

Sexual Health in Ireland:

What Do We Know? June 2018



Sláinte Ghnéis & Clár um Thoirchis Ghéarchéime Sexual Health & Crisis Pregnancy Programme

Seirbhís Sláinte | Building a Níos Fearr | Better Health á Forbairt | Service

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Glossary

AIDS	Acquired immune deficiency syndrome
СНО	Community healthcare organisation
CIDR	Computerised Infectious Diseases Reporting
CSO	Central Statistics Office
ECDC	European Centre for Disease Prevention and Control
EEA	European Economic Area
EFTA	European Free Trade Association
EIS	Early infectious syphilis
EMIS	European MSM Internet Survey
EU	European Union
GMHS	Gay Men's Health Service
GMS	General Medical Services
GP	General practitioner
HAV	Hepatitis A virus
HBV	Hepatitis B virus
HCV	Hepatitis C virus
HIPE	Hospital in-patient enquiry database
HIQA	Health Information and Quality Authority
HIV	Human immunodeficiency virus
HPSC	Health Protection Surveillance Centre
HPV	Human papilloma virus
HSE	Health Service Executive
HSV	Herpes simplex virus
ICCP	Irish Contraception and Crisis Pregnancy Study
ICGP	Irish College of General Practitioners
ISSHR	Irish Study of Sexual Health and Relationships
IUD	Intrauterine device
IUS	Intrauterine system
LARC	Long-acting reversible contraception (e.g. IUS/IUD, subdermal implant)
LGV	Lymphogranuloma venereum
MISI	Men Who Have Sex With Men Internet Survey
MSM	Men who have sex with men
NCDS	National Condom Distribution Service



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NGO	Non-governmental organisation
NIAC	National Immunisation Advisory Committee
NIO	National Immunisation Office
PCRS	Primary Care Reimbursement Service
PEP	Post-exposure prophylaxis
PEPSE	PEP following sexual exposure
PrEP	Pre-exposure prophylaxis
PWID	People who inject drugs
SATU	Sexual assault treatment unit
SHCPP	Sexual Health & Crisis Pregnancy Programme
STEI	Sexually transmitted enteric infection
STI	Sexually transmitted infection
TasP	Treatment as prevention
UAI	Unprotected anal intercourse
UK	United Kingdom
VAT	Value added tax
WHO	World Health Organization



Foreward

Understanding the sexual health status of the population in Ireland is integral to determining population need in relation to sexual health. Undertaking a sexual health needs assessment was identified as a priority in the National Sexual Health Strategy 2015–2020. In response, the Health Service Executive (HSE) Sexual Health and Crisis Pregnancy Programme (SHCPP) led a process to gather the necessary information to understand the sexual health status of the population.

This report provides an evidence-informed overview of the sexual health status of the population by outlining the available epidemiological data, statistics and research in the sexual health arena in Ireland.

The information presented in this report is extremely useful in supporting my role as national Clinical Lead for Sexual Health. It will be used to inform a broader needs assessment for sexual health and the development of an implementation plan of priority actions by the SHCPP in the coming years. These actions will address one of the overarching goals of the sexual health strategy: 'equitable, accessible and high quality sexual health services, which are targeted and tailored to need, will be available to everyone'.

Thanks to everyone involved in bringing this piece of work together: the Working Group, Dr Fionnuala Cooney, Dr Geraldine Mc Darby and Dr Áine McNamara, Public Health; Dr Declan Mc Keown, HSE Health Intelligence. Thanks to my colleagues in the SHCPP: Helen Deely, Programme Head, for supporting this piece of work; and Maeve O'Brien, Research and Policy Officer, and Caroline Hurley, Project Manager, for their invaluable contributions in coordinating and completing this project.

Dr Fiona Lyons Clinical Lead Sexual Health HSE Sexual Health & Crisis Pregnancy Programme



Chapter 1: About this report

1.1 Introduction and background

This report sets out to provide an evidence-informed overview of the sexual health status of the population by outlining the available epidemiological data, statistics and research in the sexual health arena in Ireland.

The HSE Sexual Health & Crisis Pregnancy Programme (SHCPP) is responsible for implementing the National Sexual Health Strategy 2015–2020 [1]. This report has been developed to support the implementation of the strategy's recommendation 4.12, which is to 'complete a needs assessment of all sexual health service requirements'.

A sexual health needs assessment offers a strategic review of sexual health needs and current service provision and delivery in order to improve the sexual health of the population [2]. This report is one component of the needs assessment work. The other components are:

- A survey of sexual health services
- A survey of sexual health service provision in general practice
- A survey of sexually transmitted infection (STI) diagnostics in laboratories.

Collectively, the components of the needs assessment will determine the direction of work for the SHCPP and its partners in the coming years.

1.2 Aims and objectives

Aim

The aim of this report is to use epidemiological data, statistics and research to provide an overview and understanding of the current sexual health status of the population in Ireland, which forms part of the work of the national sexual health needs assessment.

Objectives

The objectives of this report are:

- To collate available information in order to provide an overview of the sexual health of the general population of Ireland, specifically in relation to:
 - → sexual behaviour
 - → sexual health outcomes
 - → improving and protecting sexual health.
- To present available information on specific groups within the general population identified as needing a particular focus in relation to sexual health.
- To identify information deficits and areas for action to address these deficits.
- To identify areas of service provision requiring action and to make recommendations on how this can be achieved.



1.3 Establishing a working group

A working group was established to oversee and contribute to the development of this report. The working group comprised the national clinical lead for sexual health, two specialists in public health medicine, a specialist registrar in public health medicine and staff from SHCPP with knowledge and expertise in sexual health services and research (see Appendix III). The specialist registrar in public health medicine coordinated the gathering of information and, together with the clinical lead, authored this report.

1.4 Defining the scope of the report

Having agreed the aims and objectives of this report (see Section 1.2), it was important for the working group to define the scope of the report as it relates to the objectives.

1.4.1 Population(s)

The working group determined that, as well as focusing on the general population, this report should, where possible, include information on specific population groups known to be at risk of negative sexual health outcomes. This risk may be defined by behaviour, by age or by social and structural determinants of health that hinder access to healthcare and education. Sometimes these risks overlap. The population groups identified for specific consideration were: men who have sex with men (MSM), young people (aged 15 to 24 and including young people in care), migrants, the over 50s, prisoners, sex workers and people who inject drugs (PWID). A discussion on the rationale for the specific groups included in this report is presented in Appendix I.

1.4.2 Sexual health outcomes

A sexual health needs assessment was identified as a priority clinical action within the sexual health strategy. In light of this, a decision was made to take a clinical focus and limit the scope of the sexual health outcomes to STIs, including HIV (human immunodeficiency virus), and crisis pregnancy.

Sexual dysfunction is recognised as a significant contributor to morbidity among men and women [3]. Recognising this, the working group gave consideration to including sexual dysfunction, but the absence of a clear definition and the very limited availability of information precluded this. The working group would like to see sexual dysfunction included in similar work in the future.

Sexual violence is not included in the scope of the National Sexual Health Strategy (because there is an existing strategy in this area [4]) and, therefore, was not included within the scope of this report.

1.4.3 Improving and protecting sexual health

The working group agreed that this report should include information on condoms, contraception, STI and HIV testing, vaccination against infections that can be sexually transmitted, and the use of antiretroviral therapy for HIV prevention.

1.5 Gathering information

The authors reviewed the information available up to January 2017 for inclusion in this report. However, in some instances, where the working group became aware of pertinent information published after January 2017 it elected to include this information.

1.5.1 Information matrix table

To gather the available information, the working group adopted a similar approach to that outlined in a report published in the United Kingdom (UK) in 2007 [5]. This approach involved drafting and populating a matrix identifying relevant information sources within Ireland under the following headings:

- Existing reports, surveys and analyses related to sexual health
- Service data and context data (statistics and information relating to STIs, HIV diagnoses, abortion, teenage births, condoms, contraception, vaccination and the use of antiretroviral therapy for HIV prevention, data and information on the general population and on specific populations identified for inclusion in this report)
- Information about users and potential users.

To populate this matrix, the members of the working group drew on their experience and knowledge of work in the area of sexual health. In addition, they contacted key stakeholders in sexual health to identify further pertinent information.

1.5.2 Literature search

In addition, one of the authors carried out a search of published medical and social science literature in Ireland up to January 2017. Databases searched included Embase, CINAHL, Lenus, MedLine, Pubmed and Scopus, with several overlapping broad strategies using keywords including sexual and sexually combined with: health, knowledge, attitudes, behaviours and transmitted infections. Further searches were conducted on specific subtopics and groups including contraception, termination of pregnancy, abortion and abortifacients, as well as on specific preventive treatment approaches including specific vaccinations, HIV pre- and post-exposure prophylaxes (PrEP, PEP) and treatment as prevention (TasP). Works were included if they were conducted within the Irish context and related to sexual activity, sexual health, STIs or crisis pregnancy and its outcomes. Specific population group searches were also undertaken in relation to the groups identified for inclusion in this work: MSM, young people (15–24) (including young people in care), the over 50s, migrants, prisoners, sex workers and PWID.

1.5.3 Types, limitations and strengths of information gathered

The large body of information identified to inform this report may be assigned to five broad groups, as set out in Table 1. The table also summarises the limitations of the available information.

Туре	Strengths	Limitations
Nationally representative general population studies with a specific sexual health focus (n=3)	Provide nationally representative statistical data describing levels of crisis pregnancy and sexual knowledge and behaviours of adults in Ireland.	At present there are no systematic, periodic nationally representative surveys on knowledge, attitudes and behaviour in relation to sexual health matters in Ireland.
	and behaviours to be tracked over time.	The most recent nationally representative sexual health survey was undertaken in 2010 and as such may not be representative of the current situation.

Туре	Strengths	Limitations
Nationally representative general population health surveys that included questions relevant to sexual health (n=3)	Allow for key indicators around sexual and crisis pregnancy to be tracked on a regular basis.	The small number of very general questions on sexual health in such surveys limits the ability to gain a deeper understanding of sexual health issues in Ireland.
Studies on specific population groups including large-scale convenience sexual health surveys, qualitative research reports relating to sexual health and crisis pregnancy, and longitudinal health-related studies that include sexual health questions	Provide an in-depth understanding of the views of specific populations, providing insights into their behaviour, attitudes, thoughts, feelings, meanings and experiences around sexual health and crisis pregnancy.	With the exceptions of MSM and young people, the specific populations relevant for sexual health have not been well researched and there is very little available information on migrants, the over 50s, prisoners, sex workers and PWID.
questions		The convenience sampling framework used in many studies on MSM has been shown to potentially over-report certain behaviours, limiting the generalisability of findings to the overall specific population [6].
		The small sample size and subjective nature of the available qualitative research on crisis pregnancy and sexual health among key risk groups precludes generalising the findings to other risk groups and the general population.
		Many of the general health and wellbeing studies included only a limited number of sexual health questions.
Epidemiological reports on STIs and HIV	Provide scientific data on the occurrence of STI and HIV diagnoses nationally.	Whilst recent changes to reporting have significantly improved the quality and quantity of STI and HIV notifications in Ireland [7], incomplete data on area of residence of cases poses a challenge to understanding fully the regional burden of STIs and HIV. When information on area of residence is not available, the location of the reporting clinic or

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Туре	Strengths	Limitations
		laboratory is used as a proxy measure of residence; as a result, surveillance data may not accurately reflect the true number of notifications in each area.
		The lack of complete enhanced surveillance data on certain infections, such as HIV and syphilis, limits our understanding of their epidemiology in Ireland.
		Apart from infections subject to enhanced surveillance, current reports provide limited information on the behavioural factors associated with STIs.
Statistics and information from a variety of sources including the Departments of Health in Ireland and the UK, England and Wales, SHCPP, HSE Primary Care Reimbursement Service (PCRS), Hospital in-patient enquiry database (HIPE), HSE Health Protection Surveillance Centre (HPSC), Health Information and Quality Authority (HIQA), Central Statistics Office (CSO) and a number of sexual health clinical services	High quality statistical data outlining trends relevant to sexual health and crisis pregnancy	At present there is no standardised, nationally coordinated collation of statistics and information on STI testing, the use of HIV post-exposure prophylaxis (PEP), vaccinations for the prevention of sexually transmitted pathogens, sterilisation or non-hormonal forms of emergency contraception. As PCRS information on hormonal contraception use refers only to the population with medical cards (estimated to be between 28% and 37% of those aged 16 to 54 [8]), it may not be generalisable to the wider
		Statistics and information on other aspects of sexual health are often either limited or absent (occasions where this arises are highlighted in the relevant section of this report).



Table 1: Types, strengths and limitations of information gathered

Chapter 2: Sexual behaviour in Ireland

Sexual intercourse is a core human experience. This chapter presents the available information on the sexual behaviour of the general population in Ireland as well as of specific population groups. Understanding sexual behaviour in the population is important as it is well recognised that certain sexual behaviours, particularly a very early age at first sexual intercourse and a higher number of partners, are associated with negative sexual health outcomes such as STIs, HIV and crisis pregnancy [9].

2.1 General population

General population studies and surveys in Ireland find that the majority of the adult population have engaged in sexual intercourse at some stage in their lifetime [9–13]: 92% of the adult population report previously having sexual intercourse, with the vast majority (85%) reporting that their most recent sexual contact occurred within a relationship [12, 13].

The overall median age for reported initiation of heterosexual sexual activity remained stable at 18 between 2003 and 2010 [10]. Research has found that early sexual initiation (at or below 16) is associated with an increased risk of crisis pregnancy, STIs and higher partner numbers [14]. Young adults, in particular young men, people from lower socio-economic backgrounds and people with lower levels of education are more likely to report having initiated sexual intercourse at an early age.

In terms of partner numbers, half of women in Ireland (51%) and almost one-third (29%) of Irish men report one lifetime sexual partner. Men are more likely to report a greater number of lifetime sexual partners, with young men (18–24) having the highest median number of partners, six, in the previous five years [9]. One-quarter of heterosexual men in Ireland (and 6% of heterosexual women) report having ten or more lifetime sexual partners. Less than one per cent of men and women report having ten or more partners in the previous year [9].

A 2017 survey of the general population found that 10% of all people who have had sexual intercourse had done so with more than one person in the previous 12 months [15].

Those who report having multiple partners (defined as more than two partners) in the previous year are more likely to be young adults, be male, come from higher socio-economic backgrounds, have higher levels of education, consume alcohol above the recommended limits and have had first sex before the age of 17 [9, 16]. The association between multiple partners and higher social class and higher educational attainment is variable across the literature [9].

2.2 Young people (15 to 24 years)

With respect to multiple partners, the most recent wave of the Healthy Ireland survey¹ found that 38% of those aged 17 to 24 reported having had more than one sexual partner in the previous year [15]. Among young people, male gender and lower socio-economic status have been found to be associated with reporting multiple partners [18].

Early sexual initiation, at aged 16 years or younger, is more likely to be reported by younger adults, with the proportion remaining relatively stable for men at 39% in 2003 and 37% in 2010 but increasing for women from 21% to 26% over the same period [10].

1 Healthy Ireland is a government-led initiative that aims to create an Irish society where everyone can enjoy physical and mental health, and where wellbeing is valued and supported at every level of society. A series of national surveys have been undertaken as part of this initiative. For further details, see www.healthyireland.ie.

A study of school children aged 15 to 17 in the HSE Mid-West area found that 29.2% of respondents had ever had sexual intercourse. A substantial proportion (41.3%) of those reporting sexual activity indicated that they had their first sexual intercourse before they were 15, with the age for initiation most frequently reported at 16 in girls and 15 in boys [17]. This study did not report on factors associated with sexual activity and sexual initiation at a very young age in this cohort.

Young people in care have been identified as a group more likely to report early sexual initiation than their peers [17, 19].

High levels of early sexual initiation and inconsistent use of contraception have been reported among early school leavers. Literacy problems in this group may impede their ability to benefit from published sexual health information [20].

2.3 Over 50s

While reported frequency of sexual activity declines with increasing age, the longitudinal study on ageing in Ireland finds that the majority (59%) of the Irish population over 50 report sexual activity within the previous 12 months [21]. This sexual activity is strongly linked to relationship status (married or cohabiting) as well as being positively associated with self-reported good health, higher quality of life and positive perceptions of ageing. Older people report a lower median number of lifetime partners than their younger counterparts, as well as lower levels of overlapping sexual partners [9].

2.4 Migrants

Among migrant women aged 18 to 34 years from Poland and Nigeria, the findings from the ICCP (Irish Contraception and Crisis Pregnancy) Study 2010 demonstrate that, in many ways, their sexual behaviour mirrors that of the indigenous population, with the vast majority reporting experience of sex [10]. Qualitative research with a group of Chinese, Polish and Muslim women shows that, although they shared many perspectives with Irish women in how they feel about sex, fertility and motherhood, some specific issues feature in relation to culture and migration. For example, some migrant women believe that their culture prevents them from talking openly about sex and sexual health or that sexual behaviour affects a young woman's reputation and that of her wider community [22].

2.5 Men who have sex with men (MSM)

As is the case in the general population, the vast majority of MSM are sexually active, with 90% reporting sex during the previous 12 months [23]. Over half (55%) of respondents reported having sex with a steady partner within the previous year, with the majority of these (70%) reporting sex with one steady partner. Consecutive waves of the Healthy Ireland survey have found that the proportion of male respondents reporting that their most recent sexual intercourse was with a male is between 4% and 6% [12, 13, 15].

The reported median age of first homosexual experience among MSM in Ireland is 17, with 27.5% reporting their first experience of anal intercourse before 18 [24].

A small proportion (8.4%) of MSM report unprotected anal intercourse with five or more partners within the previous year [23]. These levels are consistent with those reported in earlier studies, where the majority of MSM reported similar partner numbers to the general population, with a small minority reporting high partner numbers [9, 24]. Factors associated with multiple unprotected sexual partners include being born outside Ireland, lower levels of education, unemployment, not identifying as gay and

being HIV-positive. In addition, there is a link between multiple sexual partners and the use of drugs associated with chemsex². The use of these drugs over the preceding year was reported by a small proportion (7%) of respondents to an MSM internet survey (MISI), with use more commonly reported among men aged 20 to 39, men with a higher level of education, men living in Dublin and men who were HIV-positive [23]. In a 2016 analysis of a sample of MSM from the Gay Men's Health Clinic, Dublin, 27% of respondents reported participating in chemsex in the preceding 12 months, and chemsex was associated with multiple sexual partners, multiple partners for anal intercourse, unprotected anal intercourse and gonorrhoea [25].

2.6 Other specific population groups

No sources of information were found relating to sexual behaviour among sex workers, PWID or prisoners.



Chapter 3: Sexual health outcomes in Ireland: STIs, HIV and crisis pregnancy

Reducing negative sexual health outcomes is a key component of the National Sexual Health Strategy [1]. This chapter presents information relating to STIs (including HIV) and crisis pregnancy.

3.1 STIs and HIV in Ireland

Statutory national surveillance for notifiable infections ensures the availability of high-quality information for STIs, including HIV, in Ireland.

In order to control STIs and HIV effectively, it is important to understand the burden of infection, the risk factors for infection and the level of knowledge within the population. This section presents information on the epidemiology of STIs and HIV in Ireland, including information on self-reported prevalence, and a summary of what the population in Ireland knows about STIs and HIV.

3.1.1 Epidemiology of STIs and HIV

The vast majority of information on the epidemiology of STIs and HIV in Ireland comes from reports compiled by the Health Protection Surveillance Centre (HPSC) on statutory notifications of STIs and HIV.³ Statutory notifications of STIs have been increasing steadily since the mid-1990s, with a notable 10% increase between 2015 and 2016 [26]. HIV notifications have also increased in recent years [27].

There are differences in the distribution of certain STI notifications by sex, with a female predominance for chlamydia, genital herpes simplex and trichomoniasis notifications, while males are more frequently notified with gonorrhoea, syphilis and LGV (lymphogranuloma venereum).

Surveillance data indicates that STIs are concentrated within two specific groups: young people and MSM. It can be seen from Figures 1 and 2 that most notifications of STIs in 2016 were among young people, with 70% of all notified STIs identified in the under 30s. The under 25s accounted for almost half of all chlamydia notifications, 43% of herpes simplex notifications and 37% of gonorrhoea notifications. MSM accounted for 95% of LGV notifications, 71% of syphilis notifications and 42% of gonorrhoea notifications in 2016, see Figure 3.

The majority of STI notifications arise from HSE East (Dublin, Wicklow and Kildare). Data on county of residence is not always complete and when a patient's address is not provided, the location of the clinic or laboratory is used to assign an area of residence. As a result, rates by area may reflect the location of STI services and the reporting practices of clinics and clinicians rather than the area of residence of those with STIs.

The type of service where STIs and HIV are diagnosed varies by infection and risk group.

A number of STI outbreaks have been identified over the past few years among MSM and young heterosexuals, leading to the establishment of public health led multisectoral outbreak control teams to develop an appropriate response. A guidance document prepared by the STI guideline subgroup of the HPSC SAC (Scientific Advisory Committee) Subcommittee on Managing Outbreaks of Infectious Diseases was prepared in 2016 [28]. The increase in STIs and HIV among MSM led to the formation of a national response group in January 2016, convened by the HPSC [29], and the publication of an evidence-based action plan in June 2017 [30].



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Figure 1: Age distribution of STIs 2016 (Source: HPSC)

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	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55+
Males	1.7	202.1	1362.8	1167.9	623.6	332.4	185.9	122.8	87.7	25.7
Females	2.4	473.9	1540.6	815.3	298.7	147.7	78.9	50.2	34.3	7.7

Figure 2: Notification rate per 100,000 population of specified STIs by sex and age 2016* (Source: HPSC)

*See Appendix II for details of the specified STIs and numerator and denominator data.

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Figure 3: Mode of transmission for syphilis, LGV and gonorrhoea 2016 (Source: HPSC)

The remainder of this section provides an overview of the epidemiology of the following selected STIs:

- HIV
- Chlamydia trachomatis
- Gonorrhoea
- Early infectious syphilis
- Genital herpes simplex
- Other STIs predominantly affecting MSM.

These infections have been selected based on the burden of infection in the population and the potential morbidity associated with the infection.

Some common STIs such as anogenital warts and non-specific urethritis have not been included because the surveillance data on these infections is quite limited. Further details on all notifiable STIs, including sexually transmitted enteric infections (STEIs) and blood-borne viruses, are available on the relevant sections of the HPSC website: www.hpsc.ie.

HIV

Although HIV has been monitored in Ireland since 1992 through the work of the National AIDS Strategy Committee, it only became a notifiable infection in Ireland in 2011. Reflecting its importance, HIV is subject to enhanced surveillance, and a high level of information is collated on new HIV diagnoses compared with the majority of other notifiable infections. Ireland's 2016 HIV notification rate of 10.7 per 100,000 population represented the highest rate reported to date (see Figure 4) and was significantly higher than the European Centre for Disease Prevention and Control's European Union (EU) and European Economic Area (EEA) rate of 5.9 per 100,000 [27]. While HIV notification rates were stable in Ireland between 2010 and 2014, there was a significant 30% increase between 2014 and 2015 and a 5% increase between 2015 and 2016. Of note, 34% of the new diagnoses reported in 2016 had previously reported a positive HIV diagnosis abroad. When those with a previously reported positive HIV diagnosis abroad are excluded, there was a 6% decline in new diagnoses between 2015 and 2016.



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Figure 4: HIV notifications 2003–2016 (Source: HPSC)

The recent increase in HIV notifications has been concentrated in the HSE East area, where 360 new HIV cases were diagnosed in 2016 to give a rate of 21 per 100,000, which is almost twice the national rate (see Figure 5).



Figure 5: Age-standardised incidence rate for HIV by HSE area 2014–2016 (Source: HPSC)



The majority of HIV notifications in the recent past are in MSM. There was more than a fourfold increase in new HIV diagnoses among MSM from 60 in 2005 to 261 in 2016. Indeed, MSM accounted for half of all notifications in 2016 (see Figure 6). It is important to note that almost one in four (22%) HIV diagnoses in MSM in 2016 were concurrently diagnosed with an acute bacterial STI.



Figure 6: HIV notifications by probable route of transmission 2006–2016 (Source: HPSC)

HIV in migrants

Between 2002 and 2013 there were 4,331 new HIV diagnoses reported in Ireland. Of these, 49% (2,129) were among migrants, 37% (1,590) among Irish-born people and 14% (612) did not have country of birth reported. The rate among Irish-born people has remained relatively stable during this time (ranging from 2.7 to 4.2 per 100,000). There has been a much greater fluctuation in the rate among migrants (ranging from 18.4 to 54.2 per 100,000), which reflects the diversity and changing nature of this group and also of migration patterns into Ireland. Rates have stabilised among the sub-Saharan migrant population from about 2010, while the corresponding rate among migrants from Latin America has increased almost tenfold since 2005 (see Table 2). Among the cases from Sub-Saharan Africa, the heterosexual route was most common, whereas MSM was the prevailing route among cases born in Latin America and Europe [31].

Region of origin	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Ireland	2.7	4.1	4.2	3.9	3.8	3.5	3.5	3.8	3.5	3.6	3.4	3.9
Sub-Saharan Africa	712.8	727.9	331.9	316.4	316.4	285.6	326.7	206.0	155.5	129.3	183.8	147.5
Europe	3.6	3.6	6.9	5.4	7.9	10.1	12.0	8.5	8.1	7.6	7.3	8.3
Latin America	57.2	28.6	13.4	26.7	53.4	93.5	106.8	104.8	164.61	64.6	187.1	269.4
Asia	17.8	10.7	7.2	9.0	23.4	9.0	9.0	7.6	1.3	10.1	10.1	11.4

 Table 2: Rate of new HIV diagnoses per 100,000 population by place of origin 2002–2013⁴ (Source: report on *HIV in Migrants in Ireland*, HPSC 2016)

4 Rates should be interpreted with caution as intra-census year rates are calculated using population data from the census year. It is likely that there are ongoing changes in migrant populations living in Ireland.

The number of new HIV diagnoses in migrants from Sub-Saharan Africa has stabilised. However, late diagnosis⁵ of HIV in this group remains a significant challenge, with 53% of those born in sub-Saharan Africa with a new diagnosis of HIV in 2016 presenting with late infection. This proportion compares with an overall figure of 37% for late diagnoses. While this figure is somewhat lower than in previous years, data on stage of infection at diagnosis was available for a lower proportion of cases in 2016 than in previous years. When those who have been previously diagnosed HIV-positive abroad are excluded, the proportion rises to 44%.

Other groups with high proportions presenting with late infection in 2016 were females (48%), heterosexuals (49% for males and 50% for females) and people aged 40 and over (51% aged 40 to 49, and 50% aged 50 and over).

A study among asylum seekers reported a HIV prevalence rate of 1.7%, and a small study of refugee women attending antenatal services reported a HIV prevalence of 3% [32, 33].

HIV in PWID

Despite the availability of drug treatment services, people who inject drugs in Ireland continue to be at risk of HIV infection: 4% (n=21) of all new diagnoses were among PWID in 2016, with similar numbers and proportions in the preceding years apart from 2015. An outbreak of HIV among PWID in Dublin in 2015 saw a total of 49 new diagnoses in that year [34]. A study of PWID in Irish prisons in 2011 reported an overall HIV prevalence of 2%; a significant gender difference was noted, with a higher prevalence (9%) among female participants [35].

Chlamydia trachomatis

Chlamydia is the most frequently reported STI in Ireland, with 6,893 notifications in 2016 [36]. It can be seen from Figure 7 that most notifications are in people aged between 20 and 29, with more cases among females in those age groups. Case-based data from 2016 demonstrates that 6.4% of cases were diagnosed with another STI excluding HIV.



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Figure 7: Rate of chlamydia trachomatis notifications per 100,000 population by sex and age 2016 (Source: HPSC)

Age-standardised incidence rates for chlamydia (see Figure 8) are generally on the increase. Over half of all cases in 2016 were in the HSE East area, which not only highlights an increased burden in the capital but may also reflect on the location of services for notifications in which county of residence details are unavailable.





Where setting type was available (49% of cases), 56% were diagnosed in general practice, with most others (38%) diagnosed in an STI clinic. Women were most likely to be diagnosed in general practice (61%).

Gonorrhoea

Gonorrhoea notifications have increased steadily in Ireland in recent years, with a public health outbreak declared in 2013 in which MSM and young people were identified as particular groups at risk [37]. There were 1,957 notifications of gonorrhoea in 2016, which represented a 51% increase on 2015 [38] (see Figure 9). Preliminary analysis of 2017 figures from the HSE South East area indicates that heterosexual transmission remains a significant contributor to the recent increase [39]. Age-standardised rates of gonorrhoea are highest in the HSE East area, where more than two-thirds of cases occur.





Figure 10 shows that most gonorrhoea notifications were in males (87%), among whom cases occurred over a wide range of age groups. In contrast, among females, this infection is mainly diagnosed in the under 25s. Where information was available on mode of transmission (64%), 67% of male cases were MSM and 33% heterosexual (see Figure 11).



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	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55+
Males	0.6	74.2	323.4	274.1	172.7	108.4	61.4	35	24.3	7.3
Females	0.4	62.9	58.1	21.0	10.6	6.0	1.7	0.0	0.7	0.3





Figure 11: Gonorrhoea notifications by year and mode of acquisition 2013–2016 (Source: HPSC)

In 2016 11% of cases had two or more episodes of gonorrhoea reported, all of whom were male. 27% (n=459) of males and 21% (n=51) of females were diagnosed with at least one other STI in the same year, with chlamydia (n= 337, 17%) being the additional STI most frequently reported.

Information on the site of infection was available for 86% of notifications, of which 32% were genital and 28% pharyngeal.

STI clinics diagnosed 62% (n=1,218) of cases, of which 93% (n=1,127) were males. Females were more likely to attend general practices as 50% of female cases were diagnosed by GPs, compared with 28% of male cases; 37% of female cases were diagnosed by STI clinics, compared with 66% of male cases.

Early infectious syphilis

Ireland experienced an outbreak of early infectious syphilis (EIS) in 2000, with a peak in notifications around 2001, after which notifications fell until 2005, since when they have been rising steadily. In 2015 the crude incidence rate increased by almost 30% and for the early infectious cases half were at the primary stage and the remainder split between secondary (23%) and early latent (27%) syphilis [40]. In 2016 there were 305 notifications of EIS [41].

Syphilis primarily affects males in Ireland, with a male to female ratio of 30:1 (see Figure 12). The majority of cases (85%) occur in people aged 25 and over.



	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55+
Males	0	1.9	19.6	53	33.5	20.9	14.1	14.1	10.8	4.7
Females	0.0	1.4	1.5	1.3	1.1	1.5	0.0	1.6	0.0	0.0

Figure 12: Rate of EIS notifications per 100,000 population by sex and age 2016 (Source: HPSC)

Where information is complete, the overwhelming majority (88%) of notifications of EIS in 2016 were among MSM and, although this has been the case over the past number of years (see Figure 13), this proportion represents a significant increase and occurs against a background of stabilised rates among heterosexuals.





Over half (58%) of EIS notifications were reported as having been acquired in Ireland. Among MSM, half of the notifications were in Irish-born men and 17% were in Latin American men living in Ireland [41].

In 2016 34% (n=104) of people diagnosed with EIS were co-infected with HIV at the time of the diagnosis. One-quarter of these (n=26) were newly diagnosed with HIV and another 27% had been diagnosed in 2014 or 2015. Among patients diagnosed with EIS, there were 36 cases of HIV and 126 cases of STIs other than HIV – chlamydia and gonorrhoea were the most common STIs seen [41].

The age-standardised incidence rate was highest in the HSE East area (see Figure 14), although an area of residence was not provided in just over half of these cases, making this figure reflective of service location. Almost three-quarters of cases were identified at a dedicated STI clinic and 18% were identified in general practice.



Figure 14: EIS notifications by HSE area 2014–2016 (Source: HPSC)

Genital herpes simplex

Notifications of genital herpes simplex increased significantly in 2006 and have remained high ever since. They are much more commonly reported in females, who accounted for 73% of all cases in 2015 and 2016 [42, 43]. In 2016, 61% of cases were laboratory confirmed as herpes simplex virus type 1 and 36% as herpes simplex virus type 2; the type was unknown for 3%.

Of the 1,369 notifications in 2016, the HSE East area had the largest number (see Figure 15). The place of diagnosis was recorded for 80% of cases, with the majority (60%) diagnosed in general practice and a further 36% in STI clinics.

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Figure 15: Age-standardised incidence rate for genital herpes simplex by HSE area 2014–2016 (Source: HPSC)

Genital herpes notifications are more common in the younger age groups, but in contrast to chlamydia, the proportion of cases notified among some older age categories is higher. In the 20–24 age group, the female to male ratio is almost 5:1 (see Figure 16).



Figure 16: Rate of genital herpes simplex notifications per 100,000 population by sex and age 2016 (Source: HPSC)

Other STIs predominantly affecting MSM

Of the other STIs that affect MSM, LGV, the blood-borne viruses hepatitis B and hepatitis C, and the recently emerging STEIs caused by shigella and hepatitis A are of particular note.

LGV

In Ireland, LGV has been concentrated to date among MSM only. The first reported outbreak occurred between May 2014 and December 2016 and involved 88 cases, the majority of whom were HIV-positive and many had had a recent STI diagnosis. It was an extended outbreak and following the first report on 35 cases in February 2015 [44], a further 53 cases were notified, including some cases of repeat LGV infection [45].

Of the 48 cases notified in 2016, 42 were in the HSE East area, 32 were HIV-positive and 39 were seen in STI clinics. There were 32 additional STIs (excluding HIV) among cases of LGV: 26 diagnoses of gonorrhoea and 6 of syphilis [36].

Hepatitis B

Ireland has a low prevalence of hepatitis B (less than one per cent), with higher concentrations among specific groups based on exposure through sexual contact or injecting practices. Risk-factor information was available for only half of all notifications between 2010 and 2014, of which 13% were believed to be sexually acquired.

In 2015 85% of notifications of acute hepatitis B infection occurred in males, with 74% acquired by the sexual route where mode of transmission was known (88%). Just over one-third of notifications were among MSM [46]. These figures represent a continuing trend whereby the majority of acute cases of hepatitis B are sexually acquired and approximately one-third occur among MSM. The majority of acute cases (92%) were Irish-born [47]. Hepatitis B is a vaccine-preventable infection [48].

Hepatitis C

Ireland has a low prevalence of hepatitis C (less than one per cent) [49]. Although risk-factor information is not available for a significant proportion of notifications, injecting drug use is the primary risk factor for hepatitis C acquisition in Ireland, being responsible for 74% of cases between 2004 and 2014 where risk factor was known (61%), followed by sexual exposure (6.6%) and migrant status (5.7%) [47].

Preliminary data from 2016 demonstrates an increase in hepatitis C notifications among MSM where risk-factor information is available (41%). Of the 24 cases identified as sexually acquired, 11 (46%) were MSM [50].

Hepatitis A

Hepatitis A has recently been identified internationally as an STEI, with outbreaks among MSM reported in several European countries since 2016 [51]. Ireland saw an upsurge in cases of hepatitis A in 2017 among MSM aged 21 to 40, with the majority having a history of recent travel outside Ireland [52, 53]. Hepatitis A is a vaccine-preventable infection [54].

Shigella

Shigella has also recently been recognised as an STEI among MSM. The first reported outbreak among MSM in Ireland occurred from late 2015 to early 2016, with 30 cases identified [55]. Further outbreaks and upsurges have since been reported and antimicrobial resistance is a growing problem [56, 57].

3.1.2 Reported experience of STIs and HIV

STIs

A nationally representative survey in 2006 found that 3.4% of men and 1.8% of women reported having ever been diagnosed with an STI; the proportions were highest among those aged 25 to 34, with rates of 4.8% for males and 3.6% for females [58]. A 2010 nationally representative survey found that 14% of those who reported ever having an STI screen had had an STI diagnosis [10]. This finding did not vary significantly across age categories. Factors associated with a greater likelihood of reporting an STI diagnosis are early sexual initiation and non-use of contraception at first sexual intercourse. In a college-based survey of 419 students, 10.3% of respondents reported that they had 'contracted an STI' [59].

Among MSM, almost one in ten (9%) MISI respondents reported an STI diagnosis in the preceding 12 months. This figure rose to one in five (21%) when confined to those men who reported having an STI test within the previous year, and rose further to one in three when confined to HIV-positive men who reported an STI test within the previous year. STI infection was more likely among men who were unemployed, identified as gay, were HIV-positive and had a higher number of male sexual partners [23].

HIV

Within the general population, 36% report that they have had a HIV test in their lifetime, 0.5% of whom (n=5) report having been diagnosed with HIV [10]. The small number precludes exploration of factors associated with reporting a diagnosis of HIV.

Among MSM, just over two-thirds (67%) of the MISI sample reported knowing their HIV status, with 5% of the total sample reporting HIV-positivity, 1.5% of whom reported a recent diagnosis (within the previous year) [23].

3.1.3 Knowledge about STIs and HIV

In a 2006 nationally representative general population study, questions on chlamydia were asked as a marker of STI knowledge [9]. The majority of women (74%) and men (54%) had heard of chlamydia. Correct knowledge about chlamydia was more likely among young people (18–24), women, those with a self-reported diagnosis of chlamydia, men self-identifying as homosexual, those with higher levels of educational attainment, those from higher social classes and those living in urban areas [16].

Correct knowledge around HIV tended to be very high in the general population, with 85% of respondents correctly answering HIV knowledge questions. Younger people and those with higher levels of education were most likely to do so. Differences across levels of education were particularly pronounced, even after controlling for age. People in casual relationships or not in a relationship tended to have less knowledge, as did respondents living in rural areas. Having previously had a HIV test was associated with higher levels of knowledge [16].

In terms of perceived risk for HIV, women and older people were most likely to describe their risk of HIV as being low or minimal, whereas respondents reporting multiple partners in the previous year and women who had been diagnosed with an STI were least likely to see their risk as low [16].

A general population survey in 2010 also demonstrated high levels of basic understanding of HIV transmission routes among a representative sample of those aged 18 to 45 [10]. This study did not examine factors associated with incorrect knowledge.

A 2017 study of over 1,000 people aged 18 or older found overall good knowledge of HIV but also that the majority of respondents reported incorrectly or did not know that there is a low risk of HIV transfer through sex if a person is taking effective HIV treatment. There was also significant misinformation or lack of knowledge in relation to the effectiveness of methods to prevent HIV being passed from mother to baby during pregnancy [60]. This study was reported as being representative of the general population in terms of gender, age and location in Ireland. Interestingly, it found that those in the 18–24 age group had more misinformation around HIV transmission than older age groups.

Knowledge of STIs, including HIV, is well documented among MSM in Ireland. EMIS (European MSM Internet Survey) 2010 reported high levels of knowledge of testing and transmission of STIs, including HIV, when compared with Europe [61]. More recently, MISI (2015) identified several gaps in this area, with roughly one-third (32%) of respondents unaware that effective treatment of HIV reduces the risk of transmission, more than one-third (36%) unaware that STIs can be transmitted more easily than HIV and 45% unaware that co-infection with an STI increases the risk of HIV transmission. In addition, approximately one-fifth of respondents were unaware that HIV cannot be transmitted by kissing (23%) or that it can take several weeks for a HIV test to become positive (19%). Correct knowledge was higher among older age groups, those with higher education, those who identify as gay and those who report having ever been tested for HIV [23].

3.2 Crisis pregnancy in Ireland

Crisis pregnancy is defined in Irish legislation as 'a pregnancy which is neither planned nor desired by the woman concerned and which represents a personal crisis for her'. This definition is understood to include the experiences of women for whom a planned pregnancy develops into a crisis over time due to a change in circumstances [62]. Crisis pregnancy is not a phenomenon other countries recognise or measure. Other countries recognise unplanned pregnancies. This section presents the most up-to-date information available on crisis pregnancy prevalence, crisis pregnancy risk groups and crisis pregnancy outcomes including abortion.

The reasons why a pregnancy is considered a crisis often depend on the age of the woman involved and the point in her life at which she becomes pregnant. Research finds that a woman who becomes pregnant unexpectedly must consider how that pregnancy will impact on other dimensions of her life, including her personal relationships, job, education, health and financial situation. The most common reason given for a pregnancy being a crisis is that the pregnancy was not planned [10]. Research during the recent recession found that employment and financial factors featured more strongly for women experiencing a crisis pregnancy, which reflects the impact that the socio-economic environment can have on a woman's personal circumstances [10]. Medical difficulties during pregnancy also emerge as an important reason for considering a pregnancy a crisis [63].

3.2.1 Prevalence of crisis pregnancy

The SHCPP has built up a body of research that provides a comprehensive understanding of what a crisis pregnancy is, who experiences it and who is most at risk. Information on crisis pregnancy in Ireland has been collected among the general population. Approximately one in five men (21%) and one in three women (35%) surveyed in 2010 with experience of pregnancy reported having experienced a crisis pregnancy [10]. The proportion had remained stable since 2003 for men (22%) but had increased for women (28%) [10].



Fertile, sexually active women and men of all ages may experience a crisis pregnancy. In 2010 over 65% of women and men with experience of crisis pregnancy reported that they were in a steady relationship, cohabiting, engaged or married at the time a crisis pregnancy occurred [10]. Around one in three were not in a steady relationship and approximately one in twenty were in another type of relationship, including an extra-marital affair.

Research has identified the following groups as being at a particularly high risk for experiencing a crisis pregnancy:

- Young adults (18–25) are the main at-risk group. The average age for experiencing a crisis pregnancy is 24 for women and 23 for men this finding has remained stable over time; 44% of pregnancies among women aged 18 to 25 are perceived by the young people involved as a crisis [10].
- Young people who have first sex before the age of 17 are less likely to use contraception at that point and are 70% more likely to experience a crisis pregnancy and three times more likely to experience abortion later in life [14].
- While the prevalence of crisis pregnancy among women in the 36–45 age group is lower than the prevalence in younger age groups, research showed an increase in the number of crisis pregnancies among older, married women between 2003 and 2010 [10, 64]. This finding may relate to the financial crisis in the intervening years. A crisis pregnancy in this age group is more likely to be due to the fact that the woman sees her family as already complete or has given birth recently. Research finds contraception use is becoming less consistent for both men and women in this age group [10].

3.2.2 Causes of crisis pregnancy

Non-use of contraception

Almost half of the women who report experiencing a crisis pregnancy say that contraception was not used at the time of conception. When asked why they did not use contraception, the main reasons given by women were that 'sex was not planned' (32%), that they 'took a chance' (30%) or that alcohol and drugs were used at the time of conception (20%) [10].

Of those who did not use contraception, approximately half (47%) report that they did not believe they were at risk of pregnancy at the time. This finding highlights knowledge gaps within the general population relating to fertility. Research shows that the proportion of adults who can correctly identify the most fertile time in a woman's monthly cycle is 50% [10]. This finding is significant as knowledge about fertility is a precursor to effective contraceptive practice.

Failure of contraception

Of those reporting that contraception was used at the time of conception, a substantial proportion did not know why it had failed (31% of women and 40% of men) [10]. Problems with condom use (19% of women and 15% of men) and contraceptive pill failure (20% of women and 12% of men) were common.

3.2.3 Crisis pregnancy outcomes

Parenting

Parenting is by far the most common outcome for women who experience a crisis pregnancy. Research finds that when asked about their most recent crisis pregnancy, just under three-quarters of women chose to parent; among men, 66% chose to parent [10].



Adoption

Adoption was once a common response for women experiencing a crisis pregnancy in Ireland; however, the number of babies placed for adoption has decreased significantly in recent decades and continues to fall on an annual basis. Research finds that 1% of women and men chose adoption following their most recent crisis pregnancy [10]. Thirty children were placed for non-family adoptions in 2016, compared with 88 in 2004, 99 in 2002 and 1,005 in 1976 [65].

Abortion

Research in 2010 found that 24% of women and 32% of men with experience of crisis pregnancy reported that their most recent crisis pregnancy had ended in an abortion [10].

Abortions in other jurisdictions

The thirteenth and fourteenth amendments to the Constitution Act 1992 protect the provision of information on all options available to a woman experiencing a crisis pregnancy, including abortion services outside the state, and protect an individual's right to travel outside Ireland to avail of abortion services [66, 67]. Women travelling to another jurisdiction for an abortion tend to choose England, Wales or the Netherlands to access abortion services.

England and Wales

The majority of women travelling from Ireland for an abortion travel to England or Wales. In 2016, 3,265 women gave Irish addresses at UK abortion services, representing a rate of 3.2 per 1,000 women [68]. There has been a gradual decline in women availing of abortion services in the UK since 2001, when there were 6,673 abortions to women giving Irish addresses in UK abortion clinics, representing a rate of 7.5 per 1,000 women.

The Netherlands

The Netherlands has emerged as the only other jurisdiction to which women from Ireland have been travelling for abortion procedures in any significant numbers. The Ministry of Health in the Netherlands has collated data on women providing Irish addresses in Dutch abortion clinics since 2010. Prior to 2010, the SHCPP linked directly with the main abortion service providers in the Netherlands to establish the number of women giving Irish addresses. In 2015, 34 women were recorded to have provided Irish addresses in abortion clinics in the Netherlands [69]. The figures have significantly declined since their peak in 2006, when the number was 461.

Abortions within the Irish state⁶

Abortions under the Protection of Life During Pregnancy Act 2013

Since 2014 abortion has been legally available in Ireland in a very limited set of circumstances where there is a substantial risk to the life of the mother, as laid out in the Protection of Life During Pregnancy Act 2013 [70]. The Department of Health publishes the number of abortions within the Irish state each year in accordance with the 2013 Act. There were 26 abortions recorded in both 2014 and 2015, and 25 in 2016. The majority of these abortions were due to a risk to the life of the mother as a result of physical illness and emergencies arising from physical illness [71–73].

Illegal use of abortion pills

The Irish government has been made aware that increasing numbers of women in Ireland are ordering abortion pills from international online providers [74]. Abortion pills are designed to induce an abortion

for a woman who is less than twelve weeks' pregnant and are used by abortion providers in medically supervised clinics in countries where abortion is legal. These are referred to as medical abortions.

Research shows that every year an increasing number of women based in Ireland contact online providers of abortion pills, with the number tripling between January 2010 and December 2016. Women from the island of Ireland completed 548 online consultations with one online provider in 2010; the number increased to 1,748 in 2016 [75].

Research about the experiences of women who have taken an abortion pill in Ireland finds that 94.7% say they successfully ended their pregnancy without surgical intervention. The study reports on 1,000 women from the island of Ireland who reported taking an abortion pill and who followed up with the online service. Ninety-three women reported experiencing a symptom for which they were advised by the online service to seek medical advice and 87 followed up on this advice. Seven women reported receiving a blood transfusion and 26 reported receiving antibiotics. The author of the report concludes that fear of the consequences of taking an abortion pill can discourage women from accessing medical services following the taking of an abortion pill. Many women report being afraid to tell a healthcare professional that they have taken the abortion pill for fear of a negative reaction or that they will be reported to the authorities [76]. Women who did seek follow-up medical care reported a variety of experiences with healthcare professionals in Ireland, including encountering hostile attitudes and being provided with inadequate information [74].

Teenage pregnancy

Not all teenage pregnancies are interpreted as a crisis by the young people involved. However, traditionally, the teenage birth rate and abortion rate were used as indicators of crisis pregnancy.

The teenage birth rate, as defined by the number of births to females aged under 20 in relation to females aged 15 to 19 per 1,000 population, declined in Ireland from 20 births per 1,000 in 2001 to 7.8 births per 1,000 in 2016. There were a total of 1,098 births to teenagers in 2016 compared with 3,087 in 2001, representing a 64% decrease in the number of births to teenagers over the 15-year period [77].

Ireland has also seen a sharp decline in the number of teenagers accessing abortion services in England and Wales. In 2001, 944 teenage women (aged <20 years) resident in Ireland accessed abortion services in the UK.⁷ This declined steadily to 240 in 2016, representing a reduction of 75% [68]. This equates to a decline in Ireland's teenage abortion rate from 6 (per 1,000 women aged 15–19) in 2001, to 1.7 in 2016.

3.2.4 Crisis pregnancy services and resources

Availability

The HSE Sexual Health and Crisis Pregnancy Programme provides funding to 15 individual counselling services in over 30 locations nationwide to provide free crisis pregnancy counselling. Funded services are promoted under the umbrella brand of Positive Options, which promotes the availability of the service through its website www.positiveoptions.ie.

Crisis pregnancy counselling and the provision of information on all three options: parenting, adoption and abortion are provided under the legal framework.⁸ The act sets out how information about legal abortion services outside Ireland may be given to individuals or groups in Ireland.

7 HSE SHCPP Abortion Statistics Database with information provided by UK Department of Health 8 Regulation of Information (Services outside the State for Termination of Pregnancies) Act 1995.

Uptake

The numbers of women attending the crisis pregnancy counselling services has fallen significantly since the inception of the Crisis Pregnancy Agency. In 2010, 4,662 individual clients attended for crisis pregnancy counselling; by 2016 that number has fallen to 2,570. The reduction in numbers of those attending crisis pregnancy counselling services led the programme to commission a review of all funded crisis pregnancy services in 2017. The review, carried out by Mazars Consultancy, made a number of recommendations in relation to the existing funding and service delivery models.⁹ One of the main recommendations to come out of the review was the introduction of a national telephone crisis pregnancy counselling service. The aim of the new service will be to increase accessibility to all and to provide a single point of contact to provide support to those in a crisis pregnancy. The new service will go to tender in the first half of 2018 and will be operational by year end.

Review of Funding and Service Delivery Models of Crisis Pregnancy Counselling Services, 2017.

Chapter 4: Improving and protecting sexual health in Ireland

This chapter presents available information on interventions known to improve and protect sexual health. These interventions include condoms, contraception, vaccination, STI and HIV testing, and the use of antiretroviral therapy for HIV prevention. Information is presented on the availability and uptake of each form of intervention, and on the knowledge, experience and behaviour of the population in relation to these interventions.

4.1 Condoms

Condoms¹⁰ are important in protecting sexual health as they reduce the risks of unplanned pregnancies and of transmission of STIs, including HIV.

4.1.1 Availability of condoms

The sale of condoms was deregulated in Ireland in 1993 and they are widely available for purchase from pharmacies, supermarkets, convenience stores and vending machines. Condoms are subject to value added tax (VAT) at the reduced rate of 13.5% [78]. Condoms are also available free of charge to the general population and to specific groups within the population from a range of organisations that work to promote sexual health, including sexual health NGOs and publicly funded STI clinics.

The National Condom Distribution Service (NCDS) was established in 2015 by the SHCPP. The aims of the NCDS are:

- To distribute free condoms and lubricant sachets to organisations that promote condom use among individuals or groups who may be at an increased risk of experiencing an unplanned pregnancy or an STI. The NCDS also distributes condoms and lubricant sachets to students unions across the country and to a small number of publicly funded STI clinics.
- To support national sexual health promotion and educational campaigns and initiatives, including the HSE's 'Johnny's Got You Covered' outreach campaign, which targets young adults, and the HSE and Gay Health Network's 'man2man' outreach campaign, which targets MSM.

Between 2015 and 2017 over 600,000 condoms and over 250,000 lubricant sachets were distributed to a range of organisations promoting condom use with MSM, young people, migrants and PWID. The scope of the service was expanded in 2017 to include a single component¹¹ distribution scheme for MSM in response to the increase in HIV and STIs in MSM and in order to increase the distribution of condoms and lubricant sachets in MSM commercial venues and sex-on-premises venues.

As well as the NCDS, a number of sexual health NGOs across Ireland distribute condoms free of charge to organisations involved in the promotion of HIV prevention and sexual health awareness, or provide condoms free of charge from their offices.

According to the prison service healthcare standards, HIV-positive prisoners should have access to condoms and dental dams as appropriate [79]. However, Irish prisons, unlike most of their European counterparts, currently do not provide condoms to prisoners [80]. Condoms are available on request in one prison in Dublin.¹²

- 10 In this report the term 'condom' refers to the male condom, which is the most commonly used condom in Ireland.
- 11 Single component condom distribution schemes provide or distribute free condoms and, if appropriate, lubricant. They include online services for specific groups or areas of the country, and distribution schemes in public places. Single component schemes have been shown to be cost-effective for certain groups, for example MSM. Multi-component schemes distribute free condoms with or without lubricant, together with training, information or other supports and have been shown to be cost-effective for young people. See NICE Guidance: 'Sexually Transmitted Infections: Condom Distribution Schemes' (published 6 April 2017) at: www.nice.org.uk/guidance/ng68.
- 12 Personal Communication Emmett Conroy, Irish Prison Service, March 2018.

4.1.2 Condom use

General population

Condoms are the method most commonly used by the population in Ireland for both contraception and STI prevention. Overall, one-quarter of the population surveyed in Healthy Ireland (2016) reported using a condom during their most recent sexual intercourse. Condom use was higher among those who last had sex with someone they just met (70%) and those aged 17 to 24 (61%) [12]. When asked about condom use over the previous year, 62% reported using a condom, with younger age groups more likely to report condom use than older age groups [10].

Approximately 15% of respondents to the Irish Study of Sexual Health and Relationships (ISSHR) (2006) reported that the cost of condoms discouraged their use, with higher proportions reporting this among younger populations and those of lower educational attainment [16]. Cost remained a factor for a small but significant proportion of the respondents to ICCP 2010, with 5% of respondents who had used condoms reporting that cost had prevented condom use during the previous year [10].

Young people

Age has consistently been a strong predictor of reported condom use, with condoms being the most commonly and consistently reported contraceptive used by the youngest age groups examined in SLAN – Survey of Lifestyle, Attitudes and Nutrition (under 24), ISSHR (18–24) and ICCP 2010 (18–25) [81, 9, 10]. 80% of young adults in ICCP 2010 reported having used a condom in the previous year [10].

Young people are more likely to report cost as a barrier to condom use, with 10% of males and 7% of females aged 18 to 25 reporting that cost had prevented use during the previous year, compared with 5% of the general population [10].

MSM

Among MSM, condoms were used for STI prevention and cited as the strategy for STI prevention by around half of MISI respondents for both receptive (47%) and insertive (52%) anal intercourse; the use of condoms for oral sex was much lower (6%) [23].

Among MSM reporting intercourse with women in the previous year (14%), the majority (66.9%) did not use condoms or used them inconsistently, with the proportion using condoms decreasing with increasing age. Just over one-third of Irish respondents to EMIS who reported sex with women (37.6%) also reported unprotected anal intercourse (UAI) with a male partner during the same time period [24].

A small but significant proportion of MISI respondents reported difficulty accessing condoms, with onequarter reporting lack of access in the previous year and 16% reporting UAI in the previous year solely due to a lack of condoms [23]. These levels are similar to those found previously by EMIS [24]. Access among MSM varied by age, with higher proportions of younger people and those with lower levels of education reporting difficulties with access. Almost two-fifths of respondents (39%) reported obtaining condoms free of charge, with proportions highest among young people and the unemployed [23]. Further detail on reasons for reported lack of access is not available but warrants investigation.

Migrants

Information on condom use among migrants is limited to a small sample of Polish and Nigerian women in ICCP 2010 [10], where 41% said they had used only condoms in the previous year and a further 18% had
used condoms and another form of contraception. The majority of the women said the main reason for using a condom was to prevent pregnancy (70%) and 6% said it was to protect them against HIV and STIs; 25% said they had used condoms for both reasons.

Prisoners

Where reported, condom use was low among prisoners, both in and out of prison, for both lifetime and most recent sexual intercourse, with the majority of those surveyed reporting non-use [36, 82, 83].

Other population groups

Data is lacking in relation to sex workers. Consistent condom use with clients was reported by a majority of sex workers surveyed by the Women's Health Project in 1998 [84]. However, this population was female and primarily Irish and street-based and so is unlikely to be representative of the majority of sex workers in Ireland today.

Data is also limited in relation to condom use among PWID. It has long been recognised that they have a clustering of risk behaviours including unsafe injecting and sexual practices [85, 86]. The majority of PWID involved in sex work report some condom use (although some engage in unsafe sex for a higher price) and, when used, condoms are used appropriately and in a wide variety of situations including vaginal intercourse, orogenital sex and manual relief [87].

4.2 Contraception

Contraception can be classified into five main categories:13

- 1. Long-acting reversible contraception
 - Intrauterine methods: hormonal intrauterine device (IUD) or intrauterine system (IUS) releasing levonorgestrel and copper IUD
 - Subdermal, implantable, progestogen-containing rods.

2. Hormonal methods

- Injectable progesterone or progesterone-only pills
- Combined oestrogen and progesterone hormonal methods, including the combined oral contraceptive pill (COCP), contraceptive patch and vaginal ring.
- 3. Barrier methods
 - Male and female condoms, contraceptive sponges, spermicides, diaphragms and cervical caps.
- 4. Emergency contraception
 - Copper IUD
 - Emergency contraceptive pills.

5. Sterilisation

- Vasectomy
- Tubal ligation.

13 Adapted from 'What Are the Different Types of Contraception?', www.nichd.nih.gov/health/topics/contraception/conditioninfo/types (accessed 6 March 2018).

4.2.1 Long-acting reversible contraception (LARC)

Availability

LARC includes IUDs, IUSs and implants. There are high efficacy rates associated with these methods with regard to preventing a crisis pregnancy.

LARC methods require a skilled medical practitioner to insert a device into a woman's uterus or arm. The historical low rate of IUD use in Ireland was largely due to the lack of trained GPs [88]. In order to address this lack of training, the Irish College of General Practitioners (ICGP) and the SHCPP worked together to develop and deliver an education and training programme for GPs on LARC methods. Since 2008 over 700 GPs have been trained in LARC methods and 422 of these GPs have been trained as LARC tutors who can deliver the LARC education and training course. The tutors are responsible for signing off each trainee and are available for a period of back-up and mentoring afterwards. In 2016 the ICGP, with funding support from the SHCPP, developed an e-learning module on LARC for GPs and practice nurses. This module has made the education and training programme more accessible. To date, 419 practitioners have completed this e-learning module.

Hormonal LARC devices are provided free of charge to those with medical cards through the means-tested General Medical Services (GMS) scheme. The GMS scheme covers between 28% and 37% of people aged 16 to 54 [8] and 70% of all medicines prescribed in primary care. The insertion or removal of a hormonal LARC device is free of charge to medical card holders in general practice and is available at a reduced cost in some family planning services. For those ineligible for a medical card, a partial reimbursement of the cost of hormonal LARC devices is available via the PCRS. This scheme does not cover costs associated with insertion or removal of LARCs.

Uptake

The most recent general population data available suggests that uptake of LARC is at a low level in Ireland, but increasing across all age groups. The ICCP found an increase in the proportion of women (18–45) using intrauterine LARC from 5.7% in 2003 to 10.9% in 2010; and for younger women (18–25), the proportion increased from 2% to 4% [10]. Among a small sample of migrant women, LARCs were utilised by a small proportion of respondents [10].

The data shows that intrauterine LARC users are significantly older, more likely to be married and have a lower income than non-users. Subdermal implantable LARC users tend to be significantly younger, unmarried and have a low income. Women on lower incomes include those in receipt of a medical card [89].

A study on trends in hormonal contraception prescribing found that subdermal implant and IUD prescriptions among medical card patients were low across all age groups over the period 2008 to 2013, accounting for 7.5% of all contraception prescriptions in 2013. Prescriptions for injectable contraception tended to be among younger women and prescriptions for an IUD among older women [90]. A similar pattern is seen for hormonal LARC prescriptions from medical card prescriptions in 2015 (see Figure 17).



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Barriers

In ICCP 2010, of women who stated they had considered using LARC methods, more than one in four (27%) reported that the costs associated with LARC, specifically the cost of prescription and the cost of fitting, were barriers to using these methods [10].

4.2.2 Hormonal methods

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Availability

Hormonal methods, including combined hormonal methods and injectable hormonal methods, are commonly used by women in Ireland. A prescription is required for most hormonal methods. Many are provided free of charge to those with GMS medical cards.

Uptake

ICCP 2010 found that 51% of women (18–45) surveyed had used hormonal methods during the previous year to prevent pregnancy. The combined oral contraceptive pill and the progesterone-only pill were the most common methods used (43%), followed by injectable birth control (5%), contraceptive patch (2%) and vaginal ring (1%). The use of injectable birth control, the contraceptive patch and the vaginal ring increased by 5% between 2003 and 2010, mainly among young adults [10].

Between 2008 and 2013 approximately 17% of the eligible female population aged between 16 and 44 received a prescription for a hormonal contraception monthly, with that proportion remaining stable over time [90]. Oral contraceptive pill use has been increasing steadily and represented 74% of total contraception prescribing captured by the PCRS in 2013. PCRS data on GMS prescriptions for hormonal contraception by age group in 2015 demonstrates that the combined oral contraceptive pill remains the most frequently prescribed contraception for all age categories. Prescriptions for the contraceptive patch are much lower, although women of a younger age are more likely to use these methods (see Figure 17).

Among a small sample of migrant women, the oral contraceptive pill is one of the most popular hormonal

contraception methods. Many migrant women also report significant cost and access issues in relation to sexual healthcare and utilise transnational access, for contraception in particular [10].

Barriers

Misconceptions about the contraceptive pill's side-effects and its safety for use in the long term are often a barrier. For example, 42% of adults agreed with the statement 'the contraceptive pill has dangerous side-effects' and 68% thought that it is a good idea to take a break from the contraceptive pill [10]. The latter view exists despite empirical literature finding that there is no medical need to refrain from using the contraceptive pill for periods of time. One study has associated negative beliefs about the side-effects of the pill with a higher risk of crisis pregnancy [9].

Another barrier that women identify in relation to the oral contraceptive pill is the difficulty associated with adhering to the requirement to take it at the same time every day (due to their busy lives) [91].

Cost is also a barrier for a small number of women. When women who had used the contraceptive pill, ring or patch were asked in ICCP 2010 whether affordability had ever been an issue that prevented them from refilling their prescription, 9% of women answered yes, with younger women being statistically significantly more likely to agree with this statement [10].

4.2.3 Barrier methods

Barrier methods include male and female condoms, contraceptive sponges, spermicides, diaphragms and cervical caps. Male condoms are the most commonly used form of contraception in Ireland (see Section 5.1). There is very little uptake of female condoms in Ireland and no data exists in relation to this.

Contraceptive diaphragms and cervical caps are methods that a woman can fit inside her vagina to cover the cervix and prevent sperm reaching the egg. Uptake of these methods is very low, with less than one per cent of the population reporting use in the previous year [10].

4.2.4 Emergency contraception

Availability

Emergency contraception is a secondary method or 'back-up' contraception. It can be used to avoid an unplanned pregnancy after sex without contraception or if contraception has failed. Emergency contraception includes the copper IUD and emergency hormonal contraceptive pills.

A copper IUD can be fitted by a trained doctor up to five days after unprotected intercourse and can be left in situ for up to ten years thereafter as a primary method of contraception.

Emergency hormonal contraception comes in the form of an oral pill and can be taken up to five days after unprotected sex. Two forms of oral emergency hormonal contraceptive pills are available in Ireland:

• Levonorgestrel has been available on prescription since 2002 and, following a change in licence, from pharmacists without prescription since February 2011. The Pharmaceutical Society of Ireland's guidance requires that a full consultation takes place before the pill is dispensed to the woman. A survey by the Irish Pharmacy Union reported that in the three months following the regulation change for levonorgestrel 85% of pharmacists had received requests for emergency contraception without a prescription, at an average rate of 2.4 requests per week. Requests were most likely to come from younger women (20–25) [10].

• Ullipristal became available on prescription in 2011 and from pharmacists without a prescription (with the same requirements as levonorgestrel) in 2015. This method requires the user to take an oral pill within five days of unprotected sex in order to prevent a pregnancy.

In 2017 the GMS scheme was expanded to allow medical card holders to obtain emergency hormonal contraception without a prescription from a pharmacist , following a consultation [92]. This measure was introduced to remove any barrier to medical card patients getting timely access to emergency contraception.

The copper coil is available through a number of family planning clinics in Ireland at a cost to the individual.

Uptake

Emergency contraception use is reported to be at a low level among the population; however, the uptake increased from 2% in 2003 to 4% in 2010, with young adults more likely to report using emergency contraception than older adults [10, 11].

Barriers

General population surveys report that the majority of the population are aware of emergency contraception [9, 10]. However, fewer than half of respondents had correct knowledge on the effective timing window for hormonal emergency contraception. Those who were unaware of the correct timing window were more likely to underestimate the effectiveness window [9, 10, 88]. Women, younger people, those with post-Leaving Certificate education and those in higher social classes were more likely to know the effectiveness window [9, 10]. Studies demonstrate that the majority of women seeking emergency contraception in Ireland had been using other forms of contraception at the time, with condom malfunction among the most commonly cited reason for needing emergency contraception [88, 93, 94].

4.2.5 Sterilisation

Sterilisation methods include vasectomy for males and tubal ligation or sterilisation implants for women. Vasectomy is offered by a range of providers in various settings, including public and private urology clinics, family planning clinics and general practice. Data on male sterilisation is not systematically collected from all providers. Data on male sterilisations occurring in the public hospital system is captured through the HIPE scheme and there is some limited information on the number of male sterilisations funded in primary care settings from community healthcare organisation (CHO) areas (see Figure 18).

Female sterilisation is a more invasive procedure, requiring a general anaesthetic and hospital admission. As a result, the quality of information from the HIPE scheme on the uptake of female sterilisation is more complete and is likely to be a more accurate representation of the provision of female sterilisation than is the case for male sterilisation.

The number of sterilisation procedures taking place in the public hospital system declined over the period 2010 to 2015 (see Figure 18). The reduction in female sterilisations is likely to represent a true reduction whereas the reduction in male sterilisations may reflect a shift to other non-hospital settings.



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The number of male sterilisations funded within primary care and carried out in a non-hospital setting is presented by CHO area for 2015 in Table 3 and demonstrates significant regional variation.

CHO area	Former health board area	Number of funded male sterilisations		
1	North-Eastern (NEHB)	47		
1	North-Western (NWHB)	100		
2	Western (WHB)	78		
3	Mid-Western (MWHB)	81		
4	Southern (SHB)	33		
5	South-Eastern (SEHB)	35		
6 and 7	East Coast Area (ECAHB) and South-Western Area (SWAHB)	278		
8	Midland (MHB)	67		
9	Northern Area (NAHB)	24		
National total		743		

 Table 3: Number of funded male sterilisations by CHO area 2015 (Source: HSE Clinical Strategy and Programme Primary Care Division)



4.2.6 Factors affecting contraception use and efficiency

The following factors have been identified in research as having an impact on the use or efficiency of the various methods of contraception.

Inconsistent use

Most pregnancies among contraception users are caused by inconsistent or incorrect use of contraception. This is a key issue as research suggests that the number of adults using contraception consistently is falling: the proportion of men and women consistently using contraception decreased from 83% in 2003 to 78% in 2010 [10]. The most commonly cited reasons for inconsistent use of contraception were 'took a chance', 'alcohol and drugs' and 'sex was not planned' [10].

Access issues

A small but significant proportion of respondents (9% of men and 15% of women) in ICCP 2010 reported difficulty in accessing contraception and this varies according to age. Local accessibility was an issue for four in ten of those reporting such a difficulty [10].

Cost

A greater proportion of adults reported cost-related issues in terms of accessing contraception in 2010 (24%) than did in 2003 (17%) [10]. ICCP 2010 found that while cost was an issue for a minority, it was more likely to feature for younger adults. 10% of men and 7% of women in the 18–25 age group reported that they had had sex in the previous year without using condoms due to cost issues. In addition, 9% of all women and 13% of women aged 18 to 25 who had used the pill, patch or ring during the previous year said they had not refilled their prescription because they could not afford it. Among respondents without a medical card, 18% reported that the cost of a GP consultation was a frequent barrier to seeking medical attention. Of those women who had considered using LARC as a method of contraception (n=350), 27% reported that the cost prevented them from choosing this method.

Stigma and embarrassment

Embarrassment was an issue for 23% of adults in ICCP 2010 and was more prevalent in younger people, being reported by 37% of those aged 18 to 25 [10]. Some 24% of adults had a negative attitude towards women carrying condoms as a precautionary measure for unanticipated sexual encounters while not in a relationship; this attitude had remained stable since 2003. The report suggests that younger adults, and younger men in particular, are more likely to agree with this statement than older adults [10].

Non-use of contraception

Non-use of contraception during the previous year among those who are trying not to conceive is 6% [10]. Those not using any method of contraception over the previous year are more likely to be over the age of 35 (11%). Younger adults are less likely to report non-use over the previous year (2% among 18–25 year olds and 5% among 26–35 year olds) [10]. Non-use of contraception is a factor in half of conceptions that were defined as a crisis pregnancy [10].

4.3 Vaccination

The National Immunisation Advisory Committee¹⁴ is responsible for making recommendations around the appropriate use of vaccinations in Ireland, which include recommendations on vaccination against infections that can be sexually transmitted, specifically hepatitis A, hepatitis B and human papilloma virus (HPV). The HSE National Immunisation Office (NIO) is responsible for managing vaccine procurement and distribution in Ireland.

14 The National Immunisation Advisory Committee was established within the Royal College of Physicians of Ireland in 1998 and comprises representatives from a broad range of medical and healthcare organisations. NIAC provides expert, evidence-based, impartial guidance to the Chief Medical Officer in the Department of Health and reports directly to the Council of the College.

4.3.1 Hepatitis A vaccine

Hepatitis A can be transmitted sexually through the oro-anal route or through oropharyngeal secretions. The incidence of sexually acquired hepatitis A has increased in MSM in the recent past. With respect to prevention of sexually acquired hepatitis A, vaccination is recommended for MSM [54].

Hepatitis A vaccinations for MSM are available free of charge in public STI clinics or at a cost when accessed through primary care. No information on the uptake of hepatitis A vaccination or pertaining to knowledge, attitudes and behaviour in relation to the hepatitis A vaccine in Ireland was found for inclusion in this report.

4.3.2 Hepatitis B vaccine

With respect to the prevention of sexually acquired hepatitis B, vaccination is recommended for individuals who change sexual partner frequently, MSM, male and female sex workers, people engaging in anal intercourse, attendees at clinics for STIs and those diagnosed with an STI [48].

Vaccination for hepatitis B has been part of the national childhood vaccination programme in Ireland since 2008, with a high uptake (89–91%) since its initiation [95]. Hepatitis B vaccination is available free of charge at public STI clinics, but individuals for whom vaccination is recommended may be charged in primary care.

There is no routinely collected data available on the uptake or completion of vaccination among risk groups. An audit of hepatitis B vaccination offered to attendees at the Midland Regional Hospital STI clinic demonstrated low uptake and completion rates [96].

There is limited information on knowledge, attitudes and behaviour in relation to hepatitis B vaccination in Ireland. Among MSM, almost half of Ireland-based respondents (48%) were reported as having completed vaccination and 47% were reported as being in need of vaccination in EMIS (2010) [97]. Younger men (under 30), men born in Ireland, men living in rural areas, men with lower educational attainment, men who did not identify as gay, men with a low level of 'outness' and men who had never had a HIV test were more likely to be in need of vaccination [97].

4.3.3 HPV vaccine

HPV vaccination is currently recommended for adolescent girls and certain at-risk groups for the prevention of anogenital warts and certain HPV-associated cancers. From a sexual health perspective, the risk groups are MSM aged 26 or under and people living with HIV aged 26 or under [98].

A schools-based vaccination programme for adolescent girls commenced in May 2010. It provides vaccine against HPV types 6, 11, 16 and 18 and has a target uptake of at least 80%. Vaccine uptake is reported by the HPSC [99]. Given the change in vaccination schedule, rates prior to the 2014/15 academic year are not directly comparable. The national uptake rate for 2014/15 was 86.9%, with regional variation across CHOs of between 77.4% and 90.8%. These figures fell in 2015/16 to 72.3% with a regional variation of 66.3% to 77.6% (therefore, no CHO reached the uptake target). In 2016/17 the national uptake was 51%, with a regional variation of between 47.5% and 61%. In response to this sharp decline in uptake of HPV vaccine, which corresponded with unverified claims of serious adverse events following vaccination, the HSE launched an information and awareness campaign in advance of the 2017/18 school programme [100]. Uptake rates for 2017/18 are awaited.

37

Funding to extend HPV vaccinations to people living with HIV and to MSM through public HIV and STI clinics was provided from October 2016 and January 2017, respectively. Monitoring and evaluation tools have been developed and data is collated by the SHCPP. In 2017, of available data, 598 people commenced vaccination, 406 received two doses and 204 completed the full course of vaccine.

HIQA is currently conducting a health technology assessment on the health economics of rolling out the HPV vaccine to adolescent boys [101].

A limited amount of information regarding parental attitudes towards the vaccination of adolescent girls against HPV is available in Ireland. Around the time of the launch of the schools-based programme, a study of intention to vaccinate demonstrated low levels of awareness but a high level of interest in the HPV vaccine. Peers and medical professionals were cited as significant drivers of acceptability [102].

The anticipated acceptability of the HPV vaccine in MSM in Ireland is 78%, based on no cost of vaccine and on high stated vaccine efficacy. The cost of vaccination is negatively associated with vaccine acceptability [103].

4.4 STI and HIV testing and screening

Many STIs, including HIV, can go unrecognised by those infected, which has the potential to impact negatively on the health of the population as well as that of the individual. Access to and availability of appropriate HIV and STI testing and screening are recognised as important interventions to protect and improve sexual health at both an individual and a population level.

The National Sexual Health Strategy identifies the development and implementation of national guidelines on both STI and HIV testing as a priority action, and the SHCPP has responsibility for delivering on this action [1]. Guidance is available on infectious diseases (including HIV and STIs), assessment of migrants, the management of HIV and STIs in pregnancy and the prevention and control of gonorrhoea and minimising the impact of antimicrobial resistance [104, 105, 106]. The Irish Prison Service has developed standards for healthcare within the prison setting, including standards around STIs, HIV and other bloodborne viral testing [80]. National hepatitis C screening guidelines published in 2017 provide recommendations in relation to screening for sexually acquired hepatitis C [49]. The National Perinatal Hepatitis B Prevention Programme Working Group has recommended national monitoring of hepatitis B antenatal screening, with a target uptake of 95% [107].

4.4.1 STI and HIV testing: availability and activity

STI and HIV testing is provided free of charge in public STI clinics in Ireland. STI and HIV testing is also available to varying degrees and sometimes at a cost to individuals in other non-public sexual health services, non-governmental organisations and general practice settings. A report mapping the provision of sexual health services, including STI and HIV testing, is in preparation as part of the sexual health needs assessment work.

National data on STI testing activity is not currently available from the clinical or laboratory services.

The HPSC compiles information on HIV testing for the annual HIV report. In 2016 almost 193,000 HIV tests were carried out across 12 laboratories in Ireland, giving a testing rate of 40.5 per 1,000 population [28]. This figure compares with 38.9/1000 for 2015. Rates were higher for females (48.8/1000) than for males (38.9/1000), reflecting the antenatal HIV screening programme. Calculated rates do not account for repeat tests and there is no information available by risk group.

4.4.2 STI and HIV screening: availability and uptake

While chlamydia screening has been demonstrated to be acceptable within the Irish context, a pilot study conducted between 2007 and 2009 found that it was unlikely to be cost-effective and, therefore, a national chlamydia screening programme is currently not recommended in Ireland [108].

Routine opt-out antenatal screening for syphilis, hepatitis B and HIV is recommended for all women booking for antenatal care. National antenatal HIV screening began in 1999 and a monitoring and evaluation framework was developed and implemented by the HPSC in 2011. Aggregate data on the uptake of screening and the numbers of HIV infections diagnosed in pregnancy is collected from all maternity hospitals/units by the HPSC and reported annually. In 2016 the HIV test uptake rate was 99.8% and the overall prevalence of newly diagnosed HIV was 0.2%. Whilst the uptake rate is very high, there are limitations to the data; for example, some institutions do not include private patients and some institutions do not provide data. Although not directly comparable, CSO births for 2016 were 63,897 and information was provided on antenatal HIV testing for 56,865 women in 2016, which suggests a shortfall in returns for approximately 11% of antenatal women. The prevalence of HIV and newly diagnosed HIV among pregnant women has been falling over time [109].

Antenatal screening for syphilis was introduced in hospitals in Ireland in the 1940s and is currently in place in all maternity units. Analysis of available data on syphilis screening in antenatal women carried out in 2015 showed that syphilis is being detected at a rate ranging from 0.12 to 0.8 per 1,000 live births, supporting the need for continued screening and monitoring [110].

Antenatal screening for hepatitis B virus (HBV) infection is currently in place in Ireland. All maternity units in the country have introduced HBV screening for all antenatal patients. The prevalence of HBV infection among pregnant women is estimated to vary from 0.4% HBsAg positivity among women attending the Dublin maternity units to between 0.2% and 0.3% HBsAg positivity outside Dublin. It is estimated that between 190 and 230 HBsAg positive mothers give birth in Ireland each year [107].

Some maternity units offer antenatal screening for hepatitis C and chlamydia to selected population groups based on local prevalence figures.

4.4.3 STI and HIV testing and screening in specific population groups

MSM

At the time of the launch of the National Sexual Health Strategy, national lottery funding was made available to pilot a community led and delivered HIV point of care testing initiative in MSM. The Know Now pilot commenced in April 2016 and, up to January 2017, of the 965 MSM who tested, 23.9% were testing for the first time and 2.07% had a reactive result. The reactive result rate was highest in those testing in Dublin, at 2.3%. SHCPP provided funding for Know Now to continue beyond the pilot phase and into 2018.

Migrants

In terms of testing and screening provision and uptake in specific groups, one study looked at the provision and uptake of voluntary HIV (and sometimes syphilis) testing in an asylum-seeker reception centre. This review reported an uptake rate of 73% among the 13,673 people offered screening between 2004 and 2012, representing 64% of those accommodated in the centre [32].

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A study on HIV testing in migrants found that African migrant women are late antenatal presenters in the Irish setting, presenting after 13 weeks' gestation [111]. This poses challenges in relation to providing timely treatment and averting vertical transmission.

Prisoners

A report published by the Irish Penal Reform Trust in 2016 called for strengthened monitoring and reporting of infectious diseases, including HIV and hepatitis, within Irish prisons [112].

Further information in relation to STI and HIV testing and screening among the other specific groups in this report was not identified.

4.4.4 Self-reported STI and HIV testing behaviour in Ireland

General population

In the third wave of the Healthy Ireland survey, 22% of respondents to the sexual health questions reported ever having an STI test and 21% ever having a HIV test. Women aged 25 to 34 are most likely to have had a test, with 44% having had an STI test and 39% a HIV test during their lifetime. During the previous 12 months, overall 5% of respondents reported having had an STI test and the same proportion had had a HIV test. Those under 35 are most likely to have had a test during the previous 12 months, 11% for an STI and 10% for HIV. Among those who have had multiple sexual partners in the previous 12 months, 16% had had an STI test and 13% had had a HIV test during this time [15].

A secondary analysis of the three nationally representative general population surveys found that onequarter of the population aged 18 to 45 reported a lifetime STI or HIV test, with women 1.5 times more likely to have been tested than men [113]. Respondents were also more likely to have reported a history of STI/HIV testing if they had a higher level of education, were from managerial and professional social classes, lived in an urban location or had been sexually active for longer. STI/HIV testing was reported less often by married individuals, heterosexuals and those who reported using contraception on the occasion of first sex. Interestingly, reporting receiving sex education while growing up was not associated with higher or lower STI/HIV testing.

Qualitative work carried out among women aged between 18 and 29 as part of the chlamydia screening pilot identified that opportunistic chlamydia screening was associated with perceived stigma, which acts as a barrier to access. This perceived stigma is higher among younger individuals, those from rural settings and those with lower socio-economic indicators [114].

Nationally representative population level data from ISSHR (2006) reported that almost 10% of the population had ever sought advice in relation to STIs. GPs were the most commonly cited as well as the preferred source of advice as identified by 60% of men and 51% of women [9, 58].

MSM

Among MSM, recent reports of STI testing range between 23% in the third wave of Healthy Ireland to almost 40% in MISI, with similar variability in the reported lifetime prevalence of HIV testing (28% Healthy Ireland; 39% MISI) [15, 23]. 13% of MSM had had an STI test and 12% a HIV test during the previous 12 months [15].



Over one-third (37%) of MISI respondents have never had a HIV test, with testing less common among the young and those with a lower education [23]. Young men (under 20) were least likely to have undergone testing, with 84% never having had a HIV test. Perception of one's sexual orientation and 'outness' affected testing, with men who identified as gay and those with higher levels of 'outness' being more likely to have ever undergone testing.

STI testing behaviour is similar to HIV testing in MSM, with MISI finding that 38% of those responding had never had STI testing. Of those who had been tested, 39% had been tested in the previous 12 months and 23% more than 12 months earlier. Those who had never had an STI test were more likely to live outside Dublin, be younger, be Irish-born, not identify as gay and never have had a HIV test.

While most MSM surveyed in MISI and EMIS reported confidence in accessing STI testing, those who lacked confidence were the least likely to have ever had a test (this group tends to include students, the unemployed, under 25s, men living outside Dublin, men born in Ireland, men with lower levels of education, men who did not identify as gay, men with a low level of 'outness') [23, 24]. Among those who did undergo STI testing, the majority (68%) reported attending an STI clinic, with a further 29% attending a GP. Those attending an STI clinic reported a higher frequency of physical examination and blood testing as well as three-site testing [23].¹⁵

While the majority of respondents in Ireland to EMIS 2010 (83%) reported access to free or affordable HIV testing, the proportion reporting inaccessibility (17%) was higher than the median across Europe (10%) [62]. A consistent urban/rural divide has been demonstrated, with people in urban centres reporting greater access [23, 58]. Of those reporting HIV testing, just over half (53%) attended a hospital or sexual health clinic, with 16% attending a GP, 14% a private practice, 10% a community HIV testing service and less than 2% self-testing at home [23]. Over one-third of MISI respondents reported a preference for future HIV testing within a hospital or sexual health clinic (36%), with 19% reporting a preference for GP testing and 15% for self-testing at home [23].

Migrants

Data on self-reported testing behaviour for STIs, including HIV, collected in national surveys is not routinely available by nationality. In a sample of 101 ethnic minority individuals living in inner-city Dublin, only 5% reported having accessed sexual health services, with cost, language and knowledge cited as access barriers [115]. Further barriers to HIV testing identified in migrant groups include the organisation and location of services and the perceived stigma of the wider community (including religious leaders and healthcare providers) [111].

Information from migrants newly diagnosed with HIV suggests different types of health-seeking behaviour in different groups. Migrants from Sub-Saharan Africa tend to seek testing due to symptoms, likely contributing to the high level of late diagnoses among these migrants. Migrants from Latin America are more likely to seek HIV testing as part of an STI screen or due to perceived risky behaviour [31].

Young people

Barriers to STI and HIV testing for young people include lack of local services, embarrassment and cost [9, 114, 116].

The data relating to self-reported testing among young people in care in Ireland is limited. Young people in care are dependent on service providers to access (sexual) health services. Qualitative work with care

15 Three-site testing refers to testing of three anatomical sites and is appropriate testing for MSM.

leavers identified access issues related to limited contact with social workers, who are perceived as the primary source of access both to information and services, including testing. Service providers reported uncertainty in relation to the provision of sexual health education as well as the provision of contraception and testing services maintained by a lack of clear local or national guidelines [117, 118].

Other specific population groups

Data on self-reported STI and HIV testing among other subgroups is very limited. No data was identified in relation to prisoners. Data in relation to PWIDs was limited to a cross-sectional survey published in 2005, which reported testing for blood-borne viruses among attendees of specialist addiction treatment clinics in Dublin. High levels of testing for hepatitis C (88%), HIV (86%) and hepatitis B (86%) were identified in the sample, but these figures are unlikely to be representative of the wider group of PWID [119].

Data in relation to self-reported STI testing among sex workers in Ireland is very limited. The majority of participants in a small qualitative exploration published in 2015 reported engagement with the health system, including STI checks and drug treatment services, although many reported difficulties in access due to the complexity of the system, inflexible access criteria or lengthy waiting lists [120].

4.5 Antiretroviral therapy for HIV prevention

The use of antiretroviral therapy for HIV prevention refers to three specific interventions: pre-exposure prophylaxis (PrEP), post-exposure prophylaxis (PEP) and treatment as prevention (TasP). These interventions are recommended by the World Health Organization (WHO) as part of a public health approach to addressing HIV [121].

The development and implementation of guidance in relation to the use of antiretroviral therapy for HIV prevention is a priority action in the National Sexual Health Strategy [1].

4.5.1 PrEP (pre-exposure prophylaxis)

PrEP is the pre-emptive use of oral antiretroviral therapy in HIV-negative individuals to reduce the risk of HIV infection. A combination tablet containing tenofovir disoproxil and emtricitabine has been licensed in Europe for this indication since July 2016. It is recognised as an effective HIV prevention strategy and is recommended by the WHO for individuals at substantial risk of HIV as part of combination HIV prevention [122].

Availability, provision and uptake

The branded product Truvada has been available on private prescription since July 2016, with the availability of a generic preparation through community pharmacies on foot of a private prescription since December 2017. There is no available information on the numbers seeking or availing of PrEP on private prescriptions. There are anecdotal reports from community outreach workers and healthcare professionals of individuals self-sourcing generic PrEP, primarily over the internet. The Health Products Regulatory Authority has raised concerns about some generic products that have been intercepted by Revenue customs and excise.

PrEP is not currently available through the HSE. The SHCPP has convened a multisectoral PrEP Working Group to make recommendations in relation to PrEP in Ireland. It is anticipated that MSM will be the population group likely to benefit most from and avail of PrEP should it become available through the HSE. Together with the HPSC, the working group published a report on PrEP population estimates in April 2017. This report estimates that, within the MSM population, 10,000 men would be eligible for PrEP and

between 865 and 2,596 of eligible MSM would avail of PrEP in the first year of roll-out, with the total population uptake in that year (including all risk groups) estimated at just under 2,700 [123].

What do people report in relation to PrEP in Ireland?

Information on what people report in relation to PrEP is, not surprisingly, limited to MSM. A recent survey of MSM at high risk of HIV in the four Celtic nations, including Ireland, found that only one-third of respondents were aware of PrEP, but almost two-thirds (59%) would accept PrEP if available. Awareness was linked to testing behaviour, with those testing regularly (every six months) more likely to be aware of PrEP. Willingness to use PrEP was related to the number of UAI partners, with willingness growing with an increasing partner number [124].

Whilst not directly comparable, a more recent (2016) survey of people at risk for HIV across 12 European countries included more than 500 MSM respondents living in Ireland and suggests that awareness has significantly increased [125]. Respondents from Ireland demonstrated high levels of both awareness (92%) and correct knowledge (72.5%) of PrEP. The majority of respondents (85%) indicated that they would consider, probably or definitely, using PrEP if it was available. Preferred places of access included community health centres, STI clinics and GPs. A small minority of the sample (3.4%) reported informal use of PrEP, having accessed it over the Internet [125]. It is important to note that, given the sampling approach used in these surveys, it is unlikely that these results are reflective of knowledge in the general MSM population in Ireland.

4.5.2 PEP (post-exposure prophylaxis)

PEP is a month-long course of antiretroviral therapy given as soon as possible and within 72 hours of a potential exposure to HIV to prevent HIV infection. PEPSE refers to PEP following sexual exposure. Current PEPSE is a combination antiretroviral therapy for the 28 days following potential sexual exposure to HIV. Whilst there are no randomised controlled trials demonstrating the efficacy of PEP or PEPSE in preventing HIV, numerous observational studies have shown that antiretroviral therapy taken following a potential exposure to HIV reduces subsequent HIV seroconversion [126–129]. National guidelines for HIV PEP have been available in Ireland since 2012 and were updated in 2016 [130].

Availability, provision and uptake

PEP is available free of charge following clinical risk assessment in some emergency departments, sexual assault treatment units (SATUs) and public STI clinics. Data on the provision and uptake of PEP in Ireland is limited as there is no centralised monitoring and evaluation process.

Information from some clinical services suggests that there has been an increase in the provision of PEP in recent years. An audit at one Dublin-based public STI clinic found a significant increase in PEP prescriptions over a 17-week timeframe from 55 PEP courses in 2013 to 102 in 2015 [131]. This audit found that MSM represented the largest group receiving PEP.

At the HSE Gay Men's Health Service (GMHS), 193 individuals received PEP in 2016, representing 2.6% of all attendees to the service and a 44% increase in PEP provision over 2015 [132]. An audit of the individuals undergoing PEP assessment at the GMHS in 2016 found high levels of risk for STIs and HIV when compared with a busy urban MSM clinic in central London [132].

Of the 712 patients seen in SATUs in 2016, 40 (5.6%) were started on PEP [133].

What do people report in relation to PEP in Ireland?

As with PrEP, information on what people report in relation to PEP is limited to MSM. The most recent survey of MSM identified low levels of knowledge in relation to PEP, with a high proportion of respondents not understanding its purpose (42%), the importance of the timing of administration (44%) or the duration of treatment (61%). Knowledge varied widely by demographic characteristics, with less understanding reported by younger (under 25) and older (over 50) men, as well as those with lower levels of education [23]. Those men who had previously had a negative HIV test reported a higher level of confidence in accessing PEP, while overall perceived access to PEP, related to both knowledge and confidence in access, was low (30%). Perceived access was lower among the youngest age group (18–19), men with a lower educational level and men living outside Dublin. Reported use of PEP was low (5% or less) and, again, was lowest among those groups with low perceived access [23].

A cross-sectional study of key healthcare professionals providing services to the general public was undertaken in 2016 to assess knowledge and awareness of HIV PEP. It found high levels of awareness of national PEP guidelines, but some areas of knowledge demonstrated room for improvement [134].

4.5.3 TasP (treatment as prevention)

TasP refers to the use of antiretroviral therapy in HIV-positive individuals to reduce onward transmission, a method that has been demonstrated by robust clinical trial and cohort data to effectively prevent onward transmission of HIV [135, 136]. Recognising the effectiveness of treatment in preventing onward transmission, in addition to the benefits for the individual, international guidelines now recommend that all people living with HIV are offered antiretroviral therapy as soon as possible following diagnosis [137–139]. In July 2017, in line with international guidelines and best practice, the HSE issued a recommendation that all HIV-infected individuals attending HIV services in Ireland should be offered antiretroviral therapy as soon as possible and be informed of the benefits of antiretroviral therapy for improving their personal health and reducing HIV infectiousness (TasP) [140].

Provision and uptake

The Infectious Diseases Regulations in Ireland provide for the diagnosis and treatment of infectious diseases, including HIV, without charge to the individual [141].

In the absence of a national monitoring and evaluation framework, and using individual clinic-level audits, in 2016 it was estimated that almost 5,000 people received antiretroviral therapy, representing 90% of those attending HIV services (a proxy for those diagnosed) in Ireland and receiving antiretroviral therapy, of whom 90% of these were virally suppressed [142]. A national audit of care in 2017 coordinated by SHCPP found that 98% of those attending services (n=5,323) received treatment, of whom 91% were virally suppressed. Information is not available by individual risk groups within the population of people living with HIV.

What do people in Ireland report in relation to TasP?

There is limited data available in relation to the knowledge, attitudes and behaviour of the general population about TasP in Ireland. In a 2017 general population survey 19% of respondents reported correctly that the risk of someone who is taking effective HIV treatment passing on HIV through sex is extremely low [60].

In relation to MSM in Ireland, 5% of the MISI sample (2015) reported being HIV-positive, of whom the

¹⁶ Perceived access was defined as knowing that PEP attempts to stop HIV infection taking place after exposure to the virus and being 'very' or 'quite' confident of being able to obtain PEP.

majority (79%) reported being on antiretroviral therapy, with 91% of these reporting viral suppression, or an undetectable viral load, at their most recent health visit [23]. In relation to knowledge of effective treatment in reducing HIV transmission, knowledge gaps were identified in 32% of respondents and were more likely in young men, men with lower educational attainment and men who had never tested for HIV [23].

Chapter 5: Key findings and areas for action

This section summarises the key findings from the preceding chapters, with recommendations and areas for action, and is presented under the headings: information available for this report; sexual behaviour in Ireland; sexual health outcomes in Ireland and improving and protecting sexual health in Ireland.

The recommendations and areas for action are presented through the lens of SHCPP. The role of the SCHPP in addressing recommendations and areas for action is indicated as lead (L), partner (P) or influencer (I). In some areas the programme will lead on aspects of the work required, partner with others for other aspects and act as influencers for other aspects of the work required.

5.1 Information available for this report: Research and data

Key findings

- Between 2003 and 2010, three nationally representative surveys on sexual health in the general population have been conducted in Ireland. These studies provided and continue to provide rich sources of information to inform policy and strategic priorities on crisis pregnancy and to a lesser extent STIs and HIV in Ireland. However, the information is now dated and may not be reflective of the current demography in Ireland. At present there is no strategic plan to ensure that this information is collected systematically and periodically so that trends in knowledge, attitudes and behaviours can be measured and assessed over time.
- A number of nationally representative general population surveys have been undertaken which have included questions on sexual health. However, the small numbers responding to some of the questions limits the ability to gain a deeper understanding of sexual health issues in Ireland.
- With the exceptions of MSM and young people, the sexual health of specific populations identified for inclusion in this report have not been well researched in Ireland, with very limited information on migrants, the over 50s, prisoners, sex workers and PWID.
- Statutory national surveillance for notifiable infections ensures the availability of high-quality information for STIs, including HIV, in Ireland. However, incomplete data on area of residence of cases and the lack of information on behavioural factors associated with STIs (apart from those subjected to enhanced surveillance) limit our understanding of their epidemiology in Ireland.
- Whilst high quality and robust statistics and information on a number of topics relevant to sexual health were available for inclusion in this report, a number of gaps exist. For example, at present, there is no standardised, nationally coordinated collation of statistics and information on STI testing, the use of HIV post-exposure prophylaxis, vaccinations for the prevention of sexually transmitted pathogens, sterilisation or non-hormonal forms of emergency contraception.

Areas for action

- Develop and agree a strategic approach to:
 - → the systematic commissioning of nationally representative research with the general population regarding sexual knowledge, attitudes and behaviours that ensures standardised, timely, nationally representative data as well as continuing high quality information on specific subgroups including MSM and young people (L)

- → developing links with key stakeholders to maximise opportunities for enhancing the collection of sexual health information in current ongoing longitudinal studies of those under 18 and those over 50 to ensure the data being collected is relevant to policy and practice (L)
- → supporting and prioritising research in other specific population groups where data is unavailable or limited. (L)
- Complete work on the development of appropriate, standardised, sexual behavioural indicators as identified in recommendation 5.5¹⁷ of the National Sexual Health Strategy [1] and promote their use with key stakeholders. (L)
- Continue to support the complete implementation of the STI module in the National Computerised Infectious Diseases Reporting (CIDR)¹⁸ information system to link core behavioural data with STIs as identified in recommendation 5.8¹⁹ of the National Sexual Health Strategy [1]. (L) (P)
- Identify priority areas where collection and collation of information is required (in relation to STI testing, the use of HIV post-exposure prophylaxis, vaccinations for the prevention of sexually transmitted pathogens, sterilisation or non-hormonal forms of emergency contraception) and identify mechanisms for undertaking collation of such information. (L) (P)
- Develop and agree dissemination plans for sexual health information gathered to ensure that it continues to appropriately inform awareness campaigns, education and training, and policy and strategic priorities in sexual health. (L)

5.2 Sexual behaviour

Key findings

- The majority of the adult population in Ireland have engaged in sexual intercourse at some stage in their lifetime.
- Early sexual initiation and multiple partners have been identified as behaviours associated with negative sexual health outcomes.
- Young people in care and early school leavers have been identified as groups at risk of early sexual initiation.
- Higher partner numbers are reported by young men, those who consume above the recommended level of alcohol and those who experience early sexual initiation.
- Among MSM, factors associated with multiple unprotected sexual partners include being born outside Ireland, lower levels of education, unemployment, not identifying as gay and being HIV-positive. In addition, there is a link between multiple sexual partners and the use of drugs associated with chemsex.

Among those over 50 years, whilst sexual activity declines, being sexually active is positively associated with self-reported good health, higher quality of life and positive perceptions of ageing.

Areas for action

- Continue evidence-based, targeted education and awareness campaigns for those most likely to engage in early sexual initiation and those reporting higher partner numbers. (L) (P)
 - 17 Recommendation 5.5: Agree a set of clinical and behavioural sexual health indicators.
 - 18 CIDR is an information system developed to manage the surveillance and control of infectious diseases in Ireland. It also monitors organisms' ability to resist antibiotic drugs (antimicrobial resistance). CIDR is a shared national information system for the CIDR partners the former health boards, the Health Protection Surveillance Centre, the Food Safety Authority of Ireland, the Food Safety Promotion Board and the Department of Health.
 - 19 Recommendation 5.8: Support, sustain and improve surveillance infrastructure and capacity, including the development of capacity to gather behavioural data systematically from sexual health service providers in CIDR.

5.3 Sexual health outcomes

5.3.1 STIs and HIV

Key findings

- STIs notifications are increasing in Ireland, particularly among MSM and those aged over 25 years, with much of this increase being notified in HSE East.
- HIV notifications are increasing, particularly among MSM. Late presentation of HIV, particularly in migrants from Sub-Saharan Africa, heterosexuals and those over 40 years remains a problem.
- The type of service where STIs were diagnosed varies by type of infection, with the majority of gonorrhoea and early infectious syphilis diagnosed in STI clinics and half of chlamydia cases and the majority of HSV cases diagnosed in general practice.
- Several STI outbreaks have been identified over the past few years among MSM and young heterosexuals, leading to the establishment of public health led multisectoral outbreak control teams and a HPSC led national MSM response group to develop appropriate responses.
- Guidance on the management of outbreaks of STIs and an action plan for the national response to the increase in HIV and STIs in MSM have been published.
- In the most recent general population sexual health study, 14% of those who reported ever having an STI screen reported an STI diagnosis. This was higher in those who experienced early sexual initiation and those who reported non-use of contraception at first sexual intercourse.

Areas for action

- Continue the multisectoral approach to responding to STIs (and HIV), particularly in relation to STI (and HIV) outbreaks in line with published guidance. (P)
- Continue implementation of the actions identified by the HPSC national response group to HIV and STIs in MSM. (P)
- Identify mechanisms for addressing late diagnosis of HIV, including implementation of the recommendations from the 2016 HPSC report on HIV in migrants. (P)
- Continue to deliver, monitor and evaluate information, education and sexual health promotion programmes for young people and MSM in relation to STIs and HIV. (L) (P)

5.3.2 Crisis pregnancy

- In 2010 approximately one-third of women and one-fifth of men with experience of pregnancy reported a crisis pregnancy.
- Young adults aged 18 to 25 years and those who have first sex before the age of 17 years are most at risk.
- Half of self-reported crisis pregnancies are associated with contraceptive failure.
- Half of self-reported crisis pregnancies are associated with non-use of contraception. Half of those failing to use contraception were unaware of the risk of pregnancy at that time.
- The vast majority of people reporting crisis pregnancy go on to become parents.
- Teenage pregnancy rates are continuing to decline.
- The number of terminations accessed in the UK is declining, against a background of increasing purchase of abortifacients online.

Areas for action

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- Continue to measure crisis pregnancies in the general population to understand incidence and allow for trends to be tracked over time. (L)
- Gain an understanding of reasons for contraceptive failure and non-use of contraception as cited by women reporting contraception failure resulting in a crisis pregnancy. (L)
- Continue to monitor teenage birth rates at a national level. (L)
- Continue to monitor and report on abortions in Ireland and women travelling from Ireland to other jurisdictions. (L)
- Continue to link with organisations that use online methods to distribute the abortion pill to women in Ireland as a means of estimating the prevalence of this practice and associated outcomes. (L)
- Continue to provide crisis pregnancy information resources and counselling services and develop a telephone counselling service. (L)
- Respond to any legislative changes that may arise ensuring that appropriate support and services are available to those experiencing a crisis pregnancy in line with legislation. (L) (P) (I)

5.4 Improving and protecting sexual health

5.4.1 Condoms

- Condoms are widely available for purchase in the state, subject to VAT at 13.5%.
- Condoms are provided free of charge to the general population and to specific population groups through a range of organisations, including public STI clinics and non-governmental organisations.
- The National Condom Distribution Service (NCDS) was established in 2015 by the SHCPP to distribute free condoms and lubricant sachets to organisations that work with individuals and groups at risk of negative sexual health outcomes and to support national sexual health promotion and educational campaigns and initiatives. Between 2015 and 2017 over 600,000 condoms and over 250,000 lubricant sachets were distributed. The scope of the service was expanded in 2017 to increase access to MSM through MSM commercial venues and sex-on-premises venues.
- Despite being recommended by the Irish prison healthcare standards 2011, condoms are not widely available within prisons.
- Condoms are a commonly reported form of contraception and STI prevention in the Irish population, particularly in younger age groups and in those having sex with someone they just met.
- Among MSM, condoms were used by around half of respondents to the MISI survey, with low (6%) reported use for oral sex.
- Information on condom use in specific population groups is limited, though use does decline with age. Within the prison population, low condom use, both in and out of prison, is reported.
- The cost of condoms was reported as the reason for non-use of condoms in the previous year by 5% of the general population in 2010, rising to 10% of males and 7% of females aged between 18 and 25 years.
- Difficulty accessing condoms was reported by a quarter of MSM in the MISI survey, with 16% reporting UAI in the previous year solely due to lack of access. Reasons for lack of access are not known.



Areas for action

- Determine the impact that removing VAT on condoms would have on condom use and, if positive, make representation to the Department of Health and other appropriate authorities to consider removing VAT from condoms. (L)
- Continue to provide condoms (and lubricants) through the NCDS, ensuring that it is appropriately resourced to meet current demand and to respond to increasing need in terms of administration, monitoring and evaluation of the volume of condoms (and lubricants) provided. (L)
- Continue to promote condom use through national sexual health promotion campaigns, with ongoing monitoring and evaluation of their effectiveness. (L)
- Make representations to the Irish Prison authorities regarding the provision of condoms within the prison service. (L)
- Continue to measure condom use, access and barriers to use in the general population, young people and MSM through national surveys. (L)
- Where information is lacking on condom use, access and barriers to use in other specific population groups, identify means of gathering this information where appropriate. (L) (P)
- Undertake further research within MSM to explore reasons for lack of access to condoms as identified in MISI 2015. (L) (P)

5.4.2 Contraception

- LARC
 - → Hormonal LARC devices require a prescription and are provided, fitted and removed free of charge to those with medical cards. For non-medical card holders, partial reimbursement of the cost of the device is available through PCRS but does not cover the cost of fitting and removal.
 - → Lack of training in fitting and removal of hormonal LARC devices has been identified as a barrier to provision in general practice. This has been addressed through the development and ongoing delivery of an education and training programme by the ICGP, with funding from SHCPP.
 - → Overall, hormonal LARC use is low in Ireland but there has been some increase between 2003 and 2010.
 - → Cost of the prescription and the cost of fitting have been identified as barriers to LARC use in over a quarter of women who had considered this contraceptive method.
 - → There is no information on provision, uptake and use of non-hormonal LARC.
- Hormonal methods
 - → Combined hormonal and progesterone-only methods require a prescription and are available on the medical card.
 - → The combined hormonal oral contraceptive pill is the most commonly used and prescribed hormonal method.
 - → Misconceptions about side-effects and the long-term safety of the combined hormonal contraceptive pill pose a barrier to use of this method.
 - → Adhering to a daily pill has been identified as a barrier to this method by some women.
 - → Cost is a barrier for a small number of women. Affordability of refilling the prescription was identified as an issue, preventing refilling prescriptions in 9% of women who had used the contraceptive pill, ring or patch; this was more likely in younger women.



Emergency contraception

- → Two forms of hormonal emergency contraception are available through community pharmacies without a prescription in Ireland. The copper coil is available through a number of family planning clinics at a cost to the individual
- → Hormonal emergency contraceptive use is low overall but increase. from 2% in 2003 to 4% in 2010 and is more likely among young adults.
- → The majority of the population are aware of emergency contraception but many women underestimate the effectiveness window.
- → Most women seeking emergency contraception report use of other forms of contraception at the time, with condom malfunction the most commonly cited reason for needing emergency contraception.
- Sterilisation
 - → Available information indicates that female sterilisations are decreasing in Ireland. Information on the less invasive male sterilisation procedure, vasectomy, is less robust but suggests that within primary care there is significant regional variation in the availability of the procedure.
- Factors affecting contraception use and efficiency include inconsistent use, access to contraception and cost
 - → Inconsistent use of contraception remains a factor in a significant proportion of crisis pregnancies. Consistent use of contraception appears to be falling in the population.
 - → Cost, stigma and embarrassment act as barriers to accessing contraception.

Areas for action

- Work with relevant stakeholders to identify mechanisms to increase access, availability and affordability of contraception. (L) (P) (I)
 - → Potential options to consider include online provision, with clear pathways to face-to-face healthcare, provision through community pharmacies and provision in primary care through the existing infrastructure within the Cervical Screening Programme.
- Continue to provide funding for training general practitioners in the fitting and removal of LARC devices. (L)
- Work with relevant stakeholders to gain a better understanding of the demand for and availability and accessibility of male sterilisation, particularly in primary care settings. (P) (I)
- Continue to monitor knowledge, experience and behaviour in relation to contraception and ensure that this information is used to inform information, awareness and education initiatives particularly targeted at those in greatest need. (L)

5.4.3 Vaccination

- The NIAC has issued recommendations on vaccination to prevent sexual acquisition of hepatitis A, hepatitis B and HPV.
- Vaccination against hepatitis A and hepatitis B is provided free of charge in public STI clinics, but a charge applies within general practice except in the case of a public health declared outbreak.
- A schools-based programme for HPV vaccination of adolescent girls commenced in May 2010, with
 initial uptake and completion rates in line with national targets. Uptake fell in 2015/16 and 2016/17
 coinciding with unverified reports of adverse events following vaccination. An information and
 awareness campaign was launched by the HSE prior to the 2017/18 programme and uptake rates for
 this year are awaited.

• Funding for extension of HPV vaccination to people living with HIV and MSM, in line with NIAC guidelines, was provided from October 2016 and January 2017, respectively.

- There is a lack of data in relation to the provision and uptake of hepatitis A and B vaccines and limited data on HPV vaccine uptake in MSM and people living with HIV.
- Information on knowledge, experience and behaviour in relation to vaccinations for the prevention of sexually acquired hepatitis A, hepatitis B and HPV is limited. Among MSM, almost half report completion of hepatitis B vaccination, and anticipated acceptability of HPV vaccine is high if vaccine is provided at no cost.

Areas for action

- Work with the NIO and other relevant stakeholders to address provision of hepatitis A, hepatitis B and HPV vaccine in general practice settings in line with NIAC recommendations. (L) (P) (I)
- Identify mechanisms for assessing uptake and completion of hepatitis A and B vaccines and continue to gather information on uptake and completion of HPV vaccine in MSM and PLWH. (L) (P)
- Identify and develop a mechanism for monitoring knowledge, awareness and experience of these vaccines, particularly in MSM and people living with HIV. (L) (P)
- Provide appropriate information on these vaccines, particularly to MSM and people living with HIV, ensuring that those identified as not having knowledge and awareness are targeted. (L) (P)

5.4.4 STI and HIV testing and screening

Key findings

- Whilst a number of national guidelines have been developed in relation to aspects of STI and HIV testing and screening, the sexual health strategy has identified the need for development and implementation of national STI and HIV testing guidelines.
- STI and HIV testing is available free of charge in some but not all healthcare settings.
- There is limited information on STI and HIV testing activity, with no ongoing systematic reporting on STI and HIV testing activity in specific population groups.
- Approximately one-fifth of the general population report ever having an STI or HIV test, with women aged 25 to 34 years more likely to have tested than other groups.
- Information on STI and HIV testing in specific population groups is limited.
- Young people have reported lack of local services, embarrassment and cost as barriers to STI and HIV testing.

Areas for action

- Development, implementation and monitoring and evaluation of national guidance in relation to STI and HIV testing. (L) (P)
- Determine the degree to which existing guidelines and recommendations are implemented, with identification of solutions where barriers are identified. (L) (P)
- Explore mechanisms for increasing monitoring and evaluation of HIV and STI testing, which could be achieved through working with laboratories on caseloads and focused audits and working with community organisations for monitoring HIV testing in specific populations. (L) (P)

5.4.5 Antiretroviral therapy for HIV prevention

Key findings

PrEP

 PrEP is available on foot of a private prescription but is not currently available through the HSE in Ireland. There are reports of individuals sourcing PrEP over the internet. The extent of this and the extent of private prescriptions for PrEP are not known.

- A multisectoral working group has been convened by SHCPP to make recommendations on PrEP in Ireland.
- It is anticipated that MSM will be the population most likely to avail of PrEP if available through the HSE, with the estimated uptake in this group between 865 and 2,596. The total population estimated uptake (including groups other than MSM) is just under 2,700.
- Awareness of PrEP is not known in the general population. Among MSM, it is reported at one-third of
 respondents in one study and over 90% of respondents in a more recent survey involving over 500
 MSM from Ireland.

PEP

- PEP guidelines have been in place in Ireland since 2012.
- While individual service information identified increased PEP use in the recent past, no information on use or uptake is available at a national level.
- Good awareness of PEP guidelines has been demonstrated among healthcare providers, though knowledge gaps are apparent.
- Awareness and knowledge of PEP within the general population of Ireland is not known. Low levels of awareness, knowledge and perceived access to PEP have been reported among MSM.

TasP

- In July 2017, the HSE issued a recommendation that all HIV-infected individuals attending HIV services in Ireland should be offered antiretroviral therapy.
- A national audit of HIV care in 2017 indicates that Ireland is performing well regarding this recommendation, with 98% of those attending services (n=5,323) receiving treatment, of whom 91% were virally suppressed. Information by individual groups within the overall population of people living with HIV is not known.
- The Infectious Diseases Regulations in Ireland provide for the diagnosis and treatment of infectious diseases, including HIV, without charge to the individual.
- Awareness of the protective effect of antiretroviral therapy in preventing HIV transmission was low in a survey of the general population in 2017 and among MSM in 2015.

Areas for action

- Continue the work of the SHCPP and PrEP working group on developing recommendations on PrEP. (L) (P) (I)
- Review and update PEP guidelines in line with agreed timeframe (September 2018). (P)
- Identifying a mechanism through which PEP use and uptake can be monitored and evaluated. (L)
- Continue work on the national audit of HIV care, identifying a mechanism through which information by risk group can be collated and consideration given to developing a national HIV outcomes register. (L)
 (P)
- Identify mechanisms through which knowledge gaps among healthcare providers in relation to PEP can be addressed and reassessed. (L) (P)
- Identify mechanisms to increase knowledge and awareness in the general and specific populations (particularly MSM) of the indications and uses of antiretroviral therapy in HIV prevention. (L) (P)
- Continue to gather information on knowledge and awareness of the use of antiretroviral therapy in HIV
 prevention to guide campaigns and other resources for improving awareness and knowledge and
 ensuring appropriate uptake. (L) (P)

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Appendix I: Specific population groups

Within the population there are specific groups who are at greater risk of negative sexual health outcomes. This risk may be defined by behaviour, by age or by social and structural determinants of health that hinder access to healthcare and education. Sometimes these risks overlap. The specific population groups identified for consideration in this report are described below.

Men who have sex with men (MSM)

Across Europe, MSM are recognised as a specific group at greater risk of STIs and HIV [143]. In Ireland, MSM are disproportionately affected by STIs, particularly syphilis, gonorrhoea, HIV and LGV [26, 27].

Young people (15–24 years)

For STI and HIV surveillance purposes, the HPSC and the European Centre for Disease Prevention and Control (ECDC) use the term 'young people' to refer to those aged 15 to 24 [43, 144]. Census 2016 reports that one-eighth (12.1%) of the Irish population are in this category [145]. In terms of risk for negative sexual health outcomes, young people do not represent a homogenous group, with two distinct populations identifiable:

- Young adults aged 18 to 24: in 2016 the highest age-specific STI rates in Ireland were seen in those aged between 20 and 24 (see Appendix II), and the most recent report on crisis pregnancy in Ireland found that those aged 18 to 25 are most likely to report a pregnancy as a crisis [10].
- Young people who experience early sexual initiation before the age of 17: early sexual initiation, or first sexual experience, has a range of negative sexual health outcomes, including STIs and crisis pregnancy. Within this specific group, young people in care are known to be particularly vulnerable to early sexual initiation and the attendant negative sexual health outcomes.

Migrants

The migrant population is a diverse segment of the population in Ireland, making up 11.6% of the total population in the 2016 Census, where classification as a migrant included all those who are non-Irish [146]. Not all migrants are at risk of negative sexual health outcomes. Migrants have been identified by the ECDC as a priority group for HIV surveillance, prevention and care [147, 148]. In Ireland, migrants from Sub-Saharan Africa are at particular risk of late presentation with HIV, and MSM from Latin America are particularly affected by HIV and STIs [32]. More generally, migrants may experience difficulties accessing health services due to financial, cultural and language barriers [105].

Over 50s

The older population is growing faster than any other age group internationally, and in Ireland the over 50s represent 30.4% of the population in the 2016 Census [145]. In Ireland, as elsewhere, sexual activity declines with age, but older people do remain sexually active [21]. Condom and contraception use is lower in older age groups, which in part is likely to be a reflection of being in a stable relationship [10, 12]. Sexual problems are frequent among older people and this may influence condom use in casual sexual encounters [149]. Whilst the absolute number of new HIV diagnoses in the over 50s in Ireland in 2016 was low at 48, where information was available, half of these had evidence of late infection at the time of diagnosis [27]. Researchers on ageing in Ireland have published on the need to consider sexuality and sexual function in ageing populations [150].

Prisoners

Compared with the general adult population, prisoners experience higher levels of poor physical and mental health as well as social exclusion, which can be compounded by incarceration. Prisoners may be at greater risk of negative sexual health outcomes than the general population by virtue of behaviour that can increase the risk of HIV and hepatitis and by virtue of lower socio-economic status and lower educational attainment, which are associated with many negative sexual health outcomes [112].

Sex workers

Sex workers are a vulnerable population economically and in terms of mental, physical and sexual health. There is a strong and consistent link between sex work and blood-borne viruses (including hepatitis C and HIV), and sex work is also associated with drug use (including injecting drugs), which further increases risk. The commercial sex trade in Ireland has changed significantly in the recent past, with a decrease in the number of street-based commercial sex workers, an increase in off-street commercial sex workers and an estimated 1,000 sex workers on any given day in 2012 [151].

People who inject drugs (PWID)

People who inject drugs represent a vulnerable group for negative sexual health outcomes by virtue of unsafe behaviour that may increase the risk of HIV and STIs and by virtue of poor housing, lower socioeconomic status and lower educational attainment, all of which have the potential to impact negatively on overall and sexual health. While over one-quarter of the Irish population report lifetime drug use, less than one per cent of these are involved in injecting drugs [85]. The overall number of new HIV diagnoses in PWID has been stable at a low level in Ireland for many years; however, the increase in recent infections among PWID seen in 2015 – which was associated with use of 'snow blow', homelessness, having a sexual partner who injected drugs – highlights the need for continued attention to this vulnerable group [152].



Appendix II: Age- and gender-specific STI notification rate per 100,000 population



	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55+
Males	1.7	202.1	1362.8	1167.9	623.6	332.4	185.9	122.8	87.7	25.7
Females	2.4	473.9	1540.6	815.3	298.7	147.7	78.9	50.2	34.33.30	7.7

Figure 2: Notification rate per 100,000 population of specified STIs by sex and age 2016 (Source: HPSC)

Denominator data from Census 2016 was aggregated into the age groups shown in each graph. See Table 4 for details of the data used.

Diseases included	Number	Note
Anogenital warts	1,020	Excludes: 242 males and 149 females of unknown age; 182 of unknown age and gender
Chancroid	0	Zero cases reported in 2016
Chlamydia trachomatis	6,870	Excludes: 3 females of unknown age; 21 of unknown age and gender
Granuloma inguinale	0	Zero cases reported in 2016
Gonorrhoea	1,953	Excludes: 4 of unknown gender
Herpes simplex (genital)	1,363	Excludes: 1 male of unknown age; 5 of unknown gender
Lymphogranuloma venereum	48	
Non-specific urethritis	0	740 unknown age and gender notified in 2016
Early infectious syphilis	305	Confirmed cases of primary, secondary and early latent only
Trichomoniasis	79	

Table 4: STI data included in the calculations

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Appendix III: Members of the working group

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