# Key Points and Recommendations

## Overview

**1** In 2005, HIV prevalence continued to increase steadily and there were high rates of genital chlamydia, genital herpes, and genital warts due to human papilloma viruses (HPV), especially in young adults. There was a further substantial increase in syphilis incidence, while the decline in gonorrhoea incidence, first seen in 2002, continued. At the end of 2005 an estimated 63 500 adults were living with HIV in the United Kingdom (UK), of whom, 20 100 (32%) were unaware of their infection. The continued increase in HIV diagnoses is due to sustained levels of newly acquired infections in men who have sex with men (MSM); further diagnoses among heterosexual men and women who acquired their infection in Africa; and earlier and increased HIV testing. A sexual health screening service was provided on 1.8 million occasions at genitourinary medicine (GUM) clinics in 2005, and 790 000 diagnoses of sexually transmitted infections (STIs) were made. The situation presents a substantial challenge to the sexual health strategies across the UK.

## HIV and STIs among those at high risk

**2** In 2005, the annual incidence of HIV infection in MSM attending GUM clinics remained high at 3.2%. Also in clinic attendees, the prevalence of previously undiagnosed HIV infection in MSM aged under 25, an indicator of relatively recent transmission, was 1.5% for London and 1.3% outside London.

**3** Gonorrhoea incidence remained high among MSM, with 4388 infections diagnosed. In addition, the syphilis epidemic among MSM has continued to grow, and there was a significant rise in the number of cases of lymphogranuloma venereum (LGV). A high proportion of MSM continue to engage in unprotected anal intercourse (UAI) with partners of a different or unknown HIV status.

**4** The clinical management of HIV is further complicated by co-infection with other STIs. Enhanced surveillance showed a high proportion of MSM co-infected with HIV among cases of LGV (80%), syphilis (34%) and gonorrhoea (49%). Also of concern are the increasing dual infections of HIV and hepatitis C (HCV) in MSM.

**5** Diagnoses of HIV infection in people who acquired their infection through heterosexual contact rose from 2031 in 2000 to 4049 in 2005 (the number for 2005 will be revised upwards as further information is collected). Many of these diagnoses were in black and minority ethnic (BME) adults, among whom an estimated 3.6% of black Africans and 0.3% of black Caribbeans living in the UK had diagnosed HIV-infection. This correlates respectively to 46 and 3.7 times the estimated prevalence of diagnosed HIV infection in white heterosexuals (0.08%). Among the black Caribbean and the small proportion of HIV-infected black Africans born in the UK, over half (59%) had probably acquired their infection within the UK, and where reported, 10% of their partners had also probably been infected within the UK. As the number of BME heterosexuals living with HIV (diagnosed and undiagnosed) in the UK grows, the likelihood increases of expanding heterosexual HIV transmission chains within BME communities living in the UK.

**Recommendations**: The recommendations of the National Institute for Health and Clinical Excellence (NICE) Public Health Interventions Advisory Committee on 'one to one structured interventions' should give particular priority to MSM who engage in UAI and to black African and black Caribbean heterosexuals at high risk of HIV and other STIs. Primary Care Bodies should rapidly consider how to implement these recommendations as soon as they are finalised. The effectiveness of other behavioural modification and intervention strategies need to be evaluated in the UK setting. These include group and peer-based programmes in a range of settings, specifically targeting those at high risk of acquiring or transmitting HIV and other STIs.

## Timing of HIV diagnosis

**6** Uptake of voluntary confidential testing for HIV (VCT) among MSM attending GUM clinics appears to have stabilised and was 80% in 2005 (compared to 79% in 2004). However, of the 20% who could potentially have had their HIV infection status established, 36% were known to have refused a test. After leaving the clinic, 43% of the HIV-infected MSM remained undiagnosed. Among the MSM who refused a test, 7.5% were HIV-infected.

**7** The uptake of VCT among heterosexuals attending GUM clinics in the UK increased to 82% in 2005. The prevalence of previously undiagnosed infection in heterosexual clinic attendees born in sub-Saharan Africa was 2.5% in London and 5.2% outside London. Among heterosexual clinic attendees who could potentially have had their HIV infection status established, 46% were known to have refused a test. After leaving the clinic, 27% of the HIV-infected remained undiagnosed. Among those who refused a test, 0.5% were HIV-infected.

**8** In 2005 almost 500 MSM were estimated to have been diagnosed with a CD4 count below 200 cells/mm$^3$, the threshold at which HIV treatment should begin. MSM diagnosed late are over ten times more likely to die within a year of their HIV diagnosis than those with higher CD4 counts (5.2% compared to 0.41%). Late diagnosis was more common among MSM who were older, were diagnosed outside London, or belonged to an ethnic minority. Two in five (40%) HIV-infected BME adults were diagnosed late and they were seven times more likely to die within a year of their HIV diagnosis than those with higher CD4 counts (3% compared to 0.4%). Only a minority of those diagnosed late had very recently arrived in the UK.

**9** In 2005, one in every 450 women giving birth in England and Scotland was HIV-infected and prevalence among women in England living outside London reached 0.13% in 2005. Although prevalence among sub-Saharan African born women has stabilised at 2.4%, the prevalence in women born in Central America and the Caribbean increased to 0.82%. It is estimated that around 95% of HIV-infected pregnant women were diagnosed prior to delivery in 2005, compared with about 83% in 2001.

**Recommendations**: Substantial potential exists for reducing mortality associated with late HIV diagnosis through targeted promotion and opportunistic HIV testing in healthcare settings. The Agency needs to work with professional and voluntary groups, the Expert Advisory Group on AIDS (EAGA) and the Department of Health (DH) to develop clearer recommendations on HIV testing in response to the changing epidemic. Primary Care Bodies need to maintain the high uptake of antenatal HIV screening in the face of the known HIV prevalence in women born in sub-Saharan Africa and the rise in prevalence in women born in the Caribbean and Central America.

## Injecting Drug Users (IDUs)

**10** Overall 1.6% of IDUs attending specialist drug agencies in England and Wales are HIV infected, which is still low compared to many other countries. Nevertheless, outside of London prevalence has risen from 0.5% in 2003 to 1.2% in 2005, and prevalence has remained elevated among IDUs in London (3.2%). Direct and indirect sharing of needles, syringes and related equipment continued at a high level during 2005 in England (53%), Wales (56%) and Northern Ireland (43%). A national audit of Needle Exchanges (NEX) indicated that provision of injecting equipment, including needles and syringes, varied greatly and the overall provision was inadequate.

**Recommendations**: Primary Care Bodies and Drug Action Teams should give priority to commissioning and developing improved Needle Exchange services.

## Young people

**11** Young people are disproportionately affected by genital chlamydia infections, gonorrhoea and genital warts. Three-quarters of genital chlamydia infections diagnosed in female GUM clinic attendees in 2005 and 57% in male attendees were in the under 25 age group. The highest

rates of genital warts were in the 16-19 and 20-24 year age-groups among women and in the 20-24 year age-group among men.

**12** By the end of the third year of the National Chlamydia Screening Programme (NCSP), approximately 180 000 opportunistic screens for chlamydia infection in under 25 year olds had been undertaken outside of GUM settings. Infection was detected in 10% and 11% of women and men respectively. Almost 95% of index cases were treated, and four-fifths of these were managed outside of GUM clinic settings. The Agency is facilitating and monitoring the roll-out of chlamydia screening to all Primary Care Trusts.

**13** The licensing of a vaccine that effectively prevents infection of major HPV subtypes offers a great additional opportunity to reduce the incidence of cervical cancer and genital warts. This exciting new approach to the prevention of a very common STI will need to be integrated in the most cost-effective way with the national cervical screening programme.

**Recommendations**: The Agency should consider ways that existing surveillance systems might be used to measure the impact of the national sexual health media campaign aimed at young adults having unprotected sex. The Agency should establish a robust system to monitor chlamydia testing in all settings to evaluate the impact of the NCSP. The Agency should also develop systems for the surveillance of trends in type-specific HPV infections and associated disease, and for monitoring the uptake of HPV vaccines in England.

## Antimicrobial resistance

**14** Two in five gonococcal isolates from MSM were ciprofloxacin resistant, a large increase from 2.1% in 2001. Resistance to antiretrovirals in newly diagnosed HIV-infected persons who have never taken treatment is estimated to be 4.5% for nucleoside reverse transcriptase inhibitors (NRTIs) and non-NRTIs and 2.1% for protease inhibitors, possibly due to a greater historical exposure to NRTIs.

## Selected recommendations for research and development

Data from clinics has continued to show marked geographic heterogeneity in the distribution of STIs. Local prevention programmes may be strengthened if STI data could be collected by area of residence. The Agency's co-ordinated project to capture residence-based STI data from GUM clinics should be given high priority.

The Serological Testing Algorithm for Recent HIV Seroconversion (STARHS) assay has provided a valuable estimate of HIV incidence in MSM when applied in a limited way to unlinked anonymous specimens from sentinel GUM clinics. The Agency should work with diagnostic laboratories and GUM clinics to expand application of the STARHS technique to all newly diagnosed HIV infections.

A strong national sexual health programme must be underpinned by high quality microbiological services. To this end the Agency should promote the adoption of Standard Operating Procedures for the diagnosis of STIs, review the validation data for the use of nucleic acid amplification tests for chlamydia on rectal and pharyngeal specimens, and initiate research on the occurrence of antimicrobial resistance in chlamydia strains.

## Conclusion

**15** Treatment and prevention initiatives have been successful in maintaining high numbers of HIV-infected individuals on anti-retroviral therapy, reducing the proportion of children becoming infected of those exposed to maternal HIV infection, and in delivering hepatitis B vaccine to 90% of eligible MSM attending GUM services. The improvement in access to sexual health services seen in the reduction in waiting times of those attending GUM clinics is welcome as rapid access to diagnostic and treatment services for HIV and STIs is a key part of infection control. Nevertheless there is considerable scope for improvement, which includes further increasing access to sexual health services; earlier HIV testing; more focussed prevention programmes for those at high sexual risk; and substantially increasing the volume of chlamydia screening.