25-29 reported more partners than 18-24 year-olds. One-fifth (21%) of men aged 18-24 and over a third (34%) of men aged 25-29 reported 10 or more partners over lifetime. Among women, 8% of 18-24 year-olds and 13% of 25-29 year-olds reported 10 or more. More men (31%) than women (14%) reported more than one partner in the last year.

Among men and women aged 18-29, current age, educational level, social class and area of residence were not related to experience of multiple partners. However, relationship status was a strong determinant of multiple partners among 18-29 year-old men and women; those in a casual relationship were considerably more likely to have had more than one partner in the last year, followed by those who were not in a relationship. Earlier age at first intercourse and higher alcohol intake were also related to experience of multiple partners.

Among 18-29 year-olds, men were more likely than women to have had concurrent relationships in the last year and more likely to have had unprotected sex abroad with a new partner in the last five years. There were no significant differences between 18-24 year-olds and those aged 25-29 in their experience of concurrency or unprotected sex abroad, although participant numbers were small.

Almost all (92%) 18-29 year-olds had used contraception or protection at most recent vaginal intercourse. There were no significant gender differences and no differences between 18-24 and 25-29 year-olds among men or women. Contraceptive use at most recent intercourse among men aged 18-29 was not related to educational level, social class or relationship status at last intercourse. Among women aged 18-29, only educational level was related to contraceptive use; women with higher educational levels were more likely to have used contraception at most recent intercourse. Use of contraception at most recent intercourse was not related to age at first

intercourse, drinking above or below the recommended weekly alcohol limits or having more than one partner in the last year.

Concerning condom use among 18-29 year-olds, men were more likely than women to report consistent use over the last year and use at most recent intercourse. Participants aged 18-24 were more likely than those aged 25-29 to have consistently used a condom and to have used a condom at last intercourse. Educational level was not significantly related to consistent condom use over the last year. However, higher educational level was independently associated with condom use at most recent intercourse among women.

Relationship status was a determinant of condom use. The less formalised the relationship, the greater the likelihood that a condom was used consistently over the last year and that a condom was used at most recent intercourse.

A number of behavioural variables were associated with inconsistent condom use, including higher alcohol intake among women, having paid for sex among men, and, among both men and women, age at sexual initiation, and experience of unprotected sex abroad in the last five years.

It is notable that almost all the men who had paid for sex had used condoms in that context yet they were also significantly less likely than other men to consistently use condoms in other sexual situations. This clearly highlights the two-party nature of sexual interactions and the possible influence of one or other partner on safe-sex practices.

In relation to condom use at most recent intercourse, men and women who drank above the recommended weekly alcohol limits and who experienced first intercourse before 17, and men who had had unprotected sex abroad with a new partner in the last five years were less likely to have used a condom. Taken together, these findings indicate that small groups within the population are at an increased risk of STIs through not using condoms combined with additional risk behaviours.

Overall, there were few differences between 18-24 and 25-29 year-olds, although those aged 18-24 reported fewer partners over lifetime and were more likely to use condoms.

6
Sexually transmitted infections (STIs)

THIS chapter examines the experience of sexually transmitted infections (STI). The first section provides an overview of relevant literature. The results of the ISSHR study can be found in section 6.2, beginning with an overview of the range of STIs reported by participants. These were asked if they had ever been told by a health professional that they had an STI. The responses were used to examine STI experience across a number of socio-demographic and behavioural characteristics. The final section provides a summary of the findings of the chapter and their implications.

6.1 Introduction

ALONG with its positive and pleasurable aspects, sex can also be associated with the risk of transmission of infections and viruses, which sometimes have serious health effects. Common STIs such as Chlamydia, herpes simplex and human papilloma virus can have long-term consequences. For example, untreated Chlamydia is a cause of pelvic inflammatory disease, ectopic pregnancy and infertility in women.[103] Sexual-behaviour studies in other countries have consistently shown that most people have a sexual-behaviour profile reflecting low risk of STI, while just a small proportion have behaviour characteristics that increase the risks.

6.1.1 Reporting STIs in Ireland

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, NDSC). Its figures provide the best profile of patterns of 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 rose from 2,228 annually in 1989 to nearly 11,153 annually in 2004 (these figures exclude HIV).
- Rates of non-specific urethritis, genital warts and Chlamydia trachomatis have increased considerably, particularly since 1994.
- Figures show an increase of 119% in STI rates between 1995 and 2002, and a further increase in reported STIs of 6.5% from 2002 to 2003.[104,105]

It is acknowledged that these figures will under-report to an unknown extent, as reporting is not universal. However, while some STIs can be asymptomatic (e.g. Chlamydia in women), and any increase in reported cases could represent increased testing and improved diagnostic techniques, many STIs (for example, gonorrhoea in men) produce symptoms, prompting attendance for a sexual-health screen. Hence, it is likely that the increase in reported cases of STIs in Ireland in recent years is also due to an increase in the overall prevalence of these infections.

6.1.2 STI differences across sub-groups

Factors such as ethnicity or country of origin or of residence may be important factors to consider when examining risk and targeting interventions.

The recent British Natsal 2000 study shows how knowledge of ethnic differences in STI rates within Britain can be a useful basis for service planners. Acknowledging the fact that ethnic minorities are often not included in large enough numbers in national surveys for 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 participants in the main study.[106] The numbers of sexual partnerships over lifetime were highest among black Caribbean and African men and white and black Caribbean women. Rates of STIs were highest among the black Caribbean and African communities. Indian and Pakistani men and women reported fewer and later relationships, and fewer STIs than others. 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 the various ethnic groups.

The report emphasised the need for culturally competent prevention-and-service strategies, in order to reduce the burden of sexual ill health in different communities.

Because of:

- increasing cultural diversity and movement of people to and from Ireland in recent years
- a rapid increase in foreign travel by Irish residents (e.g. 79.6% of ISSHR participants who had been sexually active in the last five years had travelled outside of Ireland and the UK in that time: see section 3.2.5)
- the return of many Irish emigrants from abroad
- reports of increasing numbers of sexual partners in Ireland in recent years

the influences of these patterns on the sexual behaviour and health of the Irish population need to be seriously considered.

6.1.3 Overview of the epidemiology of STIs internationally and nationally

Many European countries experienced a reduction in the levels of reported STI cases in the early 1990s following a number of campaigns aimed at prevention of human immunodeficiency virus (HIV). However, in the mid to late 1990s, there was an upsurge in reported cases of STIs, in particular gonorrhoea and syphilis.[91]

Syphilis and gonorrhoea – two infections often associated with sexual risk-taking behaviour – may be found in increased proportions in certain core groups such as men who have sex with men, young heterosexuals and ethnic minorities.[91,107]

SYPHILIS: Reported cases of syphilis fell to their lowest levels in many countries in Europe in the early 1990s. But since 1996, many northern and western EU states have reported an increase in syphilis notifications. Outbreaks have been reported in Ireland, the UK and other western European countries, predominantly among men who have sex with men. Many of these outbreaks were attributed to high levels of high-risk behaviour.[91,92,101,108,109]

In Ireland, syphilis rates were low throughout the 1990s.[104] However, in early 2000 there was a dramatic increase in reported cases, predominantly among men who have sex with men and in Dublin.[92] In response to this outbreak, improved surveillance of syphilis cases began in 2000. An Outbreak Control Team was established in December 2000 and, as a result of its intensive methods, the current syphilis epidemic appears to have stabilised. The number of cases peaked in 2002. While notifications fell in 2003 by 22.4% and by 38% in 2004, syphilis notifications remain at a higher annual rate than in all years between 1989 and 2000.[105]

GONORRHOEA: Reported cases of gonorrhoea fell by 40–70% in most EU states between 1991 and 1995. However, since the late 1990s reported cases of gonorrhoea have increased in many EU countries. Many of these reported cases have been found among young heterosexuals, men who have sex with men and socio-economically deprived communities.

In Ireland, reported cases of gonorrhoea increased by 320% between 1996 and 2001.[91] The increase coincided with the outbreak of syphilis in Dublin. From 2001 to 2004, gonorrhoea cases decreased, which may reflect measures put in place to control the syphilis outbreak.[105]

CHLAMYDIA: In Europe, the prevalence of Chlamydia varies widely – from 1.7% to 17% depending on the population tested.[110] Factors such as younger age, frequent partner change, two or more sexual partners in the past year, non-married status, partner concurrency and living in urban areas have all been shown to be independently associated with infection with Chlamydia.[17,42] The 2000 British Natsal study tested 3,569 random participants for Chlamydia: 2.2% of men and 1.5% of women tested positive, while age-specific prevalence was highest among men aged 25–34 (3.1%) and women aged 16–24 (3%).[42]

In Ireland, notifications of Chlamydia were relatively stable at around 200 per year from 1989-1994. From 1995 however, rates increased each year – to over 2,700 cases in 2004 alone.[11] In keeping with the findings of international prevalence studies, young adults in Ireland have the highest levels of Chlamydia infection: over 80% of infections occur among people under 30 (where age was known).[104,105] 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 data relating to Chlamydia infection further underestimate the true levels, since a significant proportion of infected men and women will have asymptomatic infection (it is estimated that up to 70% of infected women and 50% of men will be asymptomatic).[111]

A number of small studies in Ireland, as recently summarised in the report 'The Need for Chlamydia Screening in Ireland'[11], provide more population-based prevalence estimates of

Chlamydia. The report lists two published studies (on teenage girls attending an STI clinic in 1991[112] and on men attending a sports centre or orthopaedic out-patient service in 2003[113]) and six unpublished studies. Prevalence rates for the more 'general population' samples ranged from 1-6% while those of 'at risk' groups (e.g. people attending sexual-health-related services) were 6-17%. These figures must be treated with caution because of small non-random samples.

In conjunction with useful annual reports from service agencies such as those of the Dublin Well Woman Centre, which highlight the increasing numbers who test positive, the figures are of sufficient magnitude to warrant a more definitive assessment of the current prevalence and patterning of Chlamydia in Ireland. The Chlamydia Screening Sub-Group of the HPSC recently made such a recommendation.[11]

Since Chlamydia can cause pelvic inflammatory disease in women, leading to an increased risk of ectopic pregnancy and infertility, many countries have adopted opportunistic screening programmes for Chlamydia. 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.[11] While these increases cannot be definitively linked to Chlamydia as a cause, the parallel increase in presentation of all three problems is a matter of 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.

Increasing STI rates generally also indicate the potential for an increase in HIV transmission. As well as reflecting an increase in risky sexual behaviour, some STIs (particularly genital ulcers/syphilis) increase the risk of HIV transmission.[114]

6.1.4 HIV

Figures released by the Joint United Nations Programme on HIV/AIDS in December 2004 estimate that 39.4 million people have HIV worldwide, and that there were about 4.9 million new infections in 2004. More than 95% occurred in low and middle-income countries.[115] Reported cases of HIV infection have continued to increase both nationally and internationally.[88,90] Central Asia and Eastern Europe, particularly Ukraine, Russia and the Baltic States, now have the fastest growth in HIV prevalence in the world.[116]

In most European countries, HIV infection was initially more common among sub-population groups such as men who have sex with men and intravenous drug users (IVDUs). However, in recent years the epidemiology of HIV in Europe and Ireland has changed. Heterosexual transmission of HIV is now the most common mode of transmission in several European countries, including Ireland (e.g. 178 of 356 new cases in 2004).

In Western Europe in 2003, a large proportion of all heterosexually acquired HIV infections occurred in people from countries with a generalised HIV epidemic; over 90% occurred in migrants from sub-Saharan Africa. This is not surprising considering the high prevalence of HIV currently found in Africa. In men who have sex with men, there was a reduction in reported cases of new HIV infection through the 1990s. However, this trend has reversed; reported cases have increased among men who have sex with men in both Ireland and Europe.[88,90]

Ireland has experienced the largest percentage increase in newly diagnosed HIV infections in Western Europe.[117]

- The cumulative total of HIV infection in the Republic of Ireland to the end of 2004 is 3,764.
- There was a 243% increase in new HIV diagnoses between 1998 and 2003.[104]

There was some levelling-off in 2004 when 356 cases were notified, a reduction of 57 (10.8%) since 2003. The 2004 figures represent the first decrease in annual numbers since 1994.

In common with many other European countries, in Ireland the biggest increase has been in heterosexually acquired infection; people from Sub-Saharan Africa account for most newly diagnosed heterosexually transmitted infections (81.9 % of heterosexual transmission in 2003).

Men who have sex with men have been the target of many health-promotion campaigns in relation to potential HIV risk. Two Irish studies illustrate perceived and verified HIV among men who have sex with men:

- In the first study, men who have sex with men attending gay venues such as bars, clubs and Dublin Pride festival events in 2000 completed questionnaires on their HIV status: the reported prevalence was 5.1%.[98]
- The second study assessed the prevalence of HIV among men (who have sex with men) who underwent voluntary counselling and testing in 2004 at Dublin's Gay Men's Health Project. Confirmed HIV prevalence was 1.5%.[118]

Generally, the prevalence of HIV remains low in the general population and is largely confined to specific risk groups. Thus, most people have a low risk of acquiring HIV. A proportion, however, have behavioural characteristics that put them at risk of infection, particularly if the prevalence of HIV increases in the future.

6.2 Results and discussion

6.2.1 Range of sexually transmitted infections

SUMMARY
Participants were asked if they had ever been told by a health professional that they had an STI.

- *3.4% of men and 1.8% of women had been diagnosed with an STI.*

- *Gonorrhoea was the most commonly reported STI among men (18% of all STIs) followed by genital warts (17.9%), non-specific urethritis (16.9%) and Chlamydia (16.3%).*

- *Among women, genital warts was the most commonly diagnosed STI (39.6% of all STIs), followed by Chlamydia (23.8%).*

IN total, 3.4% of all men and 1.8% of all women reported having been diagnosed with an STI. These figures are low compared to those found in other countries. The 2000 British Natsal survey found that 11% of men and 13% of women had been diagnosed with an STI.[42] The Australian ASHR survey found much higher lifetime rates of STIs: 20% among men and 17% among women.[119]

Table 6.1 provides a more specific comparison of STI prevalence rates across a number of national surveys. To best compare ISSHR findings to the findings of other European studies, the table also shows ISSHR findings for the population aged 18-49 who reported penetrative (anal or vaginal) sex as these were inclusion criteria in most of these studies. The figures from the British Natsal 2000 study included adults aged 16-44 who reported oral, anal or vaginal intercourse.[42] The Australian ASHR study used only age group as a criterion for inclusion.[119] In the US study, the definition was a combined prevalence of lifetime STIs among men and women aged 18-59 who were sexually active (no further specification of sexual activity was given).[63]

While STIs can be transmitted orally, only three participants in ISSHR reported STIs but no history of penetrative sex. Thus excluding them for the purpose of European comparisons has little effect on prevalence rates.

Overall, considerably fewer ISSHR participants reported being diagnosed with an STI (3.4% of men and 1.8% of women). When restricted to the younger (18-49) sexually active population, the level of reported STI experience still remains low in comparison to other countries (3.9% for men and 2.4% for women).

Table 6.1: Comparison of STI diagnosis over lifetime, across national surveys of sexual behaviour				
Country	Study & year	Age	Men %	Women %
Ireland	ISSHR 2004	18-64	3.4	1.8
Ireland	ISSHR 2004	18-49	3.9	2.4
Australia[119]	ASHR 2003	16-59	20.2	16.9
Britain[42]	Natsal 2000	16-44	10.8	12.6
Finland[120]	1992	18-49	17.3	15.6
Norway[120]	1992	18-49	20.5	19.0
USA[63]	NHSLS 1992	18-59		16.9
E Germany[120]	1990	18-49	7.0	5.6
W Germany[120]	1990	18-49	8.6	10.4
Netherlands[120]	989	18-49	8.8	5.6

Table 6.2 considers the patterns when more recent experiences are assessed. ISSHR participants still reported notably lower levels than others when patterns for the previous year were considered.

Table 6.2: Comparison of STI diagnosis in last 12 months, across national surveys of sexual behaviour				
Country	**Study & year**	**Age**	**Men %**	**Women %**
Ireland	ISSHR 2004	18-64	0.2	0.3
Ireland	ISSHR 2004	18-49	0.3	0.5
Australia[119]	ASHR 2003	16-59	2.0	2.2
Finland[120]	1992	18-49	1.4	3.0
France	1992	18-49	0.8	1.8
USA[63]	NHSLS 1992	18-59		1.6
Netherlands[120]	1989	18-49	0.6	1.1

The large differences between ISSHR and other national studies could be explained by a number of factors.

- First, the difference may reflect a lower prevalence of STIs in Ireland. To evaluate this, it is necessary to compare risk behaviours such as rate of partner exchange across different populations. If this is not very different, then it is unlikely that the overall STI rate would be very different, particularly in recent years given increases in foreign travel and inward migration to Ireland. The risk of contracting an STI is also determined by risk-reducing methods such as use of condoms. (Findings relating to these factors will be considered next.)
- Another reason for lower STI prevalence in Ireland is that uptake of screening may differ between Ireland and countries where opportunistic screening, for instance for Chlamydia, is provided. These countries may report a higher rate of STIs because detection rather than prevalence is higher. (This issue is discussed in chapter nine where levels of screening in ISSHR are considered.)

Numbers of partners correlate with risk of STIs in ISSHR as in other studies (see sections 3.2.1, 4.2.1 and 5.2.1). In ISSHR, having 10 or more sexual partners over lifetime or more than one partner in the previous year was associated with reporting an STI.

If ISSHR participants have a lower risk of STIs overall than those in other surveys, then they would be expected to have fewer sexual partners over lifetime. They did in fact report lower numbers than participants in surveys in Britain, France, Australia and the US.

Table 6.3 shows the mean and median number of heterosexual partners over different periods in a number of countries. ISSHR reported the lowest mean and median number. However, when numbers of partners over more recent periods (over the past five years or the last year) are examined, the gap between ISSHR and other studies is less apparent. The lower number of reported partners over lifetime could contribute to a lower reported number of STIs in ISSHR. However, there was no significant increase in the reported number of STIs over shorter periods although the number of partners reported in ISSHR and in ASHR and Natsal were more similar.

Examining specific STIs over different periods did not show any significant trends among men. Among women there was a significant association between time of last reported STI and Chlamydia – 18.6% reported Chlamydia in the past year, 50% between one and five years ago, 26.3% between five and 10 years ago, and 5.7% more than 10 years ago. Among women, this

increase in Chlamydia is likely to reflect a combination of increased prevalence of the infection with increased testing and better diagnostic tests.

Table 6.3: Comparison of number of heterosexual partners over different periods, between national surveys of sexual behaviour				
	Mean number of partners		Median number of partners	
Period	Men	Women	Men	Women
Lifetime ISSHR 2004 ASHR 2003 Natsal 2000	6.6 16.7 12.7	2.6 6.5 6.5	2 8 6	1 3 4
Last 5 years ISSHR 2004 ASHR 2003 Natsal 2000	2.9 3.9 3.8	1.5 1.9 2.4	1 1 1	1 1 1
Last year ISSHR 2004 ASHR 2003 Natsal 2000	1.3 1.5	0.9 1.0 not available	1 1	1 1

Differing levels of consistent condom use could explain differences in STI transmission across populations. However, quantification of condom use in international studies varies widely. Some surveys measure occurrence of condom use at any time while others measure consistency of use. Furthermore, relationship status should also be examined since many participants in monogamous relationships would generally be at low risk and may use condoms for contraceptive purposes alone. It is therefore useful to compare condom use in relation to other behavioural characteristics:

• The Australian ASHR study quantified condom use in the previous six months by partner type. It found that 44.6% of men and 35.4% of women in a casual relationship had always used condoms for vaginal intercourse in the previous six months.[57]
• In the ISSHR study, 46.5% of men and 45.2% of women in a casual relationship reported always using condoms in the last year.
• The Natsal 2000 study examined consistent condom use in the four weeks prior to interview and found that 33% of men and 24.1% of women who reported more than one partner in the previous year reported always using condoms in those four weeks.[58]
• In ISSHR, 50.8% of men and 48.8% of women who reported more than one partner in the previous year had always used condoms in that year.

Generally, in ISSHR, lower numbers of sexual partners over lifetime and high reported levels of condom use may partly explain the lower reported rate of STIs in comparison with other national studies. However, factors such as availability and uptake of screening further determine

reported STI rates. These issues will be considered in chapter nine, where uptake of screening for STIs in ISSHR is considered and compared with international levels.

A more detailed analysis of type of STI and the profile of those reporting STIs in ISSHR is considered next.

Table 6.4 displays the most commonly reported STIs in ISSHR as a percentage of all STIs reported (this represents a small percentage of the whole ISSHR population: 3.4% of men and 1.8% of women reported an STI).

• Gonorrhoea was the most commonly reported STI among men (18% of STIs) followed by genital warts (17.9%), non-specific urethritis (NSU) (16.9%) and Chlamydia (16.3%).
• STI reports from the HPSC/NDSC list genital warts, followed by NSU and Chlamydia as the most commonly reported STIs in men, and gonorrhoea as the sixth most common STI in men[104].

The total number of STIs reported by ISSHR participants was very low so it is difficult to draw any conclusions about differences between the ISSHR results and the HPSC/NDSC reports, particularly in relation to the ISSHR finding that gonorrhoea was the most common STI among men. However, ISSHR participants reported STIs 'ever' experienced, so discrepancies could represent changes in common STIs over time or changes in patterns of reporting to the HPSC/NDSC.

• Among women, genital warts were the most commonly diagnosed STI (39.6% of STIs) followed by Chlamydia (23.8%). This was also the pattern reported by the HPSC/NDSC.

The fact that Chlamydia accounted for almost one-quarter of all reported STIs among women confirms findings from the HPSC of dramatic increases in Chlamydia prevalence in recent years.

Table 6.4: Experience of specific STIs as a percentage of all STIs reported		
	Men %	Women %
Herpes	5.0	9.5
Gonorrhoea	18.0	3.4
Syphilis	0.6	0
Chlamydia	16.3	23.8
Non-specific urethritis	16.9	4.9
Genital warts/HPV	17.9	39.6
Pubic lice	13.8	2.6
Other*	18.1	16.0
Base	104	82

* Other includes Trichomonas vaginalis, bacterial vaginosis, pelvic inflammatory disease, hepatitis B, HIV and infection not specified

When asked if they had ever been told by a health professional that they had an STI, just one participant in the overall ISSHR sample reported HIV/AIDS. However, when participants were asked if they had specifically had a test for HIV, and those who reported an HIV test were then asked about the test result, five participants reported a positive test for HIV. It is possible that this discrepancy arose because participants who were HIV-positive did not relate this to having been told by a health professional that they had an STI. Further analysis of the profile of participants who reported an HIV test can be found in chapter nine.

Most European studies have found, as did ISSHR, that men are more likely to report gonorrhoea than women, who are more likely to report Chlamydia.[121] However, in the 2000 Natsal survey both men and women were most likely to report genital warts, and Chlamydia was more common than gonorrhoea among both men and women.[42] The Australian ASHR survey found that pubic lice was the most commonly reported STI in men over lifetime, followed by NSU and genital warts. Among women, the most commonly reported STIs over lifetime were genital warts (and the associated virus HPV), followed by pubic lice and Chlamydia. The Australian study also reported figures for STIs over the last year; these were less prevalent but genital herpes was most prevalent among both men and women, followed by genital warts/HPV.[119]

Surveys such as ISSHR offer researchers the chance to examine the relationship between a person's history of STI and their sexual behaviours. Unlike national systems of disease surveillance, they do not attempt to present complete reviews of the prevalence of a disease in a population but instead seek to find relative differences in reported prevalence between groups with different characteristics. In this way, KAB surveys complement surveillance figures by providing an insight into the processes that underlie overall prevalence. The following section thus examines determinants of STI.

6.2.2 Determinants of sexually transmitted infection

> **SUMMARY**
> *This section examines socio-demographic and behavioural factors associated with people being diagnosed with an STI.*
> - *STI diagnosis was most likely among men aged 25-44 and women aged 25-34.*
> - *Men and women in casual relationships were most likely to have been diagnosed with an STI.*
> - *Both men and women who had sex before 17 were more likely to report an STI.*

TABLE 6.5 displays the profile of people who reported ever being told by a health professional that they had an STI, across socio-demographic variables.

- Both men and women aged 25-34 reported the highest lifetime prevalence of STIs, at 4.8% and 3.6% respectively, although among men this rate was also matched among those aged 35-44.
- After controlling for the other variables, compared to 18-24 year-old men, all other age groups among men were significantly more likely to have been diagnosed with an STI.

- Only women aged 25-34 were significantly more likely than those aged 18-24 to have been diagnosed with an STI, and the oldest age group were significantly less likely.

    In the international context, this age pattern is unusual; the peak prevalence usually occurs later since older participants have had more time to acquire an STI. As noted earlier (see chapter three), older Irish people had unusually low numbers of sexual partners relative to other countries; this may contribute to the unusually low rates of STIs in older groups when compared internationally.

    Among men, there were no significant differences between the highest social class and any other class, after adjusting for the other socio-demographic variables. Among women, the highest risk was among those in the higher professional classes. After adjusting for socio-demographic variables, women in the highest social class were more likely than women in manual classes to have been diagnosed with an STI.

    Current relationship status was assumed to have a complex relationship to reported STIs since the latter refers to STIs over lifetime to date. However, *Table 6.5* still shows a pattern that would be expected if more formalised relationships are taken to indicate lower risk.

- Among both men and women, those currently in casual relationships reported the highest prevalence (6.5% of men and 5.8% of women), while married respondents reported the lowest.
- After controlling for other factors, married men were less likely than men in a steady or casual relationship or not in a relationship to have been diagnosed with an STI.
- Married women were less likely than women currently in a casual relationship or not in a relationship to have been diagnosed with an STI.

Table 6.5: Profile of participants who had been diagnosed with an STI, by socio-demographic characteristics						
	Men			**Women**		
	%	Base	MV+	%	Base	MV+
All	3.4	3,176		1.8	4,238	
Current age (years)						
18-24	2.0	755	C	2.6	908	C
25-34	4.8	700	***	3.6	964	*
35-44	4.8	645	***	1.1	1,006	ns
45-54	2.1	571	*	1.4	755	ns
55-64	2.5	505	*	0.1	605	*
Social class						
Higher professional	3.2	786	C	3.3	639	C
Lower professional	2.9	730	ns	2.2	1,092	ns
Administrative/clerical	3.7	427	ns	2.0	974	ns
Skilled manual	5.0	611	ns	0.6	296	**
Semi-skilled/unskilled manual	2.1	491	ns	1.1	891	*
Current relationship status						
Married	1.8	1,495	C	1.0	2,350	C
Cohabiting	3.4	239	ns	3.4	270	ns
Steady relationship	4.7	370	***	2.6	520	ns
Casual relationship	6.5	220	***	5.8	141	**
Not in a relationship	4.9	852	***	2.2	957	*

+ Multivariate analysis: logistic regression adjusting for all variables in the table (excluding those marked '-')
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

Behavioural variables were then examined to determine behavioural risk factors for STI. Each behavioural variable of interest was added to the model in *Table 6.5*.

- After controlling for the variables, men (p<0.001) and women (p<0.01) who experienced first vaginal intercourse before 17 were over twice as likely to report an STI as men and women whose first intercourse occurred after 17.
- Men who had ever had a same-sex partner were over eight times more likely to have been diagnosed with an STI than men who had not had a same-sex partner (p<0.001), while there were no significant differences among women reporting a same-sex partner.
- After controlling for the variables, men who reported multiple partners in the last year were around four times more likely (p<0.001), and women over two times more likely (p<0.01), to report an STI than men and women who had not had multiple partners in the last year. Previous research has also found that having more than one partner in the past year was associated with an increased STI risk [42,47].

- Men who had ever paid for sex were around six times more likely to have been diagnosed with an STI than men who had not paid for sex (p<0.001).

Men who used contraception at most recent intercourse were about half as likely to report having been diagnosed with an STI as those who did not (p<0.05).

Men who did not consistently use condoms over the last year (i.e. used them most, half, some or none of the time) were over twice as likely to report STI diagnosis as men who had always used condoms when having sex in the last year (p<0.05).

There were no significant differences in STI diagnosis among women who had and had not used contraception at most recent intercourse and among women who had and had not consistently used condoms over the last year.

After adjusting for the variables in *Table 6.5*, men who reported 10 or more heterosexual partners over lifetime were over seven times more likely (than those who reported fewer than 10 partners) (p<0.001), and women over five times more likely (p<0.001), to have been diagnosed with an STI.

There were no significant differences in STI experience between those who drank more and who drank less than the recommended weekly alcohol limits.

The Australian ASHR survey also analysed the correlates of being diagnosed with an STI. It found that older age, higher educational level and social class, and homosexual identity were all strongly predictive of STI experience, as was having ever paid for sex (or been a sex worker).[119]

As has been stated in relation to previous sections and analyses, it may be useful to examine the correlation of sexual knowledge and attitudes with sexual behaviour. ISSHR Sub-Report 3, 'Sexual Knowledge, Attitudes and Behaviours – A Further Analysis', found that good knowledge of both HIV/AIDS and Chlamydia was associated with a higher prevalence of STIs over lifetime among both men and women. Since it is implausible that higher levels of knowledge of STIs could result in a higher risk of acquiring an STI, it is likely that this knowledge results from personal experience of an STI.

6.3 Summary

THIS chapter examined the reported prevalence and risk factors for STI. In total, 3.4% of men and 1.8% of women had ever had an STI.

Gonorrhoea was the most commonly reported STI among men (18% of STIs) followed by genital warts (17.9%), non-specific urethritis (16.9%) and Chlamydia (16.3%).

Among women, genital warts were the most commonly diagnosed STI (39.6% of STIs) followed by Chlamydia (23.8%).

A better understanding of risk groups can identify possible educational strategies that would most effectively tackle increasing STI rates. Experience of STI was highest in men aged 25-44 and women aged 25-34. Men and women currently in casual relationships were most likely to have had an STI, as were women from higher social classes. Early age at first intercourse (before 17), having multiple partners in the last year and having had 10 or more heterosexual partners over lifetime were associated with increased experience of STIs among both men and women. Men who had ever paid for sex and men who had had a same-sex partner were also at an increased risk of STI.

It is important to note that levels of STI reported here relate to diagnosed infection. The level of undiagnosed infection is, by definition, unknown.

Crisis pregnancy and its outcomes

7

THIS chapter investigates experience of crisis pregnancy and its outcomes among ISSHR participants. First, an overview of the literature is provided in section 7.1. ISSHR results are displayed in section 7.2, which begins with a profile of women who have had a crisis pregnancy. Outcomes of crisis pregnancy are then examined by current age of participant and by age at the time of the crisis pregnancy. The profile of women who reported having an abortion is then examined across socio-demographic and behavioural characteristics. Finally, a summary of the findings is provided in section 7.3.

7.1 Introduction

THE previous chapter examined STIs as a consequence of risk-taking behaviour. Another result of such behaviour is crisis pregnancy. Again, international research has consistently found that most of the population are at low risk, but a small proportion have behaviour profiles conferring an increased risk of crisis pregnancy.

The statutory instrument which founded the Crisis Pregnancy Agency (CPA) defines a crisis pregnancy as "a pregnancy which is neither planned nor desired by the woman concerned, and which represents a personal crisis for her".[122] However, the CPA has suggested that this definition be applied to include the experience of women for whom a planned or desired pregnancy develops into a crisis over time due to a change in circumstances.[123]

In the ICCP study, Rundle *et al* (2004) found a wide range of reasons reported by women in Ireland as to why their pregnancy was a crisis pregnancy. Most suggested that unintended pregnancy at the wrong time in life was the most important factor. Very few indicated that a change in circumstances was the primary reason for the pregnancy being experienced as a crisis.[15] This chapter builds on the previous work of the ICCP survey by analysing the factors associated with experience of crisis pregnancy.

Findings elsewhere in this report (chapter three) showed that, while contraceptive use was high, a sizable minority of Irish men and women did not use contraception even though they

wanted to avoid conception. Unplanned pregnancy is the most common reason reported by women for the experience of crisis pregnancy, and not using contraception along with contraceptive failure are the main reasons why unplanned pregnancies occur. Unplanned pregnancy means that women do not benefit from pre-pregnancy health measures such as taking folic acid, giving up smoking and reducing alcohol intake where appropriate.

Defining a crisis pregnancy, and thus determining the true prevalence, is difficult. Even though a pregnancy may be unplanned, it can nonetheless be 'wanted' and thus does not always present a 'crisis' as defined above. On the other hand, a pregnancy can be a crisis for a number of reasons even if planned – for example, if the circumstances of the person's life change.

Much of the research on 'unplanned' or 'crisis pregnancy' has been concerned with young people, particularly adolescents, but research suggests that crisis pregnancy is also an issue for those aged over 20 and often for those aged over 30. Mahon *et al* (1998) found that 30% of Irish women interviewed as part of a pregnancy study, and who described their pregnancy in negative terms, were over 30.[68]

7.2 ISSHR: Results and discussion

7.2.1 Experience of crisis pregnancy

SUMMARY

Women were asked if they had ever been pregnant (including pregnancies which resulted in miscarriage, abortion or stillbirth).

In total, 62.9% of all women interviewed had been pregnant. Of these, the mean number of pregnancies experienced was 3.3 (95% CI 3.22-3.44) and the median number was three.

Women who had ever been pregnant were then asked whether they had ever experienced crisis pregnancy. It was explained that crisis pregnancy means a pregnancy that represents a personal crisis or emotional trauma, and that this can include a pregnancy which began as a crisis but over time the crisis was resolved, or a pregnancy which developed into a crisis before the birth due to a change in circumstances.

Women who reported that their most recent pregnancies had ended in a miscarriage or stillbirth were asked to clarify whether they had described it as a crisis due to the miscarriage or stillbirth. By this study's definition, these pregnancies were not classified as crisis pregnancies.

- *In total, 13% of all women interviewed had experienced a crisis pregnancy.*

- *Women currently aged 25-34 were most likely to have had a crisis pregnancy at some time (21% in this age group who had been pregnant reported a crisis pregnancy).*

- *Women who had first intercourse before age 17 were two and a half times more likely to have experienced a crisis pregnancy than women whose sexual initiation occurred after 17.*

TABLE *7.1* shows that 13.1% of all women had experienced crisis pregnancy. Of these, 83.8% had one crisis pregnancy, 11.8% two and 4.4% three or more.

Women aged 25-34 were most likely to have had a crisis pregnancy. After adjusting for social class and current relationship status, they were over three times more likely than 18-24 year-olds to have had a crisis pregnancy.

Women aged 35-44 and 45-54 were also more likely than 18-24 year-olds to have had a crisis pregnancy.

Table 7.1: Profile of women who had experienced crisis pregnancy, by socio-demographic characteristics			
	%	**N**	**MV+**
All women	13.1	4,216	
Current age (years)			
18-24	7.5	901	C
25-34	20.8	962	***
35-44	13.6	1,001	***
45-54	13.3	752	***
55-64	9.0	600	ns
Social class			
Higher professional	10.0	637	C
Lower professional	14.2	1,087	*
Administrative/clerical	12.3	970	ns
Skilled manual	14.5	296	*
Semi-skilled/unskilled manual	14.0	883	ns
Current relationship status			
Married	11.8	2,339	C
Cohabiting	24.2	269	***
Steady relationship	15.3	518	**
Casual relationship	7.9	141	ns
Not in a relationship	12.3	949	ns

+ Multivariate analysis: logistic regression adjusting for all variables in the table (excluding those marked '-')
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

Compared with women from the higher professional class, women from the lower professional and skilled-manual classes were significantly more likely to have experienced crisis pregnancy.

Women who were currently cohabiting were most likely to have experienced crisis pregnancy. After adjusting for current age and social class, married women were less likely than women who were cohabiting or in a steady relationship to have had a crisis pregnancy.

A further model examined educational level, controlling for current age and current relationship. Only women with lower secondary education differed from women with third-level education; the latter were significantly less likely to have experienced crisis pregnancy.

Behavioural determinants of crisis pregnancy were next examined, controlling for the socio-demographic variables displayed in *Table 7.1*. There were no differences between women who had and had not had multiple partners in the last year, or between women who drank above and below the recommended weekly alcohol limits.

Women who had and who had not used contraception at most recent intercourse did not differ significantly in experience of crisis pregnancy. However, women who had not used a condom consistently over the last year (i.e. used most, half, some or none of the time) were significantly more likely to have had a crisis pregnancy than women who had always used a condom in the last year.

Women who experienced first intercourse before 17 were two and a half times more likely to have experienced crisis pregnancy than women whose sexual initiation occurred after 17 (p<0.001). Age at first intercourse has been found to be associated with a range of negative outcomes by studies in other countries[65,74], although the direct cause of this relationship is not fully known. It is likely that early sexual intercourse is related to a number of socio-economic, individual and attitudinal factors which make risk-taking behaviour more likely both in adolescence and in adulthood, and thus leads to higher rates of negative outcomes.

The relationship between knowledge and outcomes such as crisis pregnancy is complex; experience of crisis pregnancy itself may lead to an increase in knowledge as individuals seek to protect themselves in future on the basis of past experience. The ISSHR Sub-Report 3, 'Sexual Knowledge, Attitudes and Behaviours – A Further Analysis', examined the impact of attitudes knowledge and behaviours on the probability of crisis pregnancy. It showed that a number of factors were related to crisis pregnancy. When demographic factors were controlled, level of knowledge about fertility was not a significant predictor but knowledge of emergency contraception was. However, more knowledge about emergency contraception was actually associated with a higher probability of experiencing a crisis pregnancy. As suggested already, this may indicate that those who have had a crisis pregnancy have learned subsequently about emergency contraception.

Concerning the impact of sexual attitudes, Sub-Report 3, 'Sexual Knowledge, Attitudes and Behaviours – A Further Analysis', found a general relationship between more liberal attitudes and a higher risk of crisis pregnancy. It is likely that more liberal attitudes are associated with more risky sexual behaviours and/or an earlier age of first sex (which was also associated with lower use of contraception – see chapter three); this is likely to lead to a higher risk of negative outcomes. Sub-Report 3 also found a positive relationship between negative attitudes to using oral contraceptives (agreeing that side-effects would discourage use) and the risk of crisis pregnancy.

In addressing crisis pregnancy, it is important to consider factors such as the age at which it is experienced and whether this age profile differs from the older to the younger groups of women. The ISSHR survey asked women for the year of the most recent crisis pregnancy; thus women who had had more than one could skew the representation of results. Given this, women who had more than one crisis pregnancy were excluded from the analysis (N=80). Their inclusion

would have incorrectly increased the estimated average age of crisis pregnancy among older age groups.

Age differences in experience of crisis pregnancy were then examined by using 'survivor curves', a statistical technique that examines the rate of change in a variable over time. Controlling for the fact that most women in all cohorts will never experience a crisis pregnancy, it allows the age at which women in differing age cohorts had crisis pregnancies to be analysed. Using this method, median age at crisis pregnancy was estimated for each age group. Women currently aged 18-25 and 25-34 reported median ages of 19 and 21 respectively at the time of their crisis pregnancy, compared to a median 26 for women currently aged 35-44, 26 for women aged 45-54 and 32 for those aged 55-64.

Women under 35 thus appear to have experienced crisis pregnancy at younger ages. This could be because younger women were more likely to engage in unprotected behaviours. Indeed, as has been seen, these women were more likely to have vaginal sex earlier and to have had more partners than older respondents. However, younger women were also more likely to use contraception (see chapter three).

Another explanation is that younger women were more likely to define a pregnancy as a 'crisis' than older generations. A much larger proportion of young women now enter higher education and/or look to establish themselves in a career than was true in the past.[124] This changing context may influence the view that young women have of unplanned pregnancy. It has already been noted that many crisis pregnancies are defined as such because they occur at a point in the woman's life when prevailing conditions are not appropriate, or where the pregnancy would limit her occupational or other opportunities. Because of recent societal changes in Ireland, younger people may be more likely to evaluate negatively the timing of an unintended pregnancy. It was not possible to test this hypothesis with the present data, since participants were not questioned as to the reasons for describing a pregnancy as a crisis.

7.2.2 Outcomes of crisis pregnancy

SUMMARY

Women who reported a crisis pregnancy in ISSHR were asked about the outcome of this pregnancy. For reasons of sensitivity, those who reported that they were currently pregnant with a crisis pregnancy were not asked questions about anticipated outcome.

- *75% of women became a parent after their crisis pregnancy and 15% had an abortion. The child was adopted in 1% of cases. The remainder ended as miscarriages (8%) or stillbirths (1%).*

- *The proportion of younger women who became a parent following crisis pregnancy was lower (73% among women aged 18-25) than among older age groups (82% among women aged 45-54 and 81% among those aged 55-64).*

- *20% of women aged 25-34 reported having an abortion because of crisis pregnancy compared to 7% of women aged 55-64.*

- *Older age at crisis pregnancy was associated with a greater likelihood of becoming a parent; younger age was associated with a higher probability of abortion.*

FIGURE 7.1 shows the proportion of women of different age groups who reported becoming a parent, having the baby adopted, having an abortion, or experiencing miscarriage or stillbirth.
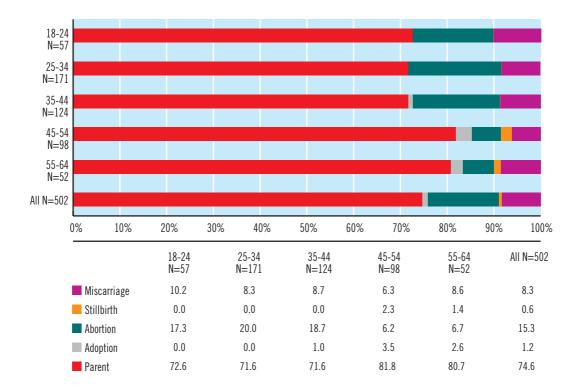
Figure 7.1: Crisis pregnancy outcomes, by current age of women

	18-24 N=57	25-34 N=171	35-44 N=124	45-54 N=98	55-64 N=52	All N=502
Miscarriage	10.2	8.3	8.7	6.3	8.6	8.3
Stillbirth	0.0	0.0	0.0	2.3	1.4	0.6
Abortion	17.3	20.0	18.7	6.2	6.7	15.3
Adoption	0.0	0.0	1.0	3.5	2.6	1.2
Parent	72.6	71.6	71.6	81.8	80.7	74.6

The proportion of women who became a parent was higher among women who were currently older, whereas the proportion of these who had had an abortion was lower.

There was no significant difference in outcome, across all outcomes, between age groups (although the numbers involved are very small). However, excluding the outcomes of miscarriage and stillbirth (since these were not chosen outcomes), there were significant age differences (p<0.05) between those opting to have an abortion and those giving birth (including subsequent adoption {N=6}). In this analysis, women currently aged 18-24, 25-34 and 35-44 were considerably more likely to have had an abortion (19%, 22% and 22% respectively) than women aged 45-54 and 55-64 (7%). Of the six participants who reported having a baby adopted, all were women currently over 34. This is in agreement with the official records noting the sharp fall in the number of Irish children available for adoption in recent decades (see McGrath, O'Keeffe & Smith, 2005 for a summary[125]).

It is also interesting to examine the different outcomes by the age of the woman at the time of the crisis pregnancy. Crisis pregnancy outcomes (miscarriage, stillbirth, abortion, adoption or parent) were compared across women aged under 24, 25-34 and 35-44 at the time of the pregnancy. There were no significant differences in outcome across the three age groups.

A further analysis compared outcomes that could be chosen (i.e. excluding miscarriage and stillbirth) and found no significant age differences (at the time of the pregnancy) between women who had an abortion and those who gave birth (including adoption). Again, numbers in some groups were relatively small. Thus, the increase in abortion as an outcome of crisis pregnancy did not appear to be related to the age at which the crisis pregnancy was experienced. It seems more likely that the increasing level of abortion was due, not to more younger women only choosing abortion, but to more women overall now opting for abortion.

7.2.3 Experience of abortion

SUMMARY

As seen in the previous section, crisis pregnancy can result in a variety of outcomes, one of which is abortion. The prohibition on abortion in both the Republic and Northern Ireland has meant that Irish women have availed of abortion services in Great Britain since the introduction of a law allowing abortion in 1967.

While a great deal has been written on the subject, there is surprisingly little evidence about the prevalence of abortion among Irish women, apart from figures published by the British National Health Service showing their use of services. The recent ICCP survey15 provided the first nationally representative data on the issue. Authors such as Mahon et al (1998)[68] have provided more in-depth evidence about the experiences of these women.

Given the dearth of nationally representative data, this section examines in detail the experience of abortion among Irish women.

- *Between 1980 and 2000, the number of Irish women travelling to Britain for abortions almost doubled (from 3,320 to 6,381 per year).*
- *Overall, 2.5% of women in the ISSHR sample reported having an abortion. This prevalence is low to average in international comparisons.*
- *Women who experienced first intercourse before 17 were two and a half times more likely to have had an abortion than those whose first intercourse occurred after 17.*
- *Women who reported an STI were over four times more likely to have had an abortion than women who did not report an STI.*

FIGURES from the UK's National Statistics Office (cf Irish Family Planning Association 2003[126]) show that the number of Irish women who have sought an abortion in Britain has risen steadily, from just over 3,000 in 1980 to double that figure in 2000 (see *Figure 7.2*). The most recent figure, for 2005, was 5,585. This figure represents a steady downturn in numbers each year since a high of 6,673 in 2001. Only the 40+ age group showed higher numbers in 2005 than in previous years. The 2005 numbers were the lowest since 1997 (with 5,340 abortions).

Teenagers made up 12% of all those having abortions in 2005 (13% in 2004). While figures on miscarriages were not available, teenage births in 2005 totalled 2,427 out of 61,042 registered births in the Republic (CSO, 2005). With 694 abortions to teenagers, the abortion rate for teenagers was thus 22% of pregnancies, excluding miscarriage.
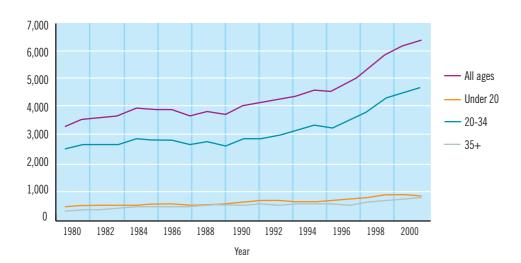
Figure 7.2: UK National Statistics Office abortion figures for women of Irish residence (cf Irish Family Planning Association 2003[126])

One caution about the figures cited for Irish women obtaining abortion is that they are based on those who used the services of British NHS clinics who gave Irish addresses. Some of those who used these services gave the addresses of British hotels or similar accommodation and thus they cannot be ascribed a nationality.

There is also no way to count those who may have had an abortion elsewhere in the world. A July 2006 press release from the Irish Family Planning Association noted that its post-abortion medical and counselling services were seeing a significant growth in Irish women returning from EU states such as the Netherlands, Spain and Belgium. Cost was identified as a factor in more recent travel to locations other than Britain for abortions. Thus, the figures cited underestimate to an unknown degree the true number of Irish women seeking abortions.

The ICCP study[15] found that around 2% of all known conceptions of Irish women aged between 18 and 45 ended in abortion, a figure which was far lower than that found either in the US (9.7%) or Australia (9.8%).[127] Information on the abortion rate in Britain was recorded slightly differently, but here also the figure was substantially higher than that for Ireland. In the ISSHR survey, abortion was reported on a 'per woman' rather than 'per conception' basis, as used in the figures for Britain, Australia and the US. Henshaw, Singh and Haas (1999) have estimated that in countries where there is no restriction on abortion, the 'per woman' rate ranges from a low of 0.7% for those aged between 15 and 44 in Belgium and the Netherlands, to a high of 8.3% in Vietnam.[128]

In total, 2.5% of all women in ISSHR reported having an abortion. As mentioned above, the ICCP study measured abortion per conception rather than per woman. Furthermore, different age ranges were used in the studies and the results can therefore not be directly compared.

Of women who reported an abortion in ISSHR, 90.9% had one, 6.0% had two and 3.1% had three.

Of all women, those currently aged 25-34 and 35-44 were most likely to have had an abortion (*Table 7.2*).

Compared with women in the lowest social class, only those women in the lower professional class differed significantly in their experience of abortion: the latter were significantly more likely to have had an abortion than the former.

Table 7.2: Experience of abortion among all women, by socio-demographic characteristics			
	%	**N**	**MV+**
All	2.5	4,216	
Current age (years)			
18-24	1.5	901	C
25-34	4.6	962	***
35-44	3.4	1,001	***
45-54	1.3	752	ns
55-64	1.3	600	ns
Social class			
Higher professional	2.4	637	ns
Lower professional	4.1	1,087	**
Administrative/clerical	2.5	970	ns
Skilled manual	1.8	296	ns
Semi-skilled/unskilled manual	1.5	883	C
Current relationship status			
Married	1.4	2,339	C
Cohabiting	7.0	269	***
Steady relationship	4.8	518	***
Casual relationship	3.8	141	**
Not in a relationship	2.5	949	**

+ Multivariate analysis: logistic regression adjusting for all variables in the table (excluding those marked '-')
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

Finally, women who were currently cohabiting were most likely to have had an abortion, followed by those in a steady relationship. After adjusting for current age and social class, married women were less likely to have had an abortion than women in any other relationship type.

A separate model examined the relationship between abortion and educational level, controlling for current age and current relationship status, and found no significant differences.

The relationship between a number of behavioural variables and abortion was next examined. After controlling for the variables in *Table 7.2*:

• women who experienced first intercourse before 17 were two and a half times more likely to have had an abortion than those whose first intercourse occurred after 17 (p<0.001)

- having had multiple partners in the last year and drinking above the recommended weekly alcohol limits were not related to experience of abortion

While the number of women reporting an STI was small (N=85), there was still a significant difference in experience of abortion:

- women who reported an STI were over four times more likely to have had an abortion than women who had not had an STI (p<0.001)

Women attending abortion clinics have been found to have a higher prevalence of Chlamydia compared to the general population. An advisory group in the UK recommends Chlamydia screening of all women attending for a termination.[17,18]

As in the analysis of crisis pregnancy, it is useful to examine the contribution of knowledge and specific behaviours to the distribution of abortions. ISSHR Sub-Report 3,' Sexual Knowledge, Attitudes and Behaviours – A Further Analysis', examined the role of these factors in depth. It found that, even controlling for a number of other factors, knowledge of fertility and emergency contraception were positively associated with the experience of abortion; that is, higher levels of knowledge were associated with a higher level of abortion. As with the experience of crisis pregnancy, this rather unexpected relationship may stem from a process of 'reverse causation', whereby the experience of abortion leads to an increase in the woman's level of knowledge about fertility and contraception. This underlines the complexity of the processes at work and the difficulty in assigning causal significance using cross-sectional data.

Sub-Report 3 also showed that sexual attitudes were related to the probability of abortion. More liberal attitudes generally were associated with a higher likelihood of abortion.

7.3 Summary

THIS chapter has examined crisis pregnancy and its outcomes, including a more detailed analysis of abortion in particular.

In total, 13% of all women had experienced crisis pregnancy. Women currently aged 25-34 were most likely to have had a crisis pregnancy. It also seems that younger women had crisis pregnancies at an earlier age than older cohorts. There were no clear patterns in experience of crisis pregnancy across educational level or social class. Women who were currently cohabiting or in a steady relationship were most likely to have experienced crisis pregnancy.

Having first sexual intercourse before 17 was also a strong predictor of crisis pregnancy. The association between early sex and various negative outcomes has been found across a number of studies (e.g. Rundle et al 2004[15], Johnson et al 1994[61]). Although the actual route of infection is complex and still poorly understood, it does seem that some process, perhaps including learning, attitude formation and socio-economic circumstances, leads from early experience to poorer later outcomes.

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Analysis of outcomes of crisis pregnancy showed a distinct pattern across current age groups that suggests historical patterns. The proportion of women with a crisis pregnancy who became a parent or had the child adopted was higher for older women, but the opposite was true for abortion as an outcome.

In total, 2.5% of all women had had an abortion. Women currently aged 25-34 and 35-44 were most likely to have experienced abortion. Women who had had an STI were more likely to have had an abortion than women who had not.

In terms of making choices, women in lower professional careers (the most common single career cluster for women in ISSHR) and those in steady or cohabiting relationships (as distinct from married on one side to casual/no relationship on the other) were most likely to opt for abortion.

Sexual-health problems

<div style="text-align: right;">8</div>

THIS chapter examines sexual-health problems among ISSHR participants. Following an introduction to the relevant literature in section 8.1, the ISSHR results begin with an examination of frequency and desired frequency of sexual events. Experience of a range of sexual problems is next examined, and gender and age differences are investigated. A brief overview of experience of fertility problems and the use of medical or professional services in relation to fertility problems is provided. A summary of the chapter findings can be found in section 8.3.

8.1 Introduction

THERE are many types of sexual-health problems. Some concern the sexual response cycle of desire, sexual arousal and orgasm, as described by Masters and Johnson (1966)[129]. While biologically mediated, problems in this cycle may originate as a consequence of a complex interplay of psychological, social, physiological and health-related factors. Other problems arise directly from the 'sexual scripts' which individuals learn, are taught or are expected to adopt. Sexual scripts refer to mental 'rules' that help people to decide how to act, what to feel and what to expect in a variety of sexual situations.

There are many milestones in our understanding of sexual-health problems, including in recent decades the development of methods to manage sexual 'dysfunction', from the psychotherapeutic methods of Masters and Johnson (1970)[130] to the launch of sildenafil (Viagra) in the 1990s. An example of the extent of changing attitudes was the airing of TV advertisements for pharmacological treatment of erectile dysfunction during the American Football 2004 Super Bowl. Advertising reached an estimated audience of over 80 million viewers, mostly men. A full discussion of these issues is beyond the scope of this report.

A body of international research has developed to document both satisfaction with and problems with human sexual function. This research includes lively debate on the challenges of studying such matters from differing perspectives, such as the feminist or biomedical.

In this report, the focus is on studies which have addressed the issues in a manner comparable to ISSHR. The proportion of people who experience sexual-health problems across studies ranges from 10-52% of men and 25-63% of women (Heinman, 2002). In almost every study, women reported more problems than men.

A number of national studies have been conducted. In the US, the National Health and Social Life Survey (NHSLS), conducted in 1992, has been extensively evaluated. This was a 90-minute face-to-face interview of a national sample of people aged 18-59 (79% response rate).[63]

- One-third of women (33.4%) and 15.8% of men reported lack of interest in sex for some months in the past year.
- Problems with erectile dysfunction were reported by 10.4% of men.
- Premature ejaculation was a problem for 28.5% of men.
- A quarter (24.1%) of women and 8.3% of men had difficulty achieving orgasm.

Dunn *et al* (2000) studied 1,768 English adults aged 18-75 years in four general practices (response rate 44% to postal survey).

- A third (34%) of men and 41% of women reported current sexual problems.[131]

In a large Swedish study of 1,335 women aged 18-74, 47% indicated difficulties with physical aspects of sexual function (e.g. lubrication), but the proportion who said that physical difficulties were a problem for them ranged from 43% for decreased interest to 69% for pain in intercourse.[132]

This issue has been raised by Bancroft and colleagues in the US.[133] They argue that, for many women (their study involved women only), emotional and psychological wellbeing, rather than physical difficulty or ease, are the best predictors of 'sexual distress'. Thus it is important to distinguish between an individual's sexual function and evaluation of a situation as problematic.

The meaning of 'sexual problems' is also important and is an evolving issue. Alongside individuals' higher expectations of the quality as well as length of life (including sexual life), sexual problems have begun to interest professionals in terms of their relationship to other aspects of human function. In particular, there is now increasing evidence that, for men, problems with achieving erections may provide an early warning sign of cardiovascular disease. Routine enquiry concerning erectile function is thus being advised in cardiovascular evaluations.[134]

All these issues serve to highlight the complexity of assessing and interpreting people's sexual-health problems.

8.2 Results and discussion

8.2.1 Frequency of sexual events

SUMMARY

A range of typical sexual-health problems (as assessed by Laumann {1994} in a major US study[63]) was examined in ISSHR.

When assessing sexual-health challenges, it is useful to consider the context in which these occur. Chapter eight of the ISSHR Main Report focuses extensively on the sexual-activity profile of the ISSHR sample.

This chapter gives an overview of current frequency of sex and current preferences for frequency of sex, before focusing on experience of sexual problems.

Frequency of sex was assessed for all participants who reported having sex in the last four weeks. A broad definition of sex ("How often in total have you had sex in the last four weeks?") was used.

- *In total, 58.4% of men and 57.4% of women reported having sex less than once a week.*

- *41.6% of men and 42.6% of women reported sex weekly or more often.*

- *Over half (56.9%) of all men who had ever had sex perceived their level of frequency to be 'about right', compared with 69.9% of women. Most others (41.6% of men and 25% of women) wanted more.*

TABLES 8.1 and *8.2* give the percentage of people who reported each frequency of sex, of those who had experienced at least one genital sexual event in their life so far, for men and women respectively.

Table 8.1: Total frequency of genital sexual events, by current age and relationship status among men (%)

	Less than twice a year	Less than monthly but more than twice a year	Less than weekly but more than monthly	1-2 times per week	2-3 times per week	4-6 times per week	Daily	N
All men	13.6	14.0	30.8	27.9	10.2	2.9	0.6	2,954
Current age (years)								
18-24	9.9	27.9	27.3	20.2	10.1	3.7	1.0	663
25-34	14.7	13.6	24.0	28.0	14.6	4.1	1.0	665
35-44	11.6	7.6	29.7	35.5	12.2	3.0	0.4	619
45-54	13.1	8.4	36.7	31.4	7.5	2.7	0.4	538
55-64	20.7	14.0	39.2	21.4	4.1	0.7	0.0	469
Relationship status								
Married	4.5	7.3	38.3	36.9	10.7	2.0	0.0	1,450
Living together	3.5	2.4	22.0	39.2	21.1	10.5	1.2	234
Steady relationship	3.4	6.1	29.6	34.3	18.4	5.3	2.9	363
Casual relationship	9.8	19.8	29.2	24.4	11.1	5.6	0.2	205
Not in relationship	41.4	33.1	18.3	4.2	2.0	0.9	0.2	702

Table 8.2: Total frequency of genital sexual events, by current age and relationship status among women (%)

	Less than twice a year	Less than monthly but more than twice a year	Less than weekly but more than monthly	1-2 times per week	2-3 times per week	4-6 times per week	Daily	N
All women	17.2	11.1	29.1	30.3	10.1	1.7	0.5	3,906
Current age (years)								
18-24	14.6	22.4	21.0	25.1	13.2	3.2	0.6	763
25-34	12.3	10.8	25.6	33.9	13.9	2.5	1.0	920
35-44	13.9	7.3	30.7	35.2	11.1	1.6	0.3	966
45-54	17.2	5.9	33.0	35.5	7.6	0.4	0.4	704
55-64	33.4	10.6	36.6	16.6	2.2	0.6	0.1	553
Relationship status								
Married	4.7	6.6	38.8	37.7	11.0	1.3	0.3	2,253
Living together	4.3	2.8	31.3	40.2	16.1	3.0	2.3	255
Steady relationship	2.7	4.8	23.5	41.2	21.7	5.2	0.9	498
Casual relationship	6.2	16.9	33.2	29.8	9.7	3.5	0.7	130
Not in relationship	60.0	26.9	8.1	4.1	0.8	0.2	0.0	770

Overall, 58.4% of men and 57.4% of women reported having sex less than once a week, while 41.6% of men and 42.6% of women reported sex weekly or more often.

Age was significantly related to frequency for both men and women, with the effect being somewhat 'u-shaped'. The frequency of sex initially rose for both men and women as age increased, before decreasing again among older groups. This distribution appears to be largely due to a combination of the greater availability of partners to those in the middle age groups, who are more likely to be married or cohabiting, and a decreasing interest in or pleasure from sex among the older age groups (see next section, 8.2.2). Interestingly, however, the youngest age group are more likely to inhabit the two extremes of the distribution; they have one of the largest proportions having sex less than monthly (twice that even of the oldest age group), but also one of the highest proportions having sex most frequently. This suggests that, when in sexual relationships, those aged 18-24 are more likely to have sex very frequently.

Frequency of sex varies enormously across the population and is influenced by a number of factors. However, it does not necessarily equate with satisfaction. ISSHR contained a question concerning whether participants would like more frequent sex, 'about the same' or less frequent sex. *Table 8.3* shows that over half of all men who had ever had sex perceived the frequency of sex to be 'about right', whereas this was true of over two-thirds of women (56.9 vs. 69.9%).

Table 8.3: Desired frequency of sex among men, by actual frequency of sex (%)					
	Desired frequency				
	More	About right	Less	Total	N
Less than twice a year	60.2	36.3	3.5	100	336
Less than monthly	63.7	33.9	2.5	100	424
Less than once a week	38.8	59.8	1.4	100	889
Once or twice a week	30.4	69.0	0.6	100	840
Twice or three times a week	29.9	69.3	0.9	100	304
Four to six times a week	34.3	65.7	0.0	100	92
At least once a day	40.7	57.3	2.1	100	19
All	**41.6**	**56.9**	**1.5**	**100**	**2,904**

The proportion who reported that frequency of sex was 'about right' was smallest among both men and women whose frequency of sex was less than monthly. It reached a peak among men whose frequency was twice or three times a week, and among women at once a day (although the proportion here was based upon a sample of just 20 women).

Table 8.4: Desired frequency of sex among women, by actual frequency of sex (%)

	Desired frequency				
	More	**About right**	**Less**	**Total**	**N**
Less than twice a year	37.7	53.5	8.9	100	511
Less than monthly	39.2	51.9	9.0	100	433
Less than once a week	23.6	71.2	5.3	100	1,144
Once or twice a week	19.3	77.8	3.0	100	1,232
Twice or three times a week	15.3	82.4	2.3	100	407
Four to six times a week	6.9	91.6	1.5	100	74
At least once a day	0.0	100.0	0.0	100	20
All	**25.0**	**69.9**	**5.1**	**100**	**3,821**

For both men and women, those having sex less frequently were more likely to desire more sex. However, around a third of men having sex four to six times a week still reported that they would like a greater frequency. Thus, whereas the percentage still wanting more sex decreases among women as frequency increases, this decrease is not as evident among men.

For both men and women, the percentage wanting less sex than they currently experienced was highest among those who currently had sex less frequently. This suggests that a low frequency of sex was not always a problem to such individuals.

With this background of current activity and current preferences for frequency of sex, the specific sexual-health problems of the sample are considered in the following section.

8.2.2 Sexual problems

SUMMARY

All participants with experience of sexual contact in the last five years were asked whether there had been a period of one month or more in the last five years when they had experienced any of a number of sexual problems.

- *Women were more likely than men to report:*
  - *a period of one month or more where they lacked interest in having sex (50.5% vs. 31.4%)*
  - *that they did not find sex pleasurable (37.0 vs. 17.5%)*
  - *that they were unable to come to orgasm (39.2 vs. 16.1%)*
- *Older men were more likely to report a lack of interest in having sex, problems with being unable to come to orgasm or trouble maintaining an erection.*
- *Men aged 25-34 were most likely to report coming to orgasm too quickly.*
- *Younger women (18-34) were more likely to have felt anxious about their ability to perform sexually and to have experienced physical pain during intercourse for one month or more in the last five years.*
- *Older women (45-64) reported more problems with becoming lubricated during sex.*

TABLE 8.5 provides an overview of experience of various sexual problems. Two problems applied only to men, two applied only to women, and four could apply to both men and women.

Of questions asked of both men and women, women were more likely than men to report that, in the last five years they had experienced a period of one month or more where:

- they lacked interest in having sex (50.5% vs. 31.4%; p<0.001)
- they did not find sex pleasurable (37.0 vs. 17.5%; p<0.001)
- they were unable to come to orgasm (39.2 vs. 16.1%; p<0.001)

There were no gender differences in having felt anxious about one's ability to perform sexually (21.4% of women and 23.3% of men).

Table 8.5: Experience of various sexual problems, by gender and current age (for month or more in last five years) (%)							
	18-24	25-34	35-44	45-54	55-64	All	
Men							
Lacked interest in having sex	24.4	32.6	28.0	37.5	37.5	31.4	***
Did not find sex pleasurable	13.9	20.4	14.0	19.9	21.1	17.5	**
Was unable to come to orgasm	13.3	16.4	12.5	18.4	22.8	16.1	***
Came to orgasm too quickly	21.5	31.5	25.0	24.7	24.5	25.6	*
Had trouble maintaining an erection	10.6	15.9	14.5	17.4	26.3	16.2	***
Felt anxious about ability to perform sexually	24.4	25.1	20.1	23.9	23.8	23.3	ns
Base	681-685	668-670	617-619	520-523	427-430	2,918-2,927	
Women							
Lacked interest in having sex	42.2	49.5	53.5	58.0	48.7	50.5	***
Did not find sex pleasurable	31.9	36.4	38.0	39.7	39.8	37.0	ns
Was unable to come to orgasm	39.2	39.5	35.7	42.4	41.4	39.2	ns
Experienced physical pain during intercourse	23.4	20.3	11.7	13.1	14.2	16.6	***
Had trouble becoming lubricated or wet	22.2	23.7	21.8	28.0	35.3	25.1	***
Felt anxious about ability to perform sexually	27.3	23.1	17.7	19.6	19.2	21.4	***
Base	773-777	928-931	935-942	663-669	457-462	3,758-3,780	

*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant

Among men, there were significant age differences in experiencing a lack of interest in sex, not finding sex pleasurable, being unable to come to orgasm, coming to orgasm too quickly and having trouble maintaining an erection. However, patterns across age groups were not obvious.

- In most cases, men aged 18-24 were less likely to report problems.
- Older men (45-64) were more likely to report a lack of interest in having sex.
- Men aged 25-34 were most likely to report coming to orgasm too quickly.
- Older men were more likely to have problems with being unable to come to orgasm or having trouble maintaining an erection.
- There were no significant age differences in having felt anxious about the ability to perform sexually.

Among women, there were no significant age differences in not finding sex pleasurable or being unable to come to orgasm.

- Younger women (aged 18-34) were more likely to have experienced physical pain during intercourse for one month or more in the last five years.
- Problems with becoming lubricated increased in women aged over 45.
- Younger women were more likely to have felt anxious about their ability to perform sexually.
- Lack of interest in sex was lowest among 18-24 year-olds and highest among 45-54 year-olds.

Participants were asked whether they had sought professional advice about their sexual problem and, if so, where they went for this advice. The results of these questions can be found in section 9.2.7, which investigates use of sexual-health services.

The analyses outlined so far in this chapter have focused on sexual-health problems relating to sexual satisfaction and performance. Other chapters focus on the negative outcomes of sex such as crisis pregnancy and STIs. The next section provides an overview of experiences of infertility.

8.2.3 Problems with fertility

All participants with experience of vaginal sex (N=6911) were asked if they had experienced a period of six or more months when they and their partner were trying for a pregnancy without success. About one in 10 men (10.7%) and 15.3% of women reported this problem.

Those who reported difficulty in getting pregnant were asked whether they or their partner had ever sought medical or professional help about infertility. Around half of these men (49.8%) and women (55.7%) said that they or their partner had sought advice.

8.3 Summary

IN total, 58.4% of men and 57.4% of women reported having sex less than once a week. Over half of men who had ever had sex perceived their frequency of sex to be 'about right', compared with over two-thirds of women (56.9 vs. 69.9%). Those having sex less frequently were more likely to desire more sex. However, around a third of men having sex four to six times a week still reported that they would like a greater frequency. Thus whereas the percentage still wanting more sex decreased among women as frequency increased, this decrease was not as evident among men. For both men and women, the percentage wanting less sex was highest among those who had sex less frequently.

Women were more likely than men to have experienced a period of one month or more where they lacked interest in having sex (50.5% vs. 31.4%), that they did not find sex pleasurable (37.0 vs. 17.5%) and that they were unable to come to orgasm (39.2 vs. 16.1%).

In most cases, 18-24 year-old men were less likely to report sexual problems. Older men (45-64) were more likely to report a lack of interest in having sex. Men aged 25-34 were most likely to report coming to orgasm too quickly, while older men were more likely to have problems with being unable to come to orgasm or having trouble maintaining an erection.

Among women, there were no significant age differences in not finding sex pleasurable or being unable to come to orgasm. Younger women (aged 18-34) were more likely to have experienced physical pain during intercourse for one month or more in the last five years. Problems with becoming lubricated increased among women over 45. Younger women were more likely to have felt anxious about their ability to perform sexually. Finally, lack of interest in sex was lowest among 18-24 year-olds and highest among 45-54 year-olds.

Around one in 10 men (10.7%) and 15.3% of women reported a period of six or more months when they and a partner were trying for a pregnancy without success. About half of these men (49.8%) and women (55.7%) said that they or their partner had sought medical or professional help about infertility.

The figures highlight a series of sexual-health challenges across the life cycle that will require varying responses from the individuals themselves and partners, and from the health services. Use of sexual-health services is described in the next chapter.

9

Sexual-health services

THIS chapter examines use of sexual-heath services, along with preferences in and barriers to accessing them. Section 9.1 provides an introduction to the relevant literature.

The ISSHR results, in section 9.2, begin with an investigation of the socio-demographic determinants of seeking advice about contraception.

Sources of advice and preferred sources of advice about contraception are considered next, with an investigation of gender and age differences.

Cost, lack of services and embarrassment as barriers to using contraceptive services are then examined across socio-demographic variables.

This is followed by an overview of use of STI services, including socio-demographic determinants of seeking advice about STIs.

Sources of advice and preferred sources of advice about STIs are examined next, followed by an investigation of the socio-demographic and behavioural determinants of attending for an STI check-up.

Location of treatment for STIs is considered among all those who reported having had an STI. As with contraceptive services, barriers to STI services are also examined.

The next section examines socio-demographic and behavioural determinants of having had an HIV test.

Sources and preferred sources of professional advice for sexual-health problems are then considered, among people who reported a sexual problem 'in the last five years'.

It is possible that difficulties in discussing sexual-health problems could present a barrier to accessing services; this is therefore examined, with a profile of those who reported that it would be difficult to discuss such problems.

Preferences for the gender of health-care providers are then examined, followed by an overview of experiences of travelling outside the participant's own locality for sexual-health services.

Finally, a summary of the chapter findings is provided in section 9.3.

9.1 Introduction

9.1.1 Services for sexual-health issues

CONTRACEPTIVE services are currently provided in both health-related settings (e.g. general practice and specialist clinics) and commercial settings (i.e. all types of shops) in Ireland. Commercial settings can only provide condoms while other settings can make available those services needing a doctor's prescription or professional attention.

There is limited data on national patterns of use of sexual-health services in Ireland.

- Research carried out in the 1990s concentrated on use of services by women and showed that many were not fully informed about availability of contraceptive services. In a survey of 248 women attending a family-planning clinic in Dublin (most for contraception), 54% did not know if their own GP provided contraceptive services.[135]
- More recent evidence, assessed across 10 Dublin general practices in 1999, showed that 72% of women (attending GPs) who were sexually active and/or using contraception regularly attended the GP for contraceptive services.[136] Three-quarters of these (74%) were satisfied with the services received. Barriers to services included having the same GP as other family members (thus possibly raising perceived issues of confidentiality)[135], access to doctors at times suited to working women[136] and (for teenagers who became pregnant) embarrassment, fear, cost of getting contraception and relationship with the GP.[137]
- A recent national survey of Irish GPs (n=444) found that almost all provided a range of contraceptive-related services (hormonal contraception 99%; emergency contraception 97%; natural family planning 75%; IUCD advice 90% and IUCD fitting 35%).[138] The proportion of GPs offering these services had increased significantly for all services except natural family planning, since a similar 1998 GP survey. GPs also dealt with a large number of pregnancies. In the previous month the mean number of women seen by GPs for a first pregnancy visit was 4.6 (mode 4; 95% confidence intervals 4.20-5.03). Over one in three GPs (36%) had seen a woman in a 'crisis pregnancy' situation in the previous month. Almost all GPs (93%) said they provided crisis-pregnancy counselling. Most (88%) were willing to refer women to other agencies; the most common were CURA (57%), Marie Stopes (53%), the Irish Family Planning Association (34%) and the Well Woman Centre (31%).

Sexually transmitted infections (STIs) are diagnosed and managed in a variety of clinical settings. These include general practice, family-planning clinics, Well Woman clinics, gay men's health clinics, obstetric and gynaecology services, and genitourinary medicine (GUM) clinics.

Studies in other countries have reported varying patterns in seeking services for STIs and sexual-health care. Some studies show that women are more likely than men to be diagnosed with

STIs in primary-care facilities, while men are more likely than women to be diagnosed in GUM clinics.

In the British Natsal 2000 study[42], 75.6% of men and 56.7% of women diagnosed with an STI had attended GUM clinics, and 16.2% of men and 36.2% of women had their most recent episode of Chlamydia treated by their GP. The likelihood of attending a GUM clinic varied depending on the STI; more than 90% of male and female participants with a history of gonorrhoea had attended a GUM clinic – a pattern dissimilar to Chlamydia management, for women in particular.[42]

In Australia, the ASHR study reported a generally opposite pattern to that of the UK. Most people (51%) attended their usual GP for treatment for STIs and blood-borne viruses, while only 8% went to STI clinics.[119]

Regarding Irish services, a Limerick study showed that men diagnosed with Chlamydia were more likely than women to be diagnosed in a GUM clinic. In the Limerick regional laboratory in the 12 months up to October 2003, almost twice as many women as men had positive tests for Chlamydia. Over 75% of men who were positive for Chlamydia were patients in the GUM clinic, compared to 41% of women.[113]

Prevalence studies in other countries have shown higher levels of Chlamydia in attendees at primary health-care facilities, compared with the levels found in studies of prevalence in the general population.[17] In the UK, a pilot project was set up to evaluate screening for Chlamydia in primary-care facilities. Researchers carried out a qualitative study on the preference and experiences of primary health-care providers (general practitioners and family-planning practitioners). Most primary-care providers expressed enthusiasm for the screening programme. However, many felt they lacked the resources and training needed to undertake full sexual-health screening and treatment of cases of Chlamydia. Many also felt they lacked the skills to undertake partner notification and contact tracing.[139]

A recent review provided a summary of the current status of treatment services for HIV/STI in Ireland.[10]

• There are two GUM clinics in Dublin (based at St James's Hospital and the Mater Misericordiae Hospital). The largest of these, St James's, saw over 25,000 STI patients in 2005.
• Outside Dublin, GUM clinics are found in Cork, Galway, Waterford, Limerick, Tralee, Carlow, Ennis, Castlebar, Sligo, Nenagh and Clonmel.
• GUM clinic services are provided by the State, without charge. However, those who cannot easily visit GUM clinics due to location, particularly those who live in rural areas and who are not exempt from medical costs, are disadvantaged since they have to pay for services.
• The Gay Men's Health Project (GMHP), based in Dublin, was established in 1992. It provides both drop-in and outreach services, counselling and advice on sexual health, and STI testing services.

The national 2004 GP survey described earlier[138] also considered STI services; 77% of GPs provided Chlamydia testing and 54% a more general STI service. For those who did not provide such services, most cited lack of facilities or skill concerning Chlamydia testing. One in 10 cited lack of demand. Most GPs not providing Chlamydia testing referred clients to hospitals or other

GPs, while 12% referred to family-planning clinics. Those not providing more general STI services mostly cited lack of facilities or skill. However 25% cited lack of time. Again, most referred clients to hospitals or other GPs, while 5% referred to family-planning clinics. Management of STIs was the most popular topic for further education and training; 68% of GPs identified training needs in this area. GPs were relatively confident about their management of sexual-health services for women, other than for teenagers and refugee/non-national women.

The voluntary sector also contributes significantly to STI/HIV education and prevention.

- Voluntary HIV agencies, through outreach and education programmes, have targeted early school-leavers in addition to working in schools.
- NGOs play a significant role in working with early school-leavers who use or are at risk of using drugs. An education pack, 'Knowledge is Power', was developed by the Alliance Centre for Sexual Health in Cork. This was an HIV/AIDS education resource for exploring sexual-health issues with young people.
- The Gay Health Network is a group of men who work in HIV/AIDS prevention and support services nationally. This network has produced many publications for HIV prevention and health promotion, including promotion of HIV testing and hepatitis B information (including advice on vaccination for hepatitis B) for men who have sex with men.
- The Women's Health Care Project provides medical, counselling and outreach services to women working in prostitution in the Eastern Regional Health Authority.
- Many other NGOs provide sexual-health and HIV-prevention advice to groups such as intravenous drug users and the homeless.[10]

9.1.2 Screening for Chlamydia trachomatis: the international experience

Over 70% of women and men are asymptomatic for Chlamydia.[111] Consequently, Chlamydia is often diagnosed as a result of screening. Countries such as Sweden and Denmark have instituted widespread screening for Chlamydia.[140,141] Screening has been targeted mainly at young sexually active women.

A randomised control study in the US showed that screening and offering treatment for Chlamydia reduced the risk of pelvic inflammatory disease in women.[142] A Swedish study showed that ectopic pregnancy had decreased since the introduction of widespread testing for Chlamydia.[140] However, active screening of women in Copenhagen by their GPs (19.3% of the female population were screened yearly over a five-year period) failed to show a reduction in prevalence, which has remained stable at around 4.3%.[141] Possible reasons for this failure are an increase in risk behaviour, or the failure to include men in screening.

In 2002, the UK started a National Chlamydia Screening Programme (NCSP). This is being introduced in phases. It followed a pilot project and the report of an expert working group on Chlamydia. The NCSP offers opportunistic screening for Chlamydia to women and men under 25 attending clinical and non-clinical screening venues. It uses non-invasive urine or vulvo-vaginal swab sampling.[143]

Routine Chlamydia screening is not standard in Ireland, and information is limited on patterns of testing for Chlamydia. The most up-to-date prevalence estimate from small samples was discussed earlier (section 6.1.3). A national survey of prevalence, to inform decisions about a screening programme, has recently been called for.[11]

9.1.3 HIV testing

The reported numbers of HIV infection in any region depend on the level of testing. In western Europe, of the countries able to provide national data for a recent review (countries such as Greece, Italy, Netherlands, Switzerland and the UK did not provide national data), Ireland had the lowest level of HIV testing in 2000 (the year with the most recently available data for the report). The level was six tests per 1,000 people. This contrasts with more than 86 tests per 1,000 in Austria (2003 data).

This European review excluded tests on potential blood donors and unlinked anonymous tests [88] and the figures do not give information on patterns of testing in high-risk groups. This makes difficult a more informative comparison of levels of testing between countries. HIV testing may be a consequence of voluntary testing. Otherwise, HIV testing is targeted at mainly high-risk groups such as IVDUs, prisoners, men who have sex with men, attendees at genitourinary (GUM) clinics, commercial sex workers and people originating from countries with generalised epidemics.

International studies show that earlier diagnosis of HIV is associated with better outcomes.[144] Failure to have an infection diagnosed prior to AIDS-defining illness is a missed opportunity to provide effective treatment. Studies have shown that HIV-positive people who know their HIV status are more likely to modify their behaviour to reduce HIV transmission than people who do not know their status.[145] However, data from the HPSC showed that, of 356 newly diagnosed HIV cases in Ireland in 2004, where the stage of infection was known, 38 (10.7%) had presented with AIDS as their initial diagnosis.[90] More widely available and/or acceptable HIV testing is thus one important component in HIV prevention and management.

9.1.4 Factors associated with attendance for a sexual-health check-up

It is important to examine sexual health-seeking behaviour since many STIs (e.g. gonorrhoea in women and Chlamydia trachomatis in men and women) can be asymptomatic, and the diagnosis and treatment of such STIs depends on having a sexual-health screen. There are no data on predictors of attendance for sexual-health screening in Ireland. A study in the UK looked at demographics, partnerships and risk-taking characteristics in people attending GUM clinics as part of a general population study. It showed that risk behaviours associated with a higher risk of STI were the strongest predictors of attendance at a GUM clinic for screening.[146]

Clearly, the issue of providing sexual-health education – to children, young people, adults, parents and professionals – is important. Sub-Report 1, 'Learning About Sex and First Sexual Experiences', looks in detail at the educational experiences of participants when growing up, and considers evaluations of the quality of that education and the service that participants felt should be in place for young people today.

9.2 Results and discussion

9.2.1 Use of contraceptive services

SUMMARY

Participants were asked if they had ever sought advice about contraception, and about their sources and preferred sources of contraception.

- *One in 10 men (10.3%) and over half of women (52.3%) had sought advice about contraception.*
- *Younger men (18-24) were more likely than men aged 25-34 to have sought advice. There was no difference between men aged 18-24 and those aged 35-54.*
- *Younger women (18-24) were less likely than women aged 25-34 and more likely than women aged 55-64 to have sought advice.*
- *Higher educational level was associated with more seeking of contraceptive advice among both men and women.*
- *Among those who had sought advice, the GP was the most common source, used by 53.6% of men and 72.3% of women, followed by family-planning/Well Woman clinics (19.2% of men and 23.8% of women).*
- *Over half of men (58.0%) and women (52.4%) said they would prefer to use a GP for contraceptive advice; 25.2% of men and 40.9% of women preferred a specialist clinic.*

OF all participants, one in 10 men (10.3%) and over half of women (52.3%) had sought advice (p<0.001). After controlling for the variables in *Table 9.1*, patterns in seeking contraceptive advice across age groups proved complex.

- Younger men (18-24) were more likely than men aged 25-34 and 55-64 to have sought advice, but there were no differences between men aged 18-24 and those aged 35-54.
- Among women, 18-24 year-olds were less likely than 25-35 year-olds, and more likely than 55-64 year-olds to have sought advice, with no differences between the youngest women and women aged 35-54.
- Higher educational level was associated with more advice-seeking among both men and women.

Table 9.1: Profile of those who had ever sought advice about contraception						
	Men			**Women**		
	%	**Base**	**MV+**	**%**	**Base**	**MV+**
All participants	10.3	3,153		52.3	4,199	
Current age (years)						
18-24	10.1	751	C	54.2	903	C
25-34	8.5	697	*	62.1	957	**
35-44	12.1	641	ns	57.7	993	ns
45-54	12.9	564	ns	50.8	746	ns
55-64	7.1	500	*	28.8	600	***
Education (highest level attained)						
Primary	6.1	262	C	33.0	302	C
Lower secondary	10.0	541	ns	48.6	643	**
Higher secondary	11.4	1,177	*	52.4	1,759	**
Third level	11.6	1,173	*	66.2	1,495	***
Current relationship status						
Married	12.5	1,482	C	51.6	2,326	C
Cohabiting	9.1	236	ns	63.6	268	ns
Steady relationship	12.1	370	ns	67.1	515	*
Casual relationship	7.3	221	**	63.1	140	ns
Not in a relationship	6.6	844	***	42.5	950	***
Area of residence						
City	11.4	1,142	ns	56.4	1,315	*
Rural/town	9.6	2,010	C	50.0	2,880	C
Have medical card						
Yes	10.5	370	ns	46.2	626	*
No	10.9	2,560	C	56.5	3,282	C

+ Multivariate analysis: logistic regression adjusting for all variables in the table (excluding those marked '-')
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

After adjusting for the variables in *Table 9.1*, patterns of seeking advice across current relationship status were also complex.

• Married men were more likely than those currently in less formalised relationships (casual relationship or no relationship) to have sought advice about contraception.
• Married women were less likely than women in a steady relationship and more likely than women not currently in a relationship to have sought advice about contraception.
• City-dwelling women (but not men) were more likely to have sought contraceptive advice than those in non-urban areas.

A further model replaced educational level with social class.

After controlling for current age, current relationship and area of residence, there were no significant social-class differences among men in having sought advice about contraception. However, women in the skilled manual and semi-skilled/unskilled manual classes were significantly less likely to have sought advice (p<0.05 and p<0.001 respectively).

Finally, among women but not men, medical-card holders were significantly less likely to have sought advice about contraception.

Those who had sought advice were then asked their source of advice. Sources are shown in *Table 9.2*, by gender and current age. Participants could give a number of answers and columns therefore do not total 100%. The answers can be considered in two broad categories: advice involving an interaction with a professional (e.g. face-to-face consultation) and advice developed by professionals but more passive in mode (e.g. most forms of media communication). The vast majority of sources involved interaction with a professional.

- Among those who had sought advice, the GP was the most common source, used by 53.6% of men and 72.3% of women.
- The second most common source was a family-planning/Well Woman clinic, used by 19.2% of men and 23.8% of women.
- Other services were used by very few: 9.5% of men used leaflets and a further 3.8% used the internet.
- Women were more likely than men to have used a GP (p<0.001) and men more likely than women to use a chemist/pharmacy (p<0.001), leaflets (p<0.001) and internet (p<0.001).

There were no gender differences in use of family-planning/Well Woman clinics, hospital outpatient departments or other sexual-health clinics.

Table 9.2: Sources of advice about contraception among those who had sought advice, by gender and current age (%)							
	18-24	25-34	35-44	45-54	55-64	All	
Men							
GP	27.4	55.0	65.2	55.7	65.3	53.6	***
Family planning/Well Woman clinic	8.6	16.1	12.9	36.5	25.5	19.2	**
Hospital outpatient department	4.9	0.0	5.3	0.8	6.1	3.4	ns
Other sexual-health centre	0.0	2.1	1.7	0.0	0.0	0.9	ns
Chemist/pharmacy	4.3	7.1	1.9	0.0	0.0	2.7	ns
Telephone helpline	0.0	0.0	0.0	0.0	0.0	0.0	-
Obtained leaflets	25.5	10.1	4.6	2.6	5.7	9.5	***
Visited an internet site	13.1	5.0	0.9	0.0	0	3.8	***
Other	19.6	9.6	13.3	10.1	9.5	12.8	ns
Base	78	63	89	75	40	345	
Women							
GP	76.0	78.4	73.6	62.2	62.5	72.3	***
Family planning/Well Woman clinic	16.1	19.9	23.6	36.7	27.8	23.8	***
Hospital outpatient department	1.8	2.3	3.9	2.3	6.3	2.9	*
Other sexual-health centre	0.5	0.0	0.3	0.3	0.0	0.3	ns
Chemist/pharmacy	0.3	0.2	0	0.0	0.9	0.2	ns
Telephone helpline	0.0	0.0	0.0	0.0	0.0	0.0	-
Obtained leaflets	2.1	0.8	0.5	0.5	1.4	1.0	*
Visited an internet site	0.5	0.4	0.1	0.0	0	0.3	ns
Other	7.2	3.0	2.2	2.8	3.7	3.7	***
Base	500	610	600	391	199	2,300	

*Age-group differences: *=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant*

There were a number of interesting age differences:

- Men aged 18-24 were notably less likely to have used a GP for contraceptive advice.
- Men under 44 were less likely to have used a family planning or Well Woman clinic.

Sources not involving professional interaction (leaflets and the internet) were used more by younger men than older men. A considerable number of men gave another source; most said they had received advice about contraception from friends or family.

- GPs were clearly the most commonly used source for contraceptive advice among women, and were used more by younger than older women. Conversely, younger women were less likely to use family planning or Well Woman clinics than older women.

Unlike among men, use of written forms of advice (leaflets and the internet) was very uncommon among women. Some also gave another source of advice; further analysis identified a wide range. Common other sources were other health professionals (e.g. gynaecologist, public-health nurse), student health services and family or friends.

Of those seeking advice on contraception:

- over half the men (58.3%) and three-quarters of women (75.8%) paid for the service
- 35.7% of men and 17% of women reported that they did not have to pay
- a further 6.6% of men and 8% of women reported not paying as they were covered by a medical card

Use of GP, family planning/Well Woman clinic, hospital outpatient department and other sexual-health centres was examined by medical-card status. There were no significant differences between participants with and without medical cards in use of any of these sources. Previous Irish studies of GP use have consistently shown that general use is higher among GMS patients.[147] However, the present study found no significant differences in use of GP for contraceptive services between those with and without a medical card.

All participants were next asked about their preference for sources of advice about contraception or family planning, and if all were available in their area and easy to get to (*Table 9.3*).

- Men's preferences were similar to actual usage; just over half (58%) of men preferred a GP and 25.2% a specialist clinic.
- However, considerably more women would prefer services from a specialist clinic than are currently using them; 24.1% of users have availed of specialist services (family planning/Well Woman clinic or other sexual-health service) and 40.9% of the overall sample of women selected them as their preferred source of advice.

Table 9.3: Preferred source of advice about contraception, by gender and current age (%)						
	18-24	**25-34**	**35-44**	**45-54**	**55-64**	**All**
Men						
GP	57.6	53.4	58.3	56.5	66.0	58.0
Specialist clinic (e.g. family planning/Well Woman/ Gay Health)	17.8	27.6	26.3	28.8	26.2	25.2
Hospital outpatient department	2.6	2.7	3.0	2.0	1.5	2.4
Chemist/pharmacy	4.2	1.9	2.9	3.3	1.4	2.8
Telephone helpline	5.2	4.4	3.1	3.2	2.3	3.7
Professional site on the internet	10.6	8.1	4.5	4.3	0.8	5.9
Other	2.1	2.0	1.9	2.0	1.8	2.0
Base	739	685	629	550	479	3,082
Women						
GP	47.1	47.6	57.9	51.2	58.5	52.4
Specialist clinic (e.g. family planning/Well Woman/ Gay Health)	41.3	45.0	37.8	43.9	36.1	40.9
Hospital outpatient department	0.7	0.9	0.9	0.9	3.3	1.2
Chemist/pharmacy	1.4	1.9	0.4	0.6	1.2	1.1
Telephone helpline	3.8	1.8	1.5	2.3	0.5	2.0
Professional site on the internet	3.0	1.3	0.6	0.5	0.0	1.1
Other	2.7	1.5	0.9	0.6	0.5	1.3
Base	900	958	1,000	737	586	4,181

There were significant differences in preference between men and women (p<0.001) and across age groups for both men (p<0.001) and women (p<0.001).

Men aged 18-24 were least likely to prefer a specialist clinic. Younger men were more likely to prefer an internet site. Among men, there was no clear pattern of preference for a GP, although more men in the oldest age group preferred a GP for contraceptive advice.

Older women were also more likely to prefer a GP, but there was no clear pattern of preference for a specialist clinic across age groups among women.

9.2.2 Barriers to accessing contraceptive services

SUMMARY

To provide an understanding of barriers to accessing sexual-health care, all participants were asked if cost, lack of services or embarrassment would be barriers to them accessing services.

- *Almost half of men (44.2%) and women (46.3%) reported lack of services as a barrier to accessing contraceptive services.*
- *A considerable minority reported cost (23.1% of men and 28.5% of women) and embarrassment (30.5% of men and 26.2% of women) as barriers to contraceptive services.*
- *Younger age and lower educational level were associated with agreement that cost of service was a barrier to accessing contraceptive services.*
- *Women aged 18-24 were more likely than all older women to report that lack of local services was a barrier to access. There were no age differences among men.*
- *Men and women who lived in a city were less likely than those living in a rural area/town to report that lack of contraceptive services was a barrier.*
- *Men were significantly more likely than women to agree that embarrassment was a barrier (31.3% vs. 26.9%).*
- *Younger men and women and those with lower educational levels were more likely to agree that embarrassment was a barrier.*

THE responses for each possible barrier in relation to contraceptive services are shown in *Figure 9.1*.

Figure 9.1: Barriers to accessing contraceptive services

- Almost half of men (44.2%) and women (46.3%) reported lack of services as a barrier to accessing contraceptive services.
- A considerable minority reported cost (23.1% of men and 28.5% of women) and embarrassment (30.5% of men and 26.2% of women) as barriers.

It is clear from *Figure 9.1* that a considerable number of men and women experience barriers to accessing contraceptive services.

The cost of services can be considered in relation to the individual's health-insurance status. Those who hold a General Medical Services (GMS) or GP Services card – a 'medical card' – are entitled to free medical care from GPs. All are entitled to free GUM clinic services. In all, 17.9% of the ISSHR sample (15.8% of men and 20.1% of women, p<0.001) had GMS coverage, i.e. a medical card. The relationship of medical card-holder status and relevant demographic factors is outlined in *Table 9.4*.

Table 9.4: Medical-card holders, by age, educational level and geographic location						
	Men			**Women**		
	%	**Base**	**MV+**	**%**	**Base**	**MV+**
All participants	15.9	3,150		20.4	4,177	
Current age (years)						
18-24	14.7	744	C	18.4	893	C
25-34	14.0	695	ns	21.9	956	ns
35-44	14.2	641	ns	16.2	994	**
45-54	12.9	570	**	19.4	738	***
55-64	25.9	500	ns	29.6	596	*
Education (highest level attained)						
Primary	33.3	262	***	45.3	292	***
Lower secondary	18.9	533	***	25.4	642	***
Higher secondary	10.5	1,181	ns	16.3	1,744	***
Third level	10.0	1,174	C	10.8	1,499	C
Area of residence						
City	15.5	1,135	ns	19.2	1,311	ns
Rural/town	16.1	2,014	C	21.1	2,863	C

+ Multivariate analysis: logistic regression adjusting for all variables in the table (excluding those marked '-')
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

Among men, medical-card holders were more likely to be from lower education groups. Among women, they were more likely to be older and also to come from lower education groups.

Table 9.5 shows the proportion of those who agreed that cost of the service would currently be a barrier to contraceptive services, across socio-demographic variables. Participants who responded that they did not know if an issue represented a barrier were removed in order to focus on those who could give a definite answer (some of those who 'did not know' may simply not need to access services).

Table 9.5: Cost of service as a barrier to accessing contraceptive services						
	Men			**Women**		
	%	**Base**	**MV+**	**%**	**Base**	**MV+**
All participants	24.2	3,032		29.7	4,074	
Current age (years)						
18-24	31.7	737	C	36.7	896	C
25-34	25.1	679	*	31.3	949	**
35-44	22.9	622	***	26.0	976	***
45-54	18.0	547	***	24.9	721	***
55-64	22.0	447	***	29.2	532	***
Education (highest level attained)						
Primary	27.3	241	**	37.7	275	***
Lower secondary	28.1	514	***	33.1	614	***
Higher secondary	22.8	1,142	ns	28.8	1,707	**
Third level	20.6	1,135	C	24.3	1,478	C
Area of residence						
City	27.7	1,091	*	29.1	1,277	ns
Rural/town	22.4	1,940	C	29.9	2,794	C
Have medical card						
Yes	34.7	379	***	40.5	636	***
No	22.1	2,622	C	27.2	3,369	C

+ Multivariate analysis: logistic regression adjusting for all variables in the table (excluding those marked '-')
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

In total, 24.2% of men and 29.7% of women said that cost of the service would be a barrier to accessing contraceptive services (p<0.001).

Age was strongly associated with agreement that cost of service was a barrier; younger age groups were more likely to agree.

Education was also an important predictor. Men and women with primary or lower secondary education, and women with higher secondary education, were more likely to find cost a barrier to accessing services than men and women with third-level education.

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Among men but not women, area of residence was associated with agreement. Men who lived in a city were more likely to report that cost was a barrier to access than men living in a rural area/town.

Men and women who had a medical card were significantly more likely than those who did not to say that cost of service was a barrier to access.

A further model examined social class, after controlling for current age and area of residence. Among men, those in administrative/clerical and semi-skilled/unskilled manual groups were more likely than the higher professional class to find cost an issue. Among women, only the semi-skilled/unskilled manual class was more likely than the higher professional to find cost a barrier.

Lack of local services as a barrier to contraceptive services was next examined (*Table 9.6*).

- There were no significant gender differences; excluding those who responded 'don't know', half of men (49.3%) and women (49.8%) reported lack of local services as a barrier.
- There were no significant age differences among men, but age was a significant determinant among women; 18-24 year-old women were more likely than all other age groups to report lack of local services as a barrier to accessing contraceptive services.
- Men with third-level education were less likely than men with lower or higher secondary education to find lack of local contraceptive services an issue, but there were no differences between men with third-level and those with primary education.
- Women with primary or lower secondary education were more likely than women with third-level to report lack of services as a barrier, but there were no differences between women with higher secondary and those with third-level education.
- Men and women who lived in a city were less likely than those living in a rural area/town to report that lack of contraceptive services was a barrier.

An additional model identified no social-class differences after controlling for current age and area of residence.

Table 9.6: Lack of local services as a barrier to accessing contraceptive services

	%	Men Base	MV+	Women %	Base	MV+
All participants	49.3	2,823		49.8	3,942	
Current age (years)						
18-24	49.9	701	C	54.8	881	C
25-34	50.8	640	ns	48.6	917	*
35-44	47.2	573	ns	49.5	947	**
45-54	51.8	499	ns	48.1	692	**
55-64	47.0	410	ns	46.6	505	***
Education (highest level attained)						
Primary	49.2	225	ns	54.1	260	**
Lower secondary	50.6	477	*	51.5	595	*
Higher secondary	51.8	1,077	**	49.0	1,658	ns
Third level	43.0	1,044	C	48.0	1,429	C
Area of residence						
City	43.3	983	**	41.4	1,213	***
Rural/town	52.5	1,839	C	54.4	2,726	C

+ Multivariate analysis: logistic regression adjusting for all variables in the table (excluding those marked '-')
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

Next, embarrassment in talking about the issues as a barrier to accessing contraceptive services was examined (*Table 9.7*).

Men were significantly more likely than women to agree that embarrassment was a barrier (31.3% vs. 26.9%; p<0.001).

Age was significantly associated with embarrassment as a barrier. Men aged 18-24 were more likely than those aged 35-64, and women aged 18-24 more likely than those aged 25-54 to agree that embarrassment was a barrier to accessing services.

Table 9.7: Embarrassment in talking about issues as barrier to contraceptive services						
	%	Men Base	MV+	%	Women Base	MV+
All participants	31.3	3,088		26.9	4,123	
Current age (years)						
18-24	37.1	745	C	31.1	898	C
25-34	31.6	690	ns	23.6	946	***
35-44	29.2	630	**	25.5	985	**
45-54	30.1	554	*	24.5	736	***
55-64	27.3	469	**	30.9	558	ns
Education (highest level attained)						
Primary	31.8	247	**	33.1	285	***
Lower secondary	33.0	528	***	27.8	624	***
Higher secondary	33.1	1,164	**	28.3	1,734	***
Third level	25.2	1,149	C	20.1	1,480	C
Area of residence						
City	27.3	1,112	*	22.0	1,299	**
Rural/town	33.5	1,975	C	29.6	2,821	C

+ Multivariate analysis: logistic regression adjusting for all variables in the table (excluding those marked '-')
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

Education was also related to embarrassment. Men and women with third-level education were less likely to agree that embarrassment was a barrier.

Finally, men and women who resided in a city were less likely than those who lived in a rural area/town to say that embarrassment was a barrier to contraceptive services.

A separate model identified no significant social-class differences, after controlling for current age and area of residence.

9.2.3 Use of STI services

SUMMARY

Participants were asked if they had ever sought advice about STIs, and about their sources and preferred sources of such advice.

- *In total, 9.4% of men and 8.3% of women had sought advice about STIs.*

- *Men and women who were cohabiting, in a steady relationship, in a casual relationship or not in a relationship were more likely than married men and women to have sought STI advice.*

- *Citydwellers were more likely than those living in a town/rural area to have sought STI advice.*

- *GPs were the most common source for advice on STIs; more women than men got information from this source (42.5% vs. 32.3%; p<0.05).*

- *Women were more likely than men to have got advice on STIs from family planning/Well Woman clinics (22.2% vs. 4%; p<0.001).*

- *Men were significantly more likely than women to have used an internet site as a source of advice about STIs (14.3% vs. 3.4%; p<0.001).*

- *Most men and women (60% and 50.7% respectively) said they would prefer to seek advice from their GP.*

- *In total, 4.5% of participants had attended an STI clinic and 7.4% had undergone an STI check-up by a GP. This was 10% of men and 8.9% of women.*

- *Younger participants were more likely than older participants to have attended both an STI clinic and a GP for an STI check-up.*

- *Men and women whose sexual initiation occurred before 17 were more likely to have had an STI check-up than those who first had sex after 17.*

- *Participants who reported more than one partner in the last year were over twice as likely to have had an STI check-up as those who did not report this.*

- *Men who had ever had a same-sex partner were over six times more likely and such women over two times more likely to have had an STI check-up, than those who had not had a same-sex partner.*

- *Men who had paid for sex were nearly five times more likely than those who had not to have had an STI check-up.*

PARTICIPANTS were first asked if they had ever sought advice about STIs. There were no gender differences; 9.4% of men and 8.3% of women reported that they had sought advice. Of participants who had had genital sexual experience, 9.5% of men and 8.4% of women had sought advice about STIs.

Table 9.8 displays the socio-demographic characteristics of people who had ever sought advice about STIs across the whole population (i.e. including those who had not had intercourse).

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After adjusting for the variables listed in *Table 9.8*, there were few age differences in likelihood of having sought advice about STIs. Among men, 18-24 year-olds were not significantly different from those aged 25-34, 35-44 and 45-54. But they were considerably more likely than 55-64 year-olds to have sought advice. Similarly, women aged 18-24 were more likely than those aged 45-54 and 55-64 to have sought advice, but the youngest women did not differ significantly from those aged 25-34 and 35-44.

Men with primary education only were less likely to have sought advice about STIs than men with higher levels of education. However, while women with third-level education were significantly more likely than women with primary education to have sought advice, there were no differences between women with primary education and women with lower or higher secondary education.

After adjusting for the variables in *Table 9.8*, current relationship status was strongly associated with seeking advice about STIs. Men who were cohabiting, in a casual relationship or not in a relationship were around two times more likely than married men, and men in a steady relationship were three times more likely than married men, to have sought advice.

Compared with married women, those who were cohabiting were over four times more likely, those in a steady relationship three and a half times more likely, those in a casual relationship over five times more likely, and those not in a relationship twice as likely to have sought advice about STIs.

Men and women who resided in a city were more likely than those living in a town/rural area to have sought advice about STIs.

A further model identified no significant social-class differences among men or women, after controlling for current age, current relationship status and area of residence. When current medical-card status was added to the model, no significant differences between those with and those without a card were found.

Table 9.8: Profile of those who had ever sought advice about STIs						
	Men			**Women**		
	%	**Base**	**MV+**	**%**	**Base**	**MV+**
All participants	9.4	3,176		8.3	4,240	
Current age (years)						
18-24	13.1	754	C	16.1	908	C
25-34	12.7	700	ns	12.8	964	ns
35-44	11.0	645	ns	5.1	1,007	ns
45-54	5.2	571	ns	3.8	755	**
55-64	2.4	506	**	2.2	606	**
Education (highest level attained)						
Primary	2.0	263	C	3.4	304	C
Lower secondary	9.7	544	**	4.7	656	ns
Higher secondary	9.2	1,190	*	7.7	1,771	ns
Third level	15.1	1,179	**	15.3	1,509	*
Current relationship status						
Married	5.6	1,496	C	3.2	2,351	C
Cohabiting	12.6	239	*	18.0	270	***
Steady relationship	16.8	370	***	17.9	520	***
Casual relationship	12.7	221	*	22.9	141	***
Not in a relationship	11.8	850	***	9.5	958	***
Area of residence						
City	12.4	1,144	**	10.7	1,323	**
Rural/town	7.7	2,031	C	7.0	2,913	C

+ Multivariate analysis: logistic regression adjusting for all variables in the table (excluding those marked '-')
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

Participants who had sought advice about STIs were asked about their source of advice (*Table 9.9*). GPs were the most common source. More women than men got information from them (42.5% vs. 32.3%; p<0.05). Women were also more likely than men to have got advice from family planning/Well Woman clinics (22.2% vs. 4% p<0.001). Leaflets were also a common source of information (used by 18.4% of men and 12.7% of women).

There were no significant gender differences in use of hospital outpatient departments, other sexual-health centres, chemist/pharmacy or leaflets. But men were much more likely than women to have used an internet site as a source of advice about STIs (14.3% vs. 3.4% p<0.001). A number of men and women gave another source of advice; the most common of these were college health services and family or friends.

Table 9.9: Sources of advice about STIs*, by gender and current age (%)						
	18-24	**25-34**	**35-44**	**45-54**	**55-64**	**All**
Men						
GP	24.5	37.2	34.5	31.5	41.1	32.3
Family planning/ Well Woman clinic	6.5	5.1	0.7	2.6	3.6	4.0
Hospital outpatient department	5.3	16.0	21.7	15.6	6.1	14.1
Other sexual-health centre	9.3	15.9	20.4	11.0	9.7	14.5
Chemist/pharmacy	0.0	1.4	1.6	0.0	0.0	0.9
Telephone helpline	0.0	0.0	0.0	0.0	0.0	0.0
Obtained leaflets	25.5	10.9	14.9	22.7	32.6	18.4
Visited an internet site	23.8	11.4	8.7	13.8	6.9	14.3
Other	11.1	7.2	1.3	6.1	0.0	6.2
Base	107	102	67	33	19	328
Women						
GP	41.0	46.9	41.3	44.0	24.7	42.5
Family planning/ Well Woman clinic	19.3	27.9	21.4	13.5	29.2	22.2
Hospital outpatient department	6.7	7.1	9.7	16.3	24.1	8.8
Other sexual-health centre	3.2	13.2	10.6	17.3	0.0	8.6
Chemist/pharmacy	0.7	0.0	0.0	0.0	0.0	0.3
Telephone helpline	0.0	0.0	0.0	0.0	0.0	0.0
Obtained leaflets	16.7	7.5	14.3	5.1	21.9	12.7
Visited an internet site	6.3	1.3	0.0	4.7	0.0	3.4
Other	13.5	4.6	6.0	9.9	0.0	8.7
Base	144	129	51	34	14	372

* All participants who reported that they had sought advice about STIs

The only significant age-group difference was in use of a hospital outpatient department among men; fewer of the youngest and oldest men used this source for advice about STIs. There were no significant age-group differences among women for any source of advice. Some results should be interpreted with caution due to the small number of participants in the older age groups.

All participants were next asked about their preferred source of advice about STIs, and if all were available in their area and easy to get to (*Table 9.10*).

- Most men and women (60% and 50.7% respectively) said they would prefer to seek advice from their GP.

- Family planning/Well Woman clinics and other sexual-health centres were preferred by a substantial number of men (23.1%) and women (41.6%).
- Only 4.3% of men and 2.3% of women preferred hospital outpatient departments.

As seen with their actual source of advice (*Table 9.9*), more men (6.4%) than women (1.6%) preferred to use the internet for advice about STIs.

There were significant gender differences in preferred source (P<0.001) and significant age-group differences for both men (p<0.001) and women (p<0.001).

Patterns of preference across age groups are difficult to determine. There were no clear age-group trends in preference for a GP, although more men and women aged 55-64 said they would prefer to visit a GP for advice about STIs. Compared with older people, considerably more younger men, and slightly more younger women, preferred an internet site as a source of advice.

Table 9.10: Preferred source of advice about STIs, by gender and current age (%)						
	18-24	25-34	35-44	45-54	55-64	All
Men						
GP	62.2	52.7	60.1	56.6	70.8	60.0
Specialist clinic (e.g. family planning/ Well Woman/Gay Health)	15.6	26.8	22.6	29.9	21.0	23.1
Hospital outpatient department	4.2	4.6	5.9	3.2	2.4	4.3
Chemist/pharmacy	1.9	0.7	1.7	0.9	0.5	1.2
Telephone helpline	2.9	4.6	3.5	4.1	2.8	3.6
Professional site on the internet	11.2	9.3	4.8	4.3	1.0	6.4
Other	2.1	1.3	1.5	1.0	1.5	1.5
Base	744	691	632	559	480	3,106
Women						
GP	46.8	47.2	53.5	47.9	59.7	50.7
Specialist clinic (e.g. family planning/ Well Woman/ Gay Health)	41.7	43.6	41.2	46.2	33.7	41.6
Hospital outpatient department	2.3	2.1	1.6	2.0	4.4	2.3
Chemist/pharmacy	0.5	1.1	0.4	0.3	0.2	0.5
Telephone helpline	2.8	2.4	2.1	2.6	1.2	2.3
Professional site on the internet	4.0	2.4	0.8	0.3	0.3	1.6
Other	1.9	1.2	0.5	0.7	0.6	1.0
Base	897	961	1,003	734	589	4,184

Participants were next asked if they had ever attended an STI clinic (GUM or VD clinic) or had a check-up from a GP for STIs. In total, 4.5% of participants had attended an STI clinic and 7.4% had had an STI check-up from a GP (*Table 9.11*).

There were no significant gender differences in attendance at either; 5% of men and 4% of women had attended an STI clinic and 7.9% of men and 6.9% of women had been to a GP. Younger participants were more likely than older people to have attended both an STI clinic and a GP for an STI check-up.

Table 9.11: Proportion who had attended an STI clinic or a GP for an STI check-up, by gender and current age				
	STI clinic		**GP**	
	%	**Base**	**%**	**Base**
All participants	4.5	7,415	7.4	7,413
Gender				
Men	5.0	3,176	7.9	3,175
Women	4.0	4,239	6.9	4,238
Current age (years)				
18-24	4.9	1,663	9.8	1,663
25-34	7.4	1,664	11.2	1,663
35-44	4.3	1,651	6.6	1,651
45-54	3.1	1,326	4.4	1,325
55-64	2.1	1,111	3.7	1,111
Have medical card				
Yes	6.1	1,090	8.6	1,089
No	4.1	6,218	7.1	6,217

Attendance at either an STI clinic or a GP for an STI check-up was combined to make one variable of having had an STI check-up. In total, 10% of men and 8.9% of women had attended either a GP or an STI clinic for an STI check-up. There was no significant difference between men and women in their attendance for an STI check-up.

Table 9.12 displays the profile of those who had ever had an STI check-up. More men and women aged 25-34 had had an STI check-up than any other age group.

After controlling for educational level and current relationship status, men aged 25-44 were over twice as likely as 18-24 year-old men to have had a check-up. There were no significant differences between men aged 18-24 and those aged 45-64.

Few older women reported an STI check-up. After adjusting for all variables, women aged 18-24 were significantly less likely than 25-34 year-olds to have had an STI check-up, but more likely than 55-64 year-olds.

Participants with third-level education were more likely to report an STI screen than those with lower levels of education. Married participants were less likely than those in less formal relationships or not in a relationship.

After adjusting for all variables, men who resided in a city were more likely than those who lived in a rural area/town to have had an STI check-up. There was no difference among women. Among women, but not men, medical-card holders were more likely than those without to report an STI check-up.

Table 9.12: Profile of those who had ever had an STI check-up, by socio-demographic variables						
	Men			**Women**		
	%	**Base**	**MV+**	**%**	**Base**	**MV+**
All participants	10.0	3,176		8.9	4,239	
Current age (years)						
18-24	9.3	755	C	14.5	908	C
25-34	14.3	700	***	15.4	964	*
35-44	10.6	645	**	6.2	1,006	ns
45-54	7.7	571	ns	4.8	755	ns
55-64	6.8	505	ns	2.1	606	***
Education (highest level attained)						
Primary	7.5	263	*	3.3	303	**
Lower secondary	10.1	544	*	6.7	657	*
Higher secondary	8.4	1,192	***	8.0	1,772	***
Third level	15.1	1,177	C	15.9	1,507	C
Current relationship status						
Married	6.4	1,495	C	4.2	2,350	C
Cohabiting	11.2	239	*	16.8	270	***
Steady relationship	12.7	370	**	16.7	520	***
Casual relationship	18.1	220	***	19.8	141	***
Not in a relationship	13.0	852	***	11.3	958	***
Area of residence						
City	13.0	1,145	**	10.8	1,322	ns
Rural/town	8.3	2,030	C	7.9	2,914	C
Have medical card						
Yes	12.8	408	ns	11.1	682	*
No	9.5	2,734	C	8.5	3,484	C

+ Multivariate analysis: logistic regression adjusting for all variables in the table (excluding those marked '-')
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

Considering ISSHR participants aged 18-49 only, 12% of men and 12.5% of women had ever attended for a sexual-health check-up.

Although the ISSHR figures are not directly comparable with northern European figures, it is still clear that they fall far behind the testing rates in these other countries.

- In Sweden and Denmark, for instance, the proportion of people who had undergone Chlamydia testing in one year was larger than the proportion of ISSHR participants who had had an STI test ever.

Swedish figures show that 13% of the population aged 15-39 underwent testing for Chlamydia in 2003 (384,000 tests); 25% of these tests were on men. In Denmark, 275,000 Chlamydia tests were done in 2002, covering 15% of the population aged 15-39. Around 60% of those tests were conducted as part of a screening programme.

The British Natsal study reported that 14.3% of men and 12.4% of women had ever attended a GUM clinic.[42] However, half of the women and almost a quarter of the men had an STI diagnosed in a facility other than a GUM clinic. This indicates that an even larger proportion of the population had undertaken an STI screen.

In summary, it is clear that levels of testing for STIs are lower in Ireland than in several other European countries. This must contribute, though to an unquantifiable extent, to the differential in reported STI rates between ISSHR and other national surveys.

Combining this information with international comparisons regarding sexual-risk behaviour (specifically, in number of partners and condom use, as outlined in chapter six, section 6.2.1) balances the explanation for lower rates of reported STIs in ISSHR when compared with international studies.

While ISSHR participants reported fewer sexual partners over lifetime and higher levels of condom use than those in other studies (factors supporting a lower STI rate in ISSHR), they also reported notably lower levels of lifetime testing for STIs – a factor which indicates more undetected STIs in ISSHR. Thus, the lower levels of STIs reported in Ireland are likely to be a combination of genuinely lower levels, because of a lower sexual-risk profile, combined with less awareness of existing STIs because of less testing.

A national prevalence study such as the one proposed for Chlamydia would provide valuable evidence of the gap between absolute levels of STIs and detected STIs in Ireland.

It is important to assess the probability of attending for an STI check-up in relation to risk behaviour after adjusting for confounding factors. Therefore, behavioural variables were added to the models, in *Table 9.12.*

- First, after controlling for the variables, age at sexual initiation was related to experience of an STI check-up. Both men and women whose sexual initiation occurred before 17 were around twice as likely to have had an STI check-up as those who first had sex after 17 (p<0.001 for both men and women).
- Similarly, men and women who reported more than one partner in the last year were over twice as likely as those who had not to report a check-up (p<0.01 and p<0.001 respectively). Other studies have related having more than one heterosexual partner in the last year to an increased risk of STI acquisition.[42,47]

For both men and women, after controlling for the variables in *Table 9.12*, there were no significant differences in having an STI check-up between those who had and those who had not used condoms at most recent intercourse. However, women who reported not consistently using condoms in the last year (most, half, some or none of the time) were more likely to have had an STI check-up than those who had always used condoms in the last year (p<0.01). There were no significant differences among men.

After controlling for the variables, men who had ever had a same-sex partner were over six times as likely (p<0.001) and such women over twice as likely (p<0.01) to have had an STI check-up, as those who had not had a same-sex partner.

Finally, men who had paid for sex were nearly five times more likely than those who had not to report an STI check-up (p<0.001).

9.2.4 Source of treatment for STIs

> **SUMMARY**
> *ISSHR participants who had been diagnosed with an STI were asked if they had received treatment, and where.*
> - *Most STIs were treated by GPs (42.3% of men and 42.5 % of women), followed by sexual-health clinics (41.1% and 40.1% respectively).*
> - *Of participants diagnosed with an STI, 99.4 % had been offered treatment.*
> - *Reported compliance with treatment (completed treatment) was very high, at 99.6%.*

Participants who had had an STI were asked where they had accessed treatment (*Table 9.13*).

Table 9.13: Treatment location for most recent STI	Men (%)	Women (%)
Usual GP	31.2	38.0
Another local GP	0.0	0.6
GP outside area	11.1	3.9
Sexual-health clinic	41.1	40.1
Public hospital A&E	11.1	8.7
Well Woman clinic	0.0	7.1
Chemist/pharmacy	4.7	0.0
Gay health clinic	2.7	0.0
Private hospital	0.9	4.1
Family planning clinic	1.9	1.9
Self-treatment	1.1	0.0
No treatment	0.0	1.1
All (N)	**106**	**83**

Among both men and women, GPs treated most STIs (42.3% of men and 42.5 % of women). Sexual-health clinics were the next most common source of treatment. Similar proportions of men and women (41.1% and 40.1% respectively) got treatment from these clinics. Of those who saw a GP, 8.9% of men (N=45) and 7.7% of women (N=35) also attended a GUM clinic. This indicates that GPs manage most STIs without referring to specialist services.

Accident and emergency departments were the third most common source of treatment for STIs among men and women (11.1% and 8.7% respectively). Well Woman clinics were used by 7.1% of women. Family-planning clinics were used by 1.9% of men and women. Men also used pharmacies and gay health clinics (4.7% and 2.7% respectively).

There was no significant difference between type of STI reported and location of treatment. Less than half of participants had their last STI treated outside of a sexual-health clinic (GUM clinic).

Of participants diagnosed with an STI, 99.4% had been offered treatment. Reported compliance with treatment (completed treatment) was very high, at 99.6%. Re-screening following treatment for some STIs, such as gonorrhoea, syphilis and Chlamydia, is standard practice in STI clinics. This is especially important for gonorrhoea, as there is increasing evidence of antibiotic resistance and treatment failure.[148]

Table 9.14 shows experience of re-screening among those reporting gonorrhoea, syphilis or Chlamydia. The number of participants reporting these STIs is very small so few conclusions can be drawn. However, the data suggest that some people were not being re-screened following treatment. It is not possible to ascertain if the health-care provider failed to provide re-screening or the participant failed to return for re-screening.

Table 9.14: Experience of re-screening following treatment for STI				
	Men		Women	
	(%)	N	(%)	N
Gonorrhoea	45.9	18	100	2
Chlamydia	77.6	15	84.2	21
Syphilis	100	1	0	0

Around half (49.9%) of participants who had an STI received treatment free of charge through free public-health provision at STI clinics. Almost as many (43.2%) paid for their treatment and 6.9% received treatment free through medical-card cover.

9.2.5 Barriers to STI services

SUMMARY

There are significant benefits to having an STI diagnosed and treated. As outlined previously in this report, some STIs are asymptomatic or produce minimal symptoms, especially in women, and diagnosis of an STI can depend on opportunistic screening.

However, as reported in section 9.2.3, only 10% of men and 8.9% of women reported ever having an STI screen. Only 20.3% of men and 27.1% of women who reported more than one heterosexual partner in the last year had had an STI check-up. Of men who reported a same-sex partner, 45.1% reported an STI check-up. Of men who had paid for sex, 34.9% had attended for an STI check-up.

These figures suggest that a considerable proportion of participants at risk of an STI have not had an STI screen. Participants were therefore asked about potential barriers to STI screening.

- *In total, 23.2% of men and 26.2% of women agreed that cost would be a barrier to accessing STI services.*
- *Younger men and women and those with lower levels of education were more likely to perceive cost as a barrier than all other age groups.*
- *Nearly half (48.1%) of women and 43.8% of men felt that lack of availability of services would be a barrier to accessing STI services.*
- *Age was not related to lack of services as a barrier among men but younger women were more likely than older women to agree that lack of local services would be a barrier to STI services.*
- *Men and women who resided in a rural area/town were twice as likely as those who lived in a city to say that lack of services was a barrier.*
- *Over a third of men (36.2%) and women (34.8%) felt that embarrassment would be a barrier.*
- *Younger men were more likely to cite embarrassment as a barrier. There was no such pattern among women.*
- *Men and women with third-level education were less likely than all other educational level groups to say that embarrassment was a barrier.*

PARTICIPANTS were asked if a number of possible barriers to accessing STI services applied to them. *Figure 9.2* shows responses for each possible barrier.
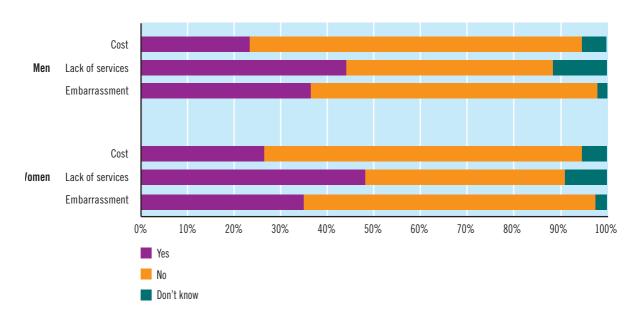
Figure 9.2: Barriers to accessing STI services

Figure 9.2 shows that 23.2% of men and 26.2% of women agreed that cost would be a barrier to accessing STI services. Over a third of men (36.2%) and women (34.8%) felt that embarrassment would be a barrier, and nearly half (48.1%) of women and 43.8% of men felt that lack of services would be a barrier. This pattern was very similar to that for contraceptive services (*Figure 9.1*).

Participants who responded that they did not know if an issue represented a barrier to STI services were then removed; the following analyses focus only on those who could give a definite answer. First, *Table 9.15* shows those who agreed that cost of the service would be a barrier to accessing STI services, across socio-demographic variables.

Table 9.15: Cost of service as a barrier to STI services						
	Men			Women		
	%	Base	MV+	%	Base	MV+
All participants	24.5	3008		27.8	4013	
Current age (years)						
18-24	30.6	722	C	33.4	876	C
25-34	24.9	670	*	27.9	925	**
35-44	23.2	621	**	23.5	965	***
45-54	20.5	542	***	26.4	705	***
55-64	22.3	453	***	28.4	542	***
Education (highest level attained)						
Primary	29.8	241	***	37.3	272	***
Lower secondary	29.6	514	***	32.5	606	***
Higher secondary	23.3	1125	**	26.4	1682	**
Third level	17.4	1128	C	21.5	1453	C
Have medical card						
Yes	35.1	383	***	38.6	627	***
No	22.2	2,595	C	25.0	3,318	C

+ Multivariate analysis: logistic regression adjusting for all variables in the table (excluding those marked '-')
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

Age was associated with cost of service as a barrier to STI services. In particular, men and women aged 18-24 were more likely to perceive cost as a barrier than all other age groups. Those with lower levels of education were also more likely to say that cost was a barrier. After adjusting for all variables, men and women with third-level education were less likely than all other education groups to report that cost was a barrier. When area of residence was added to the model, no significant differences were found between those residing in a city and those residing in a rural area/town among men or women.

Men and women who had a medical card were significantly more likely than those who did not to say that cost was a barrier. A separate model examined social class, after controlling for current age. Only men and women from the lowest social class were significantly different from the highest social class; the lowest class was more likely to perceive cost as a barrier (p<0.001 and p<0.01 respectively).

Table 9.16 displays the percentage of men and women, across socio-demographic variables, who said that lack of local services would be a barrier to STI services. Among men, there were no clear age differences. After adjusting for the variables, men aged 18-24 were not significantly different from any other age group. However, 18-24 year-old women were significantly more likely than any other age group of women to say that lack of local services would be a barrier.

Men with third-level education were less likely than men with lower or higher secondary education to say that lack of local services was a barrier to STI services. Women with third-level education were less likely than women with primary level education to find lack of services a barrier.

After adjusting for the variables, men and women who resided in a rural area/town were twice as likely as those who lived in a city to say that lack of services was a barrier to accessing STI services. A separate model examined social class, after controlling for current age and area of residence. There were no significant differences among men, but women from the lowest social class were significantly more likely than those in the highest social class to perceive cost as a barrier (p<0.05).

Table 9.16: Lack of local services as a barrier to STI services						
	Men			**Women**		
	%	**Base**	**MV+**	**%**	**Base**	**MV+**
All participants	49.6	2784		53.0	3853	
Current age (years)						
18-24	50.2	689	C	58.4	868	C
25-34	51.6	627	ns	52.3	895	*
35-44	48.4	567	ns	51.8	903	**
45-54	49.8	494	ns	51.1	681	***
55-64	47.5	407	ns	49.7	506	***
Education (highest level attained)						
Primary	47.7	218	ns	56.7	255	**
Lower secondary	52.8	474	**	53.2	592	ns
Higher secondary	51.8	1,072	**	52.8	1,609	ns
Third level	42.8	1,020	C	51.2	1,397	C
Area of residence						
City	43.7	977	**	42.3	1,184	***
Rural/town	52.7	1,806	C	58.7	2,666	C

+ Multivariate analysis: logistic regression adjusting for all variables in the table (excluding those marked '-')
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

Finally, the extent to which embarrassment in talking about the issues is a barrier to STI services was examined (*Table 9.17*). It is interesting that younger men were more likely to cite embarrassment as a barrier, while there was no such pattern among women. Educational level was associated with embarrassment; men and women with third-level education were less likely than all other educational groups to say that embarrassment was a barrier to STI services.

Table 9.17: Embarrassment in talking about the issues as a barrier to STI services						
	Men			**Women**		
	%	**Base**	**MV+**	**%**	**Base**	**MV+**
All participants	37.0	3,097		35.7	4,117	
Current age (years)						
18-24	43.7	743	C	37.9	897	C
25-34	36.7	692	*	33.3	941	ns
35-44	35.8	633	**	35.2	986	ns
45-54	36.2	555	**	35.0	731	ns
55-64	31.3	474	***	37.6	562	ns
Education (highest level attained)						
Primary	37.5	248	*	38.4	286	**
Lower secondary	40.5	529	***	38.0	627	***
Higher secondary	38.1	1,168	**	37.4	1,728	***
Third level	30.7	1,152	C	28.7	1,476	C
Area of residence						
City	33.7	1,121	*	30.5	1,295	**
Rural/town	38.9	1,975	C	38.6	2,819	C

+ Multivariate analysis: logistic regression adjusting for all variables in the table (excluding those marked '-')
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

Men and women who resided in a city were less likely to say that embarrassment was a barrier to STI services than those who lived in a rural area/town. An additional model, controlling for current age and area of residence, identified no significant social-class differences in embarrassment as a barrier for men or women.

9.2.6 HIV testing

SUMMARY

ISSHR participants were asked if they had ever specifically had a test for HIV.

- *Significantly more men (9%) than women (6.9%) reported having an HIV test.*
- *Men and women aged 25-34 were most likely to have had an HIV test (14.1% of men and 15% of women).*
- *Men and women with higher educational levels were more likely to have had an HIV test.*
- *Men and women who experienced first intercourse before 17 were more likely to have had an HIV test than those whose sexual initiation occurred after 17.*
- *Women who reported multiple partners in the last year were over three times more likely to have had an HIV test than those who did not report this.*
- *Men who had ever paid for sex were around three times more likely to have had an HIV test than men who had never paid for sex.*
- *Men who reported unprotected sex abroad in the last five years were over twice as likely, and women over four times as likely, to have had an HIV test as those who had not had unprotected sex abroad.*
- *Men who had ever had a same-sex partner were nearly five times more likely to have had an HIV test than those who had not had a same-sex partner.*

MORE men (9%) than women (6.9%) reported having an HIV test (p<0.01). The proportion of participants undergoing HIV testing is lower than that found in the NHSLS study in the US (men 29% and women 24%)[63] and in the ASHR study in Australia (men 40.7% and women 38.9%).[119]

Table 9.18 shows the level of HIV testing across the population.

- Men and women aged 25-34 were most likely to have had an HIV test (14.1% of men and 15% of women).
- After adjusting for other socio-demographic variables, men aged 25-54 were more likely than 18-24 year-olds to have had a test.
- Women aged 18-24 were less likely than 25-34 year-olds and more likely than 55-64 year-olds to have had an STI/HIV test.

Men and women with third-level education were more likely to have had a test than other educational groups (apart from women with higher secondary education, who, after adjustment for other socio-demographic variables, did not differ significantly from women with third-level education).

After adjusting for other socio-demographic variables, married men were less likely than those with any other relationship status to have had a test. However, married women were less likely than cohabiting women to have had a test, but (after adjusting for socio-demographic variables) they did not differ significantly from women with any other relationship status.

Men living in a city were more likely to have had a test than those living in a town/rural area but there was no such difference among women.

Table 9.18: Participants who had had an HIV test						
	Men			Women		
	%	Base	MV+	%	Base	MV+
All participants	9.0	3,170		6.9	4236	
Current age (years)						
18-24	6.4	752	C	7.0	908	C
25-34	14.1	699	***	15.0	965	***
35-44	12.0	643	***	6.3	1,004	ns
45-54	6.6	570	*	3.6	755	ns
55-64	3.8	506	ns	1.0	604	**
Education (highest level attained)						
Primary	4.8	263	**	1.7	303	*
Lower secondary	8.5	544	*	5.0	654	*
Higher secondary	8.7	1,188	*	7.5	1,771	ns
Third level	13.4	1,175	C	10.4	1,508	C
Relationship status						
Married	6.6	1,492	C	5.3	2,346	C
Cohabiting	13.8	239	*	14.6	270	*
Steady relationship	10.1	370	*	10.1	520	ns
Casual relationship	17.6	220	***	11.3	141	ns
Not in a relationship	9.5	849	**	6.3	959	ns
Area of residence						
City	12.6	1,141	***	8.1	1,321	ns
Town/rural	7.1	2,028	C	6.3	2,912	C

+ Multivariate analysis: logistic regression adjusting for all variables in the table (excluding those marked '-')
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

Since most people are at a low risk of HIV infection (as found in chapter three), it is important to analyse HIV testing in relation to behaviour to determine if those who report potential risk behaviours are more likely to have had an HIV test.

- First, after adjusting for the variables in *Table 9.18*, men and women who experienced first intercourse before 17 were more likely to have had a test than those whose sexual initiation occurred after 17 (p<0.001 and p<0.05 respectively).
- Men and women born within the island of Ireland were about half as likely as those born outside Ireland to have had a test (p<0.05 and p<0.001 respectively).

After controlling for the variables, there were no significant differences between those who had and had not used a condom at most recent intercourse. However, women, but not men, who had not consistently used a condom in the last year (i.e. used most, half, some or none of the time) were more likely to have had an HIV test than women who had always used a condom in the last year (p<0.05).

Women who reported multiple partners in the last year were (after adjusting for the variables) over three times more likely to have had a test than those who had not (p<0.001). There was no effect for men.

Men who had ever paid for sex were about three times more likely to have had a test than men who had never paid for sex (p<0.001).

Men who had had unprotected sex abroad in the last five years were (after adjusting for the variables) over twice as likely (p<0.01), and women over four times as likely (p<0.001), to have had an HIV test as those who had not.

Finally, men, but not women, who had ever had a same-sex partner were nearly five times more likely to have had a test than those who had not (p<0.001). This analysis refers to men who had experienced any genital contact with someone of the same gender. Of course, some sexual practices carry greater risk than others. Anal intercourse is associated with a much higher risk of HIV transmission compared to other sexual practices. While there are case reports of HIV transmission with oral intercourse, the risk is lower.[99,149] It was not possible to analyse this further in relation to HIV testing due to the small number of men (N=52) who reported ever having had anal intercourse with a same-sex partner.

Injecting drug users (IVDUs) are another major group at risk of HIV infection. The number of IVDUs with newly diagnosed HIV infection reported to the HPSC increased from 49 in 2003 to 71 in 2004. It is unclear whether the numbers will continue to rise, and it is clear that close monitoring is necessary.[90] The highest risk of HIV transmission occurs when needles are shared. ISSHR participants were asked if they had ever injected drugs (apart from prescription drugs) and if they had ever shared a needle. The very small number of participants reporting ever injecting drugs (N=20) or ever sharing a needle (N=10) meant it was not possible to investigate HIV testing among this group.

This prevalence of injecting drug use over lifetime among ISSHR participants is unlikely to be representative of the drug-using population in Ireland, since many high-risk groups for drug use would not be included in the ISSHR sampling frame, for example, prisoners and homeless people. A cross-sectional survey of prisoners in Ireland showed that 43.2% had injected drugs.[150] In addition, a significant proportion of homeless Irish people have reported injecting drugs.[151]

It is important to note that the ISSHR questionnaire asked whether participants had ever *specifically* had a test for HIV. It is possible that more women have had an HIV test than reported here, since many women with young children reported not having specifically had an HIV test. However, the vast majority of those who had children since 2000 are likely to have agreed to an antenatal HIV test (for example, at least 48,000 agreed in 2002).

In summary, the ISSHR results show that HIV testing is related to a prior history of higher-risk behaviour. This is in keeping with international research on the factors most likely to increase risk of HIV transmission.

Participants who reported having an HIV test (N=613) were then asked if they had been offered counselling prior to the test. HIV testing is voluntary and requires informed consent. In Ireland, pre-test counselling is no longer automatically provided but people seeking HIV testing can opt to avail of counselling services (NASC 2000). In practice, pre-test counselling is often reserved for people believed to be at higher risk of HIV infection or those with symptoms suggestive of HIV or AIDS.

In total, 28.4% of men and 21.2% of women who had had an HIV test were offered pre-test counselling. Overall, 16.8% of men and 15.9% of women undergoing HIV testing received counselling. Of those offered pre-test counselling, 54.0% of men and 72.1% of women had received counselling.

Participants who had not been offered pre-test counselling or had not received counselling were asked if they would like information about HIV counselling services. Of these, 5.8% of men and 6% of women requested such information.

9.2.7 Services for sexual-health problems

SUMMARY

Participants who reported a period of one month or more in the past five years when they had experienced a sexual problem (as described in Table 8.5, chapter eight) were asked if they had sought professional help and, if so, where they went.

- *Of those who had sought advice for a sexual-health problem, most men (79.7%) and women (75.7%) had consulted a GP.*

- *Among men who had sought advice, most said they would prefer to see a GP (67%), followed by a specialist clinic (22.3%).*

- *Among women who had sought advice, a similar percentage said they would prefer to seek advice from a GP (46.1%) as from a specialist clinic (41.4%).*

TABLE 9.19 displays sources of advice for all those who had sought advice about a sexual problem they had experienced in the last five years.

- Most men (79.7%) and women (75.7%) consulted a GP about their problem.
- A hospital professional was the next most common option, consulted by 8.9% of men and 11.5% of women.
- Of those who sought advice, 8.4% of men and 5.7% of women went to a counsellor/psychologist/psychiatrist.
- A sexual-health clinic was used for advice by 6.8% of men and 5.2% of women.

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Of the overall population of ISSHR, those who had sought advice about sexual-health problems in the last five years, from any of the sources listed, represent very small proportions – 4.6% of all men and 6.4% of all women.

Table 9.19: Source of professional advice about sexual-health problems, among those who had experienced a sexual-health problem in the last five years	Men %	Women %
GP	79.7	75.7
Hospital professional	8.9	11.5
Sexual-health clinic (family planning/Well Woman/Gay Health, etc)	6.8	5.2
Chemist/pharmacy	0.0	1.0
Leaflet	0.0	0.5
Counsellor/psychologist/psychiatrist	8.4	5.7
Other	1.6	5.3
Base	**145**	**286**

Participants who had sought advice about a sexual-health problem were next asked about their preference for sources of such advice if all were available in their area and easy to get to (*Table 9.20*).

- Most men opted for advice from a GP (67%), followed by a specialist health clinic (22.3%).
- Women also preferred these two options but similar percentages opted for both choices (46.1% and 41.4% respectively).

Few men or women opted for any other source of advice for sexual-health problems.

The 2004 national GP survey showed that 47% of GPs provided psychosexual counselling, a reduction on the 58% who reported doing so in a similar study in 1998.[138] Lack of time was cited by one-third of those not providing the services in 2004 (lack of skill was the other factor).

Table 9.20: Preferred source of advice and treatment for sexual-health problems, among people who had sought such advice

	Men %	Women %
GP	67.0	46.1
Specialist clinic (e.g. family planning/Well Woman/Gay Health)	22.3	41.4
Hospital outpatient department	3.7	3.2
Chemist/pharmacy	0.0	1.5
Telephone helpline	1.4	1.8
Professional site on the internet	1.6	2.4
Other	3.9	3.6
Base	**145**	**285**

These patterns must be viewed with some caution as the question was asked only of those who had recently had a sexual-health problem and had seen a health professional about it. A much larger set of questions will be necessary to understand perceptions and preferences for professional advice about sexual health and location of services for such problems.

9.2.8 Difficulties in discussing sexual-health problems

SUMMARY

All participants with experience of any sexual contact (i.e. vaginal, oral or anal sex, or genital stimulation) were asked to consider how difficult it would be to discuss a sexual-health problem with a health professional if they had such a problem.

- *Over half of men (51.5%) and women (58.4%) reported that it would be easy or very easy to discuss a sexual-health problem with a health professional.*

- *Men and women aged 18-24 were more likely than all other age groups to report that it would be difficult to discuss a sexual-health problem with a health professional.*

- *Men and women with third-level education were less likely than all other educational groups to report that it would be difficult to talk to a professional about a sexual-health problem.*

THERE were significant gender differences in reported difficulty in talking about a sexual-health problem with a health professional (p<0.001) (*Table 9.21*).

Over half of men (51.5%) and (58.4%) women reported that it would be easy or very easy. There were few major differences in ease of discussion across age groups. Reported difficulty in discussion decreased slightly with age among men, from 44.9% of men aged 18-24 to 34.3% of those aged 55-64. There were few clear patterns among women, although the youngest group reported slightly more difficulty than other ages (37.1% vs. 28.4-32.5%).

Table 9.21: Estimated difficulty in talking about a sexual-health problem with a health professional, by gender and age (%)

	Very difficult	Difficult	Neither easy nor difficult	Easy	Very easy	Don't know	Base
All men	**7.6**	**30.2**	**8.6**	**39.6**	**11.9**	**2.1**	**3,057**
18-24	9.1	35.8	9.0	35.8	8.3	2.1	696
25-34	5.9	32.3	7.5	41.0	11.7	1.6	684
35-44	6.6	30.0	9.6	40.4	11.7	1.7	637
45-54	8.6	25.8	9.1	40.9	12.7	2.9	555
55-64	8.7	25.6	7.3	39.7	16.3	2.3	485
All women	**6.1**	**25.3**	**8.5**	**46.2**	**12.2**	**1.6**	**4,077**
18-24	6.8	30.3	9.4	42.9	9.4	1.2	807
25-34	5.4	23.0	8.5	48.7	13.8	0.7	949
35-44	4.3	24.8	10.5	47.3	11.3	1.6	993
45-54	7.4	24.0	7.6	45.2	13.2	2.7	747
55-64	7.6	24.9	5.1	46.2	13.8	2.4	581

Difficulty in talking about sexual-health problems was examined further by comparing those who reported that it would be difficult (difficult or very difficult) with those who thought it would not be difficult (very easy, easy, neither easy nor difficult, or don't know).

• Men (37.9%) were significantly more likely than women (31.5%) to report that it would be difficult to discuss a sexual-health problem with a health professional (p<0.001).

Table 9.22 displays the profile of men and women who reported that it would be difficult (difficult or very difficult) to talk about sexual-health problems, by age group and educational level.

Table 9.22: Profile of those who reported that they would find it difficult to talk to a health professional about a sexual-health problem

		Men Base	MV+		Women Base	MV+
	%			%		
All participants	37.9	3,057		31.5	4,077	
Current age (years)						
18-24	44.9	696	C	37.2	807	C
25-34	38.3	684	*	28.4	949	***
35-44	36.6	637	*	29.2	993	***
45-54	34.4	555	***	31.3	747	**
55-64	34.3	485	***	32.6	581	**
Education (highest level attained)						
Primary	41.8	246	***	36.5	293	**
Lower secondary	40.4	528	***	31.4	628	**
Higher secondary	38.3	1,149	**	32.4	1,703	**
Third level	31.1	1,134	C	26.9	1,453	C

+ Multivariate analysis: logistic regression adjusting for all variables in the table
*=p<0.05; **=p<0.01; ***=p<0.001; ns=not significant; C=reference group

The difference between the youngest age group and older men and women is clear from *Table 9.22.* After controlling for educational level, men and women aged 18-24 were more likely than all other age groups to indicate difficulty in discussing a sexual-health problem with a health professional.

There were also educational differences. After adjusting for current age, men and women with third-level education were less likely than all other educational groups to find it difficult to talk to a professional about a sexual-health problem.

9.2.9 Gender of health-care professionals

SUMMARY

It is possible that the gender of health-care providers is a barrier for some people in that they would prefer to discuss sexual matters with someone of a particular gender. Participants were asked if they would like to be able to choose a person of a particular gender to give them advice and help about sexual-health matters, and, if so, if they would prefer a male or female adviser.

- *Most women (61.9%) said they would prefer a female health-care provider; 36.4% reported no preference and a small proportion (1.7%) preferred a male provider.*

- *Most men expressed no preference (62.1%); 29.6% preferred a male and 8.4% a female provider.*

FIGURE 9.3 shows preferences for a male or female professional to give advice on sexual-health matters.
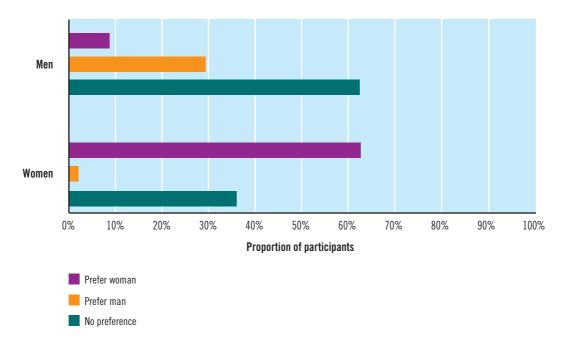
Figure 9.3: Preference for male or female health-care provider to give advice and help on sexual-health matters

Most women (61.9%) said they would prefer a female health-care provider; 36.4% indicated no preference and a small proportion (1.7%) preferred a male provider.

Most men expressed no preference (62.1%); 29.6% preferred a male and 8.4% a female provider.

While no figures are available for the actual choice available in specialist clinics, the 2004 GP survey found that access to a female health-care professional (either GP or practice nurse) was 90% in 2004, an increase from 77% in 1998.[138] Figures were not provided concerning access to a male health-care professional, presumably since the focus was on 'women's health' needs.

9.2.10 Travelling outside locality for sexual-health services

SUMMARY

Participants were asked if they had ever travelled outside their own locality for sexual-health services (either outside the Republic of Ireland or within the Republic of Ireland but outside their own locality).

- *In total, 2.4% of men and 5.4% of women had travelled outside their own locality but within the Republic of Ireland for sexual health-care services.*
- *Just 0.04% of men and 0.8% of women had travelled outside the Republic for sexual health-care services.*
- *The main reason given for having to access services outside their own locality but within the Republic was lack of services locally (50.7% of men and 61.1%). Specialist care elsewhere, anonymity and greater choice were also given as reasons for travelling within the Republic.*

OF all men and women who answered the question, 2.4% of men and 5.4% of women (N=3170 and N=4232 respectively) said they had travelled outside their own locality but within the Republic of Ireland for sexual health-care services.

Just 0.04% of men and 0.8% of women had travelled outside the Republic for such services.

Participants were asked why they had travelled for sexual health-care services (*Table 9.23*). Among men and women, by far the most common reason (for having to access services outside their own locality but within the Republic) was lack of services locally (50.7% of men and 61.1% of women). Specialist care elsewhere, anonymity and greater choice were also given as reasons for travelling within the Republic.

Table 9.23: Travel outside own locality (both within the Republic and outside) for sexual health-care services

	In Republic		Outside Republic
	Men (%)	Women (%)	Women (%)
No services locally	50.7	61.1	50.4
Anonymity	17.6	11.9	6.6
Greater choice	14.5	12.1	13.5
More specialist care	19.0	14.5	19.1
Other reason	18.1	13.2	17.3
All	79	251	43

Since only three men reported travelling outside the Republic, results are not shown. While only 43 women travelled outside the Republic, results are shown but should be used cautiously. It is clear that most of these women travelled outside the Republic because there were no services locally. One in five women who travelled abroad reported doing so because of 'more specialist care' and 13.5% said they travelled for greater choice.

In summary, the most common reason participants gave for having to travel outside their own locality was lack of services locally. It is worth noting that, when asked about access to sexual-health services, lack of local services was also reported as a barrier to contraceptive services by 44.2% of men and 46.3% of women, and as a barrier to STI services by 43.8% of men and 48.1% of women (see sections 9.2.2 and 9.2.5).

Examination of this issue was necessarily brief in a broad-ranging survey. Participants were not asked about the specific time when they sought or needed services. Thus it is not clear, for instance, if lack of local access would have been seen as a recent problem or one which reflected the situation some time ago.

Given the wide availability of sexual-health services through general practice in recent years, as reported in the 2004 GP survey of 'women's health'[138] discussed earlier, and given that this survey reported no differences in urban or rural availability of services, it is not clear if there is a mismatch between their perceived and actual availability. This requires more focused study.

9.3 Summary

ONE in 10 men and over half of the women interviewed had sought advice about contraception. The GP was the most common source of advice, followed by the specialist family planning/Well Woman clinic.

While men's preferences for sources of contraceptive advice were similar to their actual usage, considerably more women would prefer services from a specialist clinic than are currently using them; four in 10 women selected them as their preferred source of advice (one in two chose the GP).

Almost half of both men and women reported lack of services as a barrier to use of contraceptive services. Younger women and those with lower educational levels were more likely to report lack of local services as a barrier. Rural residence was also associated with lack of access to contraceptive services. About a quarter (somewhat more women than men) also reported that cost was a barrier to contraceptive services. Both men and women who were younger or had lower educational attainment were more likely to say that cost would be a barrier. Additionally, men in manual social classes and living in a city saw cost as more of a barrier.

Men were significantly more likely than women to agree that embarrassment was a barrier to contraceptive services (30.5% vs. 26.2%). Younger and less educated participants were also more likely to cite embarrassment as a barrier.

While the proportion of women who had sought advice about STIs was much lower than the proportion who had sought contraceptive advice (8.3% vs. 52.3%), similar levels were reported for men (9.4% STI advice and 10.3% contraceptive services).

Current relationship status was strongly associated with having sought advice about STIs. Men who were cohabiting, in a casual relationship or not in a relationship were about twice as likely as married men, and men in a steady relationship were three times more likely than married men, to have sought advice. Compared with married women, those who were cohabiting were over four times more likely, those in a steady relationship three and a half times more likely, those in a casual relationship over five times more likely, and women not in a relationship twice as likely to have sought advice about STIs. Men and women who lived in a city were more likely than those living in a town/rural area to have sought advice about STIs.

GPs were the most common source for advice on STIs. More women than men got advice from this source (42.5% vs. 32.3%). Women were also more likely than men to have got advice from family planning/Well Woman clinics (22.2% vs. 4%). Over half of both men and women said they would prefer to seek advice from their GP. Clinics such as family planning/Well Woman, and other sexual-health centres were also preferred by a substantial number of men (23.1%) and women (41.6%). These findings indicate clear preferences among the public and highlight the need to provide a variety of services if maximum use of services is to be encouraged.

About one in 10 men and women in ISSHR had attended a GP or an STI clinic for an STI check-up. More younger than older men and women reported an STI check-up, as did more participants with third-level education.

Of groups at potentially higher risk of infection, those whose sexual initiation occurred before 17, who reported more than one partner in the last year, who had ever had a same-sex partner, and men who had paid for sex were all more likely to have had an STI check-up. One interpretation is that people in these groups recognise that they have a higher probability of having an STI, and such testing is therefore to be welcomed. However, since the reasons for attending an STI service were not assessed in this study, it is possible that, in a country with very low levels of STI testing, only those who had symptoms (as distinct from those who felt they could be at risk) presented for assessment. If this was the case, then opportunities for identifying non-symptomatic STIs are low. Further study of reasons for presenting to STI services is needed.

GPs and sexual-health clinics treated similar proportions of diagnosed STIs (about 40% in each case, with no gender differences).

Lack of local services, embarrassment and cost (in descending order) were cited as barriers to use of STIs. Men and women had similar views on barriers. About a quarter of men and women agreed that cost would be a barrier to STI services. Younger age and lower educational level were associated with cost as a barrier. Over a third of men and women felt that embarrassment would be a barrier. Younger men in particular cited embarrassment as a barrier. Over four in 10 men and almost half of women felt that lack of local services would be a barrier to use of STI services. Young women and rural dwellers were significantly more likely to say that lack of local services would be a barrier.

Barriers thus raise issues of equity – being able to afford and being able to access local services.

While considerable proportions of the population reported not expecting it would be difficult to talk to a professional about sexual-health issues, the fact that a notable proportion anticipated embarrassment needs to be addressed through education and modelling of appropriate health-seeking behaviours, tailored by gender and age.

More men (9%) than women (6.9%) reported having specifically requested an HIV test (many more women may of course have had the now routine prenatal HIV testing). Younger and more highly educated men and women were most likely to have had an HIV test.

Of high-risk groups, those who experienced first intercourse before 17, women who reported multiple partners in the last year, men who ever paid for sex, those who ever had a same-sex partner, and those who had unprotected sex abroad in the last five years were all more likely to have had an HIV test.

As with STIs more generally, it is not clear if presentation for testing by higher-risk groups is evidence of preventive or symptom-prompted behaviour. Recent evidence in a review of Irish and UK HIV services showed that many HIV-positive individuals were being diagnosed late; for example, being diagnosed with AIDS.[152]

Of participants who had sought advice for a sexual-health problem, over three-quarters of men and women had consulted a GP. Among men who had sought advice, two-thirds said they would prefer to see a GP and one in five a specialist clinic, for advice about a sexual-health problem. Among women who had sought advice, about four in 10 said they would prefer to seek advice from a GP and another four in 10 would prefer a specialist clinic.

Just over half of men and women reported that it would be easy or very easy to discuss a sexual-health problem with a health professional. Younger and less educated people anticipated difficulty in doing so.

With the exception of higher use by women of contraceptive services and younger men citing embarrassment as a barrier to using such services, women and men reported similar use of sexual-health services as well as views about preferences and difficulty in discussing sexual-health issues with a professional.

Regarding service provision, an important aspect of promoting appropriate use of services is to ensure that the provider of the service is acceptable. An often-discussed potential barrier to use of services is the gender of the provider. Over 60% of women said that they would prefer a female health-care provider, while one-third had no preference. Over 60% of men expressed no preference, but almost a third preferred a male professional.

Very small numbers of both men and women had travelled outside of their own locality but within the Republic of Ireland for sexual health-care services; the proportion of men and women travelling outside the Republic was similar. Over half of both men and women cited lack of local services as the reason for having to find services outside their own locality. Specialist care elsewhere, anonymity and greater choice were also given as reasons for travelling for services.

Thus, while some people may travel, despite the availability of local options, because they want choice and anonymity, over half travelled outside their own localities because a local option was not available.

The information obtained about service preferences shows that most people want options which fit with local availability of services – for example, the services provided by GPs.

10

Conclusions and Recommendations

10.1 Introduction

THIS chapter draws together the evidence and discussion of the preceding chapters to derive conclusions about the important dimensions of sexual behaviours in Irish society and their implications for developing policy. Rather than summarising all the material in the report, a task better achieved in the chapters themselves, this chapter focuses on specific issues and also draws on material from the whole report and beyond, including the complementary ISSHR reports, when outlining issues and recommending possible policy response.

10.2 Early first sexual experiences and sexual competence

ISSHR Sub-Report 1, 'Learning About Sex and First Sexual Experiences', identified 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 those currently aged 55-64. The difference among young women was 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. The gap between behaviour and the legal situation here is a concern – in part because of the clear association between initiation of sexual intercourse at an early age (under 17) and poorer sexual-health profiles both at the time and later in life. The ISSHR data showed, for instance, that those who had sex before 17 were significantly:

- less likely to use contraception on that first occasion
- more likely to regret that sex happened at that point
- if a woman, less likely to be fully consenting or as willing as the other partner

Both within this report and in the complementary ISSHR reports, early initiation of sexual intercourse was also associated with negative outcomes in later life, including:

- lower probability of using contraception when not wanting to become (or have partner become) pregnant
- lower likelihood of consistently using condoms
- experience of crisis pregnancy, abortion and an STI
- experience of unprotected sex abroad in the last five years
- among men, having paid for sex

The mechanisms by which early first intercourse relates to later higher-risk behaviour are difficult to ascertain. It seems that a small group of people are at increased risk because they adopt a range of higher-risk behaviours, beginning with early first intercourse.

Studies have shown that structured sex education among young people can lead to sexual debut being delayed. However, the poor sexual-health outcomes that follow early sex appear to arise more from a lack of sexual competence at the time of early initiation than young age *per se*. Older age at first sex has been associated with higher levels of self-confidence and a greater ability to negotiate the encounter as well as better planning and preparation. There is no reason why such characteristics could not be improved among younger Irish people.

Encouraging young people to wait until a later age and giving them the confidence to do so may thus be one answer to improving sexual-health outcomes, but investment in sex education may also bring results. Relationships and Sexuality Education (RSE) is now mandatory in Irish schools. The RSE programme guidelines do include information on both the negotiation of sexual partnerships and the use of contraception and protection. However, the programme has not yet been fully adopted by all schools. An evaluation of sex education in Irish schools in 2000 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.[153] The report concluded that many children were not receiving adequate sex education at school or at home. This finding was supported by results from the ISSHR study, which also suggest that many younger people surveyed (those currently aged 18-24) were not receiving an adequate grounding in sex education.[153] Subsequent studies indicate progress on this issue (see Sub-Report 1 for further details) but none indicates that we are yet close to universal coverage.

RECOMMENDATION: A holistic programme of relationships and sexuality education needs to be fully implemented, as appropriate, in all primary and secondary schools nationally. The capacity of these programmes to increase sexual knowledge and competence should be evaluated and augmented where necessary.

10.3 Risk behaviours in the Irish population

THE ISSHR survey is the first Irish study of sexual knowledge, attitudes and behaviours. Thus it is not possible to say with certainty that levels of sexual risk behaviours found in the Irish population have increased over time.

The third chapter of the ISSHR main report presented a large amount of evidence that sexual attitudes in Ireland had changed substantially in the last three decades. Successive surveys of social attitudes make it clear that attitudes toward sexual behaviour have significantly liberalised among Irish people. Whereas a large majority of Irish people would, if asked in the 1970s, have stated that sex before marriage, 'casual sex' and homosexual relationships were wrong, by the time of the ISSHR survey in 2004/5, those seeing these behaviours as wrong were in the minority.

Perhaps more importantly, there has been an acceleration in the rate of liberalisation across age groups with younger age. This 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. Indeed, the ISSHR main report found that sexual attitudes were often a poor predictor of actual behaviours.

However, social changes such as the separation of sex from the context of marriage are likely to have at least contributed to an increase in the average number of partners among Irish men and women. The changing pattern of sexual attitudes across age groups was closely aligned with cohort change in the average number of sexual partners. 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 (although, interestingly, the sexual attitudes measured among younger age groups in Ireland were still significantly more conservative than those in other European countries).

This cohort change means that younger age groups in Ireland are beginning their sexual experiences at a lower age. Their first sexual experience is also much more likely to have been with a casual partner or someone with whom they were not having a 'romantic' relationship before sex began, than was the case for earlier generations of Irish people. Within sexual relationships, younger age groups are also more likely to engage in behaviours such as anal sex and to report concurrent sexual relationships. Each of these behaviours is associated with a higher risk of STIs.

On the positive side, it is clear that younger age groups are also more likely to use contraception and protection, particularly when the relationship is casual or short-lived. This suggests that younger age groups are more aware of safe-sex messages. There was added evidence of this in the higher levels of knowledge among younger age groups about sexual-health issues (as outlined in the ISSHR main report). However, a significant proportion, of around 10% of young people, were still found to not use contraception, including condoms, to avoid pregnancy or STIs.

It may be important with such groups to emphasise the double risks involved in unprotected sex since some of those not using contraception provide reasons that suggest ambivalence about pregnancy while others report trusting that a partner, even one they had only recently met, would not put them at risk of getting an STI. Recent media campaigns in Ireland have separated messages about contraception from those about protection; contraception messages have only recently been broadcast for the first time on national television. The more complete message about the double need for protection in sexual relationships needs to be promoted if the figure of one in 10 at risk is to be tackled.

RECOMMENDATION: Public education campaigns should be used to alert all groups, but particularly younger people, that unprotected sex carries with it the double risk of unintended pregnancy and sexually transmitted infections, including HIV.

10.4 Planning for sexual encounters and the role of alcohol

A SUBSTANTIAL minority of ISSHR respondents reported that they did not consistently use contraception and protection during sexual intercourse. Chapter three identified a general lack of planning and the unexpected nature of some sexual opportunities as the main reasons for non-use of contraception at most recent sexual intercourse. This corroborates what was found in the ICCP study. Both studies also found that this is a major issue in relation to contraceptive use at first intercourse, particularly among younger people (18-29). This younger group also cited not having thought to use contraception, not knowing about or understanding about contraception, and alcohol or illicit drug use as common reasons for non-use. Men also mentioned being young, naïve, stupid or careless.

While a lot has been achieved in terms of safer sexual practices, by many younger people in particular, it is clear that more positive attitudes towards contraceptive planning and responsibility are needed.

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.

As already said, planning for safe sex needs to take into account the fact that the general context within which an encounter occurs may not be conducive to responsible behaviour. Of particular concern in Irish society is the role of alcohol, but also, increasingly, illicit drugs, in shaping behaviour. To reduce the negative impact of alcohol and illicit drugs on contraceptive and safe-sex practices, all sectors providing education, information and services relating to sexual health and contraception need to focus their policies more clearly on this issue. Activities implementing the recommendations of the National Alcohol Policy should take account of the clear link between alcohol and unprotected sex. Similarly, the life-skills programmes provided as part of the Relationships and Sexuality Education (RSE) and Social, Personal and Health Education (SPHE) programmes in schools (which include an exploration of the impact of alcohol on sexual behaviour and particularly risk-taking behaviour) need to be considered as an important vehicle for delivering messages about the importance of responsibility in both alcohol use and safe sex.

RECOMMENDATION: Health-promotion strategies need to foster more responsible public behaviour concerning the use of alcohol and illicit drugs, given their role in unprotected sexual encounters.

10.5 The assumption by older women of their low risk of pregnancy

CHAPTER three of this report found that a substantial proportion of older women did not use contraception consistently even though they did not wish to become pregnant at that point in their lives. Follow-up questions showed that many assumed they had a negligible risk of conception and so did not use contraception as they felt it was not necessary. Yet many of these women were in their late 30s and 40s. Very few women become menopausal before 45. Although fertility diminishes during the 30s and particularly after 40, 14% of women who reported a crisis pregnancy in the ISSHR survey were over 35 at the time of pregnancy (while 4% were over 40). This suggests that many women were taking a greater risk of unplanned and perhaps crisis pregnancy than they realised.

RECOMMENDATION: Public education campaigns should alert older women and their sexual partners about the risks of assuming low fertility.

10.6 Developing sexual-health services

EVIDENCE from ISSHR suggests a number of barriers to optimal sexual health. Barriers as perceived by ISSHR participants themselves related to access, cost and embarrassment. Particular differences – such as greater problems with cost for younger participants and greater embarrassment in accessing service for men – provide signposts for developing specific targets in planning services which are accessible and acceptable to all.

The relationship between service use and barriers to availability of free health care (the 'medical card') warrants further investigation, particularly the knowledge among medical-card holders of the availability of free health-care services. The variety of preferences expressed for types of service suggests that a policy of developing varied services should continue in the short to medium term.

However, access to services is the greatest challenge; about half of those surveyed who perceived barriers to services cited lack of access. Perceived lack of access may be partly due to people's lack of awareness of available services or service providers. In the case of services provided by GPs, for instance, advertising by individual GPs is not permitted. In terms of cost, many individuals may not be aware that they can attend services at GUM clinics without a charge. There may thus be a need for centrally coordinated provision of clearer information that highlights the availability of services and/or a need for service-coordinating services. The lessons learned by the Crisis Pregnancy Agency, in terms of directing people who need advice to appropriate services in a locality suited to them, might be useful in organising the promotion of contraceptive, STI and other sexual-health services.

While cost as a barrier may be avoided in some situations through greater publicity about sexual-health services, it has been consistently raised throughout ISSHR as a barrier to access to contraception and protection, as well as health checks. Sexual health is a public as well as an individual resource, and there have been increasing arguments that it should be considered in a

public-health framework (e.g. Frieden, Das-Douglas, Kellerman & Henning, 2005). The cost-effectiveness, as well as cost, of supporting contraception, protection and other sexual-health services in Ireland needs to be formally considered.

It is also clear from the ISSHR sample that lack of knowledge of some sexual-health issues is a barrier. As well, it was not possible to ascertain in a survey format if Irish people used sexual-health services, such as checks for STIs, as often as appropriate. It is clear, however, that levels of testing for STIs were significantly lower than those in other comparable countries. One of the challenges, therefore, is to promote more appropriate (and thus almost certainly *more*) sexual health checks in a situation where current services are already stretched.

An analysis of the costs and timeframes involved in other methods of developing services is needed in order to make decisions about how and where to expand sexual-health services nationally in the coming years. Investment in general practice, for instance, would involve working with an existing and extensive national network to further develop and promote sexual-health services from GPs. Investment in specialist clinics requires specialist medical and nursing staff, and premises. The ease of finding all of these requirements needs to be evaluated. Also, increased activity will have an impact on the capacity of the relevant testing, and treatment, facilities.

RECOMMENDATION: A national plan to develop sexual-health services, which will encompass the issues for users of access, cost and embarrassment, is needed. Service supports such as laboratory and follow-on treatment facilities need to be factored into this plan.

10.7 Information needs into the future

A PREREQUISITE of effective policy and planning is access to up-to-date, valid and reliable information. The ISSHR survey and study has provided a much-improved database of information on sexual knowledge, attitudes and behaviours among Irish people. However, since this large-scale study inevitably raises as many questions as it answers, it needs to be followed up with more detailed research. In particular, more detailed research is needed on sub-groups such as lower socio-economic groups where the prevalence of risk factors is higher but where the reasons for this are unclear.

Future research on this sub-group and other groups should attempt where possible to use compatible concepts and develop from the research carried out as part of ISSHR and other recent studies such as the ICCP survey. Since ISSHR, as the first major Irish KAB study, adopted a sampling frame of the non-institutionalised population in private residential housing, many sub-groups are not represented in a way that is immediately useful for policymakers. Further research needs to focus on many under-represented groups – e.g. early school-leavers, people with physical or learning disabilities, and those with different cultural beliefs such as Travellers and some groups of migrants to Ireland. This ISSHR sub-report indicates that people who are most vulnerable in terms of early sexual experience, such as early school-leavers, should be the next focus of research attention.

The ISSHR survey should also be seen as providing the baseline data for future research on sexual knowledge, attitudes and behaviours. Its findings make clear that both sexual attitudes and behaviour have been rapidly changing in Ireland, particularly among young people. It is imperative that we build on the work of the ISSHR study by regularly collecting evidence on trends. This will provide the evidence necessary to develop and amend policies for maximum effectiveness.

Lastly, the extent of change across age cohorts underlines the pace of change in sexual knowledge, attitudes and behaviours. It is also clear that early sexual experiences were 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 that is locally tailored and contemporary. 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 essential 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 young people.

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 on the sexual knowledge, attitudes and behaviours of those in lower socio-economic groups and other sub-groups, not adequately represented in a national household survey.

RECOMMENDATION: A national survey of sexual knowledge, attitudes and behaviours should be carried out among adolescents in Ireland.

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