Key findings

• An estimated 77,400 persons were living with HIV in the UK at the end of 2007, of whom over a quarter (28%) were unaware of their infection.

• During 2007 there were 7,734 new diagnoses of HIV, a similarly high figure to the diagnoses made in each of the previous four years.

• New HIV diagnoses among men who have sex with men continue to increase and over four-fifths of these infections were probably acquired in the UK.

• The estimated number of persons infected through heterosexual contact within the UK has increased from 540 new diagnoses in 2003 to 960 in 2007, and has doubled, from 11% to 23%, as a proportion of all heterosexual diagnoses during this period.

• Almost a third (31%) of persons newly diagnosed with HIV were diagnosed late, that is at a point after which therapy should have begun (CD4 cell count less than 200 per mm$^3$).

• Seventy percent of the 56,556 persons seen for HIV care were receiving antiretroviral therapy. Almost one in five HIV-infected persons with severe immunosuppression, however, were not on treatment.

• Uptake of HIV testing in genitourinary medicine and antenatal clinic settings reached 75% and 94%, respectively.

Recommendations

• Further improvement of the uptake of HIV testing in all genitourinary medicine and antenatal services should be a priority.

• In areas where the prevalence of diagnosed HIV infection is greater than two in 1,000, consideration should be given to offering an HIV test to all men and women aged 15 to 59 registering in general practice and to all general medical admissions. Such local HIV testing initiatives, and other community or non-NHS HIV testing projects, should be formally evaluated and sufficiently large so as to inform policy and practice.

• HIV services and interventions to promote sexual health should be strengthened and expanded to meet better the needs of those with high risk of HIV acquisition within the UK, especially black African heterosexuals and men who have sex with men.

• Work should be undertaken to develop new care pathways that encourage earlier commencement of anti-retroviral therapy.

• Investment in resources and services will need to keep pace with the increasing numbers of HIV-infected persons requiring care.
Estimated numbers of persons living with HIV in 2007
In 2007 there were an estimated 77,400 persons living with HIV (both diagnosed and undiagnosed), equivalent to 127 persons living with HIV per 100,000 population in the UK (170 per 100,000 men and 84 per 100,000 women). Among the 73,300 persons aged 15-59 years living with HIV, 28% (20,700 [16,300-25,800]) were unaware of their infection (Figure 1).

New HIV diagnoses reported in the UK, 2007
A total of 7,734 persons (4,887 men and 2,846 women) were diagnosed with HIV in 2007, a rate of 16 new diagnoses per 100,000 men and nine per 100,000 women. This represents a continuation of the high levels seen in the previous four years (Figure 2). In 2007, 645 persons (424 men and 221 women) were reported with a first AIDS diagnosis and 495 persons (349 men and 146 women) infected with HIV died. While the number of deaths among HIV-infected persons has remained stable over the past ten years, the number of AIDS diagnoses continues to decline (Figure 2). Numbers of AIDS diagnoses and deaths could be reduced further with earlier diagnosis and treatment initiation.

After adjusting for missing information, an estimated 55% (4,260) of persons diagnosed in 2007 acquired their infection through heterosexual contact (1,690 men and 2,570 women) and 41% (3,160) through sex between men. The number of HIV diagnoses among persons infected heterosexually has declined from a peak of approximately 4,850 in 2004, whereas new diagnoses among men who have sex with men (MSM) have continued to increase. The estimated numbers of diagnoses of HIV infection acquired through injecting drug use (180 in 2007) and mother-to-child transmission (110 in 2007) have remained low over the past five years (Figure 3).

Of the estimated 4,260 heterosexually acquired new diagnoses of HIV, 77% (3,300) were probably infected abroad. An estimated two thirds (2,850) were of black-African ethnicity, of whom the majority (90%) acquired their infection abroad, mainly in sub-Saharan Africa. In contrast, among HIV-infected MSM diagnosed in 2007, 82% (2,580) probably acquired their infection in the UK.

Late HIV diagnosis
Late diagnosis is an important determinant of HIV-related morbidity and mortality in the UK. In 2007 an estimated 31% (2,345) of adults (aged over 15 years) were diagnosed late (CD4 cell count <200 per mm³ within three months of diagnosis). The proportion diagnosed late was lowest among MSM (19%) and higher among heterosexual women (36%) and heterosexual men (42%) (Figure 4).
Persons living with diagnosed HIV and accessing care

There were 56,556 diagnosed persons (37,256 men and 19,300 women) seen for HIV care in the UK in 2007, representing an 8.6% increase on the number seen in 2006 (52,083) and more than a three-fold increase since 1998 (17,911) (Figure 2). Among these, 70% (39,556) were prescribed antiretroviral therapy. However, among persons with severe immunosuppression (CD4 cell count <200 per mm³), almost one in five (876/5,004) were not on treatment. An increasing number of adults aged 50 years and over have accessed HIV care over the past decade (from 1,679 in 1998 to 8,722 in 2007). In 2007 these older adults accounted for 15% of all persons accessing HIV-related care, while children (under 15 years) accounted for 1.7% (972).

In England, the three strategic health authorities with the largest proportional increases in the number of individuals accessing care between 1998 and 2007 were East of England with almost a seven-fold increase (549 to 3,693), East Midlands with a six-fold increase (406 to 2,412) and South Central with just under a six-fold increase (475 to 2,776). In England the proportion of HIV diagnosed individuals that were resident in London continues to decrease from 63% in 1998 to 48% in 2007, reflecting the increased geographical heterogeneity of individuals living with diagnosed HIV in the UK (Map 1).

Undiagnosed HIV infection among genitourinary medicine attendees

Residual syphilis blood samples from attendees at 16 sentinel genitourinary medicine (GUM) clinics across the UK indicate that in 2007, 3.4% (349/10,165) of MSM and 0.4% (400/100,327) of heterosexuals were not previously diagnosed with HIV infection. The prevalence was higher among heterosexuals born in sub-Saharan Africa (2.4%; 165/6,864) than those born in the UK (0.2%; 133/70,225) and those born elsewhere.
The prevalence in London was higher in all groups except for sub-Saharan African-born heterosexuals (Figure 5). Of the HIV-infected attendees, 30% (223/749) left the clinic without an HIV test result because they were either not offered, or had declined, an HIV test.

**Pregnant women and children**

Among the 62% (439,698/713,138) of women giving birth in England and Scotland living in areas covered by unlinked anonymous serosurveillance in 2007, 0.21% (939/439,698) were infected with HIV, that is around one in every 468 women giving birth. HIV prevalence among women giving birth remained highest in London (0.42%; 530/126,349) and has been stable since 2004. The prevalence in the rest of England has increased seven-fold over the past decade, but remained relatively low (0.14%; 387/284,670) in 2007, ranging from 0.2% in the East of England to 0.1% in Yorkshire and the Humber.

Prevalence was highest among pregnant women born in sub-Saharan Africa (2.5%; 558/22,718) and Central America and the Caribbean (0.53%; 14/2,624). While the prevalence of HIV infection among UK-born women giving birth in 2007 remained low (0.05%; 76/165,654), a gradual increase has been observed since 2000. Sub-Saharan African-born pregnant women living outside London had a significantly higher HIV prevalence compared to those living in London: 3.1% (142/4,632) and 2.3% (408/17,887) respectively.

Overall, by the end of June 2008, 8,831 children (includes individuals now aged 16 years or over but diagnosed before their 16th birthday) were reported as having been born in the UK to HIV-infected mothers. Subsequently, 9% (816/8,831) of these children have been found to be HIV-infected. The estimated proportion of exposed infants (born to both diagnosed and undiagnosed women) who are infected has decreased from 17% in 1998 to less than 5% in 2007. The majority (63%; 50/79) of children...
diagnosed in the UK with HIV in 2007 were born abroad and infected through mother-to-child transmission.

**Heterosexual transmission of HIV infection within the UK**

Heterosexual HIV transmission within the UK is steadily increasing. Of the total newly diagnosed HIV infections acquired heterosexually, the estimated proportion acquired in the UK increased from 11% (540/4,800) in 2003 to 23% (960/4,260) in 2007 (Figure 6). Overall HIV prevalence among UK-born women giving birth in London has increased from 0.03% (11/43,266) in 2000 to 0.07% (41/55,012) in 2007. Among UK-born heterosexuals attending eight sentinel GUM clinics in London in 2007, 0.41% (102/24,887) had a previously undiagnosed HIV infection compared to 0.25% (39/15,449) in 2000.

**HIV testing**

Recent guidelines have re-emphasised routine HIV testing in key health services, especially GUM and antenatal services. Furthermore, in areas where the prevalence of diagnosed HIV infection is greater than two per 1,000 15 to 59 year olds, these guidelines have recommended that consideration be given to offering an HIV test to all men and women registering in general practice and to all general medical admissions. There were 42 primary care organisations in England where the prevalence of diagnosed HIV in 2007 exceeded two per 1,000, either overall or in a constituent local/unitary authority (Map 1). Initiatives to expand HIV testing and other community or non-NHS HIV testing projects in these or other areas should be formally evaluated and sufficiently large so as to inform policy and practice.

In 2007, approximately 800,000 HIV tests were carried out in GUM clinics in the UK. The proportion of attendees that accepted the offer of an HIV test increased between 2003 and 2007, from 66% to 75% among heterosexuals and from 81% to 86% among MSM. Around 94% of women in antenatal care accepted a routine antenatal HIV test in 2007, so that more than 90% of HIV-infected pregnant women had their infection diagnosed before giving birth.
The overall prevalence of diagnosed HIV-infected persons accessing HIV care aged 15-59 years was 143 per 100,000 population. This rate was higher in men than women (187/100,000 and 99/100,000 respectively) and higher in London (474/100,000) than in the rest of the UK (91/100,000). There was substantial geographic variation in the rates of diagnosed HIV infection across the country (Map 1).