

# MISI 2015

FINDINGS FROM THE MEN WHO HAVE  
SEX WITH MEN INTERNET SURVEY

**MISI.ie**

MSM Internet Survey Ireland



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## DESIGN BY:

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[www.creationpod.ie](http://www.creationpod.ie).

## NOEL WALSH 1960 - 2008

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MISI 2015 is dedicated to the memory of Noel - still greatly missed by his partner, family, colleagues and friends - a HIV activist and member of the Gay Health Network, who promoted an understanding and awareness of HIV, while challenging HIV-related and all forms of stigma.

AR DHEIS DÉ GO RAIBH A ANAM

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## FOREWORD

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We are pleased to introduce the 2015 Men who have sex with men Internet Survey Ireland (MISI 2015), which reports on the sexual health knowledge, attitudes, needs and behaviour of over three-thousand men in the Republic of Ireland.

Men who have sex with men (MSM) are at a higher risk for HIV and STIs in Ireland, accounting for approximately half of all new diagnoses of HIV annually and a significant number of other STIs. It is really important to have up-to-date and accurate information, as presented in MISI 2015, in order to effectively meet the particular HIV and STI prevention needs of MSM.

This study identifies clear differences in knowledge, attitudes, needs and behaviour among MSM relative to age, education, employment status and location, and signposts where and to whom HIV and STI prevention strategies should be targeted. The findings from the study will be used to support the HSE Sexual Health & Crisis Pregnancy Programme (HSE SHCPP) to deliver the strategic recommendations of the National Sexual Health Strategy 2015 – 2020, Ireland's first national framework for sexual health and wellbeing. As part of its programme of work, the specific needs of MSM will be addressed in collaboration with key stakeholders through education programmes, clinical services, surveillance approaches, research and information-sharing. We acknowledge the hard work and dedication of stakeholder organisations working in the areas of HIV and STI prevention and support for many years. We look forward to working closely with these organisations to achieve the strategic goals and objectives underpinning the strategy.

Since the publication of the strategy and the reconfiguration of the HSE Crisis Pregnancy Programme to incorporate sexual health at the end of 2015, a number of initiatives have been put in place to account for the needs of MSM and others. These have included the establishment of the National Condom Distribution Service, the establishment of a national sexual health communications group, and the broadening out of the HSE SHCPP advisory group to include groups representing MSM. We look forward to building on this work over the next four years.

We would like to acknowledge the work of the authors from the Health Protection Surveillance Centre, the Gay Men's Health Service and Gay Health Network for embarking on this important survey. We would also like to thank the Steering Group for the expertise and guidance they provided throughout the study.

Finally we would like to thank all of the men who took the time to respond to the MISI 2015 survey and for providing invaluable data about their lives and experiences. The information they provided will be used to develop initiatives aimed at improving sexual health and wellbeing and reducing negative sexual health outcomes among MSM in Ireland.

Dr. Fiona Lyons

*(National Clinical Lead, Sexual Health)*

Helen Deely

*(Programme Lead, National Sexual Health and Crisis Pregnancy Programme)*

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## ABBREVIATIONS

AI	Anal intercourse
AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral therapy
ECDC	The European Centre for Disease Prevention and Control
EMIS	European MSM Internet Survey
EU	European Union
GHN	Gay Health Network
GMHS	Gay Men's Health Service
GMSS	Gay men's sex survey
GUM	Genito-urinary medicine
HIV	Human immunodeficiency virus
HPSC	Health Protection Surveillance Centre
HSE	Health Service Executive
HSE SHCPP	HSE Sexual Health & Crisis Pregnancy Programme
MSM	Men who have sex with men
ncUAI	Non-concordant unprotected anal intercourse
PEP	Post-exposure prophylaxis
PrEP	Pre-exposure prophylaxis
STI	Sexually transmitted infection
UAI	Unprotected anal intercourse
WHO	World Health Organization

## GLOSSARY

CD4 count	The count of the number of CD4 cells in a cubic millimetre of blood. CD4 cells are white blood cells (sometimes called T-cells, T-lymphocytes, or helper cells) that play an important role in the immune system. CD4 counts in a HIV infected person can be used to determine the stage of HIV infection.
HIV status	A person's antibody status established by HIV testing, for example HIV-negative, HIV-positive, or unknown (untested)
n=	The number of respondents represented
Non-concordant UAI	Unprotected anal intercourse with a partner of unknown or discordant HIV status
Non-steady male partner	This refers to any partner men have had sex with once only or more than once, but who they do not think of as a steady partner (this includes one night stands, anonymous and casual partners, and regular sex buddies)
Seroconcordant relationship	A relationship, where both partners have the same HIV status (either both positive or both negative)
Serodiscordant relationship	A relationship, in one in which one partner is infected by HIV and the other is not.
Sex	In this survey, we use the term "sex" to mean physical contact to orgasm (or close to orgasm) for one or both partners.
Sexual intercourse	In this survey, we use "sexual intercourse" to mean vaginal or anal sex where a penis is inserted into a vagina or anus.
Significant	This is a statistical term used to denote how likely a finding is to have occurred by chance. For example, if an association is statistically significant at a level of $p < 0.05$ , then there is less than a 5% likelihood that it is a chance finding.
Steady male partner	Refers to boyfriends or husbands. It does not refer to those partners which men meet now and then for sex.
Transman	A trans man (sometimes trans-man or transman) is a transgender person who was assigned female at birth but whose gender identity is that of a man.
Unprotected Anal Intercourse	In this report, this term refers specifically to anal intercourse without a condom. Can also be referred to as condomless AI (cAI).
Viral load	Used to describe the amount of HIV in a body fluid, depending on the applied laboratory technology.



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Margaret Fitzgerald	Senior Surveillance Scientist, HPSC
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Ford Hickson	Lecturer, Sigma Research, London School of Hygiene & Tropical Medicine (LSHTM)
Derval Igoe	Specialist in Public Health Medicine, HPSC (Chair)
Peter Keogh	Senior Lecturer, Faculty of Health and Social Care, Open University
Daniel McCartney	Researcher, Gay Health Network (GHN); LSHTM
Maeve O'Brien	Research & Policy Officer, HSE SHCPP
Siobhan O'Dea	Manager, Gay Men's Health Service (Joined March 2016)
Kate O'Donnell	Surveillance Scientist, HPSC
Mick Quinlan	Manager, GMHS (retired) & Board Member of GHN
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- Belong To [www.belongto.org](http://www.belongto.org)
- Gay Switchboard [www.gayswitchboard.ie](http://www.gayswitchboard.ie)
- GOSHH [www.goshh.ie](http://www.goshh.ie)
- HIV Ireland [www.hivireland.ie](http://www.hivireland.ie)
- Outhouse [www.outhouse.ie](http://www.outhouse.ie)
- Positive Now [www.positivenow.ie](http://www.positivenow.ie)
- Gay Men's Health Service [www.gmhs.ie](http://www.gmhs.ie)
- Man2Man [www.man2man.ie](http://www.man2man.ie)
- Gay Health Network [www.ghn.ie](http://www.ghn.ie)
- Gay Community News [www.theoutmost.com](http://www.theoutmost.com) (website of GCN magazine)
- HSE Sexual Health and Crisis Pregnancy Programme [www.crisispregnancy.ie](http://www.crisispregnancy.ie)
- HPSC [www.hpsc.ie](http://www.hpsc.ie)

We would like to thank Sigma Research for providing the GMSS 2014 survey template and the team at Demographix for their assistance with the design of the survey. Thanks is also extended to Fiona Cloak (HPSC) for map preparation.

## EXECUTIVE SUMMARY

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MISI 2015 was a large-scale community based survey among adult MSM living in Ireland. It focused on HIV and STI testing, sexual behaviour, substance use, access to and use of HIV prevention interventions (condoms and PEP), knowledge about HIV and STIs, and awareness and impact of Irish health promotion materials. The purpose of the study was to monitor behaviour, needs and prevention interventions, and to identify prevention needs and gaps among this group.

## METHODS

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The survey was open for online self-completion by men 18 years and older for 13 weeks between March 1st and May 31st 2015. It was promoted through diverse means including: an initial launch campaign with press release; widespread advertising on gay community and health promotion websites; and promoted posts on Facebook and Twitter. Over 700 men completed the survey on the first day and 59% of respondents completed it in the first month. There were 3,234 responses by the close of the survey, 3,090 of which were eligible for inclusion in analysis.

## DEMOGRAPHICS

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- The median age of respondents was 30 years (mean age 33 years).
- Almost half of respondents were living in Dublin with a further 20% living in Cork, Galway or Limerick.
- Eighty-six percent of respondents were born in Ireland and 14% were born abroad.
- Over half of respondents reported a high level of education (degree or higher).
- Two thirds of men were in employment and almost a quarter were students.
- The majority (79%) of men who took part in the survey described themselves as gay and 13% identified as bisexual. Men were more likely to identify as bisexual if they were aged under 20 or over 60 years.
- Seventy-five percent of men were attracted only to men, 25% to both men and women, and less than 1% to women only.
- Seventy-nine percent of men had sex exclusively with men in the previous year, while 11% had sex with both men and women and 3% only with women. A further 7% of men reported no sexual activity with men or women in the previous 12 months.
- Just over half of men surveyed were out to all or almost all who knew them and 9% were out to no one.
- Overall, 53% were single, 39% were in a steady relationship with a man and 8% were in a steady relationship with a woman.

## HIV INFECTION AND TESTING

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- More than a third of men (37%) had never tested for HIV and 61% had not tested for HIV in the last year.
  - Those least likely to have ever tested for HIV were men living outside Dublin, men under 20 years, men born in Ireland, men with a low level of education, students, men who did not identify as gay and men who were not out. These were also the groups that were least likely to have tested for HIV in the past 12 months.
  - Five percent of respondents had been diagnosed with HIV. Of those who ever tested for HIV, 8% were HIV positive and among those who tested in the last 12 months, 1.5% were positive.
  - Prevalence of HIV was higher among men in their 40s, men who identified as gay and men who were out.
  - Two thirds of men (67%) were definite about their HIV status, either positive or negative. However the remaining third were unsure of their HIV status, thought it was probably negative (29%), probably positive (0.2%) or didn't know (4%). The proportion of men who were unsure was significantly higher among those who never tested (38%) compared to those who had previously tested negative (32%).
  - The preferred settings for a future HIV test were within a hospital or sexual health clinic (37%), followed by GP (19%), self-testing (15%), doctor in private practice (15%) and community HIV testing service (9%).
  - Among those who never tested for HIV, the most popular choice for a future test was a hospital or sexual health clinic (30%), followed by GP (23%) and self-testing (18%). Self-testing was considered more favourably among those who had never tested than among those who had tested negative (13%).
-

- Confidence in getting a HIV test was higher among those who had previously tested negative (96%) compared to men who had never tested (77%).
- Men who lacked confidence in accessing a HIV test included men living outside Dublin, men under 25 years, those with a low level of education, students, men who did not identify as gay and men who were not out.
- More than 95% of men were satisfied with the respect and confidentiality shown to them at their last test. However, among HIV positive men, 25% said they did not receive counselling at the time of their HIV diagnosis and 18% were dissatisfied with the counselling they received.
- Seventy nine percent of HIV positive men surveyed were currently on ART, and of those on ART, 91% were virally suppressed.
- Of the HIV positive men, 41% had been diagnosed late (CD4 count less than 350cells/μl) including 22% diagnosed with advanced HIV infection (CD4 count less than 200 cells/μl).

### SEXUALLY TRANSMITTED INFECTIONS (OTHER THAN HIV)

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- Thirty-nine percent of men had an STI test in the last year, 23% last tested for an STI more than 12 months ago and 38% never tested for an STI.
- Eighty-three percent of 18-19 year old men surveyed had never had an STI test.
- Those least likely to have ever had an STI test were students or unemployed men, men under 25 years, men living outside Dublin, men born in Ireland, men with low or medium levels of education, men who never tested for HIV, men who did not identify as gay, and men out to few or no one. These were the groups that also reported lacking confidence in accessing STI services.
- Among men who had an STI test within the last 12 months, 68% reported attending an STI clinic for their last test, while 29% attended the GP and 3% used other services.
- Three site testing (urogenital, anogenital and pharyngeal sites) and physical examination was not undertaken universally. The proportion of men who had samples taken from all three sites was higher among men tested at STI clinics. Among respondents who attended primary care for an STI test in the last 12 months, anal examination and urethral and anal swabs were taken in ≤50% of occasions and pharyngeal swabs were taken in 56% of occasions.
- Nine percent of men reported having a newly diagnosed STI in the last 12 months. Among men who reported testing for STIs within the last 12 months, 21% had a newly diagnosed STI. Those newly diagnosed with an STI were more likely to be men who were unemployed, men who identified as gay and HIV positive men. The proportion of men with a newly diagnosed STI increased as the number of male sex partners increased. Thirty percent of HIV positive men, who had tested for an STI in the last 12 months, had a newly diagnosed STI.

### SEXUAL BEHAVIOUR

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- Overall, 96% of men reported ever having sex with a man and 90% had sex with a man in the last 12 months.
- Of men who reported having a new male sex partner in the last 12 months, 62% met their most recent sex partner via a smartphone app or website, 22% in social venues, 11% in sex focused venues and 6% elsewhere. The internet was the most common means of meeting most recent sex partners for all age groups. In general, younger men were more likely to meet in a social venue, whereas older men were more likely to use sex focused venues, particularly those aged over 60 years.
- Among men who reported ever having sex with a man, 71% had unprotected anal intercourse (UAI), 55% had UAI within the last 12 months and 47% had UAI within the last 6 months.
- Fifty-five percent of men had sex with one or more steady male partner in the last 12 months. Of these men:
  - Seventy percent reported sex with one partner, 23% with 2-4 partners and 7% with five or more steady partners.
  - Sixty-eight percent had UAI. The majority of men reported UAI with one partner (82%), 14% with 2-4 partners and 4% with five or more.
- Of the men who had UAI with one steady male partner in the last 12 months, 15% had non-concordant UAI (ncUAI) (i.e. where HIV status is different or unknown). The proportion having ncUAI was highest in men aged 18-19 years, men with a lower level of education, bisexual men and HIV positive men.

- Sixty-one percent of men had sex with one or more non-steady male partner in the last 12 months. Of these men:
  - Eighteen percent had one non-steady partner, 34% had 2-4 partners, 21% had 5-9 partners and 27% had 10 or more partners
  - Forty-two percent had UAI. Of those who had UAI, 42% had one partner, 37% had 2-4 partners, 9% had 5-9 partners and 12% had ten or more partners.
- Men most likely to have UAI with a non-steady partner in the previous 12 months were men with a lower level of education, men who were unemployed and HIV positive men.
- For men who had UAI with one non-steady partner, 54% had non-concordant UAI.
- Combining steady and non-steady partners into a total number of partners category, 69% of men had sex with more than one partner, and 25% had UAI with more than one partner in the last 12 months.
- The number of UAI partners varied by age group and country of birth. Those with a lower level of education, unemployed men, bisexual men and HIV positive men had more UAI partners. Seventy-seven percent of HIV positive men reported more than one UAI partner.
- Forty-six percent of men reported ever having sex with a woman and 14% reported that they had sex with a woman in the past 12 months. Among men who had sex with a woman in the past 12 months, 60% had one female partner, 27% had 2-4 and 13% had five or more.
- Among men with more than one female sex partner in the past 12 months, 20% never used a condom and almost 50% used condoms inconsistently.
- The proportion using condoms when having sex with women decreased with increasing age and more than half of the men over 40 years never used condoms.

## ALCOHOL, TOBACCO AND DRUGS

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- Ninety percent of men consumed alcohol in the last year, and 63% of those drank alcohol at least once a week. Three percent of respondents drank alcohol every day. The most frequent alcohol consumers were older, more educated, lived in Dublin, and more likely to be employed.
- The most frequent alcohol consumers did not necessarily drink the greatest quantities of alcohol in a typical day of drinking. Those who drank the greatest quantities in a typical drinking session were more likely to be younger men, men who were less educated, men who had never tested for HIV, or current students. They were also more likely to have used drugs in the last year.
- Over half (58%) of respondents binge drink on a typical drinking occasion, and 44% binge drink every week. Binge drinking is more common among younger MSM and students. Those who binge drink were less likely to have tested for HIV, and more likely to have used poppers or other recreational drugs in the last year.
- Thirty-five percent of men were current smokers. Smoking was more prevalent among younger men, and less educated men. However, smokers aged under 25 years smoked fewer cigarettes per day compared with older smokers. More than half (53%) of those who had tested HIV positive were current smokers.
- One third of men used poppers in the last year. Popper use was more likely among older men, those who lived in Dublin, more educated men, employed men, and men who were HIV-positive.
- Seven percent of men reported using drugs which are commonly associated with chemsex during the last year, and use peaked among men aged 25-29 years. Use was more common among respondents living in Dublin, and those who were HIV-positive.
- Other recreational drug use was reported by 36% of respondents during the last year. The most common drugs were cannabis, ecstasy and cocaine. This was more likely in younger men, students, and those living in Dublin. Recreational drug use peaked among 20-24 year olds and among HIV positive men.

## KNOWLEDGE AND HEALTH PROMOTION

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- When knowledge regarding HIV testing and treatment, HIV transmission and knowledge regarding STIs were tested using a series of questions, a composite knowledge score of the proportion of correct answers identified several gaps.
- The biggest gaps in knowledge were identified in relation to HIV and STI co-infection, followed by gaps in knowledge around HIV transmission and HIV testing and treatment. In all, 32% did not know that effective treatment of HIV reduces the risk of HIV being transmitted, and 45% did not know that when a HIV infected and uninfected person have sex, the chances of HIV being passed on during sex are greater if either partner has an STI. The subgroups of the population in whom the biggest knowledge gaps occurred were in young people, those with lower educational qualifications, those who do not identify as gay, and those who had never tested for HIV.
- There was a low level of awareness of PEP, in particular in younger (<25 years) and older (≥50 years) men. In addition, those who had never tested for HIV had the largest knowledge gaps regarding PEP.
- Overall, 26% of men had visited [www.man2man.ie](http://www.man2man.ie). Younger men, men who identified as gay, men with higher education levels, men living in Dublin and those who previously tested for HIV were more likely to have visited the site.
- For two health promotion campaigns “Get Tested” (HIV testing) and “It’s hard, it’s easy” (condom use), the images were most commonly seen on Facebook.
- Among those who had seen the “Get Tested” campaign, it encouraged 33% to test for HIV, and 35% to talk to their sexual partners and friends about HIV. These proportions were higher in younger participants (39% and 43%, respectively).
- Among those who had seen the “It’s hard, it’s easy” campaign, it encouraged 39% to access free condoms, and 48% to get and carry condoms. In younger participants, 57% were encouraged to get and carry condoms.

## PREVENTION STRATEGIES

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- Common strategies used by respondents to prevent getting or transmitting an STI included using condoms when active (52%) or passive (47%) in intercourse and using lubricant (63%). Less than one third mentioned testing regularly for other STIs, and a small proportion (6%) mentioned using condoms for giving oral sex. Among HIV negative participants, 21% reported that they would use PEP if exposed to HIV.
- Overall 24% of men reported lack of access to a condom when wanted, in the last 12 months. Lack of access was greatest among young people, with 44% of 18-19 year olds and 32% of 20-24 year olds who had sex in the last 12 months reporting lack of access. Those who had low education levels, students, and unemployed men reported lower levels of access. Twenty percent of HIV positive men reported lack of access to a condom when wanted in the last 12 months. Lack of access to condoms was most marked in respondents who had never tested for HIV (30%).
- Among men who had sex within the last 12 months, common sources for obtaining condoms included buying them (56%), getting them free (39%) or getting them from sex partners (26%). A higher proportion of young people <25 years of age (48%) got them free. Overall, 19% reported not getting condoms.
- Perceived access to PEP, i.e. knowing what PEP is for, and being confident of being able to access it if needed was 30%. Perceived access was higher among those aged between 25 and 39 years compared with younger MSM, and was higher among those with higher education levels, those who lived in Dublin and those who identified as gay.
- Of respondents who were not known to be HIV positive, 4% had used PEP. Respondents from Dublin, those with higher education levels and those who had previously tested HIV negative were more likely to have used PEP. PEP use in those aged between 25 and 59 years was higher than in the younger and older age groups.





## 1. INTRODUCTION

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### 1.1 BACKGROUND

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MSM are disproportionately affected by sexually transmitted infections (STI) including HIV. In the decade between 2005 and 2014, the number of new diagnoses of HIV among MSM in Ireland increased five-fold, from 60 to 183, and have continued to increase in 2015 (1,2). New diagnoses of HIV among MSM account for approximately half of all new diagnoses annually in Ireland. Infectious syphilis has also increased among MSM in Ireland, from 81 new diagnoses in 2012 to 214 in 2015 (1,3). In addition, a number of recent outbreaks have occurred among MSM living in Ireland, including two outbreaks of lymphogranuloma venereum (LGV) in 2014 and 2016, an outbreak of shigella in 2015/2016, and an outbreak of gonorrhoea in 2013 (4,5,6,7).

While considerable work has been carried out in recent years targeting MSM with HIV and STI prevention messages and information campaigns, they continue to be a key group at risk of HIV infection. Policy makers in the MSM community, education, health and social inclusion, clinicians and community based and voluntary sector organisations require accurate and up to date information on knowledge, attitudes, needs and behaviour in order to design, fund and implement HIV prevention interventions with gay and bisexual men and MSM in Ireland.

### 1.2 PREVIOUS SURVEYS AMONG MSM IN IRELAND

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A number of previous surveys on knowledge, attitudes, needs and behaviour of MSM have been carried out in Ireland. The Gay Men's Sex Survey (GMSS) has been undertaken in the United Kingdom since 1997 by Sigma Research. These surveys included Irish respondents from 2000 to 2008 (8, 9). In Ireland, the last survey of MSM was carried out in 2010 through the European MSM Internet Survey (EMIS). EMIS was a joint project of academic, governmental, and non-governmental partners in Europe (EU and neighbouring countries). More than 180,000 MSM living in Europe, including 2,307 men living in Ireland, completed the survey, making EMIS the largest international study ever conducted on MSM (10).

These surveys have provided important information to allow for tailored prevention interventions for the MSM population in Ireland. In particular, the surveys have tracked behavioural and attitudinal trends over time, which are key to informing resource allocation and service planning. Furthermore, these surveys also informed the development of the National AIDS Strategy 2000 and the HIV and AIDS Education and Prevention Plan 2008-2012 (11, 12). The EMIS 2010 findings for Ireland were used to inform the development of the joint HSE and GHN first National Sexual Health and HIV awareness programme for MSM ([www.man2man.ie](http://www.man2man.ie)).

### 1.3 MISI 2015

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The aim of MISI 2015 was to monitor the behaviour, needs and interventions affecting HIV infection and sexual health among MSM living in Ireland and to inform the planning of HIV/STI prevention interventions for MSM.

The objectives of MISI 2015 were to:

- estimate the prevalence and describe the distribution of behaviours underlying HIV transmission among MSM living in Ireland;
- identify the unmet prevention needs that contribute to these behaviours;
- monitor the use of interventions intended to reduce those needs;
- inform the planning of HIV/STI prevention interventions for MSM in the context of the Irish National Sexual Health Strategy (13).

MISI 2015 was carried out as a multi-sectoral partnership of the Gay Health Network (GHN), HSE, Gay Men's Health Service (GMHS), Health Protection Surveillance Centre (HPSC) and HSE Sexual Health & Crisis Pregnancy Programme (SHCPP). The project was funded by the HSE, and was supported by an advisory group of international experts.

This report presents an overview of the main findings of MISI 2015. The analysis is focused on presentation of key findings with regard to knowledge, attitudes, needs and behaviour of MSM as well as some subgroup analysis across area of residence, age group, country of birth, education level, employment status and sexual identity.

The report is structured as follows:

- Chapter 2: Methods of data collection and analysis
- Chapter 3: Demographic characteristics of the sample
- Chapter 4: HIV testing and infection
- Chapter 5: Sexually Transmitted Infections (other than HIV)
- Chapter 6: Sexual behaviour
- Chapter 7: Alcohol, drugs and tobacco use
- Chapter 8: Knowledge regarding HIV and STIs and Health Promotion Campaigns
- Chapter 9: Prevention strategies







## 2 METHODS

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This chapter provides information on the methodology used in the design, delivery and promotion of MISI 2015. It describes the final sample prior to analysis presented in the remainder of the report.

### 2.1 SURVEY DEVELOPMENT

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MISI 2015 was designed as an online behavioural surveillance survey of MSM living in Ireland. It was an anonymous, self-completed cross-sectional survey. It was adapted from the GMSS 2014 and EMIS 2010 surveys and where appropriate, standardised indicators from ECDC were used.<sup>1</sup> The questions were adapted to the Irish context and additional questions relating to alcohol and tobacco use (as per the Healthy Ireland survey 2015) were added.<sup>2</sup> The survey was piloted among service users within the GMHS, and following the pilot, the language, content and layout of the survey was amended as necessary. The final survey sought 112 data items from respondents. The survey protocol received ethical approval from the Research Ethics Committee of the Royal College of Physicians of Ireland (RCPI).

### 2.2 SURVEY PROMOTION

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The study population was reached through widespread promotion on gay community and health promotion websites, through social media sites and promotional cards for social and community venues and services, to access those who were not proficient internet users. To mark the start of the survey, on March 1st, a launch party was held and a press release was issued. This resulted in a number of articles published in national print media, local print media and online. Following the launch and media coverage, over 700 men completed the survey on the first day.

Over the duration of the survey, four adverts were published in Gay Community News (GCN) which is a national monthly free publication. Two examples of the adverts used are shown in Figure 2.1. An advert was also published in English, Portuguese and Spanish in “Metro Eireann” in April. Sponsored adverts on Facebook were used to target MSM in different parts of the country. Pre-scheduled tweets were used to tag LGBT organisations, groups and events, and to promote the survey. Paid promotional adverts were displayed on prominent gay commercial websites and smart phone applications.

With regard to “offline” promotion, posters and business cards were distributed at gay social and community venues and services. Promotional cards were also distributed at the GMHS, sexual health centres, and through national networks of youth centres. Emails were sent to LGBT groups and organisations to promote the survey, including 24 third-level students’ LGBT organisations affiliated to the Union of Students of Ireland (USI). The MISI 2015 logo was developed by GHN and GMHS and was used in all promotional materials.

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<sup>1</sup> A list of indicators is available at [http://ecdc.europa.eu/en/activities/diseaseprogrammes/hash/hiv\\_behavior\\_toolkit/indicators/Pages/indicators.aspx](http://ecdc.europa.eu/en/activities/diseaseprogrammes/hash/hiv_behavior_toolkit/indicators/Pages/indicators.aspx)

<sup>2</sup> More information can be found at <http://www.healthyireland.ie/>

**Figure 2.1** Online promotional adverts for MISI 2015

## 2.3 DATA COLLECTION

The survey was available online for 13 weeks between Sunday 1st March and Sunday 31st May 2015. It was designed and hosted on Demographix ([www.demographix.com](http://www.demographix.com)), was available in English and took an average of 14 minutes to complete. The link to the survey was available at [www.misi.ie](http://www.misi.ie), a dedicated website developed for the study.

The opening page of the survey described the study, its aims and the partners involved. It informed potential participants that the data collection was confidential and anonymous and that neither IP addresses nor cookies would be stored. Participants were required to confirm that they had read and understood the nature of the study and the eligibility criteria prior to commencing the survey. They could withdraw from the survey at any time during completion without any data being submitted. All data collected were stored on secure and encrypted data servers. The software allowed for real time monitoring of responses, and specific promotions were planned to stimulate recruitment.

Just under 10,000 people clicked on the welcome page and about half (49%) of those who viewed the welcome page proceeded to the first section of the survey (page 2). Of those who clicked on the home page, 33% completed the survey. Of those who clicked on page 2, 67% completed it.



## 2.4 EXCLUSIONS AND FINAL SAMPLE

At the close of data collection, there were 3,233 completed questionnaires. To be included, respondents had to be: between 18 and 80 years; currently living in Ireland; men or transmen; attracted to other men, or have sex with men, or thought that they might have sex with men in the future. In all 143 responses (4.4%) did not meet the criteria for inclusion (see Table 2.1).

**Table 2.1** Survey exclusions

	N
Exclusively heterosexual <sup>3</sup>	52
Age missing	40
Not living in Ireland	39
Female	33
Completed outside the survey dates	11
Aged under 18 years or over 80 years	7
No evidence of homosexuality <sup>4</sup>	5
<b>Total exclusions (including overlap)</b>	<b>143</b>

The majority of respondents (61%) were directed to the survey from [www.misi.ie](http://www.misi.ie), 14% from Gaydar, 14% from Facebook and 4% from Twitter (see Table 2.2).

**Table 2.2** Websites used by respondents to access MISI 2015

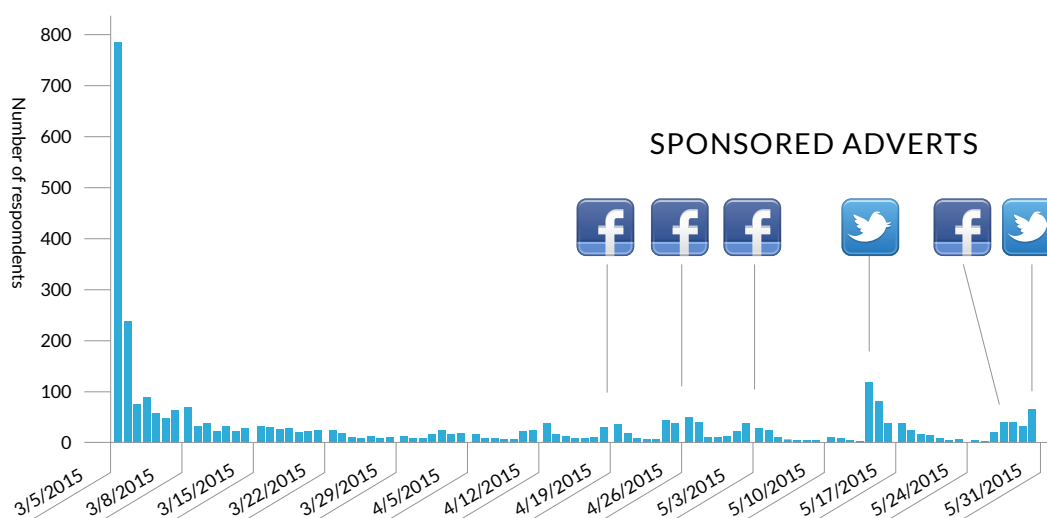
	Number	%	Cumulative %
MISI home page	1,893	61.3	61.3
Gaydar	437	14.1	75.4
Facebook	427	13.8	89.2
Twitter	120	3.9	93.1
Man2Man website	66	2.1	95.2
Belong to	64	2.1	97.3
Gay Men's Health Service	39	1.3	98.6
Outhouse	14	0.5	99.0
Outmost	9	0.3	99.3
Gay Health Network	8	0.3	99.6
Positive Now	5	0.2	99.7
Crisis Pregnancy Programme	4	0.1	99.9
HIV Ireland	2	0.1	99.9
Other	2	0.1	100
<b>Total</b>	<b>3,090</b>	<b>100.0</b>	<b>100.0</b>

<sup>3</sup> Sexually attracted to women only and thought of themselves as straight or heterosexual and had never had sex with a man

<sup>4</sup> No evidence for homosexual desire, identity or sex with men

Over 700 men completed the survey on the first day, with 42% completing it in the first week and 59% in the first month. There were periodic increases in the numbers who completed the survey in the latter half of the study which coincided with sponsored adverts on Facebook and Twitter (see Figure 2.2).

**Figure 2.2** Survey respondents by day from 01/03/2015 to 31/05/2015



The most common devices used by participants to answer the survey were mobile phones (51%), desktop computers (41%) and iPad or other Tablets (7%).

The final sample included 3,090 MSM living in Ireland. The number of MSM living in Ireland aged 18-64 years is estimated to be 43,248 (using an estimate of 3% of the male population in Ireland aged 18-64 being MSM (14)). Therefore, MISI reached an estimated 7% of the MSM population aged between 18-64 years in Ireland (3,045/43,248).

## 2.5 DATA ANALYSIS

The survey data were extracted directly from Demographix and imported into STATA (v11). The data were cleaned, recoded, and analysed in STATA.

Differences in responses from individuals in different groups were established using chi-squared analysis ( $\chi^2$ ), Fisher's exact test or analysis of variance (ANOVA) where appropriate. All group differences highlighted in this report were significant at the 5% level ( $p < 0.05$ ) level. This means that if the survey had been undertaken multiple times, this difference would be observed in fewer than one in twenty of the surveys, purely by chance.

The tables and figures presented in this report are the valid responses for each question,

that is, they exclude people who did not answer the particular question. Percentages are provided to one decimal place in the tables meaning that, in a small number of cases, columns or rows may add up to slightly more or slightly less than 100%. Percentages in the text are rounded up or down to the nearest integer. Two different sets of age groups are used in the report depending on the analysis, as follows

- 18-19, 20-24, 25-29, 30-39, 40-49, 50-59, 60+ years
- <25, 25-39, 40+ years

## 2.6 LIMITATIONS OF THE STUDY

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While the design of the MISI 2015 was robust and comparable to similar international studies with MSM, there are a number of limitations to the methodological approach and the sampling strategy that should be considered when interpreting the findings.

MISI 2015 was an online self-completed survey. It was inaccessible to those who did not access the internet and those who did not participate in internet-based media and networks. It is possible that these men may have exhibited different socio-demographic and behavioural characteristics than the men surveyed. Therefore, we cannot assume that our sample is representative of all MSM in Ireland.

The convenience sampling strategy used will have introduced selection bias, and more particularly participation bias as participants who took part in the survey are more likely to have access to gay social media, social networks and gay social settings. This might overestimate measurement related to access to health services and testing, and underestimate the needs related to HIV prevention and testing in Ireland. However, the advertisement of the study through the distribution of cards in different gay health service centres helped to reach populations which may not have been reached through gay social media and social networks.

The survey was only provided in English which meant that it was inaccessible to anyone without a good command of the English language. The previous EMIS survey in 2010 was available in 25 languages simultaneously and 23% of EMIS respondents who were living in Ireland were born abroad (versus 14% in MISI 2015).

In addition, the survey may have been biased towards those with higher literacy skills and the language used may not have been easily understood by all. Over half of respondents reported a high level of education with a degree or higher. In the general population, 25% of Irish people are reported to have a degree or higher qualification.<sup>5</sup>

While attempts were made to shorten the survey where possible, the average completion time was 14 minutes which may have resulted in some people not completing it.

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<sup>5</sup> Source: CSO [www.cso.ie](http://www.cso.ie)





### 3. DEMOGRAPHIC PROFILE

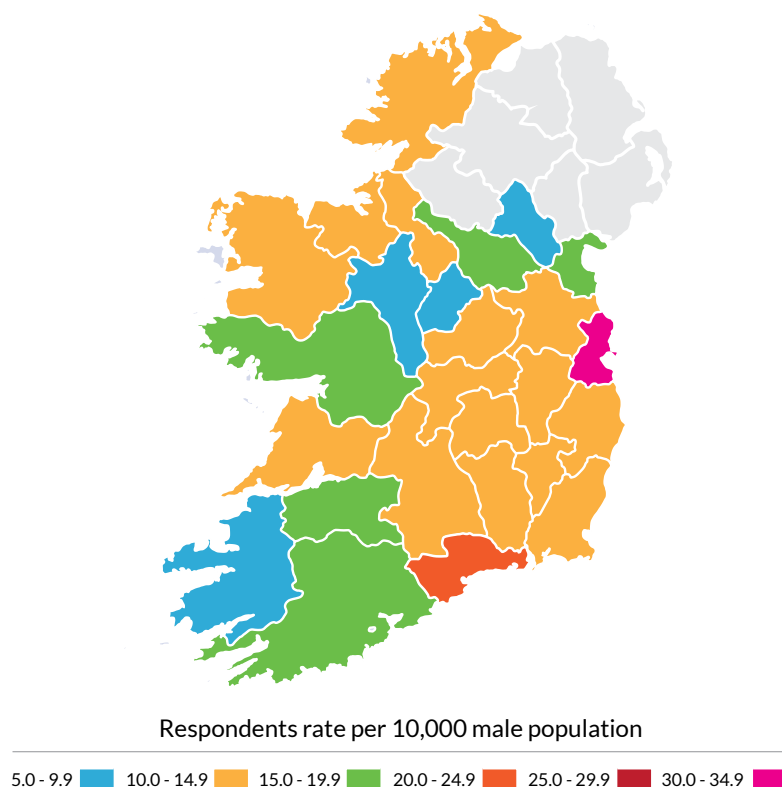
This chapter describes the group of men who took part in the survey using the following variables: county/area of residence; age; country of birth; education; employment status; sexual identity; sexual attraction; gender of sexual partners in the last year; outness, and relationships.

#### 3.1 AREA OF RESIDENCE

There were respondents from all 26 counties in the Republic of Ireland. Two hundred and fifteen men (7%) did not provide their county of residence. Almost half of the respondents (49%) were living in Dublin, 11% in Cork, 5% in Galway and 4% in Limerick. All other counties accounted for the remaining 32% of responses. Table 3.1 shows the distribution of respondents by county.

Figure 3.1 shows the response rate for each county per 10,000 male population. For the purpose of calculating these response rates and in order to generate meaningful rates, the respondents and male populations are restricted to those aged 18-64 years.

**Figure 3.1** Response rate per 10,000 male population by county (restricted to males aged 18 to 64 years)<sup>6</sup>



<sup>6</sup>Source of population data was [www.cso.ie](http://www.cso.ie)

**Table 3.1** Distribution of respondents by county (n=2,875, 215 missing)

County	Number of respondents	%
Dublin	1,396	48.6
Cork	303	10.5
Galway	152	5.3
Limerick	103	3.6
Kildare	87	3.0
Waterford	82	2.9
Meath	67	2.3
Louth	64	2.2
Wicklow	61	2.1
Tipperary	58	2.0
Donegal	56	1.9
Wexford	53	1.8
Mayo	51	1.8
Clare	48	1.7
Cavan	36	1.3
Westmeath	36	1.3
Kilkenny	34	1.2
Kerry	33	1.1
Offaly	33	1.1
Sligo	31	1.1
Laois	28	1.0
Carlow	20	0.7
Roscommon	13	0.5
Monaghan	12	0.4
Leitrim	10	0.3
Longford	8	0.3
Total	2,875	100.0

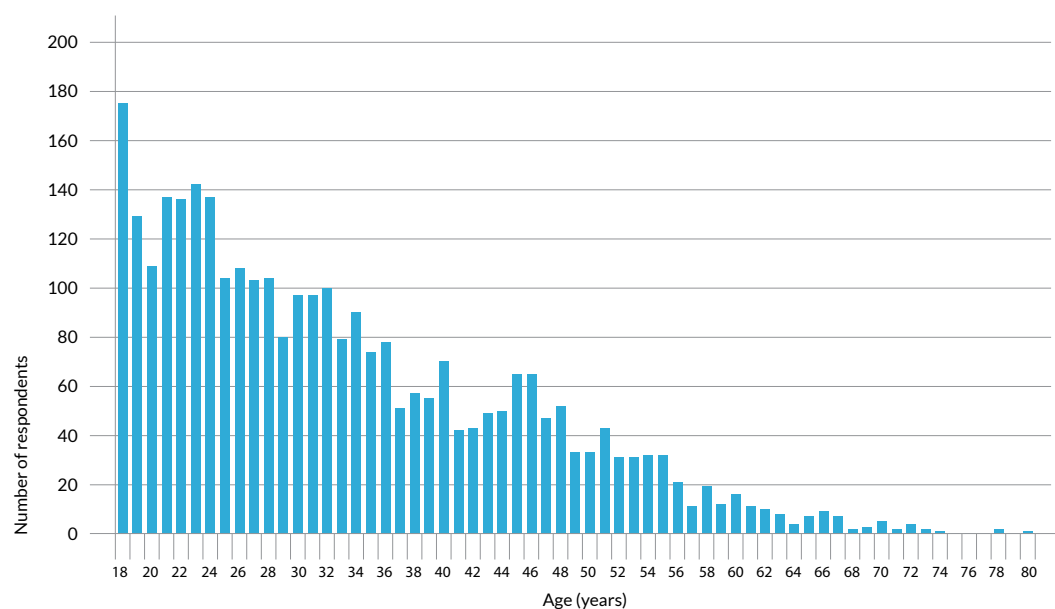
### 3.2 AGE

Respondents were aged between 18 and 80 years. The median age of respondents was 30 years and the mean age was 33 years. The most frequent age of respondents was 18 years (n=175, 6%). Thirty-one percent of respondents (n=965) were young adults aged between 18 and 24 years and just over 1% (n=42) were aged 65 years and older. The age distribution is shown in Table 3.2 and Figure 3.2.

**Table 3.2** Distribution of respondents by age group (n=3,090)

Age Group	Number	%
18-19	304	9.8
20-24	661	21.4
25-29	499	16.1
30-39	777	25.1
40-49	490	15.9
50-59	265	8.6
60+	94	3.0
Total	3,090	100.0

**Figure 3.2** Age distribution of respondents (n=3,090)



### 3.3 COUNTRY OF BIRTH

Eighty-six percent (n=2,639) of respondents were born in Ireland and 14% (n=430) were born abroad. Of those born abroad, 41% were born in the United Kingdom with a further 28% born in Europe. The 430 respondents born outside Ireland included men born in 59 different countries. Following those born in the United Kingdom, the greatest number of respondents born outside Ireland were from United States (33), Poland (25), Brazil (18) and South Africa (17). Table 3.3 shows the distribution of respondents by region of birth (as per WHO classification<sup>7</sup>).

Of the men born abroad, 54% were living in Ireland for more than 10 years, 21% between six and ten years, 19% between one and five years and 7% for less than one year.

**Table 3.3** Distribution of respondents by region of birth as per WHO classification<sup>7</sup>  
(n=3,069, 21 missing)

	Number	%
Ireland	2,639	86.0
United Kingdom	178	5.8
Europe	120	3.9
Americas: Canada, USA	38	1.2
Americas: Latin America & Caribbean	30	1.0
African region	29	0.9
Western Pacific Region (excl. Australia & New Zealand)	18	0.6
Western Pacific Region: Australia & New Zealand	8	0.3
Eastern Mediterranean	6	0.2
South East Asia	3	0.1
<b>Total</b>	<b>3,069</b>	<b>100.0</b>

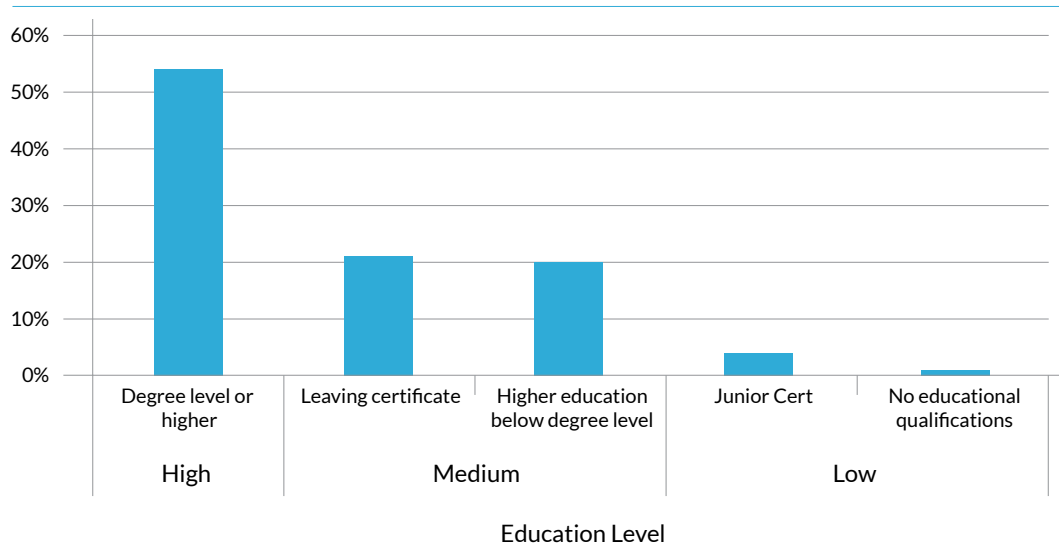
### 3.4 EDUCATION AND EMPLOYMENT

#### 3.4.1 EDUCATION

Men were asked to provide their highest educational qualification and were allocated to one of three groups. Those with no educational qualification or Junior/Intermediate/Group Certificate were classified as having “low” level of education (5%). Men who indicated having a Leaving Certificate or equivalent, or higher education below degree level, were classified as having “medium” level of education (41%). Those with a degree or higher qualifications were classified as having “high” level of education (54%). Figure 3.3 shows the breakdown of respondents by level of education.

<sup>7</sup> Available at <http://www.who.int/about/regions/en/>

**Figure 3.3** Distribution of respondents by highest educational qualification  
(n=3,005, 85 missing)

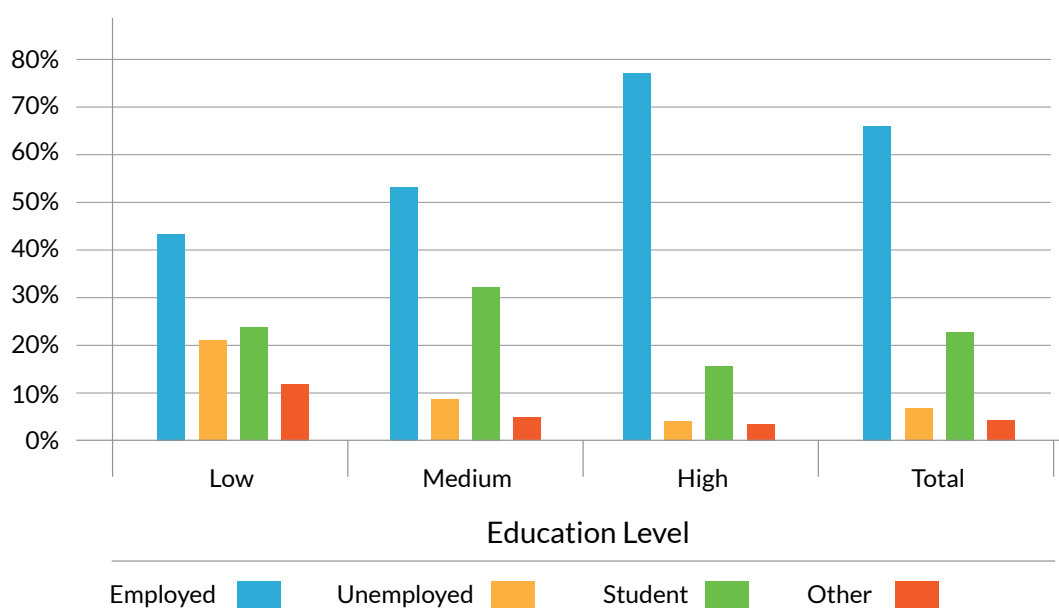


### 3.4.2 EMPLOYMENT

Sixty-six percent of men were employed (52% full-time, 8% self-employed and 6% part-time), 23% were students and 7% were unemployed. The remaining men were retired (2%), on long term sick leave/medically retired (1%), or indicated “other” (1%).

Figure 3.4 shows the employment status of respondents by education level. The majority of men (77%) with a high level of education were in employment. Those with a low level of education were more likely to be unemployed (21%) compared to those with medium (9%) or high level of education (4%).

**Figure 3.4** Employment status of respondents by level of education  
(n=2,951, 139 missing)



### 3.5 SEXUAL ATTRACTION, SEXUAL IDENTITY AND GENDER OF SEXUAL PARTNERS

#### 3.5.1 SEXUAL ATTRACTION AND SEXUAL IDENTITY

Men were asked *Who are you sexually attracted to?* Seventy-five percent of men were attracted only to men, 25% were attracted to both men and women and less than one percent (0.6%) to women only.

Men were also asked to choose one of five options which best described how they think of themselves. Most men (79%) identified themselves as gay or homosexual, 13% as bisexual, 2% as straight or heterosexual, 5% stated that they don't usually use a term and 1% used another term. For the remainder of the report, the categories "gay", "bisexual" and "other" are used. Younger men aged 18-19 and older men aged 60 years and older were least likely to identify as gay (64% and 68%, respectively) and most likely to identify as bisexual (23% and 24%, respectively) compared to men in other age groups. Also, men with lower education levels were less likely to identify as gay (63%) compared to men with medium or high education levels (76% and 83%, respectively).

Table 3.4 shows the relationship between sexual identity and sexual attraction. There was good correlation between these two questions with 92% of men who identified as gay being attracted only to men and 98% of men who identified as bisexual being attracted to both men and women.

**Table 3.4** Sexual identity versus sexual attraction (n=3,027, 63 missing)

Attraction to (%)	Sexual Identity (%)		
	Gay	Bisexual	Other*
Men only	91.8	1.2	23.3
Men and women	8.2	98.3	69.6
Women only	0.0	0.5	7.0
Total	100.0	100.0	100.0

\* Includes 'straight/heterosexual', or 'don't use a term', or 'any other term'

### 3.5.2 GENDER OF SEXUAL PARTNERS

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Gender of sexual partners in the last year was derived from responses to two questions: *When did you last have any kind of sex with a man?* and *When did you last have any kind of sex with a woman?* In the last 12 months, most respondents (79%) had sex exclusively with men, while 11% had sex with both men and women and 3% only with women. A further 7% reported no sexual activity with men or women in the previous 12 months. Overall, 90% of men had sex with a man and 14% of men had sex with a woman in the last 12 months.

### 3.6 OUTNESS

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Outness was defined as the degree to which people were open about their sexual attraction with others. Respondents were asked *Thinking about all the people who know you, what proportion know that you are attracted to men*. Overall, 51% of men surveyed were out to all or almost all who know them, 15% were out to more than half, 9% were out to less than half, 16% were out to few and 9% were out to no one.

Men aged less than 20 years and men 60 years and over were significantly less likely to be out to all or almost all (36% and 40%, respectively) compared to men in other age groups. Men living in Dublin were significantly more likely to be out to all or almost all (56%) compared to those living outside Dublin (46%).

### 3.7 CURRENT RELATIONSHIP STATUS

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Men were asked if they were currently in a steady relationship. Overall, 39% were in a steady relationship with a man, 8% were in a steady relationship with a woman and 53% were single. Less than one percent were in a steady relationship with both a man and a woman at the time of the survey.

Forty-four percent of men with higher education levels were in a steady relationship with a man compared to 33% of men with a medium level of education and 29% of men with a low education. The proportion of men in a steady relationship with a man was highest among those aged 25-29 years (52%) and lowest among those aged 18-19 years (19%). Men who were in a steady relationship at the time of the survey were asked about the duration of their relationships. The majority of men (60%) who were in a steady relationship with another man had been in that relationship for over two years, while 75% of men who were in a steady relationship with a woman had been in that relationship for more than two years.

### 3.8 SUMMARY

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- The median age of respondents was 30 years and the mean was 33 years.
- Almost half of respondents were living in Dublin with a further 20% living in Cork, Galway or Limerick.
- Eighty-six percent of respondents were born in Ireland and 14% were born abroad.
- Over half of respondents reported a high level of education (degree or higher).
- Two thirds of men were in employment and almost a quarter were students.
- The majority (79%) of men who took part in the survey described themselves as gay and 13% identified as bisexual. Men were more likely to identify as bisexual if they were aged under 20 or over 60 years.
- Seventy-five percent of men were attracted only to men, 25% to men and women and less than 1% to women only.
- Seventy-nine percent of men had sex exclusively with men in the previous year, while 11% had sex with both men and women and 3% only with women. A further 7% of men reported no sexual activity with men or women in the previous 12 months.
- Just over half of men surveyed were out to all or almost all who knew them and 9% were out to no one.
- Overall, 53% were single, 39% were in a steady relationship with a man and 8% were in a steady relationship with a woman.







## 4. HIV TESTING AND HIV INFECTION

Regular HIV testing for those most at risk of transmission is an important part of HIV prevention activities. More HIV testing leads to earlier HIV diagnosis and usually results in better medical management, longer life expectancy and lower infectivity. This chapter presents the responses to questions about HIV testing, perceptions of status, setting for HIV testing, preferences for future testing, and monitoring of diagnosed HIV.

### 4.1 HIV TEST RESULTS AND REGENCY OF TESTS

All men were asked if they had ever received an HIV test result and the results are shown in Table 4.1. Thirty-seven percent of men had never tested for HIV. Fifty-eight percent had tested negative at their last HIV test and 5% had received a positive diagnosis, which equates to 8% of those who had ever tested for HIV.

**Table 4.1** HIV testing history (n=3,064; 26 missing)

	Number	% of total
Never tested for HIV	1,123	36.7
Last tested HIV negative	1,789	58.3
Diagnosed with HIV infection	152	5.0
Total	3,064	100.0

Table 4.2 describes the results of HIV tests and the recency of testing. The proportion of men who tested for HIV in the previous 12 months (recent testing) was 39%. Among respondents who had tested for HIV in the last year, 1.5% (n=18) were diagnosed HIV positive.

**Table 4.2** Recency of last negative tests and first positive tests (n=3,064; 26 missing)

Testing history	Recency of test	Number	% of total
Last test negative (n=1,789)	Within the last year	1,163	38.0
	More than one year ago	614	20.1
	Missing	12	0.4
HIV positive (n=152)	Within the last year	18	0.6
	More than one year ago	129	4.2
	Missing	5	0.2
Never tested		1,123	36.7
Total		3,064	100.0

## 4.2 HIV TESTING HISTORY

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HIV testing history varied significantly in certain demographic groups. Table 4.3 shows how testing history varied across area of residence, age group, country of birth, education level, employment status and sexual identity.

Never having tested for HIV was more common among men living outside Dublin and these men were also less likely to have tested for HIV in the last year.

Eighty-four percent of men under 20 had never tested for HIV and 86% of this group had not tested for HIV in the last year. The median age of men who had never tested was 24 years compared to 33 years for men who had previously tested. Men in their 40's were most likely to have ever tested and most likely to be living with HIV.

Men who were born in Ireland were significantly less likely to have ever tested and also less likely to have tested in the last 12 months. Self-reported HIV infection was slightly higher among men born abroad compared to men born in Ireland although this was not significantly different.

Men with lower educational qualifications reported correspondingly lower rates of testing (over half of men with low educational qualifications had never tested and almost 80% had not tested in the last 12 months). There were no significant differences in the proportion living with HIV by education level. Students were the group least likely to have tested for HIV and men who were unemployed were the least likely to have tested for HIV in the last year.

Men who identified as gay were most likely to have ever tested for HIV. These men were also most likely to have tested for HIV in the last 12 months and to be HIV positive.

Three quarters of men who were out to all or almost all had ever tested for HIV compared to less than 40% of men who were out to no one. Men who were out to no one were also least likely to have tested in the last year (only 23% had tested in last 12 months).

**Table 4.3** HIV testing history by key characteristics

		n	Never tested for HIV (%)	Not tested for HIV in last year (%)	HIV positive (%)	HIV positive of those ever tested (%)
Overall	-	3,064	36.7	61.6	4.9	7.8
Area of residence	Dublin	1,382	28.4	56.1	5.7	8.1
	Cork	302	41.1	61.1	2.3	3.9
	Galway	152	42.1	62.5	4.0	6.8
	Limerick	102	42.2	61.1	1.9	3.4
	Elsewhere	913	47.1	69.7	4.7	8.9
	p value	-	<0.001	<0.001	0.064	0.171
Age group	18-19	304	84.1	85.9	1.0	6.3
	20-24	661	52.0	61.4	0.9	1.9
	25-29	499	30.6	53.5	3.0	4.4
	30-39	777	22.8	54.3	7.3	9.5
	40-49	490	20.9	62.2	10.6	13.6
	50-59	265	26.6	65.7	6.0	8.4
	60+	94	33.0	78.7	3.2	4.9
	p value	-	<0.001	<0.001	<0.001	<0.001
Country of birth	Ireland	2,639	38.1	62.7	4.8	7.8
	Abroad	430	27.5	56.3	6.1	8.4
	p value	-	<0.001	0.011	0.26	0.734
Educational level	Low	158	52.9	79.1	3.8	8.1
	Medium	1,221	48.2	68.5	4.1	8.0
	High	1,626	26.5	55.1	5.6	7.8
	p value	-	<0.001	<0.001	0.129	0.980
Employment status	Employed	1,977	28.2	57.8	5.7	8.0
	Unemployed	202	43.6	70.7	6.3	11.4
	Student	687	60.1	69.4	1.3	3.3
	Other*	102	30.3	64.9	8.2	12.0
	p value	-	<0.001	<0.001	<0.001	0.007
Sexual identity	Gay	2,387	31.1	58.5	5.6	8.3
	Bisexual	405	56.8	70.0	1.5	3.4
	Other	62	79.0	88.7	1.6	7.7
	p value	-	<0.001	<0.001	<0.001	0.248

\* Other includes long term sick, medically retired and other

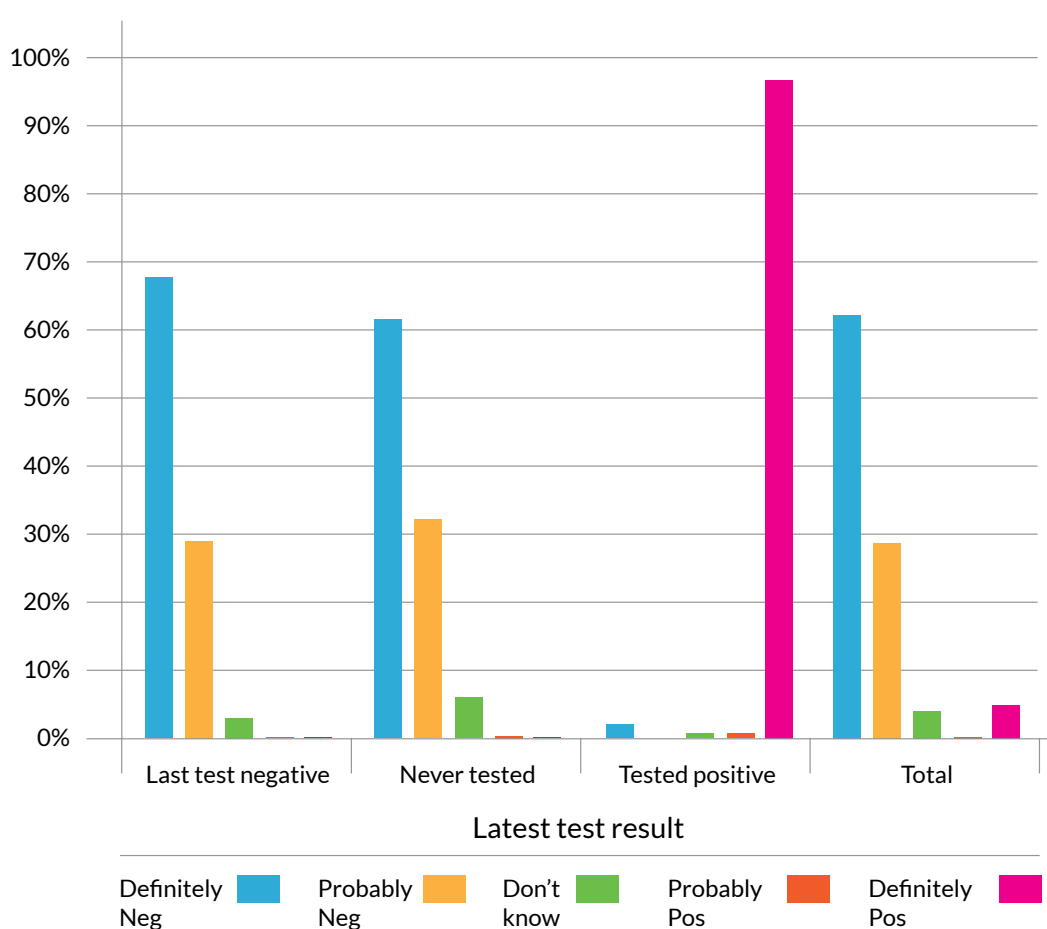
### 4.3 PERCEPTIONS OF CURRENT HIV STATUS

Men were also asked about their perception of their current HIV status. They were asked to choose from one of five options, and Figure 4.1 shows the proportions indicating each option overall as well as within each HIV testing history group.

Two thirds of men (67%) were definite about their HIV status, either positive or negative. However the remaining third were unsure of their HIV status, thought it was probably negative (29%), probably positive (0.2%) or didn't know (4%). The proportion of men who were unsure was significantly higher among those who never tested (38%) compared to those who had previously tested negative (32%).

Of the men who reported a positive HIV test result, 2% (n=3) indicated that they assumed themselves not to be infected with HIV. This could be due to misunderstanding the question or errors in completing the survey.

**Figure 4.1** HIV test results and perceptions of current HIV status (n=3,054, 36 missing)





#### 4.4 HIV TESTING SETTINGS – LAST TEST AND FUTURE TESTS

Those men who had ever received an HIV test result were asked where their last test was carried out and the results are shown in Table 4.4. Among all those who had tested, the most common setting was a hospital or sexual health clinic (53%), followed by GP (16%), doctor in private practice (14%) and community HIV testing service (10%). Only a very small proportion (<2%) had self-tested at home.

Location of last test is also shown for men who tested in the last year and the results are similar; 53% tested at a hospital or sexual health clinic; 16% at a GP, 15% by a doctor in private practice and 10% at a community HIV testing service.

**Table 4.4** Location of last test for men who ever received a HIV test result (n=1,898; 43 missing) and men who tested in the last 12 months (n=1,163)

Site of test	Ever tested		Tested in the last 12 months	
	n	%	n	%
Hospital or Sexual Health clinic	1,006	53.0	615	52.9
GP or Family Doctor	300	15.8	181	15.6
Doctor in Private Practice	264	13.9	172	14.8
A community HIV testing service	180	9.5	110	9.5
Hospital inpatient	47	2.5	14	1.2
Self-tested at home	29	1.5	26	2.2
At a blood bank while donating blood	12	0.6	6	0.5
Mobile medical unit	9	0.5	8	0.7
In a bar, club, pub or sauna	7	0.4	2	0.2
Elsewhere	44	2.3	29	2.5
<b>Total</b>	<b>1,898</b>	<b>100.0</b>	<b>1,163</b>	<b>100.0</b>

Men who had either tested negative at their last HIV test or who had never tested, were asked about their setting preference for future tests and the results are shown in Table 4.5. Overall, the preferred settings for a future HIV test were within a hospital or sexual health clinic (36%), followed by GP surgery (19%) and self-testing at home (15%). Men who never tested for HIV were significantly more likely to want to test in a GP surgery (23%) or self-test (18%) compared to men who had previously tested negative (17% and 13%, respectively). Among men who had never tested, the proportion choosing self-testing was highest among men aged 50-59 years (24%) and lowest among 18-19 year olds (17%). Among men who had previously tested negative, 13% said they would like to self-test, with the highest proportion among those aged 40-49 years (19%) and lowest among those over 60 years (2%) and under 20 years (5%).

**Table 4.5** Setting preference for future HIV tests among men who never tested or whose last test was negative (n=2,899, 13 missing)

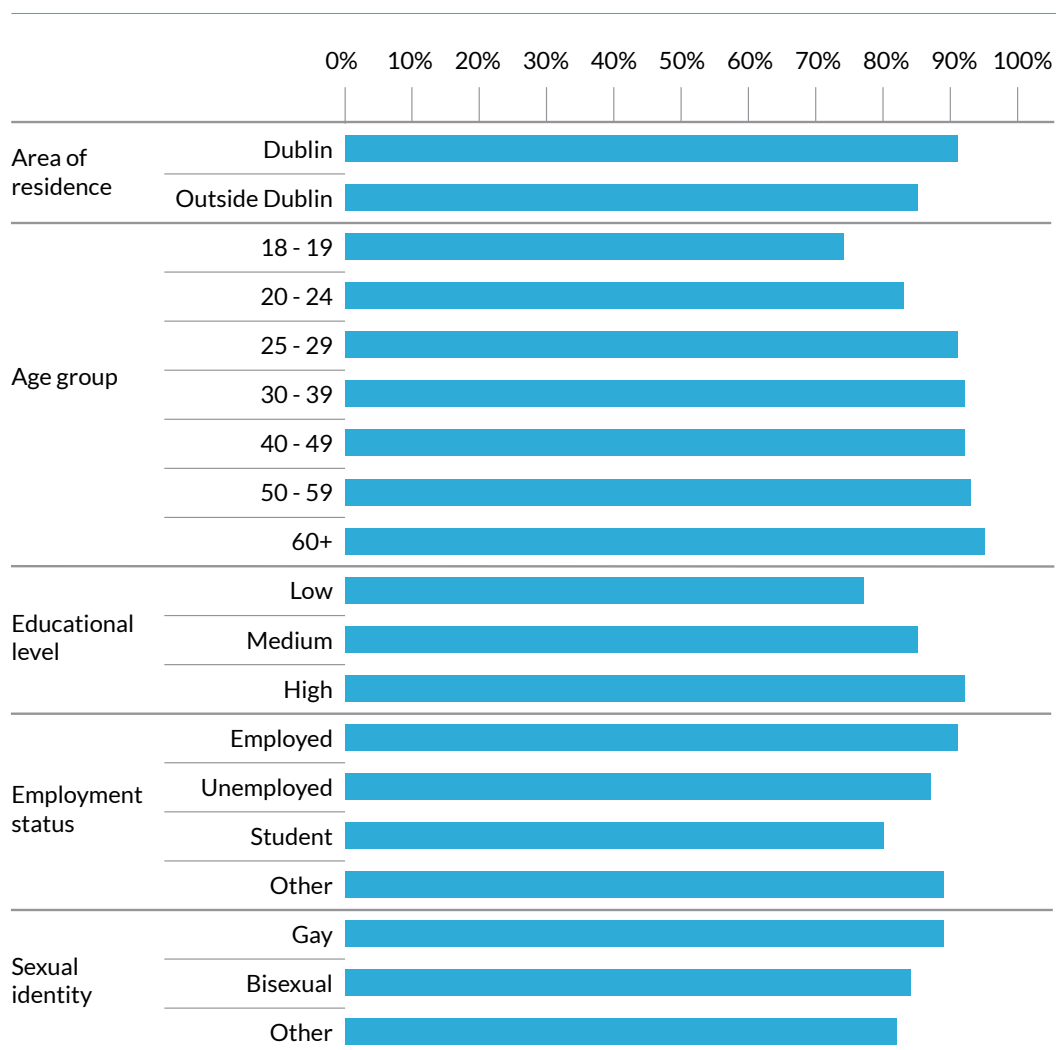
	Never tested (n=1,118)	Last test negative (n=1,781)	Overall (n=2,899)
	%	%	%
Hospital or Sexual Health clinic	29.8	40.9	36.6
GP or Family Doctor	22.6	17.2	19.3
Self-testing at home	18.3	13.0	15.1
Doctor in Private Practice	14.9	14.8	14.8
A community HIV testing service	6.8	10.4	9.0
At a blood bank while donating blood	2.4	0.6	1.3
In a bar, club, pub or sauna	0.8	0.8	0.8
Mobile Medical Unit	1.8	1.3	1.5
Other	0.3	0.6	0.5
Will not want to test for HIV in the future	1.6	0.4	0.9
Total	100.0	100.0	100.0

#### 4.5 CONFIDENCE IN GETTING A FUTURE HIV TEST

Men whose last HIV test result was negative and those who had never tested were asked if they would be confident that they could access another test for HIV in the future. Overall, 12% of men reported that they lacked confidence in being able to access a HIV test in the future. Twenty-three percent of men who had never tested for HIV lacked confidence in being able to access a HIV test compared to 4% among men who had previously tested negative.

Men who lacked confidence in accessing a HIV test included men living outside Dublin, younger men under 25 years, men with a low level of education, students, and men who did not identify as gay (see Figure 4.2). Men who were out to no one also lacked confidence in accessing a HIV test (22% not confident). There was no difference between men born in Ireland or abroad regarding confidence in accessing a HIV test; 88% of both groups reported being confident enough to access a test.



**Figure 4.2** Proportion of respondents reporting being confident in accessing a HIV test by key characteristics

(Differences between the groups were significant  $p < 0.001$ )

## 4.6 SATISFACTION WITH TESTING

### 4.6.1 CONFIDENTIALITY AND RESPECT AT LAST HIV TEST

Those who had ever received a HIV test result were asked about their satisfaction with both the respect and the confidentiality of their HIV test. Over 95% of men were happy with both the respect shown and confidentiality of their most recent HIV test. Three percent were dissatisfied with the confidentiality of the service, ranging from 2-7% depending on the type of service used for testing. Overall, 5% were dissatisfied with the respect they were treated with, ranging from 3-5% depending on the service used for testing. Table 4.6 shows the percentage dissatisfaction by service used for testing.

**Table 4.6** Dissatisfaction with confidentiality and respect shown during HIV testing by service used (n=1,898)

Service	Dissatisfaction with confidentiality		Dissatisfaction with respect	
	Number	% of total	Number	% of total
GP or Family Doctor	10	3.3	15	5.0
Dr in Private Practice	4	1.5	11	4.2
Hospital or SH clinic	36	3.6	49	4.9
Community testing	5	2.8	6	3.3
Other	10	6.8	8	5.4
Total	65	3.4	89	4.7

### 4.6.2 COUNSELLING FOR HIV POSITIVE RESPONDENTS

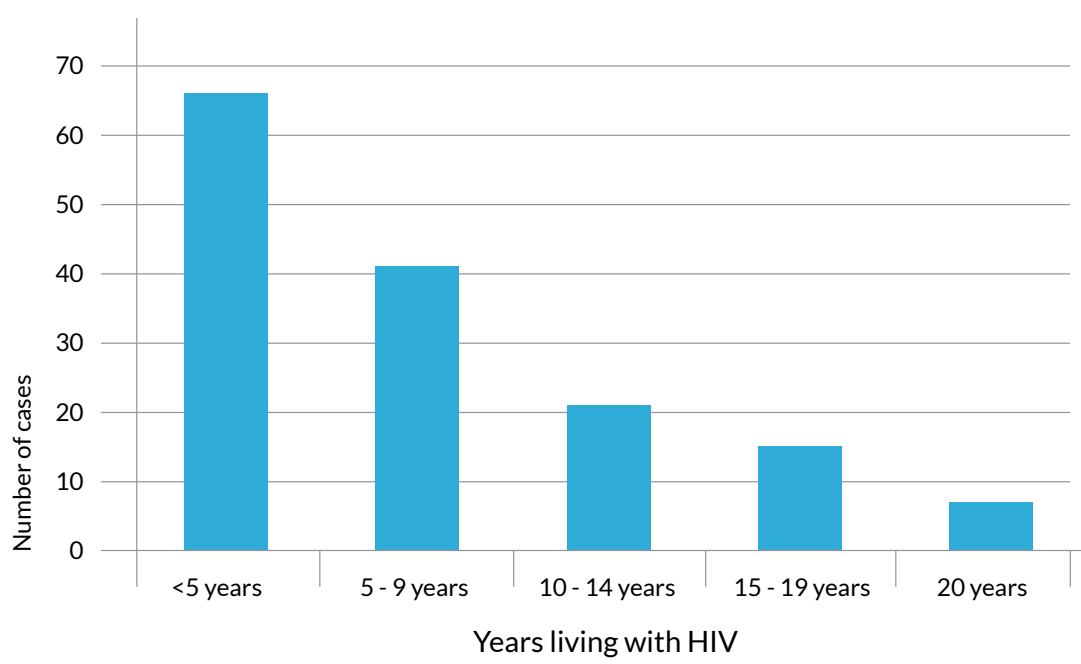
HIV positive men were asked *When you were first diagnosed HIV positive, how satisfied were you with the counselling you received?* Twenty-five percent of HIV positive men stated that they did not receive counselling at the time of their diagnosis, ranging from 11-42% by type of service used for testing. This percentage was slightly higher for men who tested in the last 12 months (28%) compared to men who were diagnosed earlier (25%).

A further 18% percent of HIV positive men were dissatisfied with the counselling they received, ranging from 5-26% by the service used for testing. This percentage was slightly lower among men who tested in the last 12 months (16%) compared to men who were diagnosed earlier (19%).

## 4.7 LIVING WITH HIV AND ACCESS TO HIV MONITORING AND CARE

One hundred and fifty two men (5%) who responded to the survey indicated that they were HIV positive. They were asked the year of their HIV diagnosis and from this, the number of years that men were HIV positive was calculated (see Figure 4.3). The median number of years for men living with HIV was five (ranging from diagnosed within the last 12 months to 26 years ago). Eighteen men were diagnosed HIV positive in the last 12 months. Forty-four percent of the respondents had been diagnosed HIV positive within the last 10 years and 12% were diagnosed in the last two years.

**Figure 4.3** Years living with HIV (n=150; 2 missing)



### 4.7.1 HIV MONITORING AND CARE

Access to HIV monitoring, care and treatment is essential for all individuals who have been diagnosed HIV positive. Respondents with diagnosed HIV were asked a series of questions related to monitoring and treatment of their HIV infection. For people living with HIV, it is recommended that both CD4 counts (a measure of immune system strength) and viral loads (a measure of HIV level in the bloodstream) tests are carried out every 3-6 months. Respondents were asked *When did you last see a health professional for monitoring of your HIV infection?* The results are shown in Table 4.7: of the 152 respondents with HIV, 99% had previously seen a health professional for monitoring their HIV infection (defined as linked to care) and 93% of respondents living with HIV had their HIV infection monitored within the last six months (defined as retained in HIV care). Six men (4%) had not seen a health professional for monitoring their HIV infection in the last year.

**Table 4.7** Monitoring of HIV infection among HIV positive respondents  
(n=151; 1 missing)

Last seen health professional	Number of respondents	%	Cumulative %
Within the last 6 months	141	93.4	93.4
Within the last 12 months	4	2.6	96.0
Within the last 5 years	3	2.0	98.0
More than 5 years ago	2	1.3	99.3
Never	1	0.7	100.0
Total	151	100.0	-

#### 4.7.2 CD4 COUNTS

Those who had been diagnosed HIV positive within the last 10 years were asked for their CD4 count at diagnosis and could select one of the following: less than 200 cells per  $\mu$ l; 200-349 cells per  $\mu$ l; 350-500 cells per  $\mu$ l; more than 500 cells per  $\mu$ l; I don't remember or I don't know. Low CD4 counts at diagnosis are an indication that HIV infection has been diagnosed late, with increased chances of developing AIDS related illnesses. Of the 92 men with a known CD4 count at diagnosis who were diagnosed within the last 10 years, 41% were diagnosed late (CD4 count less than 350 cells/ $\mu$ l) including 22% who were diagnosed with advanced HIV infection (CD4 count less than 200 cells/ $\mu$ l). Of the 55 men diagnosed in the last five years with a known CD4 count, 35% were diagnosed late including 16% with advanced HIV infection.

#### 4.7.3 ANTIRETROVIRAL THERAPY AND VIRAL LOADS

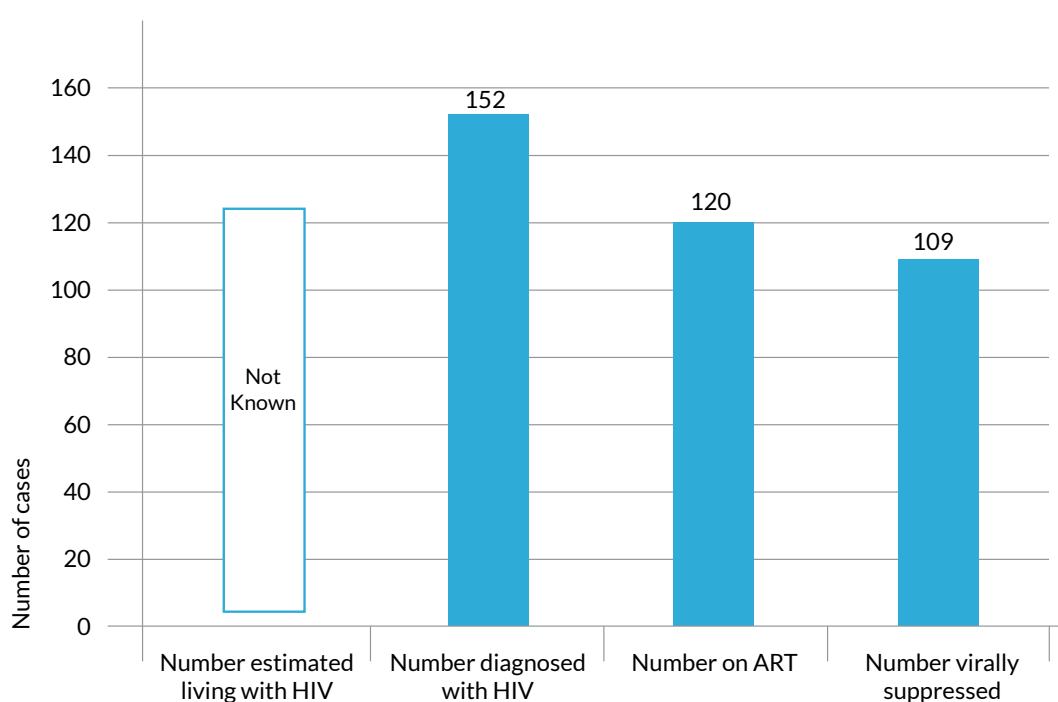
All respondents who had been diagnosed with HIV were also asked if they were currently taking antiretroviral therapy (ART). The majority (79%) reported that they were currently on antiretroviral therapy (ART), 4% reported that they had previously received ART and 17% reported that they had never taken ART.

Men were asked *What was the result of your most recent viral load?* People living with HIV who achieve viral suppression (undetectable viral loads) have greatly improved health outcomes and decreased risk of transmitting HIV to others. Of the 120 men currently on ART, 91% (n=109) had an undetectable viral load (were virally suppressed) at their most recent visit, 5% (n=6) had a detectable viral load and 4% (n=5) didn't know or didn't remember or it wasn't measured.

#### 4.7.4 HIV CONTINUUM OF CARE

The HIV 'continuum of care' model can be used to monitor the delivery of care for people living with HIV and to assess the degree to which viral suppression is occurring among them (15). The continuum of care model as proposed by ECDC was applied to the data from the MISI survey and is shown in Figure 4.4. The starting point for the continuum, which is the total number of men living with HIV, is not known for this population. Of those living with diagnosed HIV, 79% (n=120) were on ART and of those on ART, 91% (n=109) were virally suppressed.

**Figure 4.4** Continuum of care for HIV positive respondents (n=152)



## 4.8 SUMMARY

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- More than a third of men (37%) had never tested for HIV and 61% had not tested for HIV in the last year.
- Those least likely to have ever tested for HIV were men living outside Dublin, men under 20 years, men born in Ireland, men with a low level of education, students, men who did not identify as gay and men who were not out. These were also the groups that were less likely to have tested for HIV in the past 12 months.
- Five percent of respondents had been diagnosed with HIV. Of those who ever tested for HIV, 8% were HIV positive and of those who tested in the last year, 1.5% were positive.
- Prevalence of HIV was higher among men in their 40s, men who identified as gay and men who are out.
- Two thirds of men (67%) were definite about their HIV status, either positive or negative. However the remaining third were unsure of their HIV status, thought it was probably negative (29%), probably positive (0.2%) or didn't know (4%). The proportion of men who were unsure was significantly higher among those who never tested (38%) compared to those who had previously tested negative (32%).
- The preferred settings for a future HIV test were within a hospital or sexual health clinic (37%), followed by GP (19%), self-testing (15%), doctor in private practice (15%) and community HIV testing service (9%).
- Among those who never tested for HIV, the most popular choice for a future test was a hospital or sexual health clinic (30%), followed by GP (23%) and self-testing (18%). Self-testing was considered more favourably among those who had never tested than among those who had tested negative (13%).
- Confidence in getting a HIV test was higher among those who had previously tested negative (96%) compared to men who had never tested (77%).
- Men who lacked confidence in accessing a HIV test included men living outside Dublin, men under 25 years, those with a low level of education, students, men who did not identify as gay and men who were not out.
- More than 95% of men were satisfied with the respect and confidentiality shown to them at their last test. However, among HIV positive men, 25% said they did not receive counselling at the time of their HIV diagnosis and 18% were dissatisfied with the counselling they received.
- Seventy-nine percent of HIV positive men surveyed were currently on ART, and of those on ART, 91% were virally suppressed.
- Of the HIV positive men diagnosed since 2006, 41% were diagnosed late (CD4 count less than 350cells/ $\mu$ l) including 22% diagnosed with advanced HIV infection (CD4 count less than 200 cells/ $\mu$ l).







## 5 SEXUALLY TRANSMITTED INFECTIONS (OTHER THAN HIV)

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STI testing is an important part of STI prevention activities. The presence of any STI is an indicator of unsafe sexual practices and there is an increased risk of both acquiring and transmitting HIV in the presence of another STI (16). This chapter focuses on testing for, and infections due to STIs other than HIV, which will be referred to as STIs throughout.

### 5.1 TESTING HISTORY FOR STIS

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Among respondents who reported their STI testing history, 38% had never tested for an STI, 39% had tested within the last 12 months and 23% had tested more than 12 months ago.

Table 5.1 shows how STI test history varied across area of residence, age group, country of birth, education level, employment status, sexual identity, outness and HIV testing history. Comparing recency of STI testing, those who never had an STI test were more likely to be men living outside Dublin, younger men (18-19 and 20-24 years), men born in Ireland, men with low to medium level of education, students, men who were unemployed, men who did not identify as gay and men who had never tested for HIV. Furthermore, 56% of men out to few or no one never had an STI test, compared to 28% of men out to all or almost all.

Overall, 46% of men outside Dublin never had an STI test, this ranged from 42% in Cork and Galway to 52% in Limerick. Eighty-four percent of young men (18-19 years) and 76% of older men (60+ years) either never tested or did not test for an STI within the last 12 months (see Figure 5.1).

**Table 5.1** STI testing history by key characteristics

		n	Tested within last 12 months (%)	Tested more than 12 months ago (%)	Never tested (%)	p value
Overall		3,023	39.3	22.6	38.1	-
Area of residence	Dublin	1,371	45.7	23.7	30.6	<0.001
	Cork	298	35.9	21.8	42.3	
	Limerick	103	34.0	13.6	52.4	
	Galway	149	36.9	20.8	42.3	
	Elsewhere	894	32.3	21.0	46.7	
Age group	18-19	300	16.3	1.0	82.7	<0.001
	20-24	643	30.0	9.6	51.3	
	25-29	487	47.6	21.4	31.0	
	30-39	764	44.5	28.8	26.7	
	40-49	481	41.6	33.1	25.4	
	50-59	258	36.4	37.2	26.4	
	60+	90	24.4	43.3	32.2	
Country of birth	Ireland	2,585	38.6	22.2	39.2	0.03
	Abroad	419	43.4	24.1	32.5	
Educational level	Low	150	26.0	28.0	46.0	<0.001
	Medium	1,194	33.1	18.0	48.8	
	High	1,598	45.0	25.6	29.4	
Employment status	Employed	1,956	42.6	26.8	30.5	<0.001
	Unemployed	201	34.3	20.9	44.8	
	Student	673	30.6	9.4	60.0	
	Other	131	39.7	30.5	29.8	
Sexual identity	Gay	2,355	43.1	23.6	33.3	<0.001
	Bisexual	401	27.9	17.0	55.1	
	Other	225	22.7	19.6	57.8	
HIV testing history	Positive	151	77.5	18.5	4.0	<0.001
	Negative	1,750	57.3	32.6	10.6	
	Never tested	1,101	5.1	7.1	87.5	

## 5.2 STI SERVICES ACCESSED

Among those who had an STI test within the last 12 months, 68% reported attending an STI clinic for their last test, while 29% attended a GP and 3% used other services (including mobile medical unit, self-testing, bar/sauna).



Table 5.2 describes the services accessed by respondents by key variables. The men most likely to have attended the GP for their last STI test were those born in Dublin, men who had never tested for HIV and men that identified as bisexual. Men out to few and no one were more likely to attend the GP for their last STI test compared to men out to all or almost all (38% and 27%, respectively). The healthcare setting attended by respondents for their last STI test did not vary significantly by country of birth, age group, educational level or employment status.

**Table 5.2** Services accessed by respondents for their last STI test among those having an STI test in the last 12 months by key characteristics

		Total (N)	STI clinic* (%)	GP/family doctor/ private practice (%)	Other** (%)	p value
Overall		1,175	67.7	28.9	3.4	
Area of residence	Dublin	620	65.5	31.6	2.7	0.04
	Outside Dublin	484	70.7	25.2	4.1	
Age group	18-19	49	67.4	32.6	0.0	0.765
	20-24	251	68.9	27.5	3.6	
	25-29	229	69.4	26.6	3.9	
	30-39	226	67.0	30.1	3.0	
	40-49	196	67.4	27.6	5.1	
	50-59	92	62.0	35.9	2.2	
	60+	22	72.7	27.3	0.0	
Country of birth	Ireland	987	67.0	29.9	3.1	0.217
	Abroad	179	71.5	24.0	4.5	
Educational level	Low	38	71	21.1	7.9	0.308
	Medium	391	67.5	30.2	2.3	
	High	712	67.8	28.8	3.4	
Employment status	Employed	824	65.9	30.5	3.6	0.211
	Unemployed	68.0	67.7	32.4	0.0	
	Student	205	72.7	23.9	3.4	
	Other	52	73.1	21.2	5.8	
Sexual identity	Gay	1,005	69.0	28.1	3.0	<0.001
	Bisexual	109	56.9	37.6	5.5	
	Other	51	68.6	25.5	5.9	
HIV testing history	Positive	115	81.7	18.3	0.0	<0.001
	Negative	992	67.4	28.8	3.7	
	Never tested	56	41.1	55.4	3.6	

\* Includes a hospital or sexual health clinic as an out-patient or a community STI testing service.

\*\* Includes self-testing, bar/pub/sauna, mobile medical unit or elsewhere.

### 5.3 QUALITY OF STI TESTING

MSM are at increased risk of acquiring STIs compared with the heterosexual population. Early detection of asymptomatic STIs requires regular sexual health checks involving physical examination and the collection of clinical specimens (blood and samples from the urethra, pharynx and the rectum) (10, 17).

Men who had an STI test within the last 12 months were asked a series of questions on clinical specimens taken and physical examination performed as part of any STI test in the last 12 months. Compared to respondents who attended a primary care setting, those who attended an STI clinic for testing, were more likely to have blood samples taken, have samples taken from three sites (urogenital, anogenital and pharyngeal), and also to have physical examination completed (see Table 5.3).

Among respondents who attended primary care for an STI test in the last 12 months, anal examination and urethral and anal swabs were taken in  $\leq 50\%$  of occasions and pharyngeal swabs were taken on 56% of occasions (see Table 5.3).

**Table 5.3** Details of samples taken as part of any STI test among respondents tested within the last 12 months

		Number (n)	Total respondents	%	OR (95% CI)*	p value
Blood sample taken	STI clinic**	749	781	95.9	1.8 (0.99-3.2)	0.033
	GP***	313	337	92.8		
Urine sample taken	STI clinic	667	737	90.5	2.6 (1.7-3.8)	<0.001
	GP	251	319	78.7		
Genital examination	STI clinic	622	776	80.1	2.0 (1.5-2.7)	<0.001
	GP	219	326	67.2		
Urethral swab taken	STI clinic	424	773	54.9	1.4 (1.1-1.9)	0.007
	GP	148	322	46.0		
Anal examination	STI clinic	574	772	74.4	2.9 (2.2-3.8)	<0.001
	GP	163	326	50.0		
Anal swab taken	STI clinic	631	765	82.5	5.3 (4.0-7.2)	<0.001
	GP	153	326	46.9		
Pharyngeal swab taken	STI clinic	637	752	84.7	4.4 (3.2-6.0)	<0.001
	GP	178	319	55.8		

\* Odds ratio (95% confidence intervals)

\*\* Includes a hospital or sexual health clinic as an out-patient or a community STI testing service

\*\*\* Includes GP/family doctor and private practice

## 5.4 NEWLY-DIAGNOSED STIS

All men were asked *Have you been diagnosed with an STI (e.g. syphilis, chlamydia, gonorrhoea) in the last 12 months?* Nine percent (n=289) of respondents reported having a newly diagnosed STI. Restricting the analysis to men who reported having an STI test within the last 12 months, 21% (n=249) had a newly diagnosed STI. Those newly diagnosed with an STI were more likely to be men who were unemployed, men who identified as gay and men who were HIV positive (see Table 5.4).

**Table 5.4** Newly diagnosed STIs among those tested within the last 12 months by key characteristics

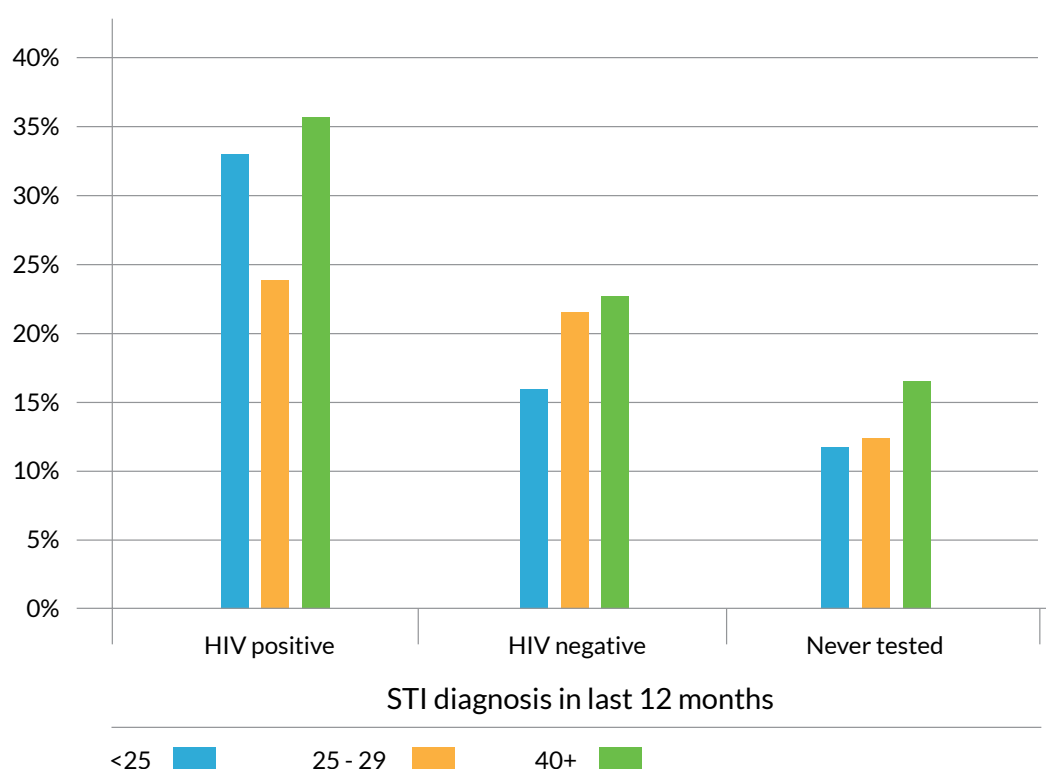
		STI diagnosis in the last 12 months*			
		Number	Total**	%	p value
Overall		248	1,177	21.1	-
Area of residence	Dublin	139	622	22.4	0.192
	Outside Dublin	92	481	19.1	
Age group	<25	47	296	15.9	0.019
	25-39	123	570	21.6	
	40+	78	311	25.1	
Country of birth	Ireland	201	988	20.3	0.214
	Abroad	44	180	24.4	
Educational level	Low	6	39	15.4	0.337
	Medium	92	394	23.4	
	High	145	712	20.4	
Employment status	Employed	176	824	21.4	0.045
	Unemployed	19	69	27.5	
	Student	31	205	15.1	
	Other	15	52	28.9	
Sexual identity	Gay	225	1,007	22.3	0.027
	Bisexual	14	110	12.7	
	Other	7	51	13.7	
HIV testing history	Positive	35	117	29.9	0.017
	Negative	203	992	20.5	
	Never tested	7	56	12.5	

\* Among those tested within the last 12 months

\*\* Total number of respondents by specified strata

Among HIV positive respondents who tested for an STI in the last 12 months, 30% had a newly-diagnosed STI. This ranged from 24% among 25-39 year olds to 36% in those aged over 40 years. Among HIV negative respondents who tested for an STI in the last 12 months, 21% had a newly diagnosed STI; ranging from 16% in those under 25 years of age and 23% in those 40 years of age and older (see Figure 5.1). Similarly, the proportion with a newly-diagnosed STI among those who never tested for HIV increased with age, ranging between 11% in those under 25 years of age and 17% in those 40 years of age and older. None of the differences observed were significantly significant.

**Figure 5.1** Proportion of respondents with a recent STI diagnosis by HIV testing history and age group\*, among those who tested for an STI within last 12 months



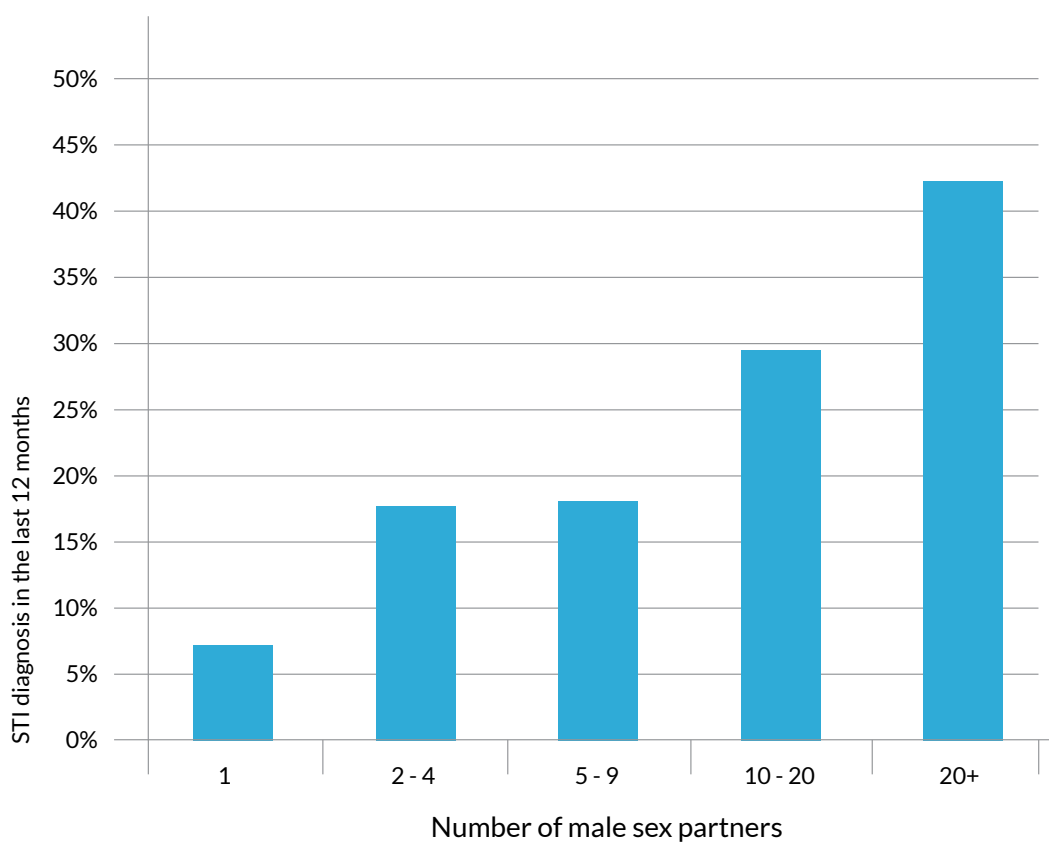
(Differences between the groups were not statistically significant)

\* Note: numbers are small in the HIV positive and the never tested groups

The proportion of respondents with a newly-diagnosed STI significantly increased as the total number of male sex partners (steady and non-steady) within the last 12 months increased; ranging from 7% amongst those with one male sex partner to 42% amongst those with 20 or more sex partners (see Figure 5.2).



**Figure 5.2** Proportion of respondents with a recent STI diagnosis by total number of male sex partners (steady and non-steady) in the last 12 months, among those who tested for an STI within last 12 months



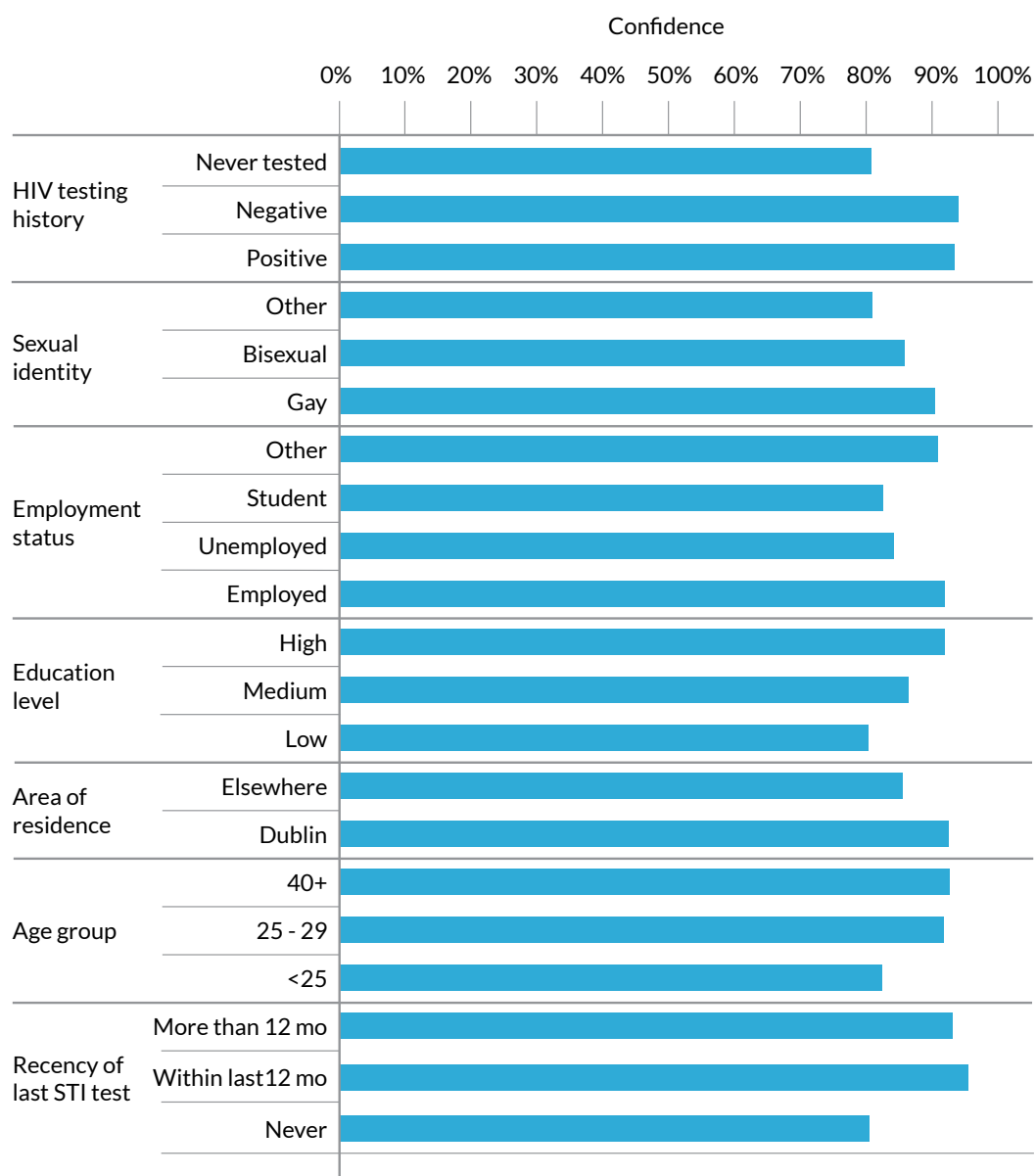
(Differences between the groups were significant  $p < 0.001$ )

## 5.5 CONFIDENCE IN ACCESSING AN STI TEST

Men were asked *How confident are you that you could get a test for sexually transmitted infections (STIs) other than HIV if you wanted one* and 11% reported that they lacked confidence in being able to access an STI test. Lacking in confidence was defined as those who reported “not at all confident”, “a little confident” or “I don’t know”.

Men who lacked confidence in accessing an STI test included men who never tested for an STI, men under 25 years, men living outside Dublin, men with a low level of education, students or the unemployed, men who did not identify as gay, men that never tested for HIV, and men who were out to no one (see Figure 5.3). There was no difference between men born in Ireland or abroad regarding confidence in accessing an STI test; 89% of both groups reported being confident.

**Figure 5.3** Proportion of respondents reporting confidence in accessing STI services by key characteristics



(Differences between the groups were significant  $p < 0.001$ )

## 5.6 SUMMARY

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- Thirty-nine percent of men had an STI test in the last year, 23% last tested for an STI more than 12 months ago and 38% never tested for an STI.
- Eighty-three percent of 18-19 year old men surveyed had never had an STI test.
- Those least likely to have ever had an STI test were students or unemployed men, men under 25 years, men living outside Dublin, men born in Ireland, men with low or medium levels of education, men who never tested for HIV, men who did not identify as gay, and men out to few or no one. These were the groups that also reported lacking confidence in accessing STI services.
- Among men who had an STI test within the last 12 months, 68% reported attending an STI clinic for their last test, while 29% attended the GP and 3% used other services.
- Three site testing (urogenital, anogenital and pharyngeal sites) and physical examination was not undertaken universally. The proportion of men who had samples taken from all three sites was higher among men tested at STI clinics. Among respondents who attended primary care for an STI test in the last 12 months, anal examination and urethral and anal swabs were taken in  $\leq 50\%$  of occasions and pharyngeal swabs were taken in 56% of occasions.
- Nine percent of men reported having a newly diagnosed STI in the last 12 months. Among men who reported testing for STIs within the last 12 months, 21% had a newly diagnosed STI. Those newly diagnosed with an STI were more likely to be men who were unemployed, men who identified as gay and HIV positive men. The proportion of men with a newly diagnosed STI increased as the number of male sex partners increased. Thirty percent of HIV positive men, who had tested for an STI in the last 12 months, had a newly diagnosed STI.



## 6. SEXUAL BEHAVIOUR

This chapter reports the findings in relation to sexual behaviour among MSM and describes associations between demographic factors and HIV testing history with sexual behaviour.

In addition, it describes the means whereby men met partners within the past 12 months, and for those men who met men via phone apps, it identifies the most commonly used apps. For those men who also had sex with women, it describes the number of female partners and condom use during sex with women, and characteristics associated with condom use.

### 6.1 SEX WITH MEN

This section reports on the key findings related to sexual experiences and behaviour with men. In the survey “sex” was defined as “physical contact to orgasm (or close to orgasm) for one or both partners”. Overall, 96% of respondents (n=2,947) reported ever having sex with a man; 90% (n=2,778) had sex with a man in the last 12 months, 6% had sex with a man greater than 12 months ago and 4% reported never having had sex with a man.

Among men who reported ever having any kind of sex with a man, 88% reported ever having anal intercourse (AI) with a man, either with or without a condom. Among men who reported ever having any kind of sex with a man, 71% reported ever having unprotected anal intercourse (UAI). The prevalence of ever having UAI, UAI within the last 6 months and UAI within the last 12 months is shown in Table 6.1.

**Table 6.1** Numbers and proportions reporting UAI ever, within 12 months and within 6 months, among those who reported ever having sex

Reported prevalence of UAI	n	%
Ever UAI *	2,096	71.1
UAI within 12 months * *	1,592	54.6
UAI within 6 months * * *	1,357	46.5

\* Numbers reporting UAI at last sex PLUS numbers ever reporting UAI if most recent sex was protected.

\*\* No. reporting UAI at last sex, if within 12 months PLUS No. reporting last UAI within 12 months if most recent sex was protected.

\*\*\* No. reporting UAI at last sex, if within 6 months, PLUS No. reporting last UAI within 6 months if most recent sex was protected.

## 6.2 SEX WITH STEADY MALE PARTNERS

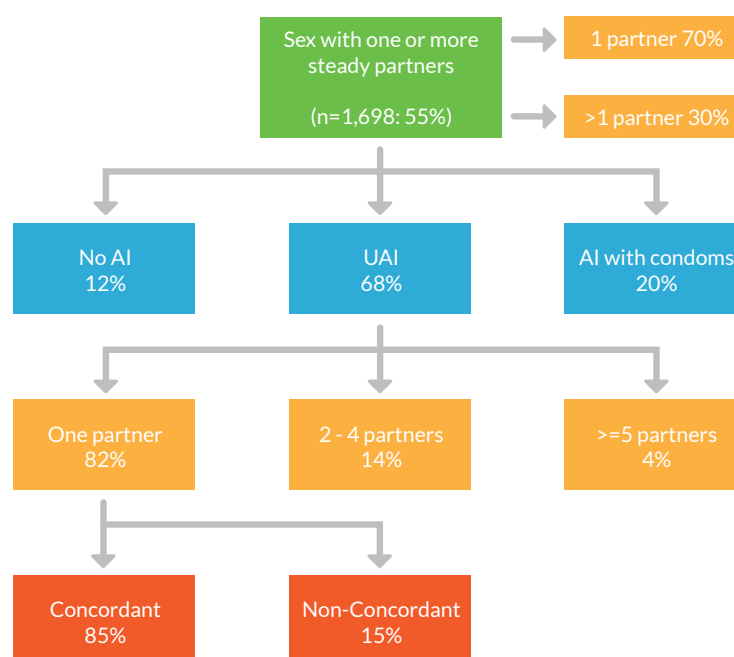
The survey defined the term “steady partner” as a boyfriend or husband. The term did not include partners you might meet now and then for sex. Among all respondents, 55% of men reported that they had sex with a steady male partner in the last 12 months. Of these, 70% reported sex with one steady partner, 23% with 2-4 steady partners and 7% with five or more steady partners.

Among men who had sex with steady partners in the last 12 months, 68% had UAI, 20% had AI with a condom and 12% did not have AI.

The majority of men who reported UAI with a steady partner in the last 12 months reported having one partner (82%), 14% had UAI with 2-4 steady partners and 4% with five or more.

Proportions of men who had sex with one or more steady male partner within the last 12 months, including type of sex and number of partners are summarised in Figure 6.1.

**Figure 6.1** Details of men who had sex with one or more steady male partner within the last 12 months



### 6.2.1 SEROSTATUS OF STEADY MALE PARTNERS

Respondents who had UAI with one steady male partner in the last 12 months (n=911), were asked about the serostatus of this steady partner. Of these men, the majority (85%) had the same HIV status as their steady male partner (sero-concordant), 3% had a different



HIV status to their partner (discordant) and 13% didn't know if their status was the same as their partner. Combining responses from those who had UAI with a partner of unknown or discordant status, 15% had non-concordant UAI (ncUAI) with a steady male partner in the last 12 months.

The demographic characteristics associated with having ncUAI with one steady partner are explored and shown in Table 6.2. NcUAI was highest in men aged 18-19 years, men with a lower level of education, men who identified as bisexual, HIV positive men and men who had never tested for HIV. NcUAI did not differ significantly by area of residence, county of birth, or employment status.

**Table 6.2** Concordant/non-concordant UAI by key characteristics, among men with one steady UAI partner in the previous 12 months

	Factor	n	Non-concordant UAI (%)	Concordant UAI (%)	p value
Overall	-	871	15.1	84.9	-
Area of residence	Dublin	447	13.0	87.0	0.117
	Outside Dublin	367	16.9	83.1	
Age group	18-19	44	27.3	72.7	0.004
	20-24	199	20.6	79.4	
	25-29	202	10.4	89.6	
	30-39	262	11.5	88.6	
	40-49	108	15.7	84.3	
	50-59	42	23.8	76.2	
	60+	14	7.1	92.9	
Country of Birth	Ireland	750	14.9	85.1	0.870
	Outside Ireland	116	15.5	84.5	
Educational level	Low	24	33.3	66.7	0.030
	Medium	289	15.9	84.1	
	High	532	13.7	86.3	
Employment status	Employed	617	13.5	86.6	0.099
	Unemployed	45	26.7	73.3	
	Student	168	16.1	83.9	
	Other	24	12.5	87.5	
Sexual identity	Gay	783	13.8	86.2	0.003
	Bisexual	47	31.9	68.1	
	Other	31	19.4	80.7	
HIV testing history	Positive	25	44.0	56.0	<0.001
	Negative	623	8.8	91.2	
	Never tested	217	29.5	70.5	

### 6.3 SEX WITH NON-STEADY MALE PARTNERS

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The survey defined the term “non-steady partner” to mean men whom respondents had sex with only once, or men they had sex with more than once but whom they didn’t consider to be a steady partner. Among all respondents, 61% reported having sex with a non-steady male partner in the last 12 months. Of these, 18% reported one non-steady partner, 34% reported 2-4 partners, 21% reported 5-9 partners and 27% reported 10 or more.

Of the men who had sex with at least one non-steady partner in the last 12 months, 42% reported UAI, 38% had AI and used condoms and 21% did not have AI. Table 6.3 shows the characteristics of those who had UAI with at least one non-steady male partner. Men most likely to have UAI with a non-steady partner in the previous 12 months were men with a lower level of education, men who were unemployed and men who were HIV positive. Having UAI with at least one non-steady partner in the previous 12 months did not differ significantly by area of residence, age group, country of birth or sexual identity.

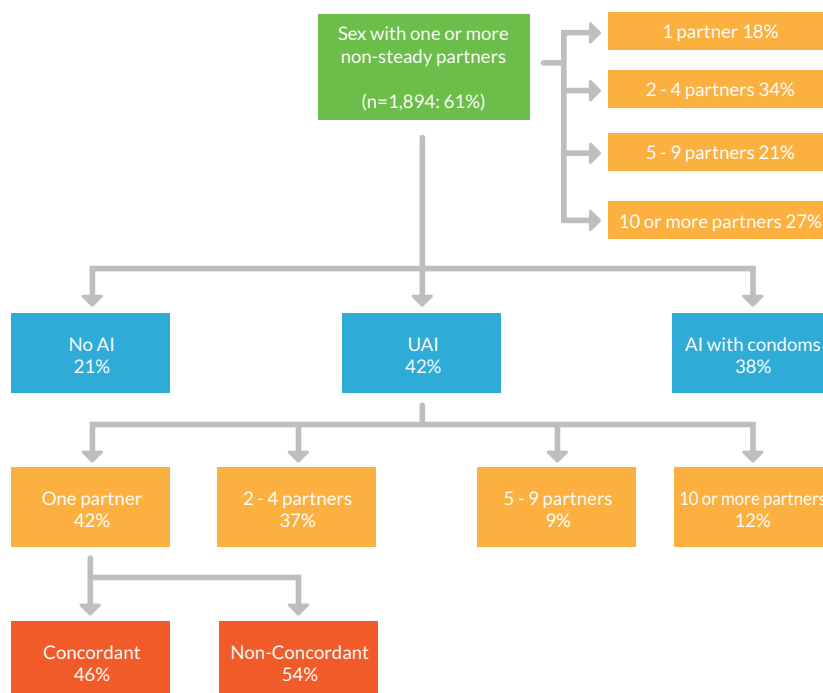
Among men who had UAI with non-steady partners (n=760), 42% had one non-steady partner, 37% had 2-4 partners, 9% had 5-9 partners and 12% had 10 or more.

Proportions of men who had sex with one or more non-steady male partner within the last 12 months, including type of sex and number of partners are summarised in Figure 6.2.

**Table 6.3** UAI/no UAI by key characteristics, among those having sex with at least one non-steady male partner in the last 12 months

		n	Sex in last 12 months		
			UAI (%)	No UAI (%)	p value
Overall		1,831	41.5	58.5	-
Area of residence	Dublin	837	40.0	60.0	0.265
	Outside Dublin	874	42.7	57.3	
Age group (years)	18-19	164	39.0	61.0	0.737
	20-24	410	39.0	61.0	
	25-29	288	42.0	58.0	
	30-39	434	44.7	55.3	
	40-49	317	40.7	59.3	
	50-59	161	42.9	57.1	
	60+	57	40.4	59.7	
Country of birth	Ireland	1,556	40.9	59.1	0.231
	Abroad	268	44.8	55.2	
Educational level	Low	82	58.5	41.5	0.003
	Medium	720	42.4	57.6	
	High	989	39.4	60.6	
Employment status	Employed	1,191	40.6	59.4	<0.001
	Unemployed	127	59.1	40.9	
	Student	403	36.5	63.5	
	Other	85	45.4	50.6	
Sexual Identity	Gay	1,462	41.9	58.1	0.504
	Bisexual	238	41.6	58.4	
	Other	108	36.1	63.9	
HIV testing history	Positive	104	75.0	25.0	<0.001
	Negative	1,131	41.6	58.4	
	Never tested	584	35.8	64.2	

**Figure 6.2** Details of men who had sex with one or more non-steady male partner within the last 12 months



### 6.3.1 SEROSTATUS OF NON-STEADY MALE PARTNER

For men who had UAI with one non-steady male partner (n=304), they were asked if they and this male partner had the same HIV status. Forty-six percent had a concordant status, 2% had a discordant status and 52% didn't know if the status was the same. Combining the responses of those who had UAI with one partner of unknown or discordant status, 54% had ncUAI with one non-steady male partner (see Figure 6.2).

#### 6.4 TOTAL NUMBER OF SEX PARTNERS WITHIN THE LAST 12 MONTHS

The total number of sex partners (steady and non-steady) and UAI partners in the last 12 months are shown in Table 6.4. Among men who had sex within the last 12 months and who reported on number of partners (steady and/or non-steady), 69% of men had sex with more than one partner, while 25% had UAI with more than one partner.

**Table 6.4** Total numbers of sex partners and UAI partners within the last 12 months, among men who reported sex in the last year

Number of partners	Total sex partners		Total UAI partners	
	n	%	n	%
0	n/a	n/a	913	36.5
1	807	31.1	954	38.2
2-4	711	27.4	421	16.9
5-9	493	19.0	107	4.2
10-20	394	15.2	67	2.7
>20	190	7.3	37	1.5
Total	2,595	100.0	2,499	100.0

The number of UAI partners within the last 12 months varied by age group, country of birth, education level, employment status, sexual identity and HIV testing history (see Table 6.5). Men with more UAI partners were more likely to be men born outside Ireland, men with a lower level of education, men who were unemployed, men who did not identify as gay and men who were HIV positive.

**Table 6.5** Number of UAI partners in the last 12 months by key characteristics

		n	Number of UAI partners within last 12 months (%)					p value
			1	2-4	5-9	10-20	>20	
Overall		1,586	60.2	26.5	6.8	4.2	2.3	-
Area of residence	Dublin	758	62.7	24.8	6.3	3.3	2.9	0.152
	Outside Dublin	723	58.1	28.4	7.3	4.4	1.8	
Age Group	18-19	106	50.9	30.2	9.4	3.8	5.7	0.001
	20-24	343	64.7	26.0	6.1	1.2	2.0	
	25-29	311	67.9	22.5	4.8	3.2	1.6	
	30-39	443	61.4	24.8	6.1	5.2	2.5	
	40-49	231	52.8	29.4	8.2	6.9	2.6	
	50-59	111	50.5	33.3	8.1	6.3	1.8	
	60+	41	41.5	36.6	14.6	7.3	0.0	
Country of Birth	Ireland	1,353	61.9	26.2	6.2	3.6	2.0	<0.001
	Outside Ireland	225	50.2	27.1	10.2	8.0	4.4	
Education level	Low	73	46.6	35.6	11.0	4.1	2.7	0.006
	Medium	577	55.3	31.2	7.1	4.0	2.4	
	High	858	64.4	22.9	6.0	4.5	2.3	
Employment status	Employed	1,078	61.8	26.6	5.2	4.6	1.9	<0.001
	Unemployed	114	44.7	30.7	14.9	4.4	5.3	
	Student	306	64.1	24.2	7.5	2.0	2.3	
	Other	58	44.8	29.3	13.8	6.9	5.2	
Sexual Identity	Gay	1,353	61.6	26.2	6.4	3.9	1.9	<0.001
	Bisexual	148	48.7	31.1	11.5	6.8	2.0	
	Other	66	57.6	22.7	4.6	4.6	10.6	
HIV testing history	Positive	96	22.9	31.3	14.6	18.8	12.5	<0.001
	Negative	1,062	62.6	26.4	6.4	3.4	1.2	
	Never Tested	417	62.3	25.7	6.0	3.1	2.9	

## 6.5 MEETING MALE SEX PARTNERS

### 6.5.1 LAST SEX WITH A NEW MALE PARTNER

Respondents were asked when they last had sex with a new male sex partner (for the first time). In all, 72% of respondents had a new male sex partner within the last 12 months. All men who reported having a new male sex partner in the last 12 months were asked how they had met these partners and also how they met their most recent sex partner in the last 12 months. Responses are shown in Table 6.6. Almost 70% of men met a new sex partner in the last 12 months via a smartphone app and 46% via a website. Just over 60% of men met their most recent partner via a smartphone app or website.



**Table 6.6** Methods for contacting and meeting new sex partners, among men who had new male sex partner in the last 12 months

Methods for contacting and meeting partners	In last 12 months *		With most recent partner	
	n	%	n	%
Smartphone app	1,439	68.3	839	42.4
Website for gay or bisexual men on a PC or laptop	975	46.3	382	19.3
Gay disco or nightclub	669	31.8	155	7.8
Through friends	551	26.2	177	9.0
Gay sauna	483	22.9	113	5.7
Gay café or gay bar	439	20.9	55	2.8
Cruising location	315	15.0	58	2.9
Backroom of a bar, gay sex club, public gay sex party	244	11.6	22	1.1
Gay community centre, organisation, gay social group	165	7.8	40	2.0
Gay sex party in a private home	157	7.5	8	0.4
Porn cinema	94	4.5	10	0.5
Elsewhere	228	10.8	118	6.0
Total eligible respondents	2,106	-	1,977	100.0

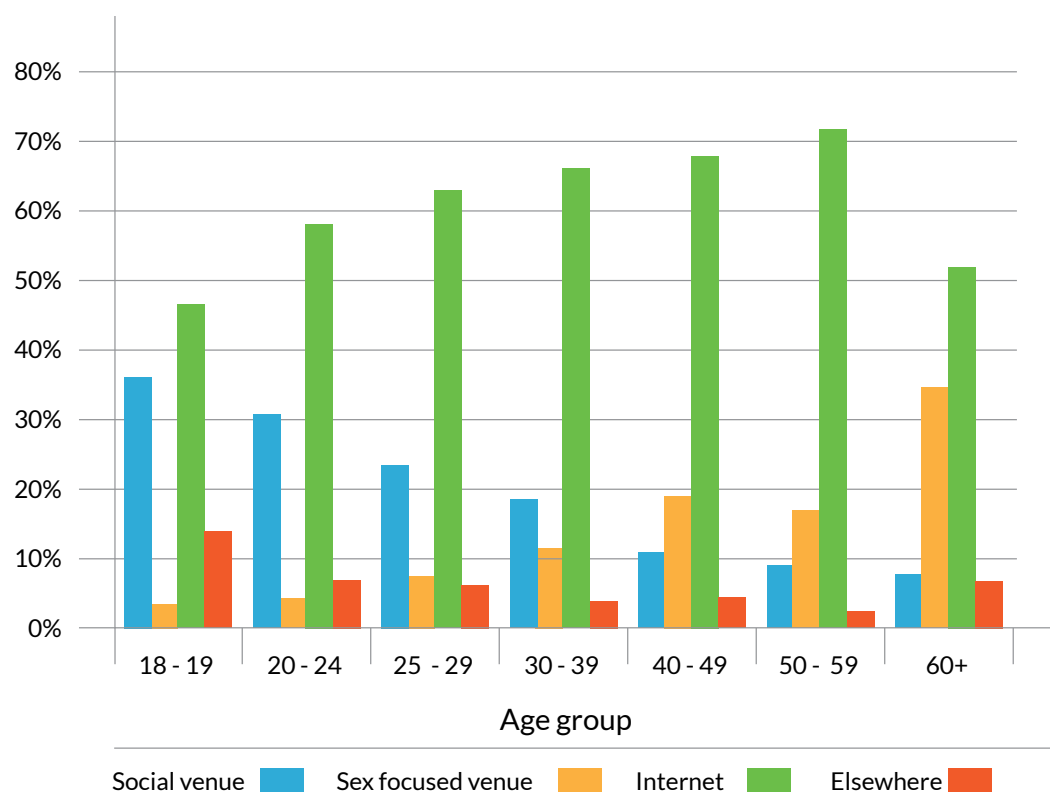
\* Men could choose more than one so percentages will not add up to 100%

## 6.5.2 FACTORS ASSOCIATED WITH MEETING MOST RECENT SEX PARTNER

The methods for contacting and meeting the most recent sex partner was further explored by categorising methods as follows: social venues (friends, gay café or bar, community centre, disco or nightclub, gay organisation or social group); sex focused venues (sauna, cruising location, backroom of bar, club, public sex party, private sex party, porn cinema); internet (smartphone app, website for gay or bisexual men on PC or laptop) and elsewhere. Sixty-two percent of men had met their most recent sex partner on the internet, 22% in social venues, 11% in sex focused venues and 6% elsewhere.

The methods for meeting most recent sex partner differed by age group (see Figure 6.3). The internet was the most common means of meeting most recent sex partners for all age groups, and it was more popular with increasing age, with the exception of those aged over 60 years. In general, younger men were more likely to meet in a social venue, whereas older men were more likely to use sex focused venues, particularly those aged over 60 years.

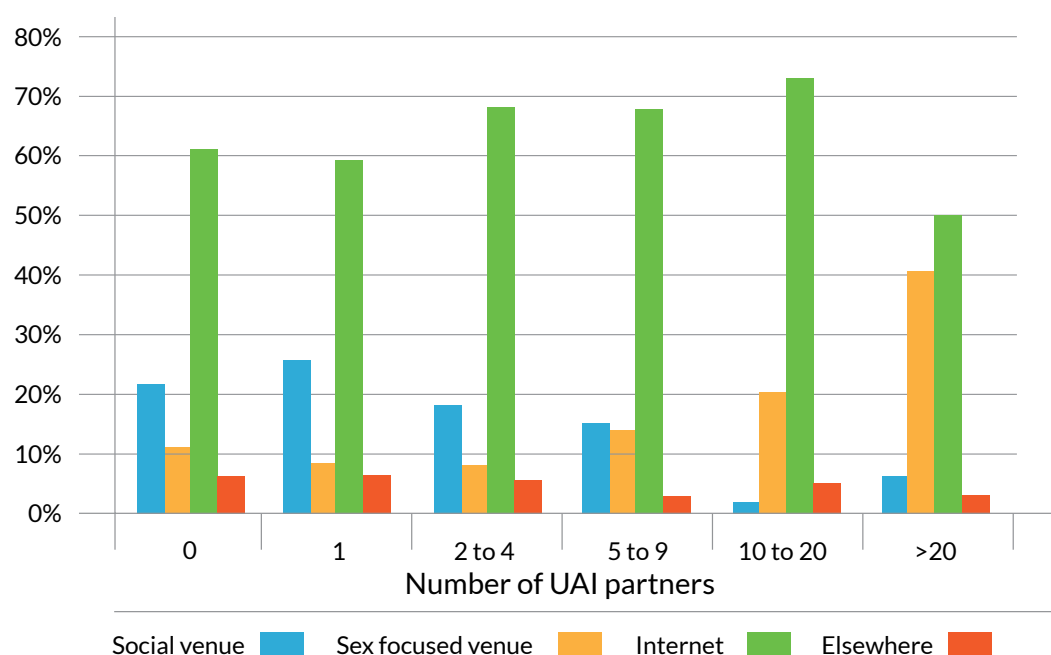
**Figure 6.3** Means of contacting and meeting most recent sex partner by age group, among men who had a new sex partner within the last 12 months (n=1,221)



The methods for meeting most recent sex partners also differed by education level, employment status, sexual identity and HIV testing history but did not differ by area of residence or country of birth (see Table 6.7). There was also variation in the methods for meeting most recent sex partners by number of UAI partners (see Figure 6.4). The number of UAI partners increased as the proportion reporting use of sex focused venues increased. The proportion using the internet was high at all times, but fell for those reporting more than 20 partners.

**Table 6.7** Methods used to meet most recent sex partner by key characteristics, among men who had a new sex partner within the last 12 months

		n	Social venue (%)	Sex focused venue (%)	Internet (%)	Elsewhere (%)	p value
Area of residence	Dublin	898	23.1	10.9	59.5	6.5	0.205
	Outside Dublin	949	20.2	9.6	64.3	5.9	
County of Birth	Ireland	1,697	22.2	10.3	61.2	6.3	0.173
	Outside Ireland	270	18.5	12.6	64.8	4.1	
Education level	Low	91	24.2	12.1	53.9	9.9	0.018
	Medium	794	22.2	8.9	61.3	7.6	
	High	1,048	20.8	11.9	62.8	4.5	
Employment status	Employed	1,257	19.8	12.2	63.3	4.8	<0.001
	Unemployed	132	13.6	11.4	67.4	7.6	
	Student	463	30.7	3.9	56.4	9.1	
	Other	85	8.2	23.5	64.7	3.5	
Sexual Identity	Gay	1,570	23.3	10.0	62.2	5.5	<0.001
	Bisexual	269	16.0	12.3	65.8	6.0	
	Other	119	12.6	16.8	58.0	12.6	
HIV testing history	Positive	108	9.3	22.2	65.7	2.8	<0.001
	Negative	1,193	20.3	11.8	63.2	4.7	
	Never tested	658	26.3	6.8	58.2	8.7	

**Figure 6.4** Means of contacting and meeting most recent sex partners by number of UAI partners, among men who had a new sex partner within the last 12 months (n=1,221)(all differences were significant  $p < 0.001$ )

### 6.5.3 SMARTPHONE APP USE

Of the 1,439 men who reported using a smart phone app to make contact with new male sex partners within the last 12 months, they were asked, *Which of the following smart-phone apps have you met male sex partners through in the last 12 months?* Answers are shown in Table 6.8 with a breakdown also provided by age group. Grindr was the most commonly used app in each age group. All apps, apart from Tinder, were used more by older men.

**Table 6.8** Smartphone apps used to meet new male sex partners in the last year by age group among men who reported using smart phone apps to meet new male sex partners (n=1,439)

Type of app used	Total (n=1,439)	< 25 years (n=495)	25-39 years (n=621)	>40 years (n=323)	p value
Grindr	86.2	89.1	89.2	75.9	<0.001
Gaydar	36.1	20.0	38.2	56.7	<0.001
Tinder	24.5	41.6	20.1	6.5	<0.001
Scruff	23.8	10.9	30.6	30.3	<0.001
Squirt	19.0	12.7	20.8	25.4	<0.001
Growlr	15.9	6.7	18.2	25.7	<0.001
Manhunt	12.6	7.9	12.9	14.6	0.005

### 6.6 SEX WITH WOMEN

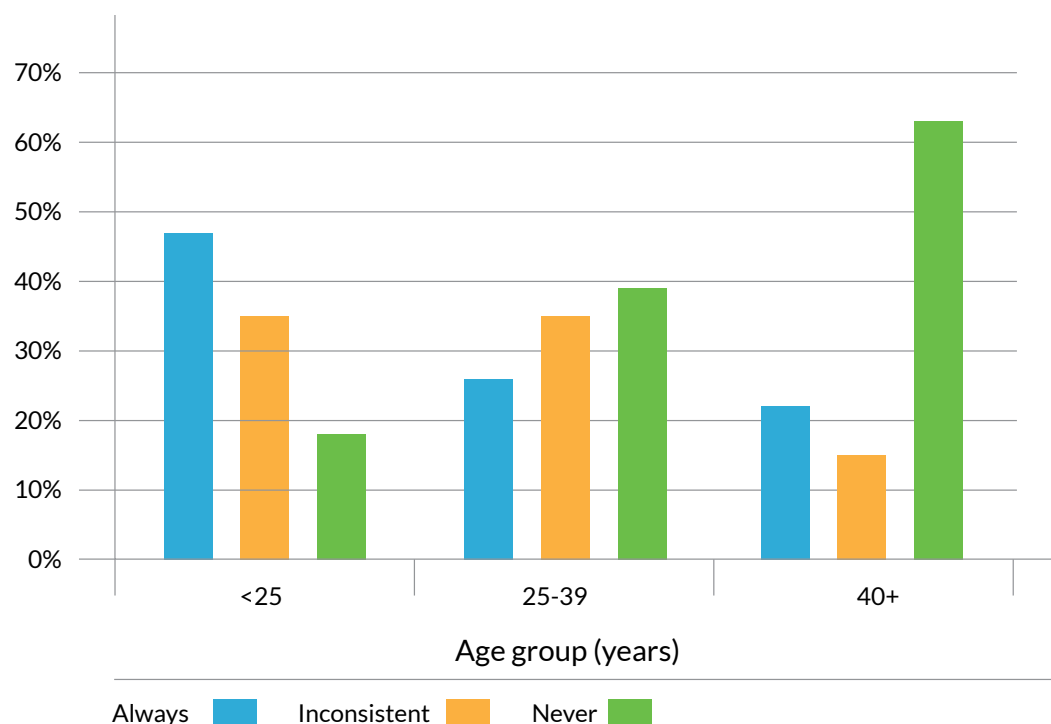
Forty-six percent of men (n=1,405) reported ever having sex with a woman and 14% (n=419) reported that they had sex with women within the past 12 months. Of those who had sex with a woman within the past 12 months and who reported on number of partners (n=366), 60% had one female partner, 27% had 2-4 female partners and 13% had five or more female partners. Table 6.9 shows condom use and number of female partners in the previous 12 months.

**Table 6.9** Number of female partners within the past 12 months and condom use with women (n=357)

Condom use in the last 12 months	Number of female sex partners			
	n	1 (n=217)	2-4 (n=94)	5 or more (n=46)
Always	118	32.3	36.2	30.4
Inconsistent use (seldom, sometimes, mostly)	106	19.8	42.6	50.0
Never	133	47.9	21.3	19.6
Total	357	100.0	100.0	100.0

There was an association found between condom use during sex with women and age group (see Figure 6.5). With increasing age, the proportion of men using condoms when having sex with women reduced and more than half of men over 40 years reported never using condoms. There was no significant association found between condom use during sex with women and UAI with a man during the past 12 months, or with education level or outness.

**Figure 6.5** Condom use with female partners by age group, among men who had sex with women in the last 12 months (n=357)



## 6.7 SUMMARY

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- Overall, 96% of men reported ever having sex with a man and 90% had sex with a man in the last 12 months.
- Of men who reported having a new male sex partner in the last 12 months, 62% met their most recent sex partner via a smartphone app or website, 22% in social venues, 11% in sex focused venues and 6% elsewhere. The internet was the most common means of meeting most recent sex partners for all age groups. In general, younger men were more likely to meet in a social venue, whereas older men were more likely to use sex focused venues, particularly those aged over 60 years.
- Among men who reported ever having sex with a man, 71% had unprotected anal intercourse (UAI), 55% had UAI within the last 12 months and 47% had UAI within the last 6 months.
- Fifty-five percent of men had sex with one or more steady male partner in the last 12 months. Of these men:
  - Seventy percent reported sex with one partner, 23% with 2-4 partners and 7% with five or more steady partners.
  - Sixty-eight percent had UAI. The majority of men reported UAI with one partner (82%), 14% with 2-4 partners and 4% with five or more.
- Of the men who had UAI with one steady male partner in the last 12 months, 15% had non-concordant UAI (ncUAI) (i.e. where HIV status is different or unknown). The proportion having ncUAI was highest in men aged 18-19 years, men with a lower level of education, bisexual men and HIV positive men.
- Sixty-one percent of men had sex with one or more non-steady male partner in the last 12 months. Of these men:
  - Eighteen percent had one non-steady partner, 34% had 2-4 partners, 21% had 5-9 partners and 27% had 10 or more partners
  - Forty-two percent had UAI. Of those who had UAI, 42% had one partner, 37% had 2-4 partners, 9% had 5-9 partners and 12% had ten or more partners.
- Men most likely to have UAI with a non-steady partner in the previous 12 months were men with a lower level of education, men who were unemployed and HIV positive men.
- For men who had UAI with one non-steady partner, 54% had non-concordant UAI.
- Combining steady and non-steady partners into a total number of partners category, 69% of men had sex with more than one partner, and 25% had UAI with more than one partner in the last 12 months.

- The number of UAI partners varied by age group and country of birth. Those with a lower level of education, unemployed men, bisexual men and HIV positive men had more UAI partners. Seventy-seven percent of HIV positive men reported more than one UAI partner.
- Forty-six percent of men reported ever having sex with a woman and 14% reported that they had sex with a woman in the past 12 months. Among men who had sex with a woman in the past 12 months, 60% had one female partner, 27% had 2-4 and 13% had five or more.
- Among men with more than one female sex partner in the past 12 months, 20% never used a condom and almost 50% used condoms inconsistently.
- The proportion using condoms when having sex with women decreased with increasing age and more than half of the men over 40 years never used condoms.





## 7. ALCOHOL, TOBACCO AND DRUG USE

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Alcohol and drug use can impair judgment and risk perception. This chapter presents the findings relating to alcohol consumption, tobacco use, and drug use among MSM.

There is no universal agreement on how psychotropic substances should be classified. For the purposes of this report, drugs have been classified as (1) poppers, i.e. nitrite inhalants; (2) drugs associated with chemsex<sup>14</sup>, namely crystal methamphetamine; gamma-hydroxybutyrate (GHB) /gamma-butyrolactone (GBL); ketamine; mephedrone and (3) all other recreational drugs. Wherever possible, standardised questions relating to alcohol, tobacco and drugs were used such as those developed for use in EMIS or the Healthy Ireland Survey.

### 7.1 ALCOHOL USE

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#### 7.1.1 LIFETIME ALCOHOL USE

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Men were asked a series of questions about their alcohol use. All were asked *Have you ever drunk any alcoholic beverages?* Ninety-five percent of respondents indicated that they had drunk alcohol previously, and a further 2% indicated that they only had a few sips of alcohol in their lifetime. Men were significantly more likely to have consumed alcohol in their lifetime if they were born in Ireland (95%) compared with those born abroad (93%), although the majority had consumed alcohol regardless of their country of birth.

#### 7.1.2 FREQUENCY OF ALCOHOL CONSUMPTION

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Men who had drunk alcohol previously were asked *How often have you consumed alcohol in the last 12 months?* Ninety-seven percent of those who had ever consumed alcohol had done so in the last 12 months.

Of the men who had consumed alcohol in the last year (n=2,779), 63% indicated that they drank alcohol at least weekly and 3% did so daily. Those who consumed alcohol at least weekly were more likely to be men with a higher level of education, men who were employed, and those who lived in Dublin. The most frequent consumers of alcohol were those aged over 50 years. There was no difference in frequency of alcohol consumption based on country of birth.

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<sup>14</sup>“Chemsex” is the term used to describe intentional sex under the influence of psychoactive drugs, particularly GHB/GBL, ketamine, mephedrone and crystal methamphetamine. These drugs may be used alone or in combination to facilitate prolonged sexual sessions with multiple sexual partners.

### 7.1.3 QUANTITY OF ALCOHOL CONSUMED

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Men who had consumed alcohol in the last 12 months were asked the question *Thinking of a typical day in the last 12 months on which you had an alcoholic drink, how many standard drinks would you drink?* (One standard drink is a half glass of stout/lager/cider (284ml), a small glass of wine, or a pub measure of spirit). Overall, 13% of men typically drank 1-2 drinks, 29% drank 3-5 drinks, 27% drank 6-9 drinks, and 31% of men typically drank 10 or more drinks.

Tables 7.1 and 7.2 show the quantity of alcohol typically consumed by respondents. Those who consumed 10 or more alcoholic drinks on a typical day of drinking were more likely to be younger men, current students, or men with a lower level of education. They were less likely to have ever tested for HIV. There was no significant association with area of residence or sexual identity.

### 7.1.4 BINGE DRINKING

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The WHO defines “heavy episodic drinking” as the consumption of at least 60 grams of pure alcohol on at least one occasion in the last 30 days. This corresponds to approximately six standard alcoholic drinks in Ireland, which is also used as the reference for binge drinking.

Respondents’ tendency to binge drink on a typical drinking occasion was estimated by grouping the number of standard drinks typically consumed as less than six standard drinks (not binge drinking) and six or more standard drinks (binge drinking). Ninety-four percent of men who drank alcohol in the last 12 months reported binge drinking at least once during the last 12 months, and 58% reported that they binge drink on a typical drinking occasion .

**Table 7.1** Quantity of alcohol consumed among respondents who drank alcohol in the last 12 months

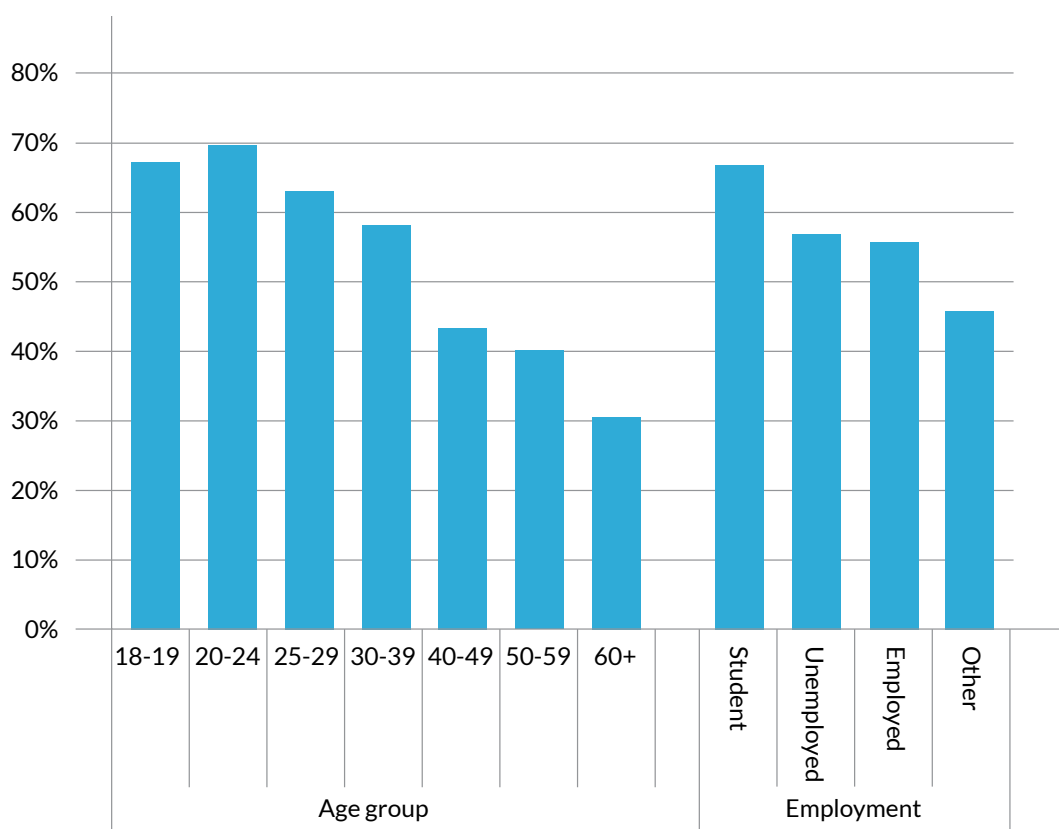
		Number of standard drinks* consumed on a typical day drinking alcohol					p value
		n	1-2 (%)	3-5 (%)	6-9 (%)	10+ (%)	
Overall		2,675	12.6	28.7	27.1	30.9	
Area of residence	Dublin	1,259	11.8	28.8	28.6	30.1	0.542
	Outside Dublin	1,251	13.1	28.5	25.9	31.7	
Age group	18-19	259	7.0	25.9	29.7	37.5	<0.001
	20-24	600	6.4	22.9	29.7	39.9	
	25-29	443	9.6	26.1	26.7	36.3	
	30-39	677	12.2	28.8	27.5	30.6	
	40-49	413	20.7	35.4	23.1	20.2	
	50-59	211	21.7	37.7	26.4	13.7	
	60+	72	33.3	36.1	19.4	11.1	
Country of birth	Ireland	2,314	10.2	27.7	28.4	32.8	<0.001
	Outside Ireland	367	25.9	35.2	19.4	18.8	
Educational level	Low	120	11.7	22.5	24.2	41.7	0.002
	Medium	1,046	10.9	29.5	25.7	33.5	
	High	1,444	13.8	28.9	28.3	27.9	
Employment status	Employed	1,755	13.2	30.3	26.6	29.2	<0.001
	Unemployed	167	14.4	28.7	22.2	34.7	
	Student	605	8.2	24.0	31.2	35.5	
	Other	96	28.1	26.0	20.8	25.0	
Sexual identity	Gay	2,117	12.8	28.2	28.0	30.3	0.416
	Bisexual	343	12.8	31.8	21.6	32.7	
	Other	201	11.4	26.9	28.4	32.8	
HIV testing history	Positive	133	20.2	26.9	22.4	29.9	0.001
	Negative	1,566	13.8	29.2	27.9	28.3	
	Never tested	957	9.5	28.0	26.5	35.3	

\* One standard drink is a half glass of stout/lager/cider (284ml), a small glass of wine, or a pub measure of spirit.

As shown in Figure 7.1, respondents who binge drink on a typical drinking occasion were more likely to be of younger age and/or students. They were less likely to have tested for HIV previously (Table 7.2).

Frequency of binge drinking was analysed from participants' responses to the question *During the last 12 months, how often have you consumed (drunk) the equivalent of 6 standard drinks on one drinking occasion?* Almost three quarters (73%) of respondents reported binge drinking at least monthly, and 44% did so on a weekly basis.

**Figure 7.1** Respondents' tendency to binge drink on a typical drinking occasion by age group and employment status.



**Table 7.2** Tendency to binge drink on a typical drinking occasion among respondents who consumed alcohol in the last 12 months

		Tendency to binge drink on a typical drinking occasion			
		n	Yes (%)	No (%)	p value
Overall		2,696	58	42	-
Area of residence	Dublin	1,259	58.7	41.3	0.562
	Outside Dublin	1,251	57.6	42.4	
Age group	18-19	259	67.2	32.8	<0.001
	20-24	606	69.6	30.4	
	25-29	449	63.0	37.0	
	30-39	683	58.1	41.9	
	40-49	415	43.4	56.6	
	50-59	85	40.1	59.9	
	60+	22	30.6	69.4	
Country of birth	Ireland	2,314	61.3	38.7	<0.001
	Outside Ireland	367	38.2	61.9	
Educational level	Low	120	65.8	34.2	0.059
	Medium	1,050	59.2	40.8	
	High	1,460	56.2	43.8	
Employment status	Employed	1,769	55.7	44.3	<0.001
	Unemployed	167	56.9	43.1	
	Student	612	66.7	33.3	
	Other	96	45.8	54.2	
Sexual identity	Gay	2,117	58.3	41.7	0.232
	Bisexual	343	54.2	45.8	
	Other	201	61.2	38.8	
HIV testing history	Positive	134	52.2	47.8	0.009
	Negative	1,579	56.2	43.8	
	Never tested	964	61.7	38.3	

## 7.2 TOBACCO USE

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Respondents were asked a series of questions about their tobacco use. All were asked *Do you smoke tobacco products?* Thirty-five percent indicated that they were current smokers, of which 22% were daily smokers, and 13% were occasional smokers. The median number of cigarettes smoked by current smokers was five per day.

In total, 65% of men were non-smokers, and they were asked *Did you ever smoke tobacco products (in the past)?* Thirty-seven percent of non-smokers indicated that they had smoked in the past. Therefore, 60% of all survey respondents were either current smokers or ex-smokers.

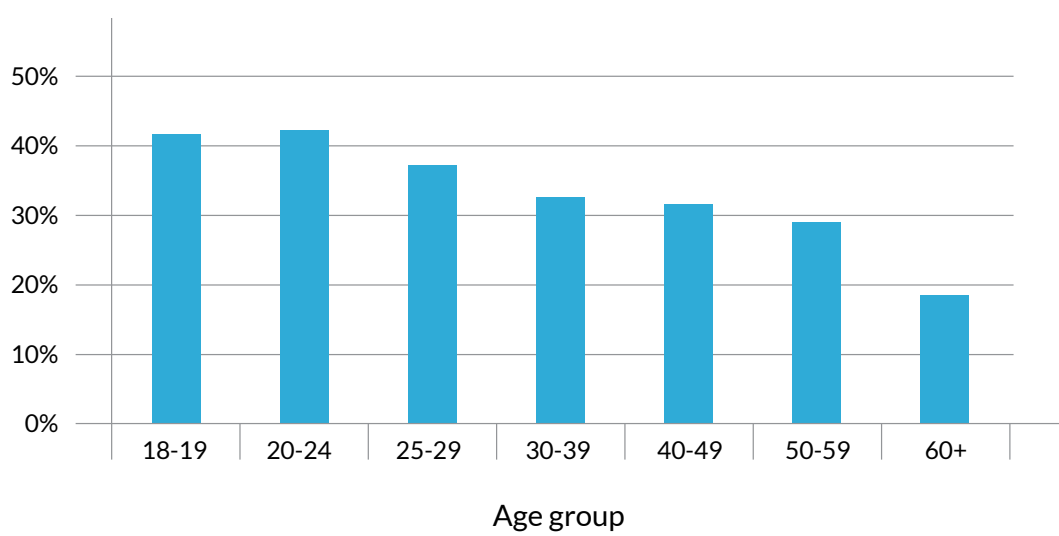
Ex-smokers were asked the question *About how long has it been since you last smoked tobacco products?* Nine percent had given up smoking in the last month and 44% had given up in the last year.

Current smoking was significantly more likely among younger age groups (see Figure 7.2). However, younger smokers tended to smoke fewer cigarettes per day compared with older smokers. Smokers aged <25 years smoked a median of three cigarettes per day compared with a median of 10 cigarettes per day in smokers aged 25-39 years and smokers aged 40 or older. Respondents who had a lower level of education were significantly more likely to be current smokers (38%) compared with men who had a higher level of education (30%).

Smoking status varied significantly by history of HIV testing. Over half (53%) of men who tested HIV positive were smokers. This was significantly higher than the smoking prevalence among men who had never tested for HIV (39%) and those who tested negative (32%).

A clustering of risk behaviour was observed among smokers. Current smokers were more likely to binge drink on a typical drinking occasion compared with non-smokers (42% vs. 27%). Smokers were also more likely to have used poppers (42%), drugs associated with chemsex (57%), and other recreational drugs (57%) in the last year compared with non-smokers (32%, 34% and 23% respectively).



**Figure 7.2** Prevalence of smoking among respondents by age group (n=3,071)

## 7.3 DRUGS

### 7.3.1 POPPERS

Poppers are nitrite inhalants which can act as peripheral vasodilators (dilate the blood vessels), and relax the anal sphincter muscle. As well as to experience a “rush”, MSM use them to facilitate anal intercourse and to intensify sexual pleasure. Use of poppers is associated with an increased risk of acquiring HIV infection among MSM, particularly in receptive UAI (18). This is partly due to an increase in blood flow and expansion of the blood vessels in the rectum.

All men were asked *When was the last time you consumed Poppers?* Fifty-four percent of respondents had used poppers previously. Thirty-three percent of respondents indicated that they had used poppers in the last year, and 19% had used poppers in the last four weeks. Table 7.3 shows that use of poppers in the last year was higher among older men, and peaked among those aged 40-49 years. Popper use was more likely among men who lived in Dublin, men with a higher level of education, or employed men. Men who typically binge drink were more likely to have used poppers in the last year (36%) compared with those who do not binge drink (30%).

There was no association between popper use and respondents’ country of birth. Use of poppers was significantly more likely among those who had tested positive for HIV previously compared to those who tested negative or never tested.

**Table 7.3** Use of poppers among all respondents in the last 12 months

			Use of poppers in the last 12 months		
		n	Yes (%)	No (%)	p value
Overall		3,015	32.9	67.1	-
Area of residence	Dublin	1,368	38.6	61.4	<0.001
	Outside Dublin	1,441	26.2	73.8	
Age group	18-19	299	13.0	87.0	<0.001
	20-24	647	22.9	77.1	
	25-29	492	31.7	68.3	
	30-39	758	38.8	61.2	
	40-49	477	44.7	55.4	
	50-59	255	42.0	58.0	
	60+	87	39.1	60.9	
Country of birth	Ireland	2,570	32.9	67.1	0.929
	Outside Ireland	426	33.1	66.9	
Educational level	Low	154	30.5	69.5	0.001
	Middle	1,186	28.8	71.2	
	High	1,595	35.7	64.3	
Employment status	Employed	1,947	37.4	62.6	<0.001
	Unemployed	199	33.7	66.3	
	Student	683	19.5	80.5	
	Other	126	29.4	70.6	
Sexual identity	Gay	2,355	35.5	65.5	<0.001
	Bisexual	397	23.9	76.1	
	Other	222	22.1	77.9	
HIV testing history	Positive	146	67.8	32.2	<0.001
	Negative	1,752	38.6	61.4	
	Never tested	1,092	18.6	81.4	

### 7.3.2 OTHER DRUGS

All men were asked *In the last 12 months, have you used any of the following drugs?*

The list included: amphetamine (speed); cannabis (Hashish, marijuana); cocaine; crack cocaine; crystal methamphetamine (crystal, meth, tina); ecstasy (E, XTC, MDMA); heroin or related drugs (poppy straw, kompot, fentanyl); mephedrone (4-MMC, meow, methylone, bubbles); GHB/GBL (liquid ecstasy); ketamine (K, special K); LSD (acid); other drug.

Respondents were asked to choose all that applied. All survey respondents were also asked *Have you EVER injected any drug other than anabolic steroids or medicines or had someone inject you with them?* This was the only measure of lifetime drug use in the survey rather than drug use in the last year.

Table 7.4 shows the frequency with which different drugs were used overall and by age group of respondents. The most commonly used drugs were cannabis (28%), ecstasy (17%) and cocaine (13%). Men aged less than 25 years were significantly more likely to have used amphetamine, cannabis, ecstasy, LSD and other drugs. Those aged 25-39 years were more likely to have used cocaine, crystal methamphetamine, ketamine, GHB/GBL. Men aged over 40 were more likely to have used poppers and to have injected drugs previously.

**Table 7.4** Respondents' use of all recreational drugs in the last 12 months by age group

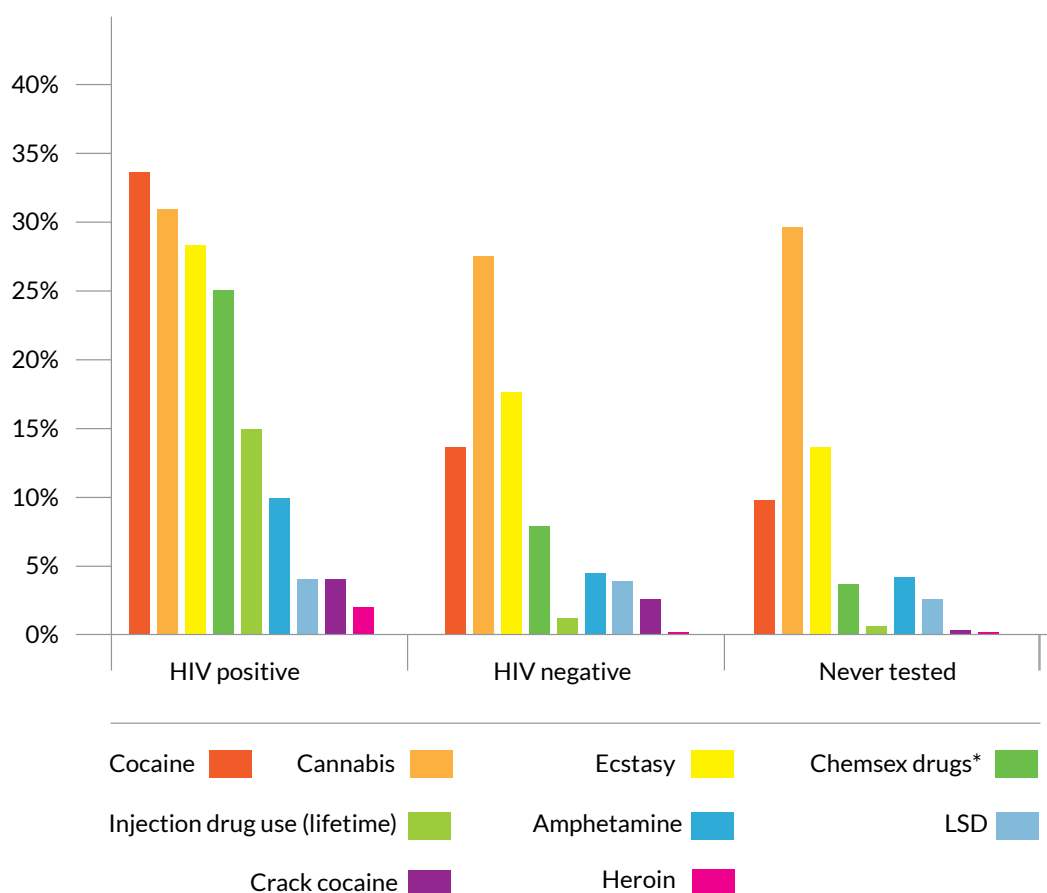
Drug use in last 12 months	Age Group (years)					p value
	n	Total (%)	<25 (%)	25-39 (%)	40+ (%)	
Drugs (excluding poppers)	1,113	36.0	47.7	35.6	23.4	<0.001
Poppers	991	32.9	19.8	36.0	43.2	<0.001
Cannabis	872	28.2	43.0	25.5	15.6	<0.001
Ecstasy	510	16.5	23.0	17.2	8.1	<0.001
Cocaine	404	13.1	13.1	16.2	8.4	<0.001
Amphetamine	143	4.6	5.9	5.3	2.2	<0.001
Ketamine	141	4.6	5.3	5.6	2.1	<0.001
GHB/GBL	106	3.4	1.5	4.8	3.7	<0.001
LSD	81	2.6	5.0	2.0	0.8	<0.001
Mephedrone	64	2.1	1.9	2.7	1.4	0.121
Injection drug use (lifetime)	50	1.6	0.9	1.5	2.6	0.018
Crystal meth.	43	1.4	0.6	1.9	1.5	0.038
Crack cocaine	13	0.4	0.4	0.2	0.7	0.275
Heroin or related drugs	6	0.2	0.4	0.1	0.1	0.221

There were strong associations between the use of individual drugs and history of testing for HIV, as shown in Table 7.5 and Figure 7.3. Men who had previously tested HIV positive were significantly more likely to use all drugs, except for cannabis and LSD where the differences were not significant.

**Table 7.5** Respondents' use of all recreational drugs in the last 12 months by HIV testing history

			HIV testing history			
Drug use in last year	n	Total %	Positive (%)	Negative (%)	Never tested (%)	p value
Drugs (excluding poppers)	1,113	36.0	53.3	36.1	34.2	<0.001
Poppers	991	32.9	67.8	38.6	18.6	<0.001
Cannabis	872	28.2	30.9	27.5	29.6	0.363
Ecstasy	510	16.5	28.3	17.6	13.6	<0.001
Cocaine	404	13.1	33.6	13.6	9.8	<0.001
Amphetamine	143	4.6	9.9	4.5	4.2	0.007
Ketamine	141	4.6	13.8	5.0	2.7	<0.001
GHB/GBL	106	3.4	17.8	3.8	0.9	<0.001
LSD	81	2.6	4.0	2.6	2.6	0.59
Mephedrone	64	2.1	11.2	2.0	0.9	<0.001
Injection drug use (lifetime)	50	1.6	14.9	1.2	0.6	<0.001
Crystal meth.	43	1.4	13.8	0.8	0.6	<0.001
Crack cocaine	13	0.4	4.0	0.2	0.3	<0.001
Heroin or related drugs	6	0.2	2.0	0.0	0.2	<0.001

**Figure 7.3** Respondents' use of all recreational drugs in the last 12 months by HIV testing history



\* Drugs associated with chemsex: crystal methamphetamine; GBL/GHB; ketamine; mephedrone.  
Use of these drugs does not necessarily mean that they were used in the context of chemsex.

### 7.3.3 DRUGS ASSOCIATED WITH CHEMSEX

A variable for use of any of the main drugs commonly associated with chemsex (crystal methamphetamine; GHB/GBL; ketamine; mephedrone) in the last 12 months was created. In the last year, 7% of respondents had used at least one of these drugs, although this does not necessarily mean that they were used during sexual encounters.

As shown in Table 7.6, use of drugs associated with chemsex was significantly more likely among men aged 20-39 years, men with a high level of education, those who lived in Dublin, and men who tested HIV positive. Respondents who typically binge drink were also more likely to have used drugs associated with chemsex (9%) compared with those who do not binge drink (6%).

**Table 7.6** Respondents' use of drugs commonly associated with chemsex in the last 12 months

		Use of chemsex drugs* in the last 12 months			
		n	Yes (%)	No (%)	p value
Overall		3,090	7.2	92.9	-
Area of residence	Dublin	1,396	9.5	90.5	<0.001
	Outside of Dublin	1,479	4.6	95.4	
Age group	18-19	304	3.3	69.7	0.002
	20-24	661	8.0	92.0	
	25-29	499	9.4	90.6	
	30-39	777	8.2	91.8	
	40-49	490	6.9	93.1	
	50-59	265	4.5	95.5	
	60+	94	1.1	98.9	
Country of birth	Ireland	2,639	6.9	93.1	0.157
	Outside Ireland	430	8.8	91.2	
Educational level	Low	158	4.4	95.6	0.046
	Middle	1,221	6.2	93.8	
	High	1,626	8.2	91.8	
Employment	Employed	1,992	7.5	92.5	0.649
	Unemployed	2.5	8.3	91.7	
	Student	693	6.1	93.9	
	Other	134	6.0	94.0	
Sexual identity	Gay	2,411	7.4	92.6	0.052
	Bisexual	406	4.7	95.3	
	Other	230	9.4	90.4	
HIV testing history	Positive	152	25.0	75.0	<0.001
	Negative	1,789	7.9	92.1	
	Never tested	1,123	3.7	96.3	

\* Drugs associated with chemsex: crystal methamphetamine; GHB/GBL; ketamine; mephedrone. Use of these drugs does not necessarily mean that they were used in the context of chemsex.

### 7.3.4 OTHER RECREATIONAL DRUGS

Recreational use of all other drugs was considered separately from the use of poppers and drugs associated with chemsex. A variable was created to capture those who reported use of amphetamine, cannabis, cocaine, crack cocaine, ecstasy, heroin, LSD, and other drugs in the last 12 months (i.e. "other recreational drugs"). In total 36% of men indicated that they had used drugs other than poppers or drugs associated with chemsex in the last 12 months. Table 7.7 shows that use of other recreational drugs was more likely in men of younger age, students, and men who lived in Dublin. Drug use peaked among respondents aged 20-24

years, with 50% of respondents in this age group reporting use of other recreational drugs in the last year. There was no significant association between other recreational drug use and respondents' country of birth (Ireland vs. outside Ireland). Recreational drug use was significantly more prevalent among men who had tested positive for HIV (vs. testing negative or never testing). Recreational drug use was also more prevalent among those who binge drink (44%) compared with those who do not (29%).

**Table 7.7** Respondents' use of other recreational drugs\* in the last 12 months (n=3,090)

		n	Use of recreational drugs * in the last 12 months		
			Yes (%)	No (%)	p value
Overall		3,090	35.7	64.3	-
Area of residence	Dublin	1,396	39.3	60.7	<0.001
	Outside of Dublin	1,479	31.8	68.2	
Age group	18-19	304	43.4	56.6	<0.001
	20-24	661	49.5	50.5	
	25-29	499	39.1	60.9	
	30-39	777	33.0	67.0	
	40-49	490	25.5	74.5	
	50-59	265	21.1	78.9	
	60+	94	11.7	88.3	
Country of birth	Ireland	2,639	36.5	63.5	0.743
	Outside Ireland	430	35.7	64.3	
Educational level	Low	158	29.8	70.3	0.053
	Middle	1,221	37.9	62.1	
	High	1,626	34.6	65.4	
Employment status	Employed	1,992	33.0	67.0	<0.001
	Unemployed	205	39.5	60.5	
	Student	693	44.9	55.1	
	Other	134	23.1	76.9	
Sexual identity	Gay	2,411	35.6	64.4	0.02
	Bisexual	406	32.0	68.0	
	Other	230	43.0	57.0	
HIV testing history	Positive	152	52.6	47.4	<0.001
	Negative	1,789	35.6	64.4	
	Never tested	1,123	34.1	65.9	

\* includes amphetamine, cannabis, cocaine, crack cocaine, ecstasy, heroin, LSD, and other drugs, but not poppers or drugs associated with chemsex: crystal methamphetamine; GHB/GBL; ketamine; mephedrone.



## 7.4 SUMMARY

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- Ninety percent of men consumed alcohol in the last year, and 63% of those drank alcohol at least once a week. Three percent of respondents drank alcohol every day. The most frequent alcohol consumers were older, more educated, lived in Dublin, and more likely to be employed.
- The most frequent alcohol consumers did not necessarily drink the greatest quantities of alcohol in a typical day of drinking. Those who drank the greatest quantities in a typical drinking session were more likely to be younger men, men who were less educated, men who had never tested for HIV, or current students. They were also more likely to have used drugs in the last year.
- Over half (58%) of respondents binge drink on a typical drinking occasion, and 44% binge drink every week. Binge drinking is more common among younger MSM and students. Those who binge drink were less likely to have tested for HIV, and more likely to have used poppers or other recreational drugs in the last year.
- Thirty-five percent of men were current smokers. Smoking was more prevalent among younger men, and less educated men. However, smokers aged under 25 years smoked fewer cigarettes per day compared with older smokers. More than half (53%) of those who had tested HIV positive were current smokers.
- One third of men used poppers in the last year. Popper use was more likely among older men, those who lived in Dublin, more educated men, employed men, and those who were HIV-positive.
- Seven percent of men reported using drugs which are commonly associated with chemsex during the last year, and use peaked among men aged 25-29 years. Use was more common among respondents living in Dublin, and those who were HIV-positive.
- Other recreational drug use was reported by 36% of respondents during the last year. The most common drugs were cannabis, ecstasy and cocaine. This was more likely in younger men, students, and those living in Dublin. Recreational drug use peaked among 20-24 year olds and among HIV positive men.







## 8. KNOWLEDGE REGARDING HIV AND STIS AND HEALTH PROMOTION CAMPAIGNS

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It is important to understand knowledge gaps among at-risk populations in order to inform education, information sources and strategies. This chapter reports on respondents' knowledge about HIV, STIs and post-exposure prophylaxis (PEP). It also reports on participant awareness of health promotion materials and resources.

### 8.1 KNOWLEDGE GAPS IN RELATION TO HIV TESTING AND TREATMENT, HIV TRANSMISSION AND STIS

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Gaps in knowledge regarding HIV testing and treatment, HIV transmission and knowledge regarding STIs were measured using 13 questions. They were formulated not only to assess knowledge but also to educate as all knowledge statements were true and the respondents were told this beforehand. For each statement, respondents were asked *Did you know this already?* and could choose one of the following answers: *I knew this already; I wasn't sure about this; I didn't know this already; I don't understand this; and I do not believe this*. Those who answered *"I knew this already"* were considered to have pre-existing knowledge and those who didn't answer *"I knew this already"* were defined as those with knowledge gaps.

Table 8.1 shows the respondents' knowledge gaps. The gaps were biggest overall in relation to STIs followed by HIV transmission gaps, with fewer gaps in HIV testing knowledge. Some major gaps were identified in knowledge of STIs; 45% of respondents were not aware that the chances of HIV transmission are greater when one partner has HIV, and either partner has an STI. Also, 36% of respondents were not aware that most STIs can be transmitted more easily than HIV.

There were gaps in knowledge regarding HIV transmission with 32% not realising that effective treatment of HIV reduces the risk of HIV being transmitted, and 23% not knowing that HIV cannot be passed during kissing.

Although there were fewer gaps in knowledge regarding HIV testing, 19% did not know that it may take several weeks for HIV to be detected in a test.

**Table 8.1** Proportion of respondents with gaps in knowledge regarding

## (a) HIV testing and treatment

Knowledge about HIV testing and treatment	Proportion with knowledge gaps*
If someone becomes infected with HIV, it may take several weeks before it can be detected in a test	18.7
HIV infection can be controlled with medicines so that its impact on health is much less	6.3
There is currently no cure for HIV infection	7.0
AIDS is caused by a virus called HIV	2.7
There is a medical test that can show whether or not you have HIV	2.2

## (b) HIV transmission

Knowledge about HIV transmission	
Effective treatment of HIV infection reduces the risk of HIV being transmitted	32.0
HIV cannot be passed during kissing, including deep kissing, because saliva does not transmit HIV	23.1
People can pick up HIV through their penis while being active in unprotected intercourse with an infected partner, even if they don't ejaculate	17.5
People can pick up HIV through their rectum while being passive in unprotected intercourse with an infected partner	5.6
You cannot be confident about whether someone has HIV or not from their appearance	3.8

## (c) STIs

Knowledge about STIs	
When HIV infected and uninfected people have sex together, the chances of HIV being passed on are greater if either partner has another sexually transmitted infection	45.1
Most sexually transmitted infections can be passed on more easily than HIV	35.7
Even without ejaculation, oral sex carries a risk of infection with syphilis or gonorrhoea	17.7

\* Proportion who were not sure, didn't know, didn't understand or believe the statement

### 8.1.1 KNOWLEDGE GAPS BY KEY CHARACTERISTICS

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When knowledge gaps were compared by age group, significant differences were found across all age groups for each question. Younger participants, particularly those aged 18-19 years had the biggest gaps across all knowledge questions. In general, there were fewer knowledge gaps with increasing age up to the 40 to 49 year age group, but knowledge gaps increased again for those aged 50 years and older. Just over half (51%) of young people did not know that if you become infected with HIV, it may take several weeks before it can be detected (versus 9% among those aged 40-49 years). They were also less likely to know that effective treatment of HIV infection reduces the risk of HIV transmission (50% versus 29%), that most STIs can be passed on more easily than HIV (51% versus 28%), or that when HIV infected and uninfected people have sex together, the chances of HIV being passed on are greater if either partner has another STI (63% versus 35%).

HIV and STI related knowledge gaps also varied significantly by education level for each question. In general those with higher level of educational had fewer gaps, and the gaps increased when the education level dropped. As found with younger age groups the biggest gaps related to similar questions, for example a lack of knowledge that for serodiscordant sexual partners, the chances of HIV transmission are greater if either partner is co-infected with an STI: 51% of those with a low level of education did not know this versus 41% in those with a high level of education.

In general, knowledge gaps were biggest in those who had never tested for HIV, and were smallest in those who were HIV positive. For example, 26% of those who had tested negative were not aware that effective treatment of HIV reduces the risk of transmission versus 5% of those who tested HIV positive and 45% in those who had never tested for HIV. Those residing outside Dublin had bigger knowledge gaps, for example 39% of those outside Dublin did not know that most STIs could be passed on more easily than HIV, versus 33% of those residing in Dublin.

### 8.1.2 MEAN HIV AND STI KNOWLEDGE SCORES, BY KEY CHARACTERISTICS

For each knowledge area (HIV testing and treatment, HIV transmission and STIs) and for knowledge overall, a summary score was calculated. This score (the mean proportion correct) provides the mean (average) proportion of answers to the knowledge based questions in each area and overall that were answered correctly (see Table 8.2).

**Table 8.2** Mean proportion of total HIV testing, HIV transmission, STI knowledge and overall knowledge questions that were correct, with 95% confidence intervals

Knowledge about	Mean proportion correct (95% Confidence intervals)
HIV testing and treatment	91.6 (91.1 - 92.2)
HIV transmission	83.0 (82.3 - 83.8)
STI knowledge	67.0 (65.7 - 68.1)
Overall knowledge	82.6 (82.0 - 83.2)

The mean proportions with correct responses to the knowledge questions varied significantly by area of residence, age group, country of birth, educational level, employment status, sexual identity and HIV testing history (see Table 8.3). Mean proportions correct for knowledge overall were lowest in the young, with a mean knowledge score of 71% among those aged 18-19 years compared with 86% for those aged 40-49 years. Those with a low level of education had a mean score of 75% compared with 86% for those with a high level of education. Knowledge scores of those who had never tested for HIV were 75%, compared with 87% in those who had tested negative, and 92% in those who were HIV positive. Those who did not identify as gay had lower mean scores, as did those born in Ireland and those living outside Dublin.



**Table 8.3** Mean proportions of correct knowledge responses by key characteristics

		Mean percentage correct	p value
Area of residence	Dublin	85.1	<0.001
	Outside Dublin	80.1	
Age group	18-19	71.4	<0.001
	20-24	80.2	
	25-29	85.5	
	30-39	85.2	
	40-49	86.3	
	50-59	82.8	
	60+	78.3	
Country of Birth	Ireland	82.0	<0.001
	Outside Ireland	86.3	
Educational level	Low	75.2	<0.001
	Medium	79.3	
	High	85.9	
Employment status	Employed	84.9	<0.001
	Unemployed	78.9	
	Student	77.6	
	Other	80.7	
Sexual Identity	Gay	83.8	<0.001
	Bisexual	78.2	
	Other	78.7	
HIV testing history	Positive	92.0	<0.001
	Negative	86.6	
	Never tested	75.0	

## 8.2 KNOWLEDGE GAPS IN RELATION TO PEP

PEP is a HIV prevention intervention in which following exposure to HIV through sexual contact, antiretroviral therapy is administered for prophylaxis against infection. Ideally it should be given as soon as possible following exposure, but may be considered for up to 72 hours. It is available following a clinical assessment of risk, and is free of charge. In Ireland, it is available at Emergency Departments, Sexual Assault Treatment Units and at STI clinics.<sup>16</sup> Maintaining a high level of awareness of PEP, its purpose, and timing of administration are important prevention goals.

Three statements assessed knowledge about PEP by asking respondents whether or not they knew the statements were true and were given the following options: *I knew this already; I wasn't sure about this; I didn't know this already; I don't understand this; and I do not believe this*. Those who answered "I knew this already" were considered to have pre-existing knowledge and the rest were defined as the proportion with knowledge gaps. Table 8.4 shows the knowledge gaps for PEP questions.

Overall, there was a low level of knowledge for all three statements related to PEP. Gaps in knowledge were relatively high (44%) regarding the need for PEP to be started as soon as possible after exposure. Similarly, knowledge of the purpose of PEP was low (42%), and the majority of respondents (61%) didn't know that PEP consists of a one-month course of ART.

**Table 8.4** Proportion of respondents with gaps in knowledge regarding PEP

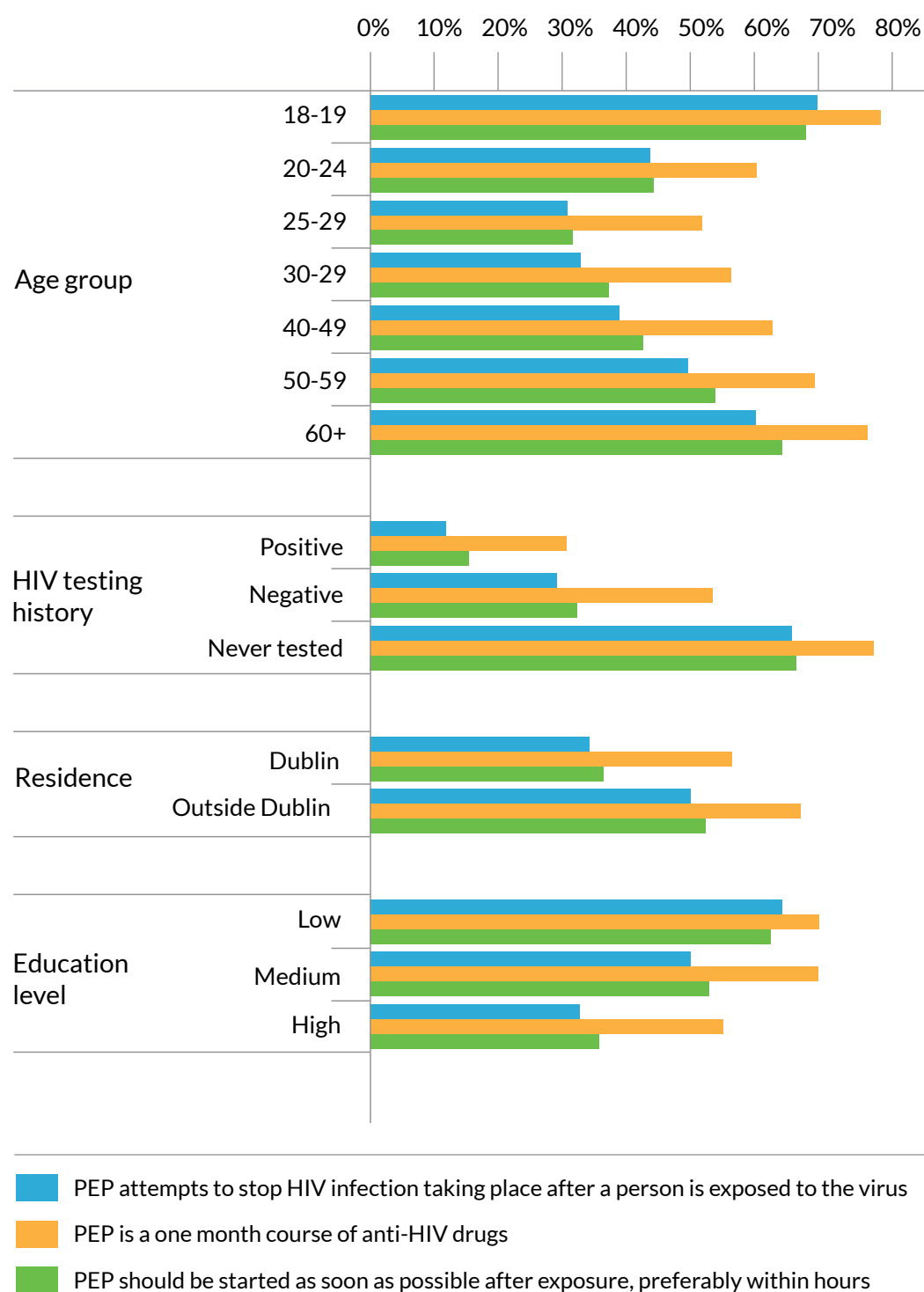
HIV test related knowledge	Proportion with knowledge gaps*
PEP attempts to stop HIV infection taking place after a person is exposed to the virus	41.7
PEP is a one month course of anti-HIV drugs	61.6
PEP should be started as soon as possible after exposure, preferably within hours	44.0

\* Proportion who were not sure, didn't know, didn't understand or believe the statement.

When these gaps were reviewed in more detail by area of residence, age group, educational level and HIV testing history, they varied widely across these variables (see Figure 8.1). Those aged less than 25 years, and those over 50 years had much bigger knowledge gaps and knowledge gaps increased with lower levels of education. However, even in those with a high level of education, gaps were present. Those who had tested for HIV had more knowledge than those who never tested. In general, the size of the gaps in knowledge of the purpose of PEP and its timing were fairly similar; however in all cases, knowledge of the duration of therapy with PEP was much poorer.

<sup>16</sup> A list of places where PEP is available can be found at <http://www.man2man.ie/services.html#section-330>.

**Figure 8.1** PEP knowledge gaps by area of residence, age group, educational level and HIV testing history



(Differences between the groups were significant  $p < 0.001$ )

### 8.3 AWARENESS OF HEALTH PROMOTION MATERIALS

#### 8.3.1 AWARENESS OF WWW.MAN2MAN.IE

The man2man website ([www.man2man.ie](http://www.man2man.ie)) is a partnership health promotion initiative of the HSE and GHN. The website provides HIV and sexual health information for gay and bisexual men, and other MSM in Ireland.

Participants were asked if they had visited [www.man2man.ie](http://www.man2man.ie). Of 3,029 persons who answered the question, 26% said yes; 70% said no and 4% were not sure. Those who said they were not sure were included in the “no” category for further analysis. There were significant differences in those visiting the site by area of residence, age group, educational level, sexual identity and HIV testing history. The highest proportions who had visited the site were those aged 25-29 years (35%) and 20-24 years (32%). Those who identified as gay were also more likely to have visited the site compared to bisexual men (29% versus 20%).

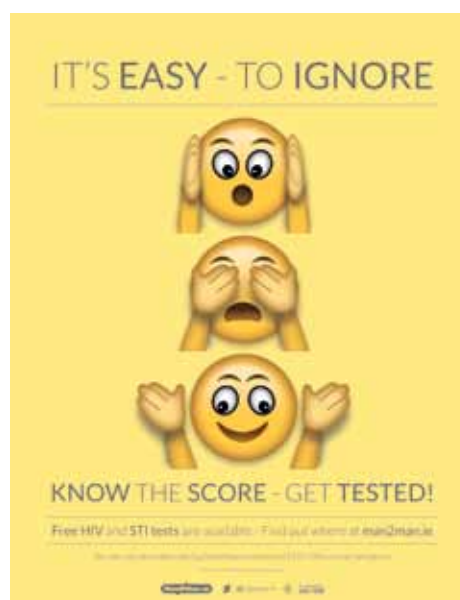
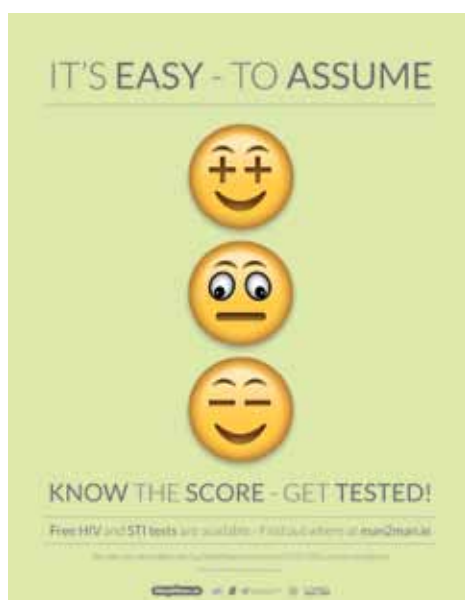
Fifteen percent of those with a low level of education had visited the website versus 29% of those with a high education level. Of those who had never tested for HIV, 17% had visited the site compared with 33% of HIV positive and 32% of HIV test negative respondents, respectively. Those living in Dublin were more likely to have visited the website than those living outside of Dublin (31% versus 22%). There was no significant difference in having visited the website between those born in Ireland and those born elsewhere.

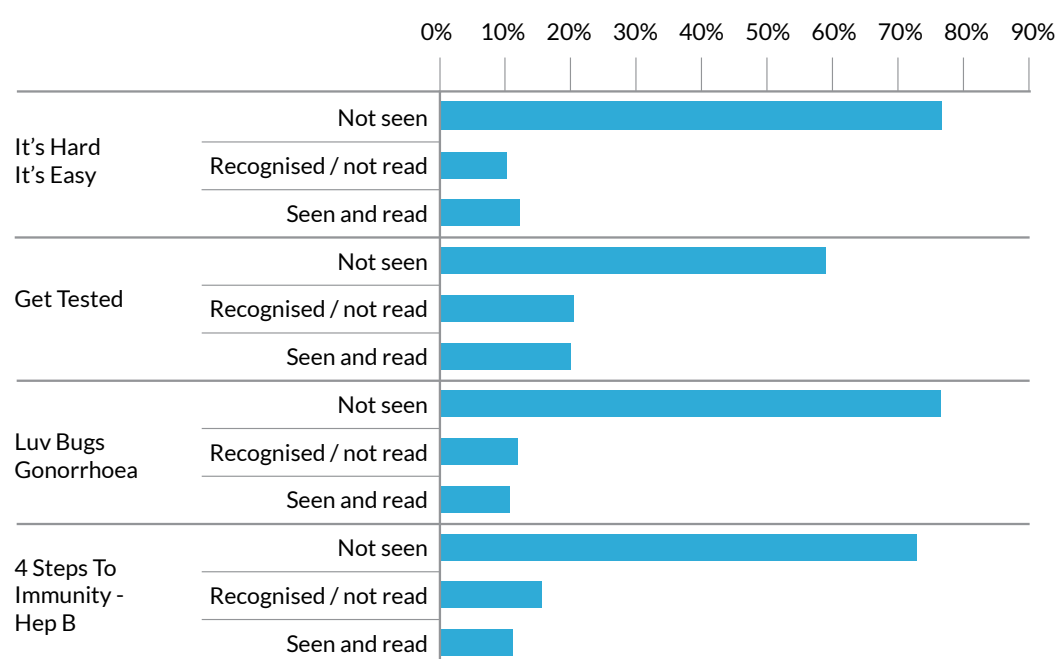
#### 8.3.2 AWARENESS OF SPECIFIC HEALTH PROMOTION CAMPAIGNS

Respondents were shown images of health promotion campaigns dealing with Hepatitis B vaccination, gonorrhoea, HIV testing, and use of condoms, and given the following options for response: *I recognise it but have never looked closely at or read it; I have seen it and have read most or all of it; and No, I have not seen it* (see Figure 8.2). Figure 8.3 shows the response for each of the four health promotion campaigns. The “Get tested” campaign and “It’s hard, It’s easy” were the two campaigns that were seen and/or recognised most often by respondents.

**Figure 8.2** Images used in recent health promotion campaigns





**Figure 8.3** Awareness of health promotion campaigns

### 8.3.3 GET TESTED AND IT'S HARD, IT'S EASY CAMPAIGNS

For the “Get tested” and “It’s hard, it’s easy” campaigns, respondents were asked to tick all the places where they had seen the images. Restricting analysis to those who had seen the advertisement (seen and read or recognised it but didn’t read), the most frequently reported locations where images were seen overall in each campaign are shown in Table 8.5, together with the responses for those aged less than 25 years. The most frequently cited locations where the images were seen were on Facebook, particularly in those aged under 25 years. Websites and printed magazines were also important locations for seeing the health promotion images, as were gay community venues.

**Table 8.5** Locations where respondents had seen health promotion images, overall, and among those aged less than 25 years

	Get Tested		It's hard, it's easy	
	% overall (n=1,248)	% < 25 years (n=429)	% overall (n=685)	% < 25 years (n=239)
Facebook	40.7	58.0	48.9	61.5
Printed magazine	38.1	29.6	45.8	35.2
Gay community venue	36.9	30.8	32.9	27.2
Website	32.5	33.6	40.0	38.1
GUM, STI or sexual health clinic	26.8	22.8	21.8	16.3
Twitter	9.7	14.9	15.9	21.8
Somewhere else	8.6	13.5	4.4	8.0
Back of/inside bus	n/a	n/a	7.9	9.6
Don't know	15.8	15.6	13.6	15.5

Among those who had seen the HIV “Get tested” campaign (n=1,239), 33% said the campaign encouraged them to test for HIV, 28% were not sure, 33% said it didn’t, and 6% were already HIV positive. The proportion who said it did encourage them to test for HIV was higher among those aged under 25 years (39%). Thirty-five percent said the campaign encouraged them to talk to their sexual partners or friends about HIV, 40% said it didn’t and 25% were not sure. The proportion of those who said it did encourage them to talk was higher among those aged under 25 years (43%).

Among those who had seen the condom advertisement campaign, “It’s hard, It’s easy”, 39% said the campaign encouraged them to access free condoms, 19% were not sure and 41% said it didn’t. The proportion who said it did encourage them to access free condoms was higher among those aged under 25 years (49%). Forty-eight percent said that the campaign encouraged them to get and carry condoms, 16% were not sure and 30% said it didn’t (the remainder stated that they didn’t have AI). The proportion who said that the campaign encouraged them to get and carry condoms was higher among those under 25 years (57%).



## 8.4 SUMMARY

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- When knowledge regarding HIV testing and treatment, HIV transmission and knowledge regarding STIs were tested using a series of questions, a composite knowledge score of the proportion of correct answers identified several gaps.
- The biggest gaps in knowledge were identified in relation to HIV and STI co-infection, followed by gaps in knowledge around HIV transmission and HIV testing and treatment. In all, 32% did not know that effective treatment of HIV reduces the risk of HIV being transmitted, and 45% did not know that when a HIV infected and uninfected person have sex, the chances of HIV being passed on during sex are greater if either partner has an STI. The subgroups of the population in whom the biggest knowledge gaps occurred were in young people, those with lower educational qualifications, those who did not identify as gay, and those who had never tested for HIV.
- There was a low level of awareness of PEP, in particular in younger (<25 years) and older (≥50 years) men. In addition, those who had never tested for HIV had the largest knowledge gaps regarding PEP.
- Overall, 26% of men had visited [www.man2man.ie](http://www.man2man.ie). Younger men, men who identified as gay, men with higher educational levels, men living in Dublin and those who previously tested for HIV were more likely to have visited the site.
- For two health promotion campaigns “Get Tested” (HIV testing) and “It’s hard, it’s easy” (condom use), the commonest location the images were seen was on Facebook.
- Among those who had seen it, the “Get Tested” campaign encouraged 33% to test for HIV, and 35% to talk to their sexual partners and friends about HIV. These proportions were higher in younger participants (39% and 43%, respectively).
- Among those who had seen it, the “It’s hard, it’s easy” campaign encouraged 39% to access free condoms, and 48% to get and carry condoms. In younger participants, 57% were encouraged to get and carry condoms.





## 9. PREVENTION STRATEGIES

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This chapter reports on approaches to reducing the potential for getting or transmitting an STI, access to condoms, and access to and treatment with PEP.

### 9.1 APPROACH TO REDUCING THE POTENTIAL FOR GETTING OR TRANSMITTING AN STI

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To understand how respondents reduce their exposure to HIV and STI transmission, participants were provided with a list of statements and asked to tick all the options that they considered to be were part of their approach to reducing the potential for getting or transmitting an STI. The proportion using each of the strategies mentioned was calculated overall, and also among young adult MSM (those aged less than 25 years). The results are presented in Table 9.1.

The most widely used strategies overall for preventing acquisition or transmission of an STI were using lubricant for intercourse (63%), and wearing condoms when active in intercourse (52%). Other common strategies were declining sex partners (47%), and partners using condoms when the respondent was passive in intercourse (47%). Using condoms for giving oral sex was mentioned infrequently (6%). When the analysis was confined to those aged less than 25 years, similar patterns emerged, with an improvement in the numbers using condoms (58%).

Just less than one third of respondents (31%) reported testing regularly for other STIs as one of their approaches to prevent getting or passing on an STI. Among younger men (<25 years) the proportion testing regularly dropped to 24%.

Among those not known to be HIV positive, 21% would use post-exposure prophylaxis (PEP) if they thought they had been exposed to HIV, and this proportion was similar in young people (20%). More than half (55%) would avoid sex with someone with HIV. A small number of respondents said that they use pre-exposure prophylaxis (PrEP) (2%), but this is not currently available in Ireland.

Among HIV positive respondents, less than two thirds (62%) identified knowing their viral load as one of their approaches. In all, 29% of HIV positive respondents try to avoid sex with people who do not have HIV.

**Table 9.1** Strategies used by all respondents (n=3,090) to reduce the potential for getting or transmitting an STI, and strategies used by those aged less than 25 years (n=965)\*

Strategies used to prevent STIs	% using strategy overall	% using strategy among <25yr olds
I use lubricant for intercourse	62.5	63.8
I wear condoms when I'm active in intercourse	52.1	58.3
I sometimes decline sex partners	47.1	50.0
My partners wear condoms when I'm passive in intercourse	47.1	56.2
If I have an infection, I avoid sex until it is cured or managed	42.5	40.8
I make sure I know my current HIV status	41.0	40.1
I regularly test for other STIs	31.4	24.2
I talk about HIV and /or STIs with potential sex partners	31.0	36.8
I date potential sex partners until we get to know each other	27.8	36.8
I avoid using poppers when having passive intercourse	18.6	23.2
I avoid passive intercourse altogether	16.3	13.1
I avoid active intercourse altogether	10.2	11.2
I use condoms for giving oral sex	5.6	5.8
I use gloves for fisting	4.7	3.8
Any other tactics	4.5	3.7
HIV negative respondents only (n=2,912)		
I try to avoid sex with people who have HIV	55.4	55.4
I'd use PEP if I thought I had been exposed to HIV	20.6	20.3
I use PrEP	1.6	1.5
HIV positive respondents only (n=152)		
I make sure I know my current viral load	61.8	66.7
I try to avoid sex with people who do not have HIV	29.0	33.3

\* Men could choose more than one strategy so percentages will not add to 100%.



## 9.2 HIV PREVENTION INTERVENTIONS

### 9.2.1 CONDOMS: LACK OF ACCESS

Condoms are highly effective in preventing transmission of HIV and so the availability of condoms and ready access to them are important prevention goals.

Lack of access to condoms was measured by asking participants *When was the last time you wanted a condom but did not have one?* The results are shown in Table 9.2.

Approximately one quarter (24%) of respondents reported lack of access to a condom in the last 12 months, and 60% reported never lacking access to condoms.

**Table 9.2** Lack of access to condoms (n=3,058; missing 32)

	Number	Percentage	Cumulative Percentage
Within the last 24 hours	35	1.1	1.1
Within the last 7 days	95	3.1	4.3
Within the last 4 weeks	151	4.9	9.2
Within the last 6 months	250	8.2	17.4
Within the last 12 months	211	6.9	24.3
Within the last 5 years	280	9.2	33.4
More than 5 years ago	208	6.8	40.2
Never	1,828	59.8	100.0
Total	3,058	100.0	-

Lack of access to condoms varied significantly by age group, educational level, HIV testing history and employment status (see Table 9.3). Lack of access to a condom when needed was striking in young people with 44% of 18-19 year olds and 32% of 20-24 year olds who had sex within the past 12 months reporting lack of access when needed. A gradient was also seen in lack of access to condoms by educational level, with 31% of those with low educational levels reporting lack of access, compared with 22% of those with higher educational levels. By employment status, students were most likely to have had a lack of access within the last 12 months when needed (35%), followed by the unemployed (26%). Among HIV positive respondents, 20% reported a lack of access to condoms when they needed one within the last year. This proportion was slightly higher among those who had tested HIV negative (24%) and highest among those who had never tested for HIV (30%). Lack of access to a condom within the last 12 months when needed did not vary significantly by area of residence, country of origin or sexual identity.

**Table 9.3** Factors associated with lack of access to a condom when needed within the last 12 months

			Lack of access to condom when needed in last 12 months		
			Yes (%)	No (%)	p value
Area of residence	Dublin	1,283	24.6	75.4	0.396
	Outside Dublin	1,288	26.1	73.9	
Age group (years)	18-19	239	43.9	56.1	<0.001
	20-24	590	32.3	67.6	
	25-29	472	26.5	73.5	
	30-39	715	23.4	76.6	
	40-49	440	16.6	83.4	
	50-59	232	15.5	84.5	
	60+	78	10.3	89.7	
Country of birth	Ireland	2,373	25.8	74.2	0.396
	Abroad	375	23.7	76.3	
Educational level	Low	125	31.2	68.8	<0.001
	Medium	1,064	29.0	71.0	
	High	1,508	22.4	77.6	
Employment status	Employed	1,834	23.1	76.9	<0.001
	Unemployed	179	26.3	73.7	
	Student	586	34.5	65.5	
	Other	115	17.4	82.6	
Sexual Identity	Gay	2,249	24.7	75.3	0.135
	Bisexual	326	28.8	71.2	
	Other	159	29.6	70.4	
HIV testing history	Positive	138	20.3	79.7	<0.001
	Negative	1,712	23.5	76.5	
	Never tested	895	30.1	69.9	



## 9.2.2 UAI SOLELY DUE TO LACK OF AVAILABILITY OF A CONDOM

Respondents were asked when was the last time they had UAI solely due to lack of access to a condom. Sixteen percent of respondents reported UAI due to lack of access to a condom in the last 12 months, 14% greater than 12 months ago and 70% had never had UAI due to lack of a condom.

## 9.2.3 OBTAINING CONDOMS

Respondents were asked where they had usually got condoms from, within the last year, and were asked to tick all the options that applied. Confining the analysis to those who reported having had sex within the last 12 months, Table 9.4 shows the overall responses, and responses provided by young people (<25 years), those who were unemployed, and those with a low level of education.

Bearing in mind respondents could tick all options that applied, the commonest source for obtaining condoms was buying them, although buying them online was not common (7%). A sizeable proportion of respondents got them free (39%), which varied across the groups examined and was more frequent among young people (48%) and the unemployed (38%).

Overall, approximately 30% of respondents obtained condoms from their partners, and/or friends, and this was seen more frequently in young people (45%). For all respondents, 19% reported not usually getting condoms, and this was reported by a higher percentage of those who were unemployed (24%).

**Table 9.4** Sources for obtaining condoms in the last 12 months (n=2,796)

Sources for obtaining condoms within last 12 months	% overall (n=2,796)	<25yrs (n=835)	Low education (n=128)	Unemployed (n=179)
Bought them online	6.5	5.8	5.9	2.5
Bought them elsewhere	49.6	46.1	43.9	43.6
Got them free	39.4	47.9	31.2	37.7
Sex partners usually have them	25.6	36.1	23.4	28.0
My friends usually give them to me	4.3	9.2	5.9	5.5
Elsewhere	9.7	11.1	16.6	11.9
I don't usually get condoms	18.5	17.7	17.6	24.2

## 9.2.4 ACCESS TO PEP

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Access to PEP was assessed by asking about confidence in being able to get PEP if needed. Respondents who had not tested positive for HIV were asked *How confident are you that you could get PEP if you thought you needed it?* Those who had tested negative for HIV were more confident (47% very or quite confident) than those who had never tested for HIV (37% very or quite confident).

Perceived access to PEP was defined (as per EMIS 2010) as knowing that PEP attempts to stop HIV infection taking place after exposure to the virus – indicating some basic knowledge of PEP – and being “very” or “quite” confident of being able to obtain PEP. Using these criteria, and excluding those who were HIV positive, the overall proportion who had perceived access to PEP was quite low at 30%. There were significant differences in perceived access to PEP by area of residence, age group, educational level and sexual identity. Perceived access to PEP was highest among those aged 25–29 years (40%) and 30–39 years (34%), compared to relatively low level of access for those aged 18–19 years (13%). Perceived access was higher among those with a higher level of education (35%) compared with a lower level of education (13%). Those who were living in Dublin had higher perceived access (37%) compared to those living outside Dublin (23%) and those who identified as gay had greater perceived access than bisexual men (32% versus 23%).

## 9.2.5 TREATMENT WITH PEP

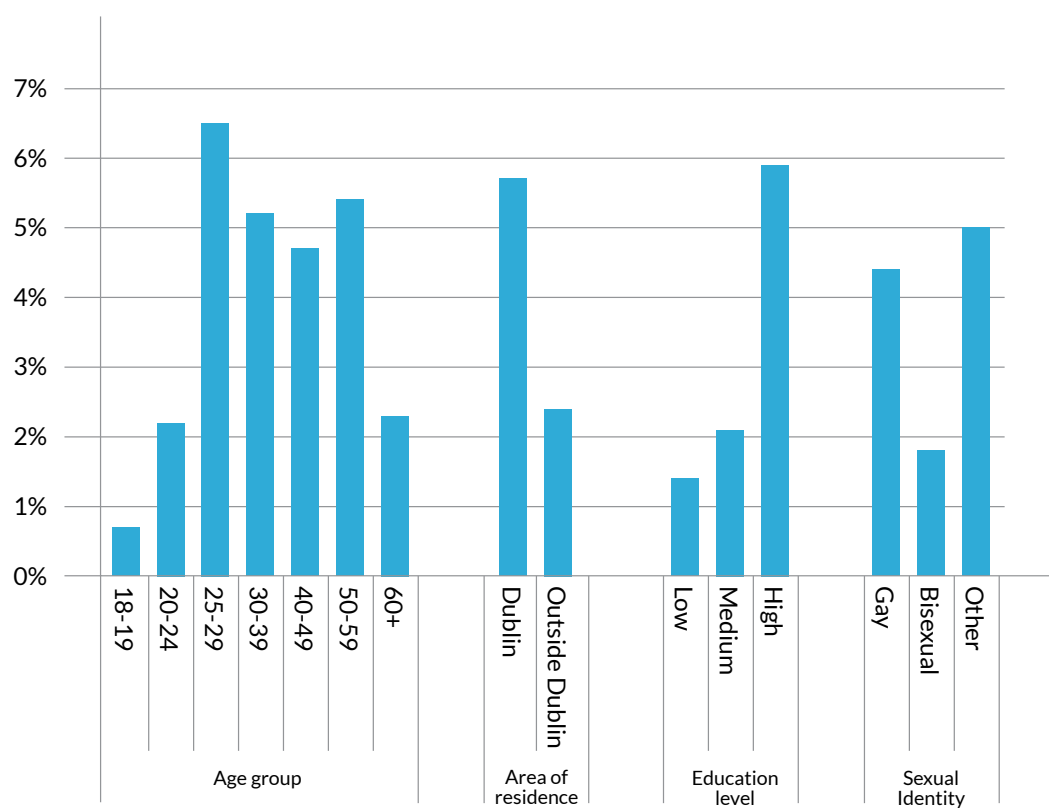
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Of all respondents not known to be HIV positive, 4% had used PEP, though this varied by HIV testing history. Those who had previously tested negative for HIV were significantly more likely to have used PEP than those who had never tested (7% versus 0.3%). Of those who were HIV positive, 5% had used PEP prior to diagnosis.

There were significant differences in the use of PEP by area of residence, age group, educational level and sexual identity (see Figure 9.1).

Those who had access to PEP, as defined by knowledge regarding purpose of PEP and confidence in accessing it if required, were five times more likely to have used it than those without such access [9% versus 2%].

**Figure 9.1** Respondents' use of PEP by area of residence, age group, educational level and sexual identity (n=119)



(Differences between the groups were significant  $p < 0.001$ )

### 9.3 SUMMARY

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- Common strategies used by respondents to prevent getting or transmitting an STI included using condoms when active (52%) or passive (47%) in intercourse and using lubricant (63%). Less than one third mentioned testing regularly for other STIs, and a small proportion (6%) mentioned using condoms for giving oral sex. Among HIV negative participants, 21% reported that they would use PEP if exposed to HIV.
- Overall, 24% of men reported lack of access to a condom when wanted, in the last 12 months. Lack of access was greatest among young people, with 44% of 18-19 year olds and 32% of 20-24 year olds who had sex in the last 12 months reporting lack of access. Those who had low educational levels, students, and unemployed men reported lower levels of access, but lack of access did not vary by area of residence, country of birth or sexual identity. Twenty percent of HIV positive men reported lack of access to a condom when wanted in the last 12 months. Lack of access to condoms was most marked in respondents who had never tested for HIV (30%).
- Among men who had sex within the last 12 months, common sources for obtaining condoms included buying them (56%), getting them free (39%) or getting them from sex partners (26%). A higher proportion of young people <25 years of age (48%) got them free. Overall, 19% reported not getting condoms.
- Perceived access to PEP, i.e. knowing what PEP is for, and being confident of being able to access it if needed was 30%. Perceived access was higher among those aged between 25 and 39 years compared with younger MSM, and was higher among those with a higher level of education, those who lived in Dublin and who identified as gay.
- Of respondents who were not known to be HIV positive, 4% had used PEP. Respondents from Dublin, those with a higher level of education and those who had previously tested HIV negative were more likely to have used PEP. PEP use in those aged between 25 and 59 years was higher than in the younger and older age groups.





## 10. CONCLUSIONS

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MISI 2015 provides useful information for a wide variety of audiences, including the MSM community, policy makers and those planning and delivering HIV and STI prevention interventions for MSM.

Although this is a self-selected sample, and may not be representative of the overall MSM population in Ireland, this methodology is recognised as being a relatively cost effective means of gathering behavioural data. Self-selected sampling is also more practical to undertake on a regular basis than whole population surveys of sexual behaviour, which tend to be large, logistically challenging and expensive. We feel that the wide and varied means of publicising it and the large numbers who completed the survey lend weight to the findings.

The survey respondents provide a picture of MSM in Ireland. Slightly more than half of the respondents were single, and almost 40% were in a relationship with a man. Not all identified as gay; 13% identified as bisexual, and a quarter of respondents reported being attracted to women at least sometimes. More than half of MSM were out to all or almost all persons who know them. Men were less likely to be out if they lived outside of Dublin, and if they were of younger age (18-19 years) or older age (60+ years).

Inequalities in sexual health and wellbeing and risk behaviour in MSM are evident. There are strong associations between age and most of the needs and behavioural factors. Younger MSM and students had less HIV and STI knowledge, were less likely to have tested for HIV or other STIs, and lacked confidence accessing HIV and STI testing relative to other respondents. Importantly, they had less access to HIV prevention interventions such as condoms and PEP. They were more likely to binge drink and use recreational drugs, and were more likely to meet new sex partners in social venues. By contrast, older MSM were more likely to meet new partners in sex-focused venues, they used more poppers, and smoked more heavily than younger men.

Prevention interventions are likely to yield the greatest benefit if tailored to the age profile of MSM at greatest risk. Interestingly, young respondents were more likely to have used the [www.man2man.ie](http://www.man2man.ie) website and to have seen health promotion campaigns on Facebook, highlighting the potential for use of social media to engage young people. Gaps in knowledge, lower rates of HIV testing and poorer access to HIV prevention interventions were also seen in those with a lower level of education and in the unemployed. Improving knowledge and access to these interventions for these key groups are priorities to be addressed.

MSM who were out to few or no-one were less likely to have tested for HIV or other STIs, and were less confident that they could access testing for HIV and STIs. Although this may be partly due to lower numbers of sex partners among these men, this also reflects the unmet needs and suboptimal use of services among this hidden group.



It is of concern that 37% of men had never tested for HIV. Outside Dublin, the proportion who never tested was higher. The information on preference for future HIV testing, particularly among men who never tested, is useful in this regard. The hospital, sexual health clinic or GP were the favoured settings for testing for almost two thirds of those who never tested, but the option of future self-testing at home was favoured by 18%, and very few reported that they didn't want to test for HIV in the future. The provision of testing in various settings especially outside Dublin needs further exploration.

One in 20 MSM in the survey reported that they were diagnosed HIV positive, and this varied by age, with up to one in 10 men aged between 40 and 49 being HIV positive. It is reassuring that 93% of HIV positive men had their HIV infection monitored within the last 6 months, and 79% were on ART. Of the men on ART, 91% were virally suppressed.

The survey identified a higher prevalence of risk behaviour, and some gaps in access to prevention interventions in HIV positive men, suggesting a need to strengthen and build on current prevention interventions for this group. More than half of the HIV positive men in the survey were current smokers; a quarter reported using drugs which are associated with chemsex in the last year; just under a third had an STI in the last year, and one fifth reported lack of access to a condom when needed. A renewed focus on interventions that address the needs and behaviour of HIV positive MSM will be central to improving the physical and sexual health of these men and the wider MSM community.

There were high levels of alcohol and drug use observed among MSM generally. The prevalence of binge drinking was higher among respondents to this survey (58%) than among Irish males in the Healthy Ireland 2015 survey (53%), and much higher than in the general population including females (39%)(19). Some of this difference may be attributed to methodological differences between these surveys, and our self-selected sample may not be representative of the MSM population overall (whereas Healthy Ireland used a random sample of the general population). However, given that Ireland is already among the top nations globally for binge drinking (20, 21), the higher prevalence of hazardous drinking among our MSM community is a cause for concern in terms of wider health and wellbeing. The high prevalence of drug use among MSM in the last year alone (36%) is also of concern, given that 27% of the general Irish population report having ever used illicit drugs during their lifetime (22). Chemsex is increasingly associated with HIV transmission, and although it was not measured directly, the high prevalence of use of drugs associated with chemsex (7%) highlights that MSM may benefit from drug prevention and risk-reduction interventions. Existing service providers need to maintain a holistic approach to the broader health and social needs of this population.

This study would not have been possible without the active participation and encouragement of the MSM community, which has provided invaluable support to MISI and other behavioural surveillance research over many years in Ireland. The challenge now for all stakeholders is to act on these findings in a coordinated way and to implement interventions to improve the health and wellbeing of the MSM community in Ireland.

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