Key Messages

- Diagnoses of sexually transmitted infections (STIs) among heterosexual men and women continue to increase; young people, aged less than 25, are the group most at risk of being infected with an STI.
- Just under half (48%) of all chlamydia testing performed in 2009 was undertaken on those aged less than 25: this proportion has not changed over the last five years.
- Most HIV infection in Scotland is sexually acquired and there are indications of undiagnosed cases of infection in the community. Further testing is required to reduce the levels of undiagnosed infection and get people into treatment and care as early as possible.
- The sexual health of men who have sex with men (MSM) continues to be of concern as there is evidence from both infection and behavioural survey data of continuing high risk behaviour: the elevated risk of HIV transmission remains. Increased opportunities for behavioural interventions to promote safer sex are key to ensuring improved sexual health among MSM.
- Teenage pregnancy rates have remained stable (but higher than most other Western European countries) during the past decade. There continues to be a strong association between deprivation and high rates of teenage pregnancy. The availability of good sex and relationships education (SRE) and the empowerment of young women to make informed choices about their future continue to be of importance.
- High rates of STIs, teenage pregnancies, and abortions indicate that young people continue to take risks, including the inconsistent use of contraception - unprotected sexual intercourse remains a problem. Effecting behavioural change among this age group remains crucial in ensuring their sexual health and wellbeing.
Introduction

This is the sixth annual output produced by the Sexual Health Epidemiology Group (SHEG) for Scotland. The format of this publication is different from that produced in previous years: instead of including a compendium of updated figures and tables readers are directed to various existing data sources (mainly from the Information Services Division (ISD) and Health Protection Scotland (HPS)) for the latest 2009 data. The aim of this overview is to focus on the longer term trends and provide an interpretation for what these trends mean for sexual health and service provision in Scotland.

Policy and Summary of Progress

It is now five years since the publication of Scotland’s sexual health strategy, Respect and Responsibility: A Strategy and Action Plan for Improving Sexual Health, and we are now approaching the end of the second phase of the strategy, Respect and Responsibility: Delivering improvements in sexual health outcomes 2008-2011 which shifted the focus onto achieving cultural and behavioural change. In that time, key actions have resulted in

• improved access to sexual health services
• more integrated genitourinary medicine (GUM) and sexual and reproductive health care
• inclusion of relationships and sexual health in the educational curriculum and
• better signposting for advice, resources and self management.

Some improvements have been seen in the awareness of how to avoid sexually transmitted infections (STIs) – shown by the rise in GUM attendances, particularly among younger age groups seeking a “sexual health MOT”. Whilst there is evidence from other parts of the UK indicating an increasing trend of poor sexual health among older age groups (aged 45 and over) and among minority ethnic populations, this is generally not seen in Scotland. However, whilst individuals of all ages indicate that they know about prevention, the data show that they do not practice safer sex consistently.

National Sexual Health System (NaSH)

NaSH went live in March 2008 and continues to be rolled out across specialist sexual health services in Scotland. There are still some NHS boards that have yet to adopt this system and not all NHS boards who have adopted the system are using it as a full electronic clinical patient record; they are using the system only for patient administration (e.g. for appointment bookings) until NaSH is fully rolled out clinically.

Data Recording in NaSH

In 2009, GUM clinics began a phased transition from recording of STI episodes in a stand alone web-based repository, called the Sexually Transmitted Infection Surveillance System (STISS), to recording these episodes in NaSH. The implementation, which will be of considerable benefit in the future, produced initial ‘teething problems’ inherent in the migration from one system to another. This, in conjunction with a temporary disruption of laboratory testing during the H1N1 outbreak, has resulted in a shortfall of data for 2009. The extent of this is uncertain and is unlikely to be corrected in the future. However, it is considered that data reported for 2009 has most likely been impacted by these factors and therefore may have affected the robustness of GUM data.

Workload

Sexual health services (testing/treatment for STIs, contraception and pregnancy services) are typically provided in Scotland through primary care, GUM clinics and sexual and reproductive health clinics. Information and referral for abortion services are also available in the same settings whilst treatment is usually provided in hospitals. NHS boards in Scotland are working towards achieving integrated sexual health services which would encompass GUM and sexual and reproductive health clinics into one service provision.

Workload data recorded for 2009 in the GUM clinic setting (comprising all counts of diagnoses, screens and conditions seen) show an overall reduction of 6.5% (this is a reduction of 7.9% and 5% for males and females respectively) from 2008 data. This reduction is likely to be a consequence of coding issues as anecdotal evidence suggests that clinics continue to experience a similar workload volume as in previous years if not more.
Sexually Transmitted Infections (STIs) including HIV

During the previous five years the overall trends for the four main STIs, genital chlamydia, gonorrhoea, genital herpes and genital warts, indicate a general increase in diagnoses.

The 2009 data, from STI diagnoses in the GUM clinic setting only®, show a decrease from 2008 in the diagnoses of these four STIs with the exception of gonococcal infection in men, which indicates an increase. Due to the issues with the data collection in 2009 data it is difficult to determine whether these data reflect true levels or are a consequence of coding issues.

Episodes of gonococcal infection among men (from the laboratory data9) however, have increased between 2008 and 2009 thus reversing the downtrend observed between 2006 and 2008. The number of positive chlamydia diagnoses has remained stable during the last year and cases of infectious syphilis decreased for the first time since enhanced surveillance began in 2002/2003.

### Table 1: Key changes in STI diagnoses by gender and sexual orientation, Scotland, 2005-2009

<table>
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<tr>
<th></th>
<th>All men</th>
<th>All women</th>
<th>Heterosexual men</th>
<th>MSM</th>
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<td>1 yr</td>
<td>5yrs</td>
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<td>Chlamydia*</td>
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<td>Gonorrhoea**</td>
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<td>Genital herpes</td>
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<td>Genital warts</td>
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<td>Infectious syphilis</td>
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<td>HIV</td>
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<tr>
<td>Workload in GUM clinic setting#</td>
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* Chlamydia diagnoses represented in the table refer to diagnoses made in all settings
** Gonorrhoea diagnoses in women are based on diagnoses made in all settings whereas those in men are based on those made in the GUM clinic setting
# Workload represented in the table refers to all acute STI diagnoses made in the GUM clinic setting
MSM men who have sex with men
N/A Not Applicable

Note: these codes also apply to the arrows indicating a decrease

Data Sources: Laboratory reports, STISS, NaSH and HIV diagnosis/death reports

### Antimicrobial Resistance Testing

Sensitivity analyses8 of available isolates from 73% of episodes during 2009 indicated there was no evidence of resistance to the currently used first line antibiotics. Continued monitoring is required to guide effective therapeutic regimens. However given the emergence, in England and Wales8, of reduced susceptibility to third generation cephalosporins there is concern that gonorrhoea in Scotland will become increasingly resistant to antibiotics.

### HIV Testing, Diagnoses, Treatment and Care

In 2009, there were 428 newly identified cases of HIV in Scotland10 - this compares with an average of 408 annual diagnoses in the past five years. Some of these newly identified cases in Scotland will have been diagnosed elsewhere and their care is transferring to Scotland for the first time. There were 170, 213 and 17 new reports of infection among men who have sex with men (MSM), among non-injecting drug using heterosexual...
men and women, and injecting drug users (IDUs), respectively. In 2009, 77% of MSM probably acquired their infection in the UK compared with 27% of non-IDU heterosexual cases. There are likely to be a considerable number of undiagnosed HIV cases in the community who are at risk of onward transmission and developing illness.

Some of the increase in new reports in recent years reflects an increase in HIV testing: outwith HIV screening programmes (e.g. blood donor, antenatal), over 50,000 HIV tests (provisional, unpublished data) were performed on individuals during 2009 with over 80% of testing being undertaken in the GUM clinic setting. This has likely contributed to the overall reduction in very late diagnoses (defined as having a CD4 cell count below 200 per mm$^3$ within 30 days of earliest positive HIV diagnosis) from 46% to 25%, although this varies by exposure category. This figure should be treated with caution however as definitions have changed such that a CD4 cell count below 200 per mm$^3$ is now considered as advanced HIV infection and beyond the point of when effective treatment should have commenced. For late diagnoses it is widely accepted that a CD4 cell count <350 per mm$^3$ is more appropriate. Reporting from HPS will reflect these definitions in future reporting.

Therapy for HIV continues to be highly successful: 96% of all patients treated in 2009, including those newly commenced on therapy, had evidence of reasonable viral control within six months of commencement of treatment.

**Figure 1: HIV diagnoses in Scotland by transmission category, 2000-2009**

Data Source: HIV/AIDS diagnosis reports

Sexual Health in the Heterosexual Population

**Young People (aged less than 25 years)**

Young people, particularly women, are the group most at risk of being diagnosed with an STI. In 2009, 79% and 76% of genital chlamydia and gonorrhoea diagnoses in women were made in those aged under 25. This compares with 63% and 56%, respectively, in young men.

Young heterosexual men and women comprised 53% of the total workload at GUM clinics throughout Scotland during 2009, accounting for 52% and 71%, respectively, of all acute STIs diagnosed in this setting. This is similar to that reported in previous years.

In 2009, there was a local outbreak of infectious syphilis among heterosexual men and women in NHS Forth Valley where nine of the ten cases reported were among individuals aged less than 25. This has contributed to the increase in the number of diagnoses reported among the heterosexual population observed in the past five years.

The Key Clinical Indicator (KCI) monitoring chlamydia testing shows that just under half (48%) of all chlamydia testing in 2009 was undertaken on persons aged less than 25. However, the majority of all samples which tested positive were from young people (72%). In those aged less than 25 a higher prevalence was observed in men. These trends have not changed over the last 5 years.

The teenage pregnancy rate has remained steady (but higher than most other Western European countries) during the past decade with the most recent data on 2008 conceptions showing a very slight decrease across all age groupings. There continues to be a strong association between deprivation and rates of teenage pregnancy: the most deprived groups have approximately ten times the rate of delivery as the least deprived (67.3 per 1,000 and 7.2 per 1,000) and nearly twice the rate of abortion (29.4 per 1,000 and 16.6 per 1,000).

Compared to the rate of teenage pregnancy across the rest of the UK, Scotland’s pregnancy rate in women aged less than 20 is lower than that of England & Wales. The Scottish rate for women aged less than 16 is similar to that for England & Wales.
Abortion rates in women aged less than 25 had remained stable up until 2008. However, in 2009 these data show a decrease (from 23.3 to 21.0 per 1,000 women). This represents the lowest rates for women aged 15-19 during the past five years and the lowest rates for women aged 20-24 during the past seven years. Women aged less than 25 continue to represent the highest rates of termination in comparison to the older age groups.

Currently data on contraceptive use cannot be examined by age group but the introduction and use of NaSH should make this possible in future years. Currently the uptake of long acting reversible contraception (LARC) is monitored by a KCI for sexual health which shows an encouraging increase (from 23.0 in 2004/2005 to 56.7 per 1,000 women in 2009/2010) in the dispensing rates of LARC methods.

**Middle Years (25-44 year olds)**

In 2009, individuals aged 25-44 comprised 40% of the workload in GUM clinics and 35% of all acute STI diagnoses made in the GUM clinic setting - this is a similar finding to that in 2008. Among both men and women in this age group, genital warts remains the most prevalent STI. There were more consultations among heterosexual men than women in the GUM clinic setting. Three quarters of acute STIs among those aged 25-44 are being diagnosed in the 25-34 year age group.

The rate of abortion for women aged 25-44 has stayed stable with a rate of 8.3 per 1,000 women in 2009. Women aged 25-29 have the highest rate in this group (16.0 per 1,000 women) with the rate per 1,000 women decreasing through the older age bands; 30-34 (10.9), 35-39 (6.3) and 40-44 (2.0).

The proportion of all abortions in this age group that were repeat ones (i.e. not the woman’s first) in 2009 has stayed stable but remains high. Women aged 30-34 have the highest proportion of repeat abortions at 40.2%. For women aged 25-29, 35-39 and 40-44 the proportions are 36.6%, 38.8% and 30.7% respectively.
Sexual Health in Men who have Sex with Men (MSM)

In 2009, data on STI diagnoses in the GUM clinic setting indicate a decline in syphilis for the first time since this infection re-emerged at the beginning of this Century. There was, however, an increase in episodes of gonorrhoea, reversing the downward trend observed during the last two years. Rectal infections, an indicator of unprotected anal intercourse (UAI), continue to occur in a proportion of cases: 34% and 61% of all gonorrhoea and chlamydia diagnoses, respectively, were rectal infections. There is evidence of UAI from behavioural data collected in the Medical Research Council’s triennial cross-sectional surveys of men in gay bars in Glasgow and Edinburgh, including UAI with multiple and/or casual partners - preliminary unpublished results (of the 2008 survey) indicate that risk-taking behaviour continues at a similar level among MSM.

Co-infection is not uncommon: overall 9% of MSM with acute STIs attending GUM clinics were known to be co-infected with HIV. Of MSM diagnosed with gonorrhoea, 12% had concurrent chlamydia infection, and 19% of those with infectious syphilis (among those whose HIV status was known) were co-infected with HIV.

HIV prevalence, among those undergoing attributable HIV testing, has remained stable over the past six years at between 3-4%. The increase in the number of new reports of HIV during the past five years is likely the result of both case finding through increased testing and some recent acquisition of infection. However, HIV transmission in this group continues to be of serious public health concern: 10, 11 and 15 new cases (as indicated by HIV seroconversion in a calendar year) were detected during 2006, 2007 and 2008, respectively – compared with an annual average of four new cases between 2001 and 2003.
References


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