Setting the Scene
Sexually Transmitted Infections, including HIV, in Scotland, 2004
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Summary

This new report combines information from laboratories and genitourinary medicine (GUM) clinics, and from other related sources, such as primary care, together with some of the more specialised data collection systems relating to HIV.

Key epidemiological facts and figures

Genitourinary medicine clinic workload - There has been a sustained rise in overall workload (all diagnoses, screens and conditions seen) in recent years. This is partly explained by the large increase in uptake of HIV testing during 2004.

Genital chlamydia - The number of chlamydia diagnoses in Scotland increased by 110% between 2000 and 2004. Two thirds of genital chlamydia diagnoses were in those aged less than 25. Some of this increase reflects a higher level of opportunistic screening, coupled with the use of more sensitive molecular-based diagnostic assays.

Gonorrhoea - In 2004, 845 diagnoses of gonorrhoea were made. This figure is comparable with reported numbers of diagnoses in the previous four years, but 50% greater than recorded in 1999. It is, however, much lower than the annual diagnoses recorded for the period up to the 1980s.

Three quarters of gonorrhoea diagnoses were among men, a high proportion of whom were men who have sex with men (MSM).

Genital herpes - The number of new diagnoses in GUM clinics has increased by 50% since 1996. Most diagnoses (60%) were in women.

Infectious syphilis - In 2004, 189 cases of syphilis were recorded at GUM clinics, which compares to less than 20 cases annually in the late 1990s. 97% of all diagnoses were men; most were men having sex with men (MSM) (89%)

Genital warts - An increase in diagnoses of genital warts of almost 10% was observed during 2004. Two thirds of the diagnoses of genital warts in women and one half of those in men were aged less than 25.

HIV infection - In 2004, 364 new cases of HIV were identified; the highest annual total since recording began in 1986. Increased HIV testing, particularly in GUM, is considered to be the principal explanation for the increase in number of new diagnoses. The numbers of AIDS diagnoses and AIDS related deaths in HIV infected individuals have fallen since the introduction of effective therapies since 1996.

Key challenges

Prevention
- The lack of any decline in the prevalence (7-13%) of genital chlamydia infection among men and women aged 16-24.
- The increasing incidence of syphilis, the steady transmission of HIV, the emergence of lymphogranuloma venereum infection and the increasing frequency of unprotected anal sexual intercourse among men who have sex with men (MSM)

Diagnosis
- Despite high numbers of chlamydia diagnoses, the need to increase chlamydia screening opportunities, particularly for young men.
- The high proportion of previously undiagnosed HIV infected MSM who attend GUM clinics in Scotland and remain undiagnosed following their clinic visit.
- The wide NHS Board variation in GUM clinic screening uptake rates; this is manifested by the major differences in NHS Board rates of STI, particularly chlamydia, diagnoses.

Clinical management
- A marked increase in GUM clinic workload due, partly, to the promotion of HIV testing among attendees.
- The increasing resistance of gonorrhoea to antibiotic therapy, particularly Ciprofloxacin.
- The predicted 45% increase in the numbers of HIV infected persons in specialist care requiring antiretroviral therapy by 2008.
- The care of increasing numbers of persons, originating from sub-Saharan African countries, who are being diagnosed with HIV.
Setting the Scene

Introduction

In January 2005 the Scottish Executive published its sexual health strategy (Respect and Responsibility: Strategy and Action Plan for Improving Sexual Health).1 This strategy signalled the importance of high quality information relating to sexual health and, in particular, sexually transmitted infections (STIs). This clear message fitted well with a growing desire amongst clinicians, epidemiologists and statisticians in Scotland to produce a more comprehensive digest of the available data concerning STIs. This report should be seen as an early part of this process and will assist one of the workstreams identified by the National Sexual Health Advisory Committee (NSHAC): “…to develop standardised data collection to support the development and monitoring of sexual and reproductive health services; and develop proposals for a national data collection framework.”

This report has been produced by the recently-formed Sexually Transmitted Infection Epidemiology Advisory Group (STIEAG) which includes representatives from a variety of clinical and non-clinical disciplines, and is jointly organised by Health Protection Scotland (HPS) and the Information Services Division (ISD), both of National Services Scotland.

We have attempted to amalgamate data and information from laboratories and genitourinary medicine (GUM) clinics, and to include data from other sources, such as primary care, together with some of the more specialised data collection systems relating to HIV.

For the first time for many years, we have been able to use up to date data from GUM clinics. This is the result of an initiative started in 2003 by the Scottish Executive which included the development of a new web-based data collection system (STI Surveillance System (STISS)), and also from the considerable efforts made by staff within GUM clinics to provide the data in a more timely way. STISS is a continuation of the work instigated by the Medical Society for the Study of Venereal Diseases (now the British Association for Sexual Health and HIV (BASHH)) in 1995 which led to the first GUM data collection system in the UK able to produce disaggregate patient-based data rather than aggregate data.

Although the information presented here refers to Scotland, we have worked closely with colleagues in other parts of the UK. This report is being published at the same time as a UK report from the Health Protection Agency (HPA)2. The intention is that these reports will produce a more useful picture of STIs, both at UK level and at geographical levels within Scotland.

This is the first Scottish STI, including HIV, report; the intention is to publish this annually. Accordingly, the editorial group would appreciate any comments from readers, not only on the content but also on the style and presentation.
Sexually Transmitted infection, including HIV, in Scotland, 2004
Sexually Transmitted Infection, including HIV, Surveillance in Scotland, 2004

Sexually transmitted infections (STIs), including HIV, are diagnosed in a variety of healthcare settings in Scotland. These include:

- Genitourinary Medicine (GUM) clinics
- Community Family Planning & Reproductive Healthcare clinics
- Integrated sexual health clinics
- Specialised outreach sexual health clinics (e.g. for young people or gay men)
- Specialised outreach testing programmes (e.g. postal chlamydia testing)
- General Practice
- Hospital outpatient clinics (e.g. gynaecology, coloproctology, urology)
- Hospital admission units (e.g. pelvic infection)
- Infectious disease units (e.g. HIV infection)

Data on diagnoses of STIs are gathered from many of these settings and provide the basis for the surveillance of sexually transmitted infection in Scotland.

Surveillance data and sources

Three main sources provide information on STI diagnoses:

- Data on positive diagnoses of selected STIs, including HIV, are reported from all microbiological laboratories throughout Scotland.
  These include:
  - Data on age, gender, and NHS board of diagnosis/treatment;
  - Data that reflect testing performed at genitourinary medicine (GUM) and Infectious Disease clinics and other locations where sexual health services are available or when there is a clinical need to test e.g. family planning, antenatal clinics, primary care, and in the hospital setting.

- Data concerning all episodes of care within Scotland’s GUM clinics are reported using the Sexually Transmitted Infection Surveillance System (STISS), the updated web-based version of ISD(D)S, implemented during 2004.
  These include:
  - Data on age, gender, sexual orientation, NHS board of diagnosis/treatment, NHS board of residence, and diagnostic, screening and treatment information. (see Chapter 2)

- Data on STI consultations with a general practitioner are recorded by the Practice Team Information (PTI, formerly referred to as Continuous Morbidity Recording) system. Approximately 60 practices participate in the PTI scheme and these are broadly representative of the population of Scotland in terms of age, gender, deprivation and urban/rural mix. The reason for the consultation is recorded and then coded using a Read code. A limited amount of data is available for analysis.
  These include:
  - Data on age, gender and NHS board of residence.
In addition, there are a number of infection-specific systems:

- Detailed information to describe HIV infection in Scotland is available from a number of HIV-specific surveillance systems. These include:
  - Laboratory reports of all voluntary attributable HIV tests, i.e. data from both positive and negative tests.\(^3\)
  - Immunological and antiretroviral therapy data on all HIV infected persons in specialist care.
  - Unlinked Anonymous HIV Test Programme, a UK-wide programme which monitors the prevalence of HIV among GUM clinic attendees and pregnant women.
  - New diagnoses of AIDS cases reported by clinicians.
  - Numbers of HIV-associated deaths reported by the General Register Office for Scotland.\(^4\) (GROS)

- The National Enhanced Surveillance of Infectious Syphilis in Scotland (NESSI) was established in 2002. All laboratory confirmed diagnoses of infectious syphilis are notified to HPS and demographic, sexual and social risk information is collected from the diagnosing clinician.\(^5\)

- Gonococcal Antibiotic Surveillance in Scotland (GASS) is monitored by the Scottish Neisseria gonorrhoeae Reference Laboratory (SNGRL) and data on the prevalence, pattern and trends of antibiotic resistance are available.\(^6\)

- Demographic and behavioural data are available from a subset of gonorrhoea diagnoses from extended surveillance undertaken by SNGRL.

The surveillance systems complement each other but also offer different types of information to describe not only the epidemiology of infections but also the workload undertaken by those involved in the care and management of patients.

The surveillance systems are useful epidemiological tools to inform, plan and target prevention and health promotion strategies.

Some of the benefits of STISS include:

- The facility for recording both clinically and laboratory diagnosed STIs.
- The facility for recording more than one diagnosis in a single patient, i.e. those with co-infection

The laboratory reporting system covers diagnoses made in all, as opposed to just GUM clinic-based, healthcare settings.

In this report trend data and analysis of STIs (including HIV) in Scotland in 2004 are presented. More detailed tables of GUM data are available on the ISD and HPS websites.\(^7\)

### Table 1.1: Information collected in sexually transmitted infection surveillance.

<table>
<thead>
<tr>
<th>Data Collected</th>
<th>Laboratory Reporting System</th>
<th>GUM Clinics STISS</th>
<th>General Practice PTI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epidemiological information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Gender</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>NHS board of diagnosis/ treatment</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>NHS board of residence</td>
<td></td>
<td>HIV, NESSI only</td>
<td></td>
</tr>
<tr>
<td>Sexual orientation</td>
<td></td>
<td>HIV, NESSI only</td>
<td></td>
</tr>
<tr>
<td>Other risk data</td>
<td></td>
<td>HIV, NESSI only</td>
<td></td>
</tr>
<tr>
<td>Partner notification</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Sexually transmitted infections</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chlamydia</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Gonorrhoea</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Genital herpes</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Infectious syphilis</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>HIV</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Genital warts</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Other acute and non-acute STIs*</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

*Other includes: Non-specific, non-chlamydial, (upper and lower) genital tract infection, non-specific proctitis, Trichomoniasis, chancroid, lymphogranuloma venereum, granuloma inguinale, genital scabies, pubic lice, molluscum contagiosum, hepatitis A, acute and chronic hepatitis B.
The Genitourinary Medicine Service: Workload and STISS Data Collection

Genitourinary Medicine and the STISS system

- Genitourinary medicine (GUM) and Infectious Diseases are the key medical specialties dealing with STIs and HIV in Scotland.
- Since 1922, GUM clinics have made specific epidemiologic returns to public health bodies to permit monitoring of STIs at a national level.
- In April 1995, Scotland pioneered disaggregate reporting from GUM clinics; a record is returned for every episode of care given.
- STISS, a secure web-based tool, was launched during 2004 to improve the quality and timeliness of data collection.
- This chapter outlines key features of this system and data on the provision of GUM services and their workload across Scotland is presented.

The data gathered by STISS on each GUM case are:

- Basic demography (age, gender, first part postcode)
- Date of attendance
- Whether a sexual health screen and/or an HIV test was performed
- Life-time sexual partnership status (opposite sex, same sex, bisexual or never)
- Whether the patient has ever injected drugs?
- Current STIs diagnosed (including complications and anatomical site)
- Other conditions (e.g. sexual assault, vaccinations, skin problems)
- For acute STIs;
  o Outcome of partner notification procedure
  o Geographic site of acquisition

The information available from STISS includes:

- The proportion of STI screens positive for selected STIs;
- The number of STIs screens performed and HIV test uptake in specific populations (by geography, by sexuality, injecting drug use);
- STIs diagnosed in specific populations;
- STIs acquired overseas;
- STIs at specific anatomical sites (e.g. rectal gonorrhoea);
- The proportion of co-infection with acute STIs (e.g. HIV positive men with rectal gonorrhoea);
- The proportion of repeat STIs.

- Access to GUM services varies widely across Scotland due to varying provision by NHS boards. A GUM consultant-led service is available in 10 of Scotland’s 15 NHS board areas.
- Figure 2.1 and Table 2.1 (overleaf) show that uptake of GUM screening tests varies markedly depending on NHS board with a four-fold variation in GUM screens per head of population. It is clear that people cross NHS board boundaries to seek care elsewhere either because local provision is not available or convenient or because of personal preference.
- Where services and therefore, testing, are more difficult to access there is likely to be less STIs diagnosed.
Table 2.1: Screening in GUM clinic settings by NHS board of residence of patient and by NHS board of location of clinic

<table>
<thead>
<tr>
<th>NHS board of diagnoses and treatment (No. of sites)</th>
<th>STI screens(^2) in NHS board area</th>
<th>Number of NHS board residents screened</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Residents</td>
<td>Non-residents</td>
<td>In NHS board area</td>
</tr>
<tr>
<td></td>
<td>Number (%)</td>
<td>Number (%)</td>
<td>Number (%)</td>
</tr>
<tr>
<td>Argyll &amp; Clyde (3)</td>
<td>1595 (93)</td>
<td>124 (7.2)</td>
<td>1595 (63)</td>
</tr>
<tr>
<td>Ayrshire &amp; Arran (3)</td>
<td>2118 (99)</td>
<td>25 (1.2)</td>
<td>2118 (85)</td>
</tr>
<tr>
<td>Borders (1)</td>
<td>606 (97)</td>
<td>18 (2.9)</td>
<td>606 (81)</td>
</tr>
<tr>
<td>Dumfries &amp; Galloway (1)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Fife (2)</td>
<td>3122 (96)</td>
<td>118 (3.6)</td>
<td>3122 (86)</td>
</tr>
<tr>
<td>Forth Valley (2)</td>
<td>1989 (95)</td>
<td>105 (5.0)</td>
<td>1989 (88)</td>
</tr>
<tr>
<td>Grampian (1)</td>
<td>4037 (96)</td>
<td>151 (3.6)</td>
<td>4037 (94)</td>
</tr>
<tr>
<td>Greater Glasgow (2)</td>
<td>8991 (75)</td>
<td>2958 (25)</td>
<td>8991 (98)</td>
</tr>
<tr>
<td>Highland (2)</td>
<td>1299 (82)</td>
<td>284 (18)</td>
<td>1299 (97)</td>
</tr>
<tr>
<td>Lanarkshire (5)</td>
<td>1756 (96)</td>
<td>76 (4.1)</td>
<td>1756 (63)</td>
</tr>
<tr>
<td>Lothian (1)</td>
<td>9357 (92)</td>
<td>760 (7.5)</td>
<td>9357 (98)</td>
</tr>
<tr>
<td>Tayside (2)</td>
<td>2940 (88)</td>
<td>388 (12)</td>
<td>2940 (96)</td>
</tr>
</tbody>
</table>

1. Sites refer to coding sites; for example, Glasgow has two coding sites at the same geographic location, and Grampian has a clinic at Elgin included in Aberdeen coding.
2. A screen occurs when a sexual history is taken and at least a chlamydia test is performed in a GUM service making STISS returns.

There are no GUM clinics in Orkney, Shetland and Western Isles NHS Boards.

In Dumfries and Galloway during 2004, GUM services were provided by a general practitioner and data on screens performed were unavailable during this time.

N/A Not available

Data source: STISS

- Collection of coding data is voluntary, and dependent on resources within the clinic. Great effort was put into gathering a complete data set in 2004 but this was only achieved with some central support from the Information Services Division (ISD) of NHS National Services Scotland towards overtime of clinic clerical staff in some areas.
- Figure 2.2 shows the considerable rise in overall workload (all diagnoses, screens and conditions seen) between 1996 and 2004 in GUM clinics across Scotland. This is partly explained by the large increase in uptake of HIV testing, particularly during 2004.
Sexually Transmitted Infections

3

Genital chlamydia

Background and recent trends

- Chlamydia is the most commonly diagnosed bacterial STI in GUM clinics.
- The number of chlamydia diagnoses in Scotland increased by 110% between 2000 and 2004 from 7644 to 16 069.
- Most chlamydia infections (56%) were diagnosed and managed in non-GUM clinic settings.
- Up to 80% of chlamydia infection in men and women is asymptomatic; therefore, without screening opportunities a large pool of undiagnosed infection may exist.
- Undiagnosed, untreated genital chlamydia infection in women can result in pelvic pain and scarring of the fallopian tubes which in turn can cause ectopic pregnancy and infertility.

Who was affected: 2004

- Two thirds of genital chlamydia diagnoses were in those aged less than 25.
- Twice as many women as men were diagnosed with chlamydia; most women were diagnosed in clinical settings other than the GUM clinic whereas most men were diagnosed at GUM clinics.
- 4% of all women diagnosed at GUM clinics had ‘complicated chlamydia,’ defined as upper genital tract or pelvic infection; this was most prevalent among women aged less than 25.
- 5.5% of men diagnosed with chlamydia had a rectal infection; this was most commonly encountered among men aged 25-34.

Figure 3.1: Diagnoses of genital chlamydia, made in all and GUM clinic settings, by gender, 1995-2004.

Figure 3.2: Diagnoses of genital chlamydia in women, made in all settings, by age group, 1995-2004.

Figure 3.3: Diagnoses of genital chlamydia in men, made in all settings, by age group, 1995-2004.
Geographical distribution: 2004

- For all clinical settings, the highest diagnosis rates among both men and women were observed in Greater Glasgow, Lothian and Highland NHS Boards.
- In the GUM clinic setting, the highest diagnosis rates among women were noted in residents of Forth Valley, Fife and Tayside and among men, in residents of Fife, Greater Glasgow and Lothian NHS Boards.

- The highest rates of rectal chlamydia were observed in Lothian and Greater Glasgow NHS Boards, where most of Scotland’s GUM clinic attendees, particularly MSM, are seen.
- The highest rates of GUM-clinic diagnosed pelvic infection were observed in Forth Valley, Argyll & Clyde and Lothian NHS Boards.
Screening guidance, screening activity and prevalence of infection

- The Scottish Intercollegiate Guidelines Network (SIGN) published guidelines on the management of chlamydia infection in March 2000, key recommendations included the opportunistic screening of all sexually active women aged less than 25.
- The use of highly sensitive and specific molecular-based diagnostic assays (nucleic acid amplification tests, NAATs) was also recommended by SIGN; all testing laboratories are now using these.
- Results from chlamydia testing in Lothian NHS Board, undertaken in the context of the Healthy Respect initiative (2001-2004), indicated that 1 in 10 young people, aged less than 25, were likely to have been infected with, or have experienced, genital chlamydia infection; peak prevalence (13%) occurred in those aged 16-19 (Table 3.1)

| Table 3.1: Prevalence of genital chlamydia by age group in men and women in Scotland. |
|-------------------------------------------------|---------|-----------------|-----------------|
| Year of study                                   | Population | Number tested | Prevalence (% positive) |
| Random sample of women attending family planning clinics in Glasgow, Edinburgh and Aberdeen.12 |
| 2000/01                                        | Aged <20y   | 730            | 9.7              |
|                                                | Aged 20-24y | 835            | 6.9              |
|                                                | Aged 25-29y | 735            | 2.6              |
|                                                | Aged 30y    | 729            | 1.5              |
| Antenatal, family planning and gynaecology clinics in Glasgow, Edinburgh and Aberdeen.13 |
| 2001/02                                        | Aged <20y   | 438            | 12.3             |
|                                                | Aged 20-24y | 773            | 7.2              |
|                                                | Aged 25-29y | 758            | 2.2              |
|                                                | Aged 30y    | 843            | 2.1              |
| Healthy Respect; postal testing initiative 11 |
| 2001-2004                                      | Men         |                |                  |
|                                                | <16y        | 43             | 4.6              |
|                                                | 16-19y      | 229            | 13.5             |
|                                                | 20-25y      | 396            | 13.1             |
|                                                | >25y        | 221            | 4.5              |
|                                                | all ages    | 889            | 10.9             |
| 2001-2004                                      | Women       |                |                  |
|                                                | <16y        | 133            | 3.5              |
|                                                | 16-19y      | 919            | 12.9             |
|                                                | 20-25y      | 1090           | 9.1              |
|                                                | >25y        | 505            | 3.4              |
|                                                | all ages    | 2647           | 9.0              |
| 2001-2004                                      | Men & Women - all ages | 3536       | 9.4               |
| Male Military Recruits14                       |
| 2001/02                                        | All ages    | 798            | 9.8              |
Prevalence studies indicated a decreasing prevalence of chlamydia infection with increasing age.

In Glasgow, testing among women almost doubled between 2000 and 2004 but no significant change in the detection rate of chlamydia infection was observed. \(^\text{(15)}\) (Table 3.2)

### Table 3.2: Trends in testing and prevalence of genital chlamydia in men and women attending health care services in Scotland.

<table>
<thead>
<tr>
<th>Year of study &amp; population</th>
<th>Number tested (% &lt;25y)</th>
<th>Prevalence (% Positive)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women (all ages) in Greater Glasgow NHS Board(^\text{(15)})</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000 (July-Dec)</td>
<td>10766 (33)</td>
<td>7.2</td>
</tr>
<tr>
<td>2001</td>
<td>32682 (35)</td>
<td>7.0</td>
</tr>
<tr>
<td>2002</td>
<td>36193 (38)</td>
<td>6.8</td>
</tr>
<tr>
<td>2003</td>
<td>38740 (41)</td>
<td>7.4</td>
</tr>
<tr>
<td>2004 (Jan-June)</td>
<td>20290 (45)</td>
<td>8.3</td>
</tr>
<tr>
<td>Men and Women (all ages) in Highland NHS Board(^\text{(16)})</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000/01</td>
<td>Men 8231</td>
<td>8.8</td>
</tr>
<tr>
<td></td>
<td>Women 6794</td>
<td>5.6</td>
</tr>
<tr>
<td>2001/02</td>
<td>Men 1448</td>
<td>10.3</td>
</tr>
<tr>
<td></td>
<td>Women 6752</td>
<td>6.3</td>
</tr>
<tr>
<td>2002/03</td>
<td>Men 1683</td>
<td>14.6</td>
</tr>
<tr>
<td></td>
<td>Women 6752</td>
<td>6.3</td>
</tr>
</tbody>
</table>

Between 2000 and 2004, an increase in testing activity and in the number of infections detected among men was noted in Highland NHS Board\(^\text{(16)}\) (Table 3.2).

SIGN recommends testing all men attending GUM clinics and symptomatic men in any clinical setting; however, prevalence data suggest that opportunistic screening of young men in all clinical settings may detect high levels of undiagnosed infection.

Most of the increase in genital chlamydia diagnoses, observed in recent years, reflects both; (i) the increased levels of opportunistic screening, due in part to increased awareness of chlamydia in the population via health promotion campaigns such as Healthy Respect (http://www.healthy-respect.com) and the media, and (ii) the use of more sensitive molecular-based diagnostic assays.

Improvements in screening opportunities, especially for men, coupled with partner notification and health promotion, are required to address the burden of current chlamydia infection and prevent the sequelae of untreated infection among young people in Scotland.

A surveillance system, designed to monitor chlamydia testing practice at a national, regional and local level, needs to be established.

Source: Healthy Respect - Lothian NHS Board
Gonorrhoea

**Background and recent trends**

- In 2004, 845 diagnoses of gonorrhoea were made.\(^8\)
- This figure is comparable with reported numbers of diagnoses in the previous four years, but 50% greater than that recorded for 1999.\(^8\)
- In 2004, 85% and 57% of infections among men and women, respectively, were diagnosed in GUM clinics.
- During 2004, gonorrhoea diagnosis rates per 100,000 population among women and men in Scotland were the third and sixth lowest, respectively, when compared to those among the 28 English Strategic Health Authorities and the other countries of the United Kingdom.\(^2\)
- The current 21st Century rates of gonorrhoea are significantly lower than those documented during the 20th Century. Between 1922, when data recording began in GUM clinics (or Venereal Disease clinics at that time), and 1950, over 5000 diagnoses, on average, were made annually. Thereafter, annual diagnoses fluctuated between 3000 and 4000 until the early to mid 1980s when the incidence declined considerably. Since the late 1980s, less than 1000 diagnoses have been recorded annually.
Who was affected: 2004

- Three quarters of gonorrhoea diagnoses were among men.
- Almost half of all men with gonorrhoea infection were men who had sex with other men (MSM).
- The increase in gonorrhoea among men observed since the late 1990s has been due largely to transmission among MSM.
- Twelve per cent of infected men had rectal gonorrhoea - an indicator of recent, unprotected anal intercourse.
- Twenty two per cent of MSM with gonorrhoea had chlamydia co-infection.
- A 35% increase in the number of women with gonorrhoea infection was observed between 2003 and 2004; this follows a 37% decrease between 2000 and 2003. 8
- Almost half of all women with gonorrhoea had chlamydia co-infection.
- Two thirds of women, compared to one third of men, infected with gonorrhoea were aged less than 25.
- Most diagnoses of gonorrhoea in women were aged 15-24; most diagnoses in men were aged 20-34.
Geographical distribution: 2004

- In women, the highest rates were observed among Highland and Greater Glasgow NHS Board residents.
- The highest rates of gonorrhoea in men were observed among Lothian and Greater Glasgow NHS Board residents.
- Over 90% of gonorrhoea infections diagnosed in Scotland were probably acquired within the country.¹⁷

Antibiotic resistance: 2004 ⁶

- Almost one fifth (19%) of all strains of gonorrhoea circulating in the infected population in Scotland were resistant to the antibiotic, ciprofloxacin.
- Overall resistance to one or more antibiotics was detected in almost one third of gonococcal isolates.
- Oral cefixime was the most commonly used antibiotic treatment as first-line blind therapy for gonorrhoea infection; in 2003, this was recommended as first line therapy due to gonorrhoea becoming increasingly resistant to ciprofloxacin.
**Genital herpes**

**Background and recent trends**

- Genital herpes is caused by the herpes simplex virus (HSV), types 1 and 2. Following initial infection, HSV remains dormant in cells and can reactivate later, with varying frequency, requiring follow up visits for the treatment of recurrent infection.
- HSV infection may cause ulceration but may also be asymptomatic. Genital herpes is diagnosed on the basis of clinical examination; in 2004, 72% of suspected diagnoses were confirmed by detecting HSV through laboratory testing. In the absence of laboratory confirmation, however, a diagnosis can still be made. Unless otherwise indicated, the data presented apply to diagnoses made in GUM clinics.
- In 2004, 1283 individuals attending GUM clinics were diagnosed with genital herpes for the first time; nearly a quarter had been referred by their GP. A similar number of new diagnoses were made in 2003.
- The number of new diagnoses in GUM clinics has increased by 50% since 1996.
- In 2004, almost 900 people visited a GUM clinic for recurrent genital herpes; consultations at GUM clinics for the treatment of recurrent herpes lesions have increased by 82% since 1996.
- During 2004, genital herpes diagnosis rates per 100,000 population among women in Scotland were the eighth lowest when compared to those among the 28 English Strategic Health Authorities and the other countries of the United Kingdom.

**Who was affected: 2004**

- Approximately two thirds of genital herpes diagnoses made in GUM clinics (60%) and in primary care (70%) were in women.
- More diagnoses of genital herpes were made in women aged 20-34 and men aged 25-34, than in any other age group.
- Half of the genital herpes diagnoses in women and one third of those in men were made in persons aged less than 25.
• Diagnoses due to HSV type 1 predominated in women and those due to HSV type 2 predominated in men.

**Geographical distribution: 2004**

• In GUM clinics, the highest rates of genital herpes in women were observed among Fife, Lothian and Greater Glasgow NHS Board residents and in men, among Lothian, Greater Glasgow and Grampian NHS Board residents.

• The lowest rates of genital herpes in women were observed among Dumfries and Galloway and Lanarkshire NHS Board residents and in men, among Lanarkshire and Ayrshire and Arran NHS Board residents.

**Treatment in the Primary care setting**

• In 2004, an estimated 1500 individuals attending a GP surgery were diagnosed with genital herpes for the first time; this estimate is based on a small sample of practices which contribute to the Practice Team Information (PTI) recording system.

• The highest rates of genital herpes were observed among men and women aged 45-54 and 35-44, respectively.
Infectious syphilis

Background and recent trends

- Between 1922, when recording in GUM clinics (or Venereal Disease clinics at that time) began, and 1950, over 3,300 diagnoses, on average, were made annually. The advent of antibiotics in the late 1940s and early 1950s, coupled with behavioural changes, reinforced in the late 20th Century in response to the HIV epidemic, resulted in no more than 100 diagnoses being made annually during 1955-2000.

- During the late 1990s less than twenty cases of infectious syphilis (cases diagnosed within two years of infection – primary, secondary and early latent syphilis) were diagnosed at GUM clinics each year; in 2004, 189 cases were recorded at GUM clinics, this was the highest annual total since 1952.

- Syphilis re-emerged in Scotland during 2000/2001 following outbreaks elsewhere in the UK; since then the number of diagnoses has increased annually.

- Between 2003 and 2004, the number of diagnoses in MSM increased three-fold from 53 to 167.

- Although the numbers are small, (20 cases in 2004), a steady increase in heterosexually acquired syphilis has been observed during the past four years.

- During 2004, syphilis diagnosis rates per 100 000 population among men in Scotland were the tenth highest when compared to those among the 28 English Strategic Health Authorities and the other countries of the United Kingdom.
Who was affected: 2004

- 97% of all diagnoses were men; most were MSM (89%).
- Two thirds of diagnoses were men aged 25-44.

Geographical distribution: 2004

- The majority of male diagnoses (including MSM) were made in the GUM clinics of Lothian and Greater Glasgow NHS Boards.
- In response to the outbreaks of syphilis in Edinburgh and Glasgow, control teams organised health promotion activities, including awareness raising campaigns and the offer of rapid syphilis testing in community locations.
- The few female diagnoses were made in GUM clinics throughout Scotland.
- Three quarters of diagnosed MSM and women probably acquired their infection in Scotland.
- Two thirds of diagnosed heterosexual men probably acquired their infection outside Europe.

Figure 3.21: Diagnoses of infectious syphilis in men, made in GUM clinic settings, by age group, 1996-2004.

Figure 3.22: Rates of diagnoses of infectious syphilis in men, made in GUM clinic settings, by NHS board of residence, 2004.

Figure 3.23: Location where syphilis infection was acquired, by sexual orientation, 2004.
HIV co-infection and syphilis transmission: 2004

- Almost one third (27%) of MSM with syphilis who had had an HIV test were HIV positive.
- About a quarter of heterosexuals with syphilis who had had an HIV test were HIV positive.
- About a half of MSM with syphilis probably acquired their syphilis infection through oral sex.
- One quarter of MSM with syphilis who described their social network(s) said they used more than one venue or network for meeting potential partners; gay bars and/or clubs and saunas were the most popular venues.
- Most MSM with syphilis reported between one and five partners during the three months prior to their syphilis diagnosis.
- The 149 diagnosed MSM who reported between 1 and 50 sexual partners during the three months prior to syphilis diagnosis had a total of 825 different partners. (Table 3.3)
- Partner notification was more successful for MSM diagnosed with syphilis who reported fewer partners.

Table 3.3: Number of contacts for cases of infectious syphilis among MSM, 2004.

<table>
<thead>
<tr>
<th>Reported No. partners</th>
<th>No. of cases reporting</th>
<th>Total no. of contacts</th>
<th>% Traced</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>44</td>
<td>44</td>
<td>73</td>
</tr>
<tr>
<td>2</td>
<td>31</td>
<td>62</td>
<td>50</td>
</tr>
<tr>
<td>3 to 5</td>
<td>39</td>
<td>137</td>
<td>39</td>
</tr>
<tr>
<td>6 to 9</td>
<td>11</td>
<td>72</td>
<td>29</td>
</tr>
<tr>
<td>10 to 20</td>
<td>16</td>
<td>227</td>
<td>16</td>
</tr>
<tr>
<td>30 to 50</td>
<td>8</td>
<td>283</td>
<td>8</td>
</tr>
<tr>
<td>Sub total</td>
<td>149</td>
<td>825</td>
<td>24</td>
</tr>
<tr>
<td>&gt;50*</td>
<td>5</td>
<td>256*</td>
<td>3</td>
</tr>
<tr>
<td>Unknown</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>162</td>
<td>1081*</td>
<td>19*</td>
</tr>
</tbody>
</table>

* Five people reported that their number of contacts in the three months prior to diagnosis was greater than 50. The total number of contacts presented for those with more than 50 partners represents at least 256.
Genital warts

Background and recent trends

- Genital warts result from infection with human papilloma virus (HPV).
- Most HPV infection results in no visible lesion; accordingly, there is a large reservoir of asymptomatic infection.
- The diagnosis of genital warts is based on clinical examination only when warts are visible.
- Genital warts are the most common acute viral STI diagnosed in the GUM clinic setting; 6268 new cases were seen during 2004, one third of whom were referred by their GP.
- The numbers of new diagnoses have changed little over the previous 10 years; however, an increase of almost 10% was observed during 2004.
- Genital warts can recur, causing significant distress and requiring repeated clinic visits for treatment; in 2004, an additional 3259 people attended GUM clinics for treatment with recurrent infection.
- During 2004, genital warts diagnosis rates per 100 000 population in Scotland were the tenth lowest in women and twelfth highest in men when compared to those among the 28 English Strategic Health Authorities and the other countries of the United Kingdom.2

Who was affected: 2004

- Just over half of all new diagnoses of genital warts were in men (54%).
- For both men and women, more diagnoses belonged to the 20-24 year age group than any other.
- In women, a 13% increase in the number of diagnoses among those aged 15-19 years was observed between 2003 and 2004.
- In men, one third of new diagnoses were also seen among those aged 25-34 years.
- Approximately nine percent of diagnoses among men were MSM.
Geographical distribution: 2004

- For women, the highest diagnoses rates were found in Tayside, Fife and Lothian NHS Board residents.

- For men, the highest diagnoses rates were observed in Greater Glasgow, Lothian and Tayside NHS Board residents.

Treatment in the Primary care setting

- Many cases are self-limiting or are managed by general practitioners (GP). Self-applied therapies in the home are more convenient.

- An estimated 8000 people visit their GP annually for care and treatment of genital warts; 90% of these consulted for the first time with this condition in 2004.

- For both men and women diagnosed and treated by their GP, more cases belonged to the 35-44 year age group than any other.
Background and recent trends

- In 2004, 364 new cases of HIV were identified; most were new diagnoses but some had been diagnosed previously elsewhere in the UK or abroad.
- The 2004 total exceeded the previous highest annual number of newly identified cases on record (348 in 1986); the average annual figure ranged between 150 and 180 during the 1990s, and was approximately 250 during 2002 and 2003.
- The numbers of AIDS diagnoses and AIDS related deaths in HIV infected individuals have fallen since the introduction of effective therapies in the mid-1990s. In 2004, there were 37 reports of AIDS and 18 deaths.

Who was affected: 2004

- Two thirds of new cases identified were men.
- The 127 cases among MSM is the highest annual figure ever recorded for this population group; 11% were MSM aged less than 25.
- Of the 193 HIV infections diagnosed among non-IDU heterosexual men and women, 60% were female.
- The number of IDUs diagnosed with HIV remains low; 14 were diagnosed in 2004.
Geographical distribution: 2004

- Nearly two-thirds of new cases were identified in Lothian (113) and Greater Glasgow (116) NHS Boards.
- Lothian reported the highest number of new cases in MSM (61 of 127), and Greater Glasgow, the highest number of non-IDU heterosexuals (76 of 193).
- A small number of MSM probably acquired their infection outside the UK (16 of 127).
- The number of non-IDU heterosexuals who probably acquired their HIV outside the UK increased by 57% since 2003. Just over three-quarters of non-IDU heterosexual cases probably acquired their infection outside the UK, predominantly in African countries (153 of 193).
- The number of non-IDU heterosexual cases thought to have acquired their infection within the UK remained low; 40 were identified in 2004.

HIV testing: 2004

- Outwith HIV screening programmes (e.g. blood donor, antenatal), the numbers of persons having an HIV test increased by 40% between 2003 and 2004; most of the increased testing occurred in the GUM clinic setting.
- The increase in HIV testing in GUM clinics stems from Scottish Executive policy recommending that all attendees suspected of having an STI be offered and recommended an HIV test.
- Approximately 40% of previously undiagnosed HIV infected heterosexual men and women attending GUM clinics remained undiagnosed following their clinic visit; this rate is an improvement on those observed during the previous three years. The corresponding rate for MSM was approximately 50%, a rate which is unchanged from those seen over the same period. Thus, the diagnosis of HIV infected MSM who attend GUM clinics in Scotland continues to pose a considerable challenge.
- Most (10/13) previously undiagnosed HIV infected pregnant women who gave birth were diagnosed during their pregnancy; in previous years the majority of such infected women remained undiagnosed. This increase in detection stems from the implementation of universal antenatal HIV testing policy in 2003.
- Increased HIV testing is considered to be the principal explanation for the increase in the number of newly identified cases of HIV in 2004.

MSM: evidence for HIV transmission, 2004

- A slight increase in prevalence, from 3% to 4%, was detected among those undergoing a named (or attributable) HIV test and those attending GUM clinics with an STI problem.
- Among those having a named HIV test, 15 definite HIV seroconversions (a negative test result followed by a positive one within a calendar year) occurred in 2004; this figure compares with an annual average of four during 2001-2003.
- The above findings may reflect either increased detection, increased incidence, or a combination of increased detection and incidence of HIV among MSM; they are not, however, consistent with a decrease in the incidence of infection among this population.
Heterosexual men and women (non-injecting drug users): evidence for HIV transmission, 2004

- Among men and women who have not had any high risk exposure outside the UK and who have either had an attributable HIV test or attended a GUM clinic with an STI problem, prevalence was approximately 0.1% (1 in 1000); this rate is similar to (GUM clinic), or lower than (attributable HIV test), those recorded in the previous three years.
- Among men and women who have had high risk exposure in (and probably originated from) African countries and have either had an attributable HIV test or attended a GUM clinic with an STI problem, prevalence was around 10% and stable.
- Among women, born in the UK, who gave birth, prevalence was 0.03% (3 in 10 000).
- These above findings indicate that the incidence of HIV among heterosexual men and women in Scotland is low and not increasing.

Injecting Drug Users: evidence for HIV transmission, 2004

- Among those who had an attributable HIV test, prevalence was 0.5% (1 in 200); this rate is similar to those observed in the previous three years.
- HIV transmission among IDUs in Scotland is very uncommon.
Examples of health promotion materials to raise awareness of sexually transmitted infections, including HIV. Target groups include young people and gay men. These posters and leaflets have been developed by staff in Health Promotion teams in Greater Glasgow, Lanarkshire and Ayrshire and Arran NHS Boards, by the Healthy Respect team and by staff in the voluntary agencies, Gay Men’s Health and Healthy Gay Scotland. We gratefully acknowledge their permission to use these materials in this report.
Sexually Transmitted Infection in population sub-groups

Men who have sex with men (MSM)

Background and recent trends

In 2004, among men who have sex with men (MSM) in Scotland:

- 127 new (to Scotland) cases of HIV, the highest annual number ever, were identified; some had been diagnosed previously elsewhere in the UK and abroad.
- The first case of lymphogranuloma venereum (LGV) since 1987 was diagnosed; this follows recent outbreaks elsewhere in the UK and Europe.\(^{19,20}\)
- 167 cases of infectious syphilis, the highest annual number since recording for MSM began in 1989, were diagnosed.\(^{18}\) (see Chapter 3)
- Diagnoses of acute STIs increased annually during 1996 and 2003; however a decrease in diagnoses of gonorrhoea was observed between 2003 and 2004.

Acute STIs 2004: rectal infections

- Rectal chlamydia infection accounted for almost half of all 369 chlamydia diagnoses in MSM.
- Almost one quarter of MSM (61 of 260) with gonorrhoea had a rectal infection.
- Although the overall numbers of cases of rectal gonorrhoea increased during 1995-2004, the proportion of all infections in MSM that were rectal infection did not increase significantly during this period.
Acute STIs 2004: co-infections

- During 2004, 22% of MSM (57 of 260) with gonorrhoea had concurrent chlamydia infection; the corresponding rate for heterosexual men was 15% (51 of 346).
- 27% (33 of 119) of syphilis cases in MSM had HIV infection.
- 7.5% of MSM with acute STIs were co-infected with HIV. (Table 4.1)

HIV: 2004

- HIV testing in MSM in Scotland increased by 22% between 2003 and 2004.
- Among MSM having an STI screen in GUM clinics, the uptake of HIV testing ranged from 18% to 71%.
- 4.2% of all MSM attending GUM clinics were HIV positive.
- At GUM clinics the proportion of MSM, infected with HIV, is higher in those who decline an HIV test than in those who accept. (4.7% versus 2.2%).

Table 4.1: Acute STIs in MSM attending GUM clinics, 2004.

<table>
<thead>
<tr>
<th>Infection</th>
<th>Number</th>
<th>Number in HIV-infected MSM (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infectious syphilis</td>
<td>135</td>
<td>26 (19.3)</td>
</tr>
<tr>
<td>Gonorrhoea</td>
<td>260</td>
<td>18 (6.9)</td>
</tr>
<tr>
<td>Of which rectal</td>
<td>61</td>
<td>3 (4.9)</td>
</tr>
<tr>
<td>Chlamydia</td>
<td>369</td>
<td>27 (7.3)</td>
</tr>
<tr>
<td>Of which rectal</td>
<td>174</td>
<td>12 (6.9)</td>
</tr>
<tr>
<td>Genital warts (first episode)</td>
<td>192</td>
<td>15 (7.8)</td>
</tr>
<tr>
<td>Genital herpes (first episode)</td>
<td>53</td>
<td>6 (11.3)</td>
</tr>
<tr>
<td>HIV infection (newly diagnosed)</td>
<td>57</td>
<td>N/A</td>
</tr>
<tr>
<td>Other*</td>
<td>378</td>
<td>16 (4.2)</td>
</tr>
<tr>
<td>Total</td>
<td>1 444</td>
<td>108 (7.5)</td>
</tr>
</tbody>
</table>

N/A not applicable
*Other includes: Non-specific, non-chlamydial, (upper and lower) genital tract infection, non-specific proctitis, Trichomoniasis, chancroid, lymphogranuloma venereum, granuloma inguinale, genital scabies, pubic lice, molluscum contagiosum, hepatitis A, acute and chronic hepatitis B.

Figure 4.3: Overall uptake of HIV testing in MSM accessing GUM clinics for any reason, by NHS board of screening, 2004.

The denominator for overall uptake includes all MSM attending for any consultation with or without an STI screen and includes those who were offered and accepted, offered and declined, or not offered an HIV test.

There was insufficient data available from Lanarkshire NHS Board and no data available from Dumfries and Galloway NHS Board.

There are no GUM clinics in Orkney, Shetland and Western Isles NHS Boards.

Figure 4.4: Uptake of HIV testing in MSM accessing GUM clinics for an STI screen, by NHS board of screening, 2004.

The denominator for HIV uptake in those screened for an STI comprises only those who had an STI screen performed.

There was insufficient data available from Lanarkshire NHS Board and no data available from Dumfries and Galloway NHS Board.

There are no GUM clinics in Orkney, Shetland and Western Isles NHS Boards.
Despite the recent rise in HIV testing, many HIV infected MSM still remain undiagnosed after their clinic appointment – almost 50% during 2003-2004, as indicated by data from the Unlinked Anonymous HIV Test Programme.

During 2004, of 37 MSM whose HIV status was unknown at the time of their GUM clinic visit, 18 were still undiagnosed after that visit – 11 of these 18 had presented with an acute STI. (see also Figure 3.32)

**Figure 4.5: Proportion of HIV infected MSM whose HIV status is unknown at the time of clinic visit and who leave the clinic without their HIV infection being diagnosed.**

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosed at visit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undiagnosed at visit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data source: STISS

**Table 4.2: MSM accessing GUM clinics: proportion of males screened who are MSM according to location of screening and residence.**

<table>
<thead>
<tr>
<th>NHS board</th>
<th>Date</th>
<th>Number of:</th>
<th>Proportion of men having screens who are MSM (%)</th>
<th>Annual MSM screens done in NHS board area per 100 000 population</th>
<th>Annual MSM screens done on board residents per 100 000 population</th>
<th>Proportion of screens in MSM done in own NHS board area (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argyll &amp; Clyde</td>
<td>Apr-04</td>
<td>37</td>
<td>30</td>
<td>4.7</td>
<td>33</td>
<td>86</td>
</tr>
<tr>
<td>Ayrshire &amp; Arran</td>
<td>Jan-04</td>
<td>20</td>
<td>15</td>
<td>1.4</td>
<td>13</td>
<td>64</td>
</tr>
<tr>
<td>Borders</td>
<td>Apr-04</td>
<td>31</td>
<td>19</td>
<td>8.3</td>
<td>67</td>
<td>103</td>
</tr>
<tr>
<td>Fife</td>
<td>Apr-04</td>
<td>46</td>
<td>43</td>
<td>3.5</td>
<td>45</td>
<td>81</td>
</tr>
<tr>
<td>Forth Valley</td>
<td>Apr-04</td>
<td>75</td>
<td>41</td>
<td>5.3</td>
<td>61</td>
<td>84</td>
</tr>
<tr>
<td>Grampian</td>
<td>Apr-04</td>
<td>217</td>
<td>166</td>
<td>9.5</td>
<td>119</td>
<td>118</td>
</tr>
<tr>
<td>Greater Glasgow</td>
<td>Apr-04</td>
<td>1384</td>
<td>996</td>
<td>17.9</td>
<td>456</td>
<td>318</td>
</tr>
<tr>
<td>Highland</td>
<td>Apr-04</td>
<td>30</td>
<td>24</td>
<td>3.3</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Lanarkshire</td>
<td>Jul-04</td>
<td>11</td>
<td>9</td>
<td>1.8</td>
<td>10</td>
<td>61</td>
</tr>
<tr>
<td>Lothian</td>
<td>Apr-04</td>
<td>1969</td>
<td>961</td>
<td>22.3</td>
<td>464</td>
<td>432</td>
</tr>
<tr>
<td>Tayside</td>
<td>Oct-04</td>
<td>57</td>
<td>28</td>
<td>6.3</td>
<td>91</td>
<td>89</td>
</tr>
<tr>
<td>ALL BOARDS</td>
<td></td>
<td>3877</td>
<td>2332</td>
<td>13.5</td>
<td>186</td>
<td>186</td>
</tr>
</tbody>
</table>

1. There were no data available for Dumfries and Galloway, Orkney and Western Isles NHS Boards.
2. Missing data were imputed for missing quarters by doubling Apr-Jun or Jul-Dec as appropriate
3. The data are based on the new STISS codes which includes those patients where a sexual history was taken and at least a chlamydia test performed.
4. The denominator is the male population aged 15-64 years

N/A – not applicable

Data Source: STISS
Geographical issues: access to services, 2004

- GUM data show wide geographic variation in uptake of STI screening among MSM; MSM, particularly those in the West of Scotland, access screening outside of their home NHS boards. This may be influenced by the specific gay men’s service in Glasgow, the Steve Retson Project. (http://www.sandyford.org/srp/)
- The proportion of STI screens in men, performed on MSM, ranges from 1.4% in Ayrshire and Arran NHS Board GUM clinics to 18% and 22% in Greater Glasgow and Lothian NHS Board GUM clinics, respectively.

Figure 4.6: Access to GUM clinics by MSM: proportion of all males screened who are MSM, by NHS board of screening and NHS board of residence, 2004.

Prevention

Certain indicators of high risk sexual behaviour among MSM are of considerable concern.
- Repeat cross-sectional surveys of MSM in Glasgow and Edinburgh indicated an increase in unprotected anal intercourse with casual partners, during the previous 12 months, from 11% in both 1996 and 1999 to 19% in 2002.22

Key prevention initiatives launched in 2004 include:
- The EQUAL social marketing campaign, a joint project between NHS Greater Glasgow, NHS Ayrshire and Arran and NHS Lanarkshire, with phased objectives relating to stigma and HIV testing.
- Adoption of the ‘Strategic Framework for Gay Men’s Health’ by NHS Greater Glasgow.
- An outreach project in Glasgow “gay scene” venues to promote the use of innovative near-patient syphilis testing kits.
- Further initiatives, including a syphilis awareness campaign in Edinburgh, were launched during 2005.

Conclusions

- MSM continue to acquire acute STIs and HIV in spite of innovative campaigns.
- Numbers of persons HIV tested and diagnosed, principally in the GUM clinic setting, are rising.
- MSM travel widely to access specific STI services but for those that cannot travel, NHS boards should ensure that local sexual health services are gay-friendly and oriented towards their needs.
Young people

Background

Young people refers to those aged less than 25.

- The average age of first sexual intercourse for both men and women is 16.23
- Scottish data from the National Survey of Sexual Attitudes and Lifestyles (NATSAL) survey (2000) indicated that 9% and 13% of young men and women, respectively, had had an STI at some time.23
- Young people consider their personal risk of HIV infection to be low.23
- Young people experience a large burden of sexually transmitted infection, predominantly genital chlamydia and genital warts.
- Young women, aged less than 25, are a target group for opportunistic chlamydia screening; at this age, they are biologically more susceptible to infection.
- Diagnoses of STIs, in particular genital chlamydia and genital warts, in the GUM clinic setting have increased during the previous nine years in both young men and young women.

Figure 4.7: Diagnoses of acute sexually transmitted infections in women aged less than 25, made in the GUM clinic setting, 1996-2004.

Figure 4.8: Diagnoses of acute sexually transmitted infections in men aged less than 25, made in the GUM clinic setting, 1996-2004.
Who was affected: 2004

- Two thirds of chlamydia diagnoses were aged less than 25; 58% and 77% of chlamydia diagnoses in men and women, respectively, were in this age group.
- Two thirds of the diagnoses of genital warts in women and one half of those in men were aged less than 25.
- Half of the diagnoses of genital herpes in women and one third of those in men were aged less than 25.
- Two thirds of women, compared to one third of men, infected with gonorrhoea were aged less than 25.

Geographical issues: genital chlamydia

- During 2004, the highest rates of genital chlamydia diagnoses, made in all settings in both men and women aged less than 25, were observed in Dumfries and Galloway and Highland NHS Boards; this may reflect levels of opportunistic screening, as per the SIGN recommendations, in the young population in these areas.
In GUM clinics, for women, the highest rates of genital chlamydia diagnoses were observed in Forth Valley and Fife NHS Board residents and for men, in Fife and Tayside NHS Board residents; this may reflect local policies to encourage young people to attend GUM clinics for chlamydia testing.

Data source: STISS

Mid-year population data for 2004 available from GROS

Access to services: 2004

- 6% and 5% of young women and men, respectively, visited a GUM clinic.
- Young people aged less than 25 accounted for almost half of the workload in GUM clinics.
- The highest rates of GUM clinic consultation for any condition were observed in young women resident in Fife and Lothian NHS Boards and in young men resident in Greater Glasgow and Lothian NHS Boards.
Acute STIs were diagnosed in one fifth of all young people seen in GUM clinics.

The highest rates of acute STI diagnoses in women aged less than 25 were observed among residents of Tayside and Fife NHS Boards and, in men, among residents of Greater Glasgow and Fife NHS Boards.

**Prevention**

A large number of prevention initiatives are in operation both at an NHS board and national level. A few examples of these are:

- **Caledonia Youth**, in operation for more than 30 years, supports local organisations in promoting the sexual health and wellbeing of young people, particularly teenagers, aged less than 25. ([http://www.caledoniayouth.org/](http://www.caledoniayouth.org/))
  - For example, the Text 4U mobile ‘phone information service was launched in Glasgow in November 2004.

- **Healthy Respect**, a Scottish Executive funded National Health Demonstration Project on young people’s sexual health, works in partnership with 13 organisations to provide sexual health education, information and services for young people in Lothian. ([http://www.healthy-respect.com/](http://www.healthy-respect.com/))
  - For example, since 2001, postal chlamydia test kits have been made available to young people in a number of retail outlets.


- Glasgow’s Sandyford Initiative runs a drop-in service targeted at under 18s; the service, originally at one site (The Place, [http://www.sandyford.org/](http://www.sandyford.org/)), is being rolled out to other locations around the city.

**Conclusions**

- Some indicators suggest that young women are encountering STIs earlier in their sexual career than young men; this may reflect the difference in the relative ages of their partners.

- An increase in chlamydia screening opportunities, especially for young men, coupled with partner notification are major challenges in addressing the current burden of chlamydia infection.

- Survey data indicate that young people would like better information on a number of aspects relating to their sexual health and relationships.

- The equitable provision of appropriate, high quality sex and relationships education in schools (which recognises diversity and equality and promotes positive sexual health for all ages and cultures), one of the key recommendations of Respect and Responsibility, is essential if the incidence of sexually transmitted infections among young people is to be reduced.
References


**Abbreviations**

ART – Antiretroviral therapy
BASHH – British Association of Sexual Health and HIV
GP – general practitioner
GROS – General Register Office for Scotland
GUM - Genitourinary Medicine
HIV – Human Immunodeficiency Virus
HPA – Health Protection Agency
HPS – Health Protection Scotland
HPV – Human papilloma virus
HSV – Herpes simplex virus
IDU – Injecting drug user(s)
ISD – Information Services Division
ISD(D)S – GUM data collection form (now STISS)
LGV – Lymphogranuloma venereum
MIC – Minimum inhibitory concentration
MSM – Men who have sex with men
N – Number
NAATs – Nucleic acid amplification tests
NATSAL – National Survey of Sexual Attitudes and Lifestyles
NESISS – National Enhanced Surveillance of Infectious Syphilis in Scotland
NHS – National Health Service
NSHAC – National Sexual Health Advisory Committee
NSS – National Services Scotland
PTI – Practice Team Information
SIGN – Scottish Intercollegiate Guidelines Network
SNGRL – Scottish *Neisseria gonorrhoeae* Reference Laboratory
STI – Sexually Transmitted Infection
STISS – Sexually Transmitted Infection Surveillance System
UK - United Kingdom
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