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HIV in the United Kingdom: 2010 Report



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Key findings for 2009

- The number of people living with HIV in the UK reached an estimated 86,500. A quarter of these people were unaware of their infection.
- New diagnoses among men who have sex with men (MSM) remained high (2,760); four out of five probably acquired their infection in the UK.
- Of the people newly diagnosed in 2009, 1,130 probably acquired their infection heterosexually within the UK, accounting for a third of heterosexuals diagnosed.
- One in six MSM, and one in sixteen heterosexuals newly diagnosed with HIV had acquired their infection within the previous 4-5 months before diagnosis.
- A total of 6,630 people were newly diagnosed as HIV-infected. This represents a fourth year-on-year decline, largely due to fewer diagnoses among people infected heterosexually abroad, mostly in Sub-Saharan Africa.
- Some 65,000 individuals accessed HIV care, of whom one in five were aged 50 years or over. Since 2000 there has been a three-fold increase in the number of individuals accessing care and a four-fold increase among older (>50 years) individuals.
- Half of adults were diagnosed with HIV at a late stage of infection in 2009 (CD4 counts <350 per mm³ within three months of diagnosis), the stage at which treatment is recommended to begin.
- Thirty-seven English primary care trusts (PCTs) had a prevalence of diagnosed HIV greater than 2 per 1,000 population, the threshold at which expanded HIV testing should be implemented.
- Uptake of HIV testing was 95% in antenatal clinics and 77% among STI clinic attendees in England.
- The quality of HIV care received is high. Based on London data, 80% of newly diagnosed patients were seen in an HIV clinic within one month of diagnosis; 90% had an undetectable viral load (<50 copies/μl) one year after starting therapy; and 93% of those in care for more than a year had a CD4 count above 200 cells per mm³.

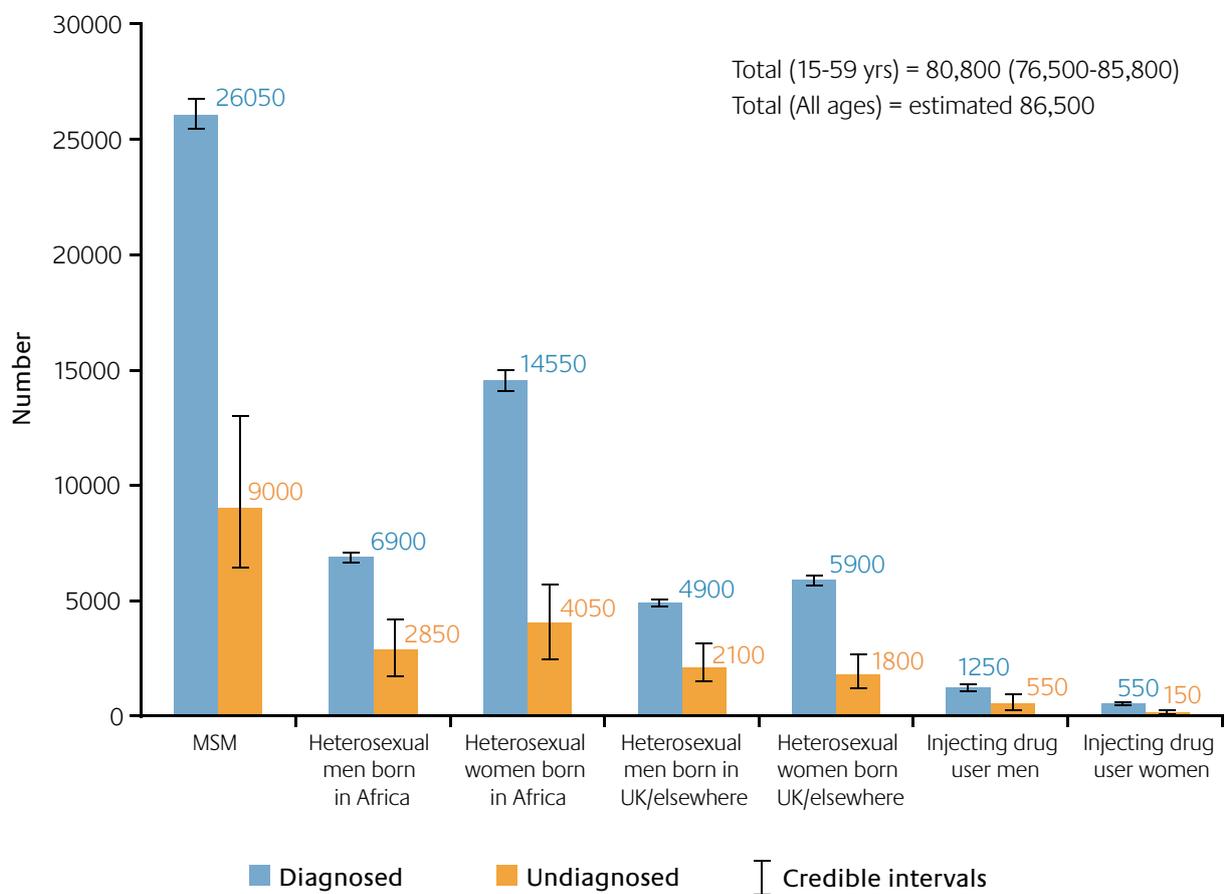
Recommendations

- High proportions of recently acquired HIV infections among newly diagnosed MSM of all age groups underscores the need for ongoing prevention efforts tailored to all ages in this group.
- The national recommendation of universal testing for all attendees of STI clinics should be audited and improved in many clinics; the existing national standard for HIV testing in STI clinics should be reviewed so as to encourage better performance.
- In high prevalence areas (> 2 per 1,000 people diagnosed HIV infection) the routine offer and recommendation to accept an HIV test for all adult general practice registrants and general medical admissions should be widely implemented given the recently reported success of pilot projects. The upper age limit for application of this policy should be set with regard to local circumstances.
- Roll-out of clinical outcome indicators to assess the quality of HIV care received by patients, already in place in London, should be extended to the rest of the country.

Estimated number of people living with HIV

In 2009, there were an estimated 86,500 people living with HIV (both diagnosed and undiagnosed), equivalent to a crude rate of 1.4 people per 1,000 population (all ages) in the UK (1.9 per 1,000 men and 0.91 per 1,000 women). Approximately a quarter (26%, 22,200) of HIV-infected people were estimated to be unaware of their infection (Figure 1). This compares to the 82,500 people estimated to be living with HIV in 2008, of whom 27% were estimated to be unaware of their infection.

Figure 1: Estimated number of adults (aged 15 to 59 years) living with HIV (both diagnosed and undiagnosed) in the UK: 2009



A recent study, estimating trends in prevalence of HIV infection, (diagnosed and undiagnosed), among adults aged 15-44 years in England and Wales, showed that there was no evidence of a decline in the prevalence of undiagnosed infection between 2001 and 2008 [1].

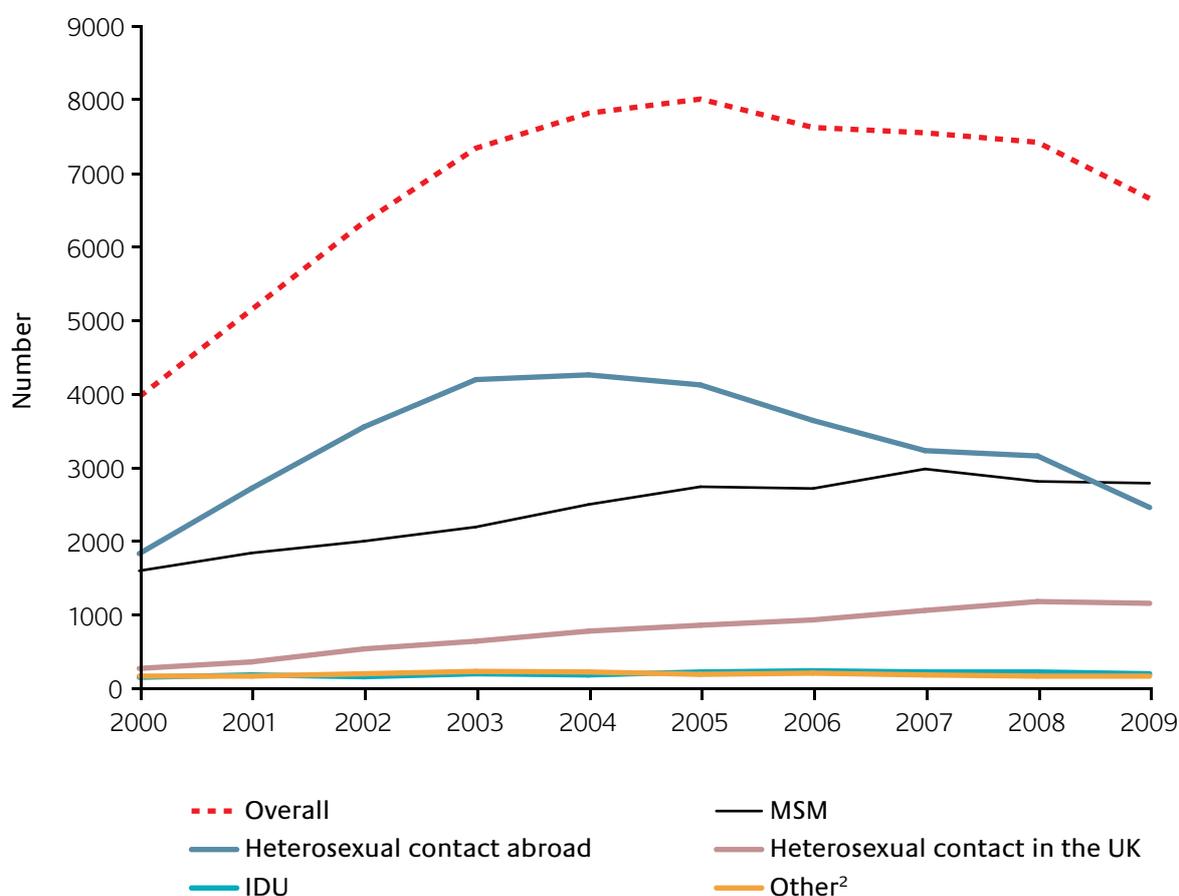
New HIV diagnoses

A total of 6,630 individuals (4,400 men and 2,230 women) were diagnosed with HIV in the UK in 2009, a crude rate of 0.11 per 1,000 population (0.14 new diagnoses per 1,000 men and 0.07 per 1,000 women). After adjusting for missing information, an estimated 54% (3,560) of individuals diagnosed in 2009 acquired their infection heterosexually (1,420 men and 2,140 women) and 42% (2,760) through sex between men (Figure 2).

This total for 2009 represents the fourth year-on-year decline from a peak of 7,982 diagnoses in 2005 and is largely due to fewer diagnoses among people infected heterosexually abroad. In 2009, an estimated 63% (2,240/3,560) of new diagnoses acquired heterosexually were among black Africans and 68% (2,430) acquired their infection abroad, mainly in sub-Saharan Africa. In contrast, the proportion of people infected heterosexually within the UK has increased from 24% in 2007 to 32% in 2009, although overall numbers remained stable with approximately 1,100 diagnoses over the past year.

While the number of HIV diagnoses among people infected heterosexually has declined, new diagnoses among MSM remain high. Assuming that 3% of the male population are MSM, the total of 2,760 diagnoses equates to a crude rate of 3.0 per 1,000 MSM. Among MSM diagnosed in 2009, 83% (2,290) probably acquired their infection in the UK. New diagnoses of HIV infection acquired through injecting drug use (170 in 2009) have remained low (Figure 2).

Figure 2: Number of new HIV diagnoses¹ by prevention group, UK: 2000-2009



¹Data are adjusted for missing route of infection. ²Includes mother to child transmission and blood product recipient.

Recently acquired HIV infection

During 2009, 1,741 individuals were tested using the Recent Infection Testing Algorithm (RITA) as part of the national monitoring of recent HIV infections in England and Wales. In total, 1 in 10 (196/1,741) HIV infections were classified as probably acquired within the previous 4-5 months, including 1 in 6 (17%; 123/745) in MSM and 1 in 16 (6.9%; 54/783) in heterosexuals. Among MSM, similar proportions of recently acquired infections were seen across all age groups from 18% (20/110) in those aged 15-24 to 14% (10/73) in those aged 50 and over. Among heterosexuals, however, the highest proportion of recent infections were in those aged between 15-24 years (16%; 12/73) and 25-34 years (12%; 9/73) for females and males, respectively.

Late diagnosis, AIDS and deaths among HIV-infected individuals

In 2009, an estimated 52% (3,450/6,630) of adults (aged over 15 years) were diagnosed late with a CD4 cell count <350 per mm^3 within three months of diagnosis. The proportion diagnosed late was lower among MSM (39%) compared with heterosexual women (59%) and heterosexual men (66%). Among adults diagnosed very late, with a CD4 count <200 per mm^3 , the proportions were 20%, 35% and 42% respectively, and 30% overall.

The number of deaths among HIV-infected people has remained stable over the past decade, and the number of AIDS diagnoses has continued to decline. In 2009, there were 547 people (366 men and 181 women) reported with a first AIDS diagnosis. A total of 516 people (362 men and 154 women) infected with HIV were reported to have died in 2009 73% of whom had been diagnosed late. These data highlight the importance of expanding testing especially in high prevalence areas to ensure earlier diagnosis (Figure 6).

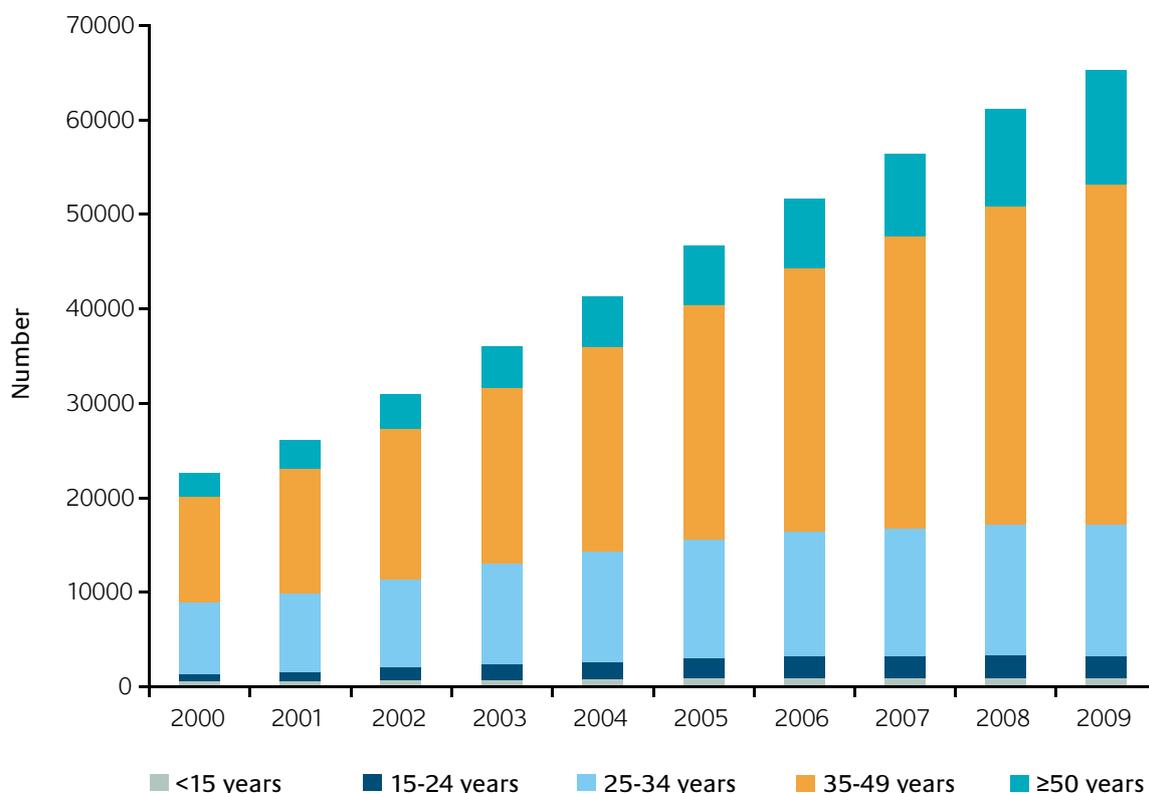
People in HIV care

There were 65,319 people living with diagnosed HIV infection (43,099 men and 22,220 women) who accessed care in the UK in 2009, representing a 7% (4,209) increase on the number seen in 2008 (61,110) and nearly a three-fold increase since 2000 (22,575) (Figure 3). There was substantial geographical variation in the rate of prevalent diagnosed HIV infections across the country (Figure 6); 44% (28,285) of people accessing HIV care were resident in London.

After adjusting for missing information, more than half (51%, 33,310) of HIV-diagnosed individuals accessing HIV care in 2009 were infected via heterosexual sex (12,290 men and 21,020 women); of whom, 66% (21,980) were black African and 21% (7,000) were white. MSM made up 43% (28,090) of HIV-diagnosed individuals attending care, of whom 88% (24,720) were white. A small proportion of individuals were infected through injecting drug use (2%, 1,550) and mother-to-child transmission (2%, 1,380).

Between 2000 and 2007, approximately 70% of diagnosed HIV-infected individuals were receiving anti-retroviral therapy; this has since increased to 76% in 2008 and 78% in 2009. This rise reflects the 2008 British HIV Association (BHIVA) guidelines which recommended the initiation of treatment when CD4 counts reach 350 per mm^3 or below. The proportion of individuals with a CD4 cell count <350 per mm^3 who did not receive treatment was 17% in 2009, compared to 25% in 2007; one in five of these were late presenters.

Figure 3: Number of people living with diagnosed HIV infection and accessing HIV-related care, by age group, UK: 2000-2009

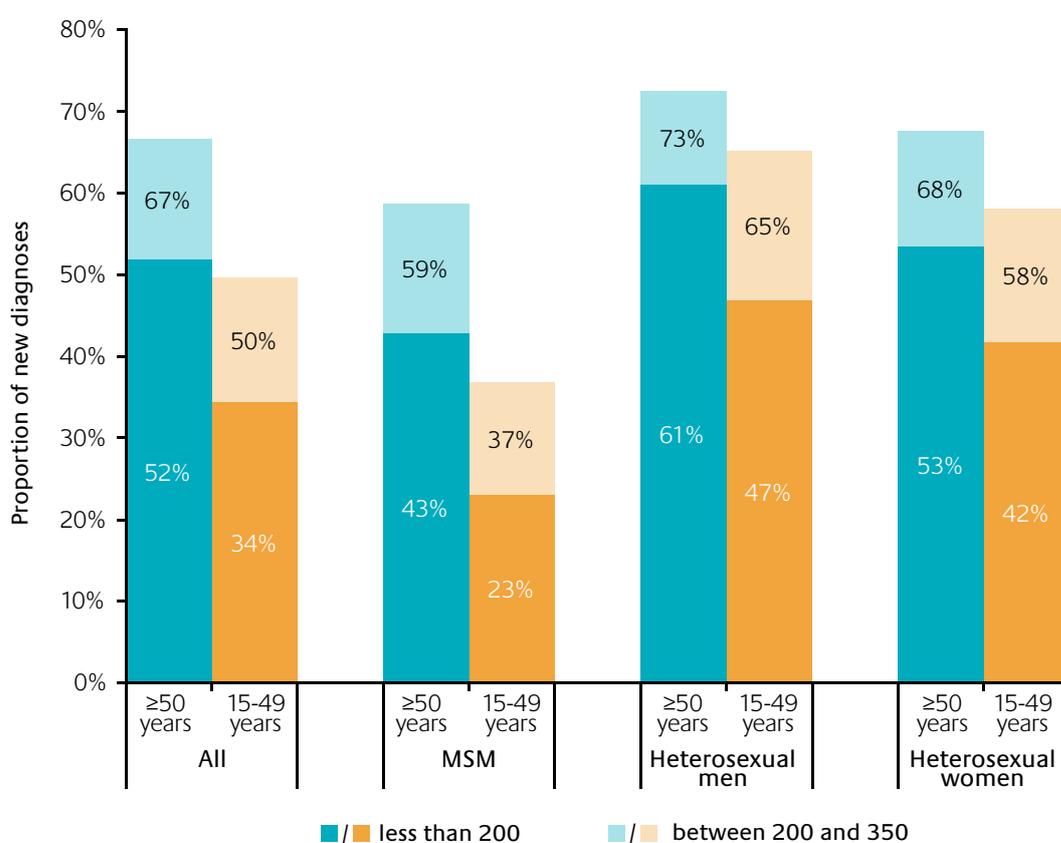


HIV among adults aged 50 years and over

HIV infected adults aged 50 years and over accessing care more than tripled between 2000 and 2009 from 2,432 to 12,063 representing one in five of all adults seen for HIV care in 2009 (Figure 3). This is due to an ageing cohort of people previously diagnosed as well as an increase in new diagnoses among the over 50s. New diagnoses among older adults more than doubled between 2000 and 2009, and accounted for 13% of all diagnoses in 2009. Two-thirds (67%) were diagnosed late, with a CD4 cell count less than 350 per mm³.

Adults diagnosed when aged 50 years and over are more likely to present late compared with younger adults (15-49 years) (Figure 4). A recent study showed that the risk of short-term mortality (death within a year of diagnosis) was 2.4 times higher for older adults compared with younger adults [2] and older adults diagnosed very late (<200 per mm³) were 14 times more likely to die within a year of their diagnosis compared with those diagnosed earlier.

Figure 4: Late¹ and very late² diagnosis of HIV infection by prevention group and age group, 2009



1. Diagnosed with a CD4 cell count <350 per mm³ (within 91 days of diagnosis) 2. Diagnosed with a CD4 cell count <200 per mm³ (within 91 days of diagnosis)

Prevalence of undiagnosed HIV infection in STI clinic attendees

Unlinked anonymous HIV testing of residual syphilis blood samples from STI clinic attendees across England, Wales and Northern Ireland indicate that, in 2009, 24 per 1,000 MSM and 2.5 per 1,000 heterosexuals had a previously undiagnosed HIV infection (i.e. undiagnosed on arrival to the clinic; a subset of these patients was diagnosed during the clinic attendance). The prevalence of previously undiagnosed HIV was higher among heterosexuals born in sub-Saharan Africa (13 per 1,000) or born elsewhere outside the UK (3.4 per 1,000) than among UK-born heterosexuals (1.4 per 1,000). The prevalence in London was higher in all exposure groups, for example among MSM who attended clinics in London, the prevalence was 33 per 1,000 compared to 17 per 1,000 outside London.

Pregnant women and children

In 2009, unlinked anonymous serosurveillance testing residual bloodspots taken for routine neonatal screening (covering more than 400,000 births) showed 2.2 per 1,000 pregnant women were infected with HIV. This equates to one in every 449 women giving birth (this includes women diagnosed before and during antenatal care, as well as those who remained undiagnosed). HIV prevalence among women giving birth remained highest in London (3.9 per 1,000) and has been stable since 2004. The prevalence in the

rest of England increased five-fold over the past decade, but remained relatively low (1.43 per 1,000) in 2009. Among UK-born women giving birth in 2009, HIV prevalence was 0.46 per 1,000; while this was low, a gradual increase in prevalence has been observed since 2000 when the prevalence was 0.16 per 1,000.

Overall, by the end of June 2010, 11,429 children were reported as having been born in the UK to HIV-infected mothers since the beginning of the epidemic. Of these children, 8% (883/11,429) became HIV-infected themselves. There were 74 children (median age 7 years) diagnosed with HIV in the UK in 2009, almost all had been infected through mother-to-child transmission, and 68% of them were born abroad. The estimated proportion of exposed infants (born to both diagnosed and undiagnosed HIV-infected women) who became infected has decreased from 12% in 1999 to approximately 2% in 2008.

HIV testing

The proportion of pregnant women accepting the recommended routine antenatal HIV test remained high and unchanged at 95% in 2009 compared to 2008. On the basis of preliminary data at least 88% of HIV-infected pregnant women had their infection diagnosed before giving birth, but this estimate is likely to increase as further reports are received. Among STI clinic attendees, the number of HIV tests performed has increased by 2.4% in the UK, from 961,357 in 2008 to 984,117 in 2009; in England, the percentage receiving an HIV test has stabilised at 77% in 2008 and 2009. This figure is lower than seen among patients tested as part of the sentinel unlinked anonymous HIV testing survey of residual syphilis blood samples (95% in 2009). In this survey, the proportion of HIV-infected STI clinic attendees who left the clinic unaware of their infection because they were either not offered, or had refused an HIV test, declined from 57% in 2000 to 27% in 2009.

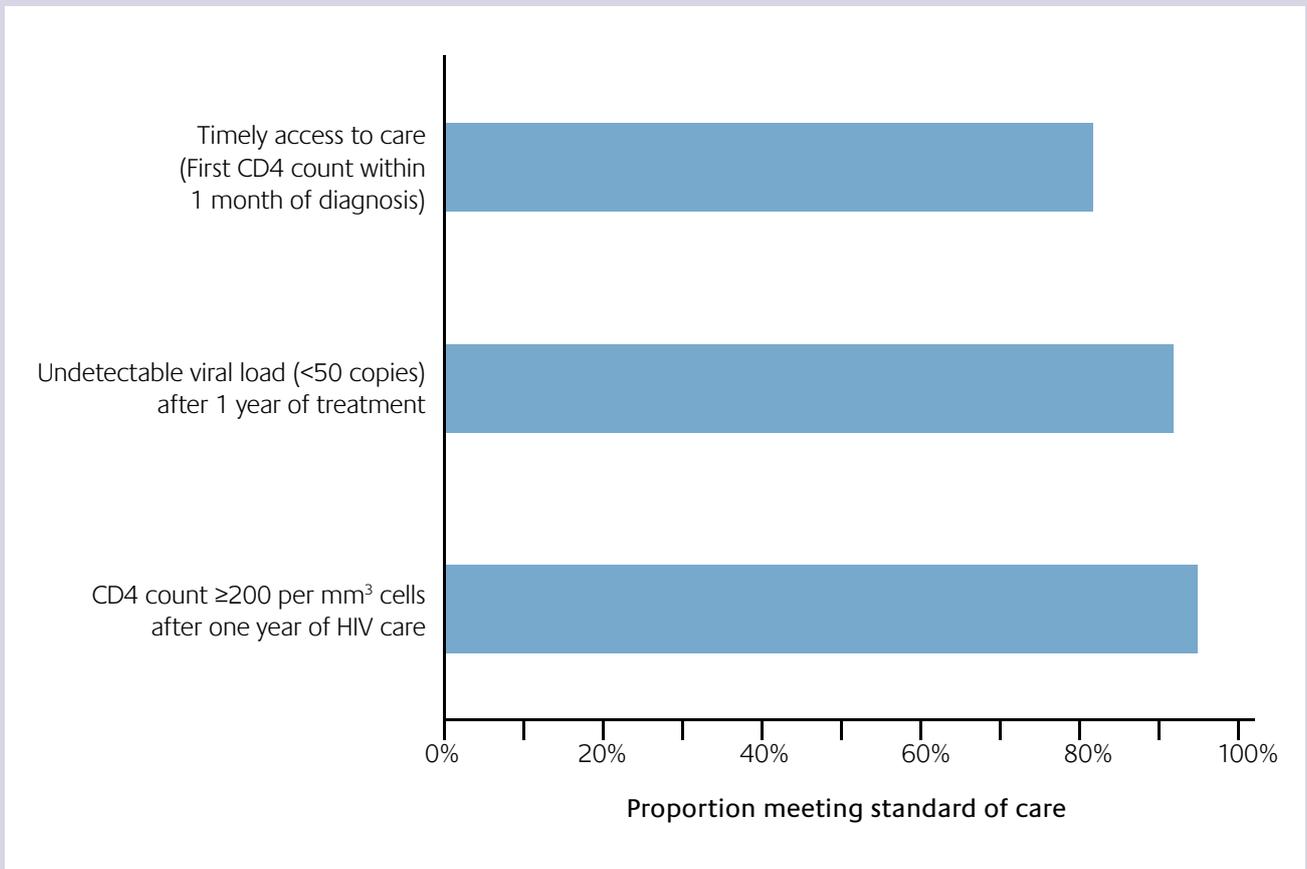
The UK national guidelines for testing advocate the offer and recommendation to accept an HIV test to all adults registering in general practice and general medical admissions patients in areas where diagnosed HIV prevalence is greater than 2 per 1,000 among 15 to 59 year olds [3]; 37 English PCTs had a prevalence above this threshold in 2009, 26 of which were in London. These are similar figures to 2008 (Figure 6).

Eight HIV testing pilot projects were funded by the Department of Health in 2009 and conducted in England over 3 to 12 month periods in three settings: hospital, primary care and the community. Preliminary evaluation of the projects indicate that routine HIV tests in primary care and hospital settings and targeted testing in community settings is feasible and acceptable to both staff and patients. These expansions of testing were successful in identifying previously unrecognised infections [4].

Monitoring HIV care

Measures have been developed, to evaluate the quality of treatment and care HIV patients receive in London (Figure 5). The four indicators are timely access to HIV care following an HIV diagnosis and virological and immunological indicators of treatment and care success and death rates among the newly diagnosed. In 2008, the level of care received by London HIV patients was high: 80% of patients had a CD4 count within one month of HIV diagnosis (used as a proxy for entry into care) and almost 95% within three months; 90% of patients had an undetectable viral load (<50 copies) one year after starting anti-retrovirals; and 93% had a CD4 count 200 cells per mm³ and over after one year in HIV care. Between 2005 and 2008, 1.5% of patients died within a year of diagnosis, almost all deaths occurred among those diagnosed with a CD4 count <200 cells per mm³.

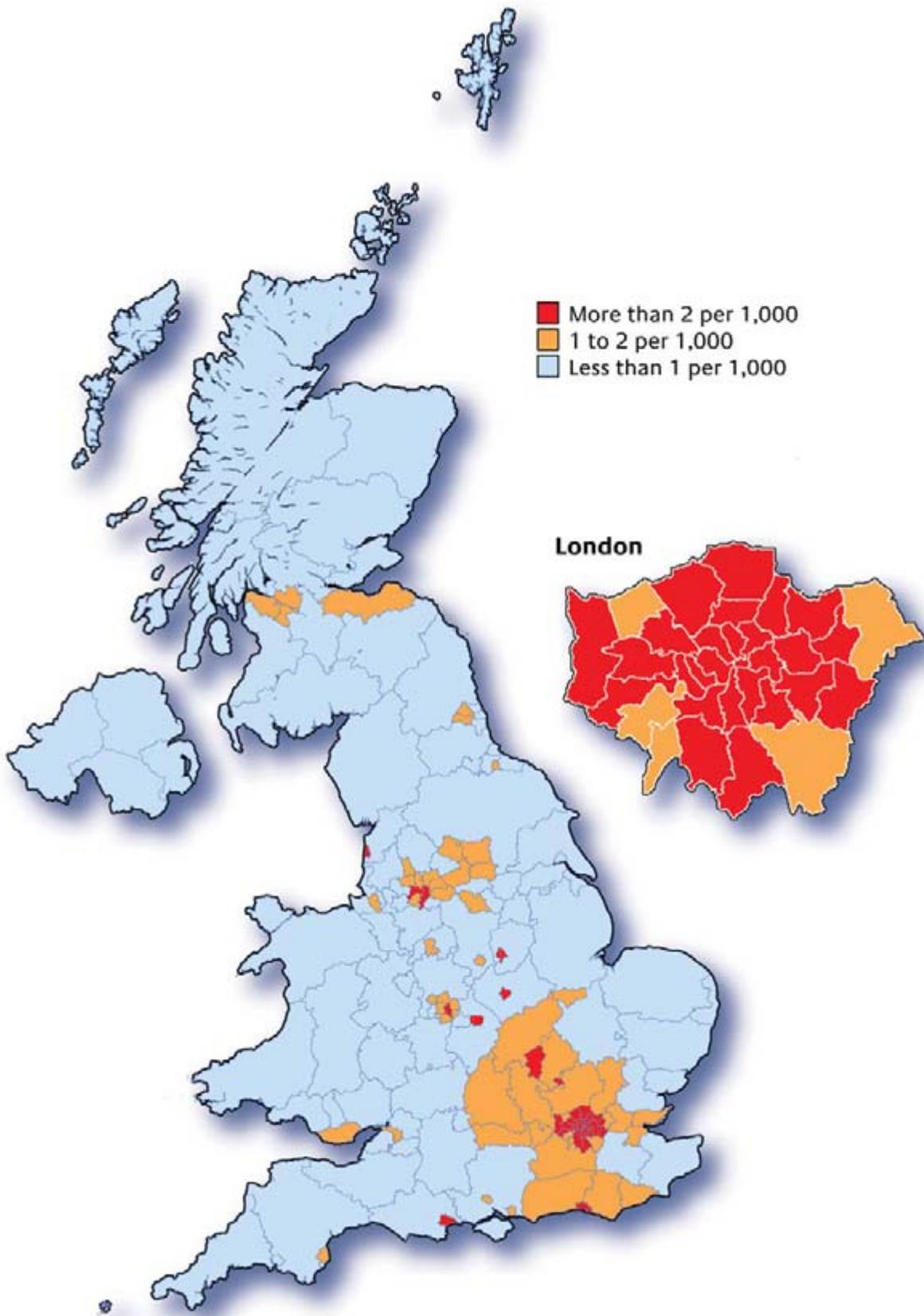
Figure 5: Quality of care, indicators for HIV patients in London: 2008



HIV and Tuberculosis co-infection

Given the association between tuberculosis and HIV, information on the level of co-infection is necessary for the planning and evaluation of both HIV and TB control and treatment. Among tuberculosis cases reported in 2008 for England, Wales and Northern Ireland, 6.7% (553/8,258) were known to be HIV infected. This was slightly less than the proportions observed between 2002-2006 (8.0-9.5%) and similar to that of 2007 (6.6%).

Figure 6: HIV-infected individuals accessing HIV care by area of residence in 2009: Rate per 1,000 aged 15-59 years



HIV home page
www.hpa.org.uk/hiv

Local level HIV and STI data: Sexual Health Profiles
www.hpa.org.uk/sexualhealthprofiles

Virus Reference Department
www.hpa.org.uk/ProductsServices/InfectiousDiseases/LaboratoriesAndReferenceFacilities/VirusReferenceDepartment/

Sexually Transmitted Bacteria Reference Laboratory
www.hpa.org.uk/cfi/stbrl/default.htm

National Study of HIV in Pregnancy and Childhood, University College London Institute of Child Health
www.nshpc.ucl.ac.uk/

Health Protection Scotland
www.hps.scot.nhs.uk/

Department of Health, Social Services and Public Safety
www.dhsspsni.gov.uk/

Public Health Wales
www.nphs.wales.nhs.uk/

Other useful links
BHIVA Guidelines for HIV testing
www.bhiva.org/cms1222621.asp

BHIVA Guidelines for HIV treatment
www.bhiva.org/cms1222226.asp

BHIVA Guidelines for management of HIV infection in pregnant women
www.bhiva.org/cms1221368.asp

Bibliography

1. Presanis AM, Gill ON, Chadborn TR, Hill C, Hope V, Logan L, Rice BD, Delpech VC, Ades AE, De Angelis D. Insights into the rise in HIV infections in England and Wales from 2001 to 2008 from a Bayesian synthesis of prevalence evidence. *AIDS* 2010.
2. Smith RD, Delpech VC, Brown AE, Rice BD. HIV transmission and high rates of late diagnoses among adults aged 50 years and over. *AIDS* 2010 24:2109-2115.
3. Health Protection Report. New guidelines on HIV testing in high-prevalence areas. (2008). Viewed 4th November 2010. www.hpa.org.uk/hpr/archives/2008/hpr3808.pdf
4. Health Protection Agency. Time to test for HIV: Review of expanded HIV testing in healthcare and community services in England. (2010).

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