



Public Health
England

HIV in the United Kingdom: 2013 Report

~100,000 people living with HIV in the UK in 2012



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About Public Health England

Public Health England's mission is to protect and improve the nation's health and to address inequalities through working with national and local government, the NHS, industry and the voluntary and community sector. PHE is an operationally autonomous executive agency of the Department of Health.

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Contents

About Public Health England, authorship, suggested citation	2
Contents	3
Key findings	4
Number of people living with HIV	7
New HIV diagnoses, recent infection and incidence	8
Men who have sex with men	9
Heterosexual men and women	11
People who inject drugs and other groups	12
Late diagnoses, AIDS and deaths	13
HIV testing	16
Antenatal screening	18
HIV screening in sexual health services	18
Unlinked anonymous testing in sexual health clinics	18
HIV screening in blood donors	18
HIV and STI co-infections	19
HIV and TB co-infections	19
Quality of HIV care	20
Number of people accessing HIV care	20
Linkage to care within a year of diagnosis	20
Retention in HIV care	21
Treatment coverage	22
Impact of treatment on HIV prevention in the UK	22
HIV and health inequality	24

Key findings

An estimated 98,400 (93,500-104,300) people were living with HIV in the UK in 2012. The overall prevalence was 1.5 per 1,000 population (1.0 in women and 2.1 in men). An estimated 21,900 people living with HIV were unaware of their infection in 2012.

There were 490 deaths among people with an HIV infection in 2012, a continuation of the decline since the introduction of antiretroviral therapy (ART). Those diagnosed with HIV late (CD4 count <350 cells/mm³) continued to have a ten-fold increased risk of death in the first year of diagnosis compared to those diagnosed early.

People living with HIV can expect a near normal life span and better clinical outcomes if they are diagnosed promptly.

Earlier treatment must be combined with a substantial increase in the frequency of HIV testing among groups most affected. Between 2011 and 2012 there was a small decline in the proportion of people unaware of their HIV infection (25 per cent to 22 per cent), and this needs to be accelerated.

Recent national and international treatment guidelines recommend early treatment to prevent onward transmission. 'Treatment as prevention' is unlikely to be sufficient to reduce HIV transmission in the UK since it is estimated that two-thirds of HIV positive people with detectable viral loads are unaware of their infection.

Men who have sex with men (MSM)

MSM remain the group most affected by HIV with 47 per 1,000 living with the infection. This is equivalent to an estimated 41,000 (37,300-46,000) MSM living with HIV in 2012, of whom 7,300 (18%; 3,700-12,300) were unaware of their infection (18%).

Over the past decade, an estimated 2,400 (1,600-4,100) MSM acquired HIV infection each year. New diagnoses among MSM continued to rise and reached an all time high of 3,250 in 2012. This reflects both on-going high levels of HIV transmission and an increase in HIV testing.

Heterosexual men and women

Black-African men and women were the second largest group affected by HIV with 38 per 1,000 living with the infection (26 per 1,000 in men and 51 per 1,000 in women). Of the 31,800 (29,700-34,600) black-African men and women living with HIV, 23% remained unaware of their infection in 2012.

Over the past five years, an estimated 1,000 black-African men and women probably acquired HIV in the UK annually.

HIV testing

The proportion of people diagnosed late has declined over the past decade from 58% (3,150) in 2003 to 47% (2,990) in 2012. Among MSM, the proportion of late diagnoses reduced from 42% to 34%, but the number of late diagnoses rose from 900 to 1,100. Among heterosexuals, the proportion diagnosed late reduced from 65% to 58% with the absolute number halving from 3,180 to 1,620.

Almost half of MSM newly diagnosed with HIV between 2010 and 2012 had their diagnosis made at their first HIV test at that sexual health clinic, an indicator that many MSM who require an HIV test have yet to seek one.

The number of HIV tests performed in sexual health services in England increased to 900,000 in 2012. However, significant improvements in test coverage are necessary since 29% (361,370/1,263,980) of clinic attendees did not have a test.

Overall, 64 of 326 (20%) local authorities across England had a diagnosed HIV prevalence of ≥ 2 per 1,000 population aged 15-59 years, the threshold for expansion of testing policies beyond the routine. Eighteen of the 20 local authorities with the highest prevalence were in London. Further efforts are needed to commission expanded HIV testing in these areas.

Co-infection with other sexually transmitted infections

In 2012, 29% of MSM newly diagnosed with HIV had a concurrent acute STI (chlamydia, gonorrhoea and/or syphilis), compared to 11% of heterosexual men and 9% of women.

Quality of HIV care

A total of 77,610 people (770 children and 76,840 adults) received HIV care in 2012, a 5% increase on the previous year. This is more than double the number of people accessing care a decade ago (35,970). One in four adults living with diagnosed HIV were aged 50 years and over.

Nearly all (97%) 6,360 people newly diagnosed in 2012 were linked to HIV care within three months of diagnosis. Integration into care was prompt across all population groups regardless of age, sex, ethnicity, sexual orientation and area of residence.

In 2012, the annual retention rate and treatment coverage among all persons seen for HIV care were high at 95% and 85%, respectively. In England, key clinical indicators are monitored locally through the HIV Clinical Dashboard to maintain high standards of HIV care. (<http://www.specialisedservices.nhs.uk/info/specialised-services-quality-dashboards>).

HIV testing and safer sexual behaviour to reduce risk:

1. Early diagnosis of HIV enables better treatment outcomes and reduces the risk of onward transmission. Have an HIV test if you think you may have been at risk. Get tested regularly for HIV if you are one of those most-at-risk:
 - a. **Men who have sex with men** are advised to have an HIV and STI screen at least annually, and every three months if having unprotected sex with new or casual partners.
 - b. **Black-African men and women** are advised to have an HIV test and a regular HIV and STI screen if having unprotected sex with new or casual partners.
2. Always use a condom correctly and consistently, and until all partners have had a sexual health screen.
3. Reduce the number of sexual partners and avoid overlapping sexual relationships.
4. Unprotected sex with partners believed to be of the same HIV status (serosorting) is unsafe. For the HIV positive, there is a high risk of acquiring other STIs and hepatitis. For the HIV negative, there is a high risk of HIV transmission (a fifth of HIV positive MSM are unaware of their infection) as well as of acquiring STIs and hepatitis.

How to get an HIV test:

1. Ask your GP for an HIV test – nowadays there is no need for lengthy discussion about the test, it just involves having blood taken, or even a finger prick.
2. Go to an open access sexual health clinic (some clinics in large cities are offering 'fast-track' HIV testing) or go to a community testing site (<http://www.aidsmap.com/hiv-test-finder>).
3. Ask online for a self-sampling kit (<http://www.tht.org.uk/sexual-health/HIV-STIs/HIV-AIDS/HIV-postal-test>).

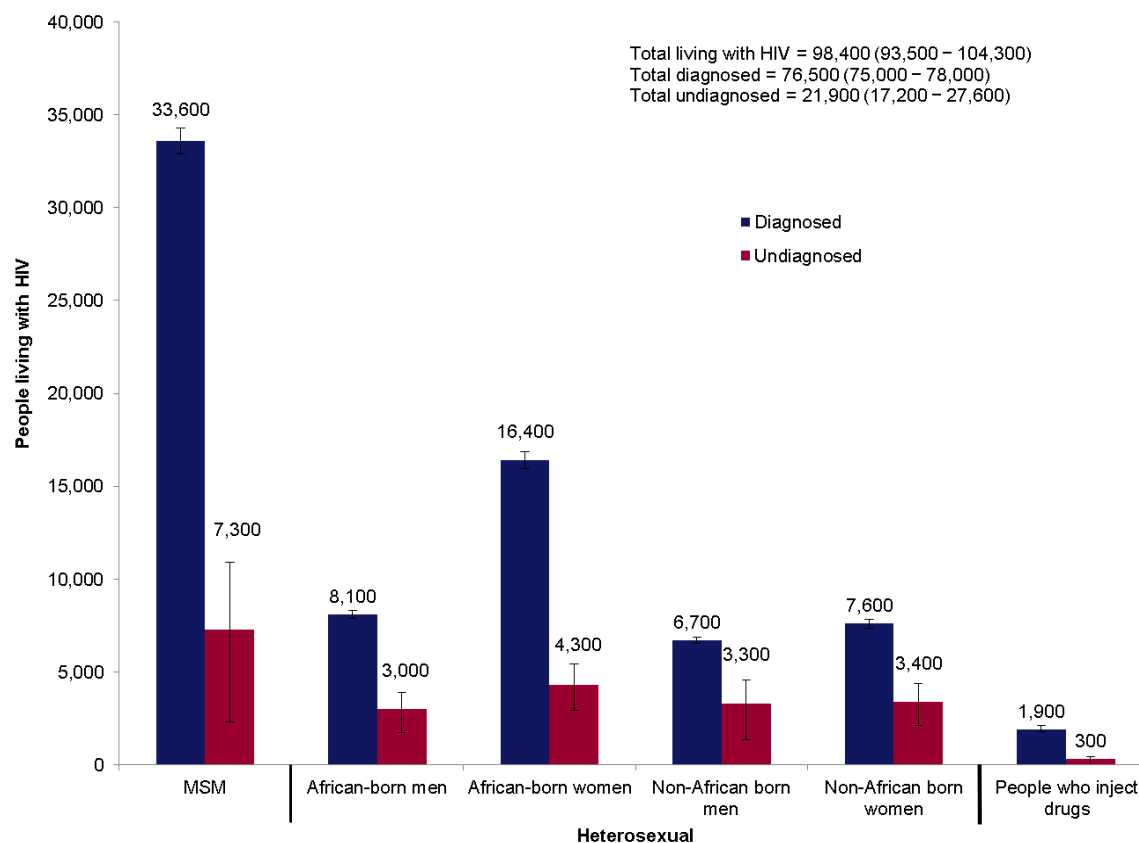
Number of people living with HIV

The introduction of effective antiretroviral therapy (ART) in 1995 transformed HIV from a fatal infection to a chronic, manageable life-long condition. Over the last decade, the number of people living with HIV has risen year-on-year due to the ageing cohort of diagnosed people, and the continued high number of new infections. In the UK, the epidemic is largely concentrated among men who have sex with men (MSM) and black-African heterosexual men and women.

In 2012, there was an estimated 98,400 (95% credible interval 93,500-104,300) people living with HIV infection. Approximately one in five (21,900, 22% (18-27%)) were unaware of their infection (Figure 1, Appendix 1). The prevalence of HIV in 2012 was estimated to be 1.5 per 1,000 (1.5-1.6) population of all ages, 2.1 per 1,000 (1.9-2.2) in men and 1.0 per 1,000 (0.99-1.1) in women.

An estimated 41,000 (37,300-46,000) MSM were living with HIV in 2012, of whom 7,300 (3,700-12,300) were unaware of their infection (18%). Assuming that 3.4% of the adult male population are MSM [1], the overall prevalence of HIV in this population was one in 20 (47 per 1,000). This was higher in London with nearly one in 12 (80 per 1,000) living with HIV compared to one in 34 (29 per 1,000) elsewhere in the UK.

Figure 1: Estimated number of people living with HIV (both diagnosed* and undiagnosed): UK, 2012



*Estimated numbers diagnosed differ slightly from the observed numbers diagnosed and accessing care as they are generated using Bayesian modelling techniques.

An estimated 53,000 (50,000-56,400) heterosexual men and women were living with HIV, of whom 11,100 (10,200-12,400) were African-born men and 20,700 (19,500-22,200) were African-born women. Based on data from England and Wales, HIV prevalence in the UK was 26 per 1,000 among black-African men and 51 per 1,000 among black-African women. The effectiveness of the UK antenatal screening programme has resulted in lower rates of undiagnosed infection among heterosexual women. A higher proportion of heterosexual men were undiagnosed with one in three heterosexual men (30%, 24-37%) compared to one in four (24%, 21%- 28%) heterosexual women.

An estimated 2,200 (2,000–2,500) people who inject drugs (PWID) were living with HIV in the UK, of whom 300 (200-600) were undiagnosed. The prevalence of HIV among this population was 13 per 1,000 (95% C.I. 9.4 to 17 per 1,000) in England, Wales and Northern Ireland in 2012 [2]. Among people who injected drugs for the first time in the preceding three years, HIV prevalence was 10 per 1,000 (95% C.I. 2.9 to 27 per 1,000) in 2012. This is similar to the prevalence found in 2011, indicating transmission is on-going, albeit at a low level.

In 2011, the estimated HIV prevalence in pregnant women in England was 2.2 per 1,000; again this was highest in London with 3.5 per 1,000. HIV prevalence was highest among sub-Saharan African-born pregnant women with 23 per 1,000. This compares to an HIV prevalence of 0.5 per 1,000 among UK-born pregnant women.

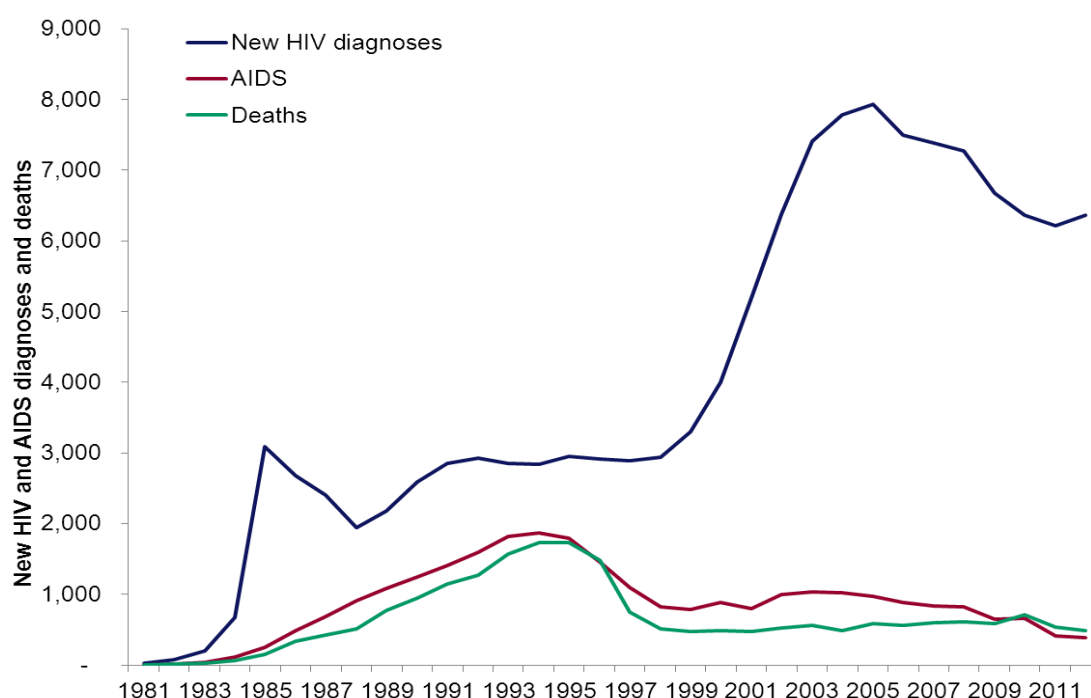
New HIV diagnoses, recent infection and incidence

In 2012, 6,360 people (4,560 men and 1,800 women) were newly diagnosed with HIV in the UK, a slight increase on 6,220 diagnoses in 2011. Like the previous year, this is an estimated new HIV diagnosis rate of 1.0 per 10,000 population^a (1.5 per 10,000 men and 0.57 per 10,000 women) (Appendices 2, 3 and 4). While overall trends show a decline in new HIV diagnoses since 2005 (7,930) (Figure 2), this is largely due to a decrease in the number of diagnoses reported among heterosexuals born in countries with high HIV prevalence. The number of new diagnoses among persons born in Africa declined from 42% in 2008 to 29% in 2012.

Overall, 14% (390/2,880) had a recent infection (in the previous six months) at diagnosis in England, Wales and Northern Ireland (Appendix 5).^b

^a Calculated using 2012 mid-year population estimates from ONS.

^b The Recent Infection Testing Algorithm (RITA) incorporates results from an HIV antibody assay modified for the determination of HIV avidity as well as clinical biomarkers (CD4 cell count, antiretroviral therapy and AIDS at diagnosis) to distinguish recently acquired from long-standing HIV infection. In 2012, 48% of new HIV diagnoses in England, Wales and Northern Ireland were tested for recent infection. (Appendix 5)

Figure 2: Annual new HIV and AIDS diagnoses and deaths: UK, 1981-2012

Men who have sex with men

There has been a steady increase in the number of new HIV diagnoses among MSM. This number surpassed the number of new diagnoses among heterosexuals in 2011. After adjusting for missing exposure data, diagnoses among MSM accounted for 3,250 (51%) of new diagnoses in 2012, the highest number ever reported. London had the highest number of new diagnoses (1,450), followed by the PHE regions North of England (470), South of England (410) and the Midlands and East of England (370). Scotland, Wales and Northern Ireland had 140, 50 and 60 diagnoses in 2012 respectively.^c The median age at diagnosis among MSM was 34 years, and one in nine MSM were diagnosed at the age of 50 years or over.

New diagnoses figures are difficult to interpret in isolation. The rise in diagnoses among MSM may be explained by both an increase in HIV testing and on-going high rates of transmission. The number of MSM that had an HIV test in sexual health services in England increased by 13% from 64,270 in 2011 to 72,710 in 2012, while in London the increase was 19% (from 28,640 in 2011 to 33,980, in 2012). However, estimations of HIV incidence using a back-calculation analysis [3] indicate that HIV transmission among MSM remained high with 2,300-2,500 new infections annually and 7,200 MSM undiagnosed in 2012, with little change over the last decade (Figure 3). The large majority of new infections stem from MSM unaware of their infection [4].

In 2012, new diagnoses among MSM increased by 10% from 2,960 in 2011 and in London, by 14% from 1,400 in 2011 to 1,600 in 2012 (Figure 4). The proportion of new diagnoses that were probably recently acquired infections among MSM in England, Wales and Northern Ireland in 2012 was 19% (Appendix 5); in London this was 22%.

^c Regional data not adjusted for missing risk information.

Figure 3: Back-calculation estimate of HIV incidence and prevalence of undiagnosed HIV infection among MSM: UK, 2003-2012

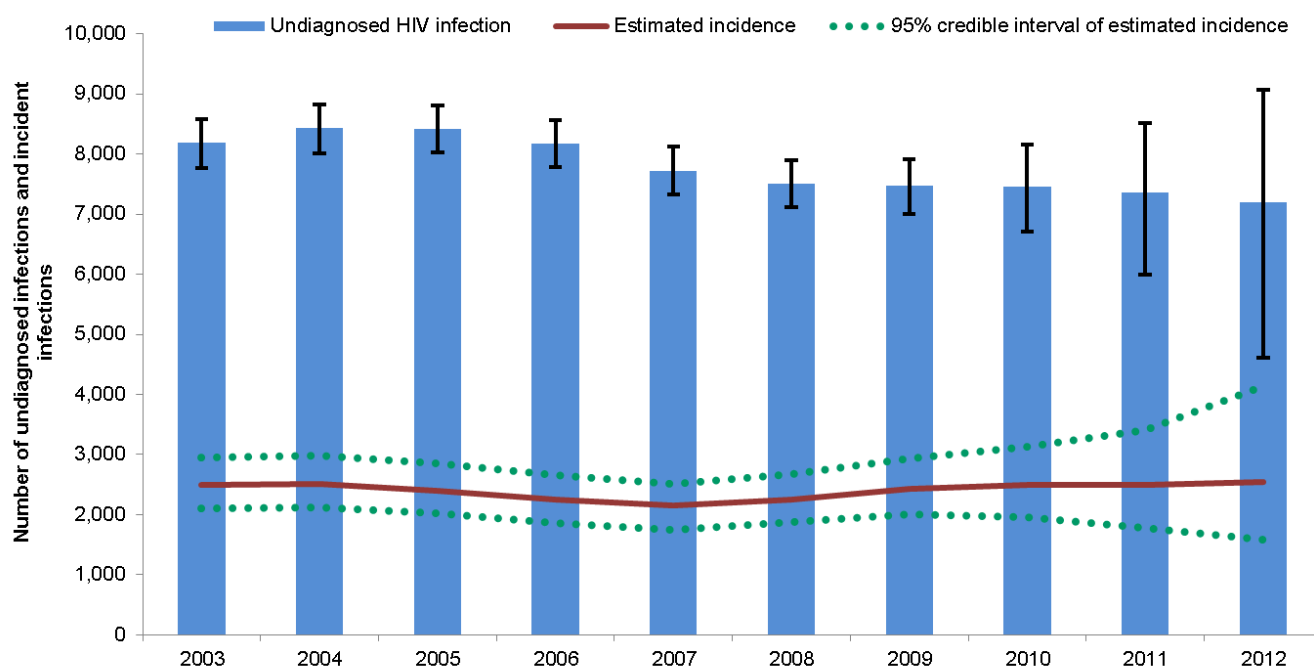
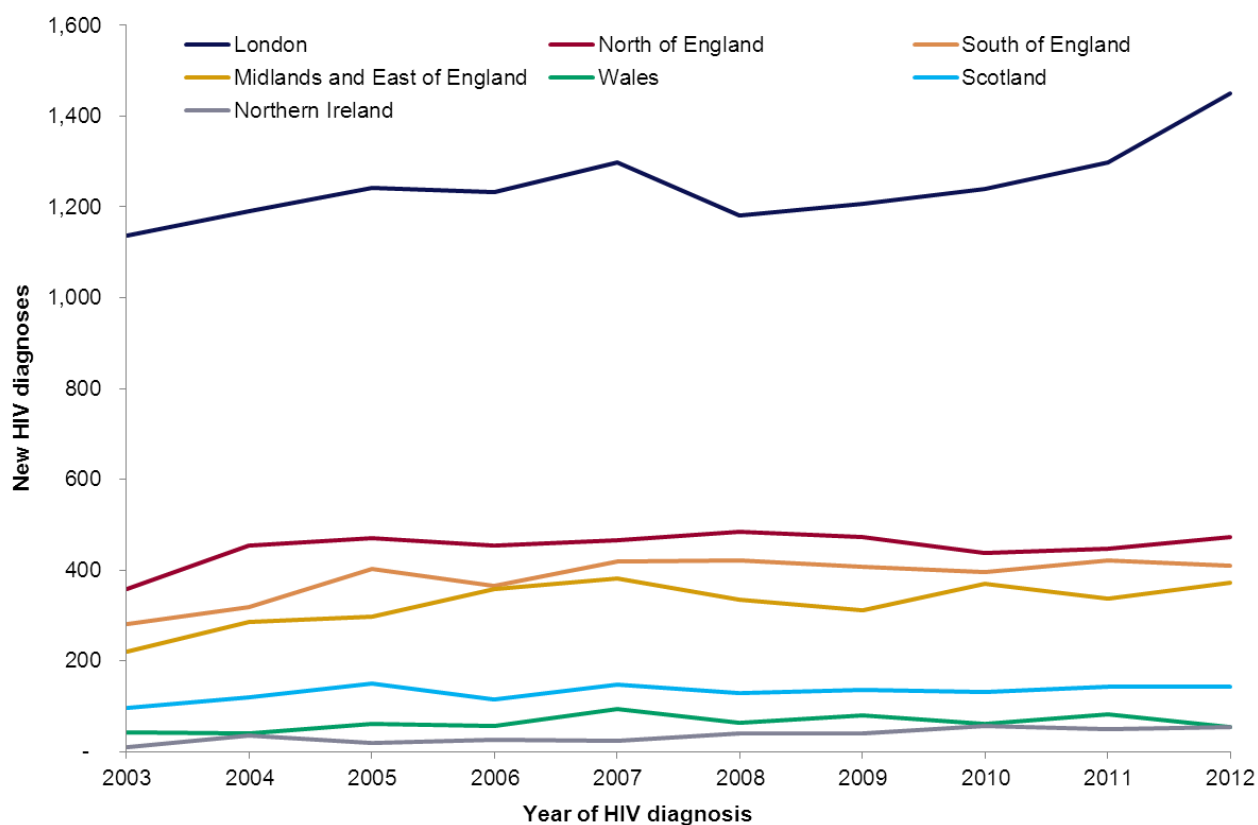


Figure 4: Geographical trends of new HIV diagnoses among MSM: UK, 2003-2012



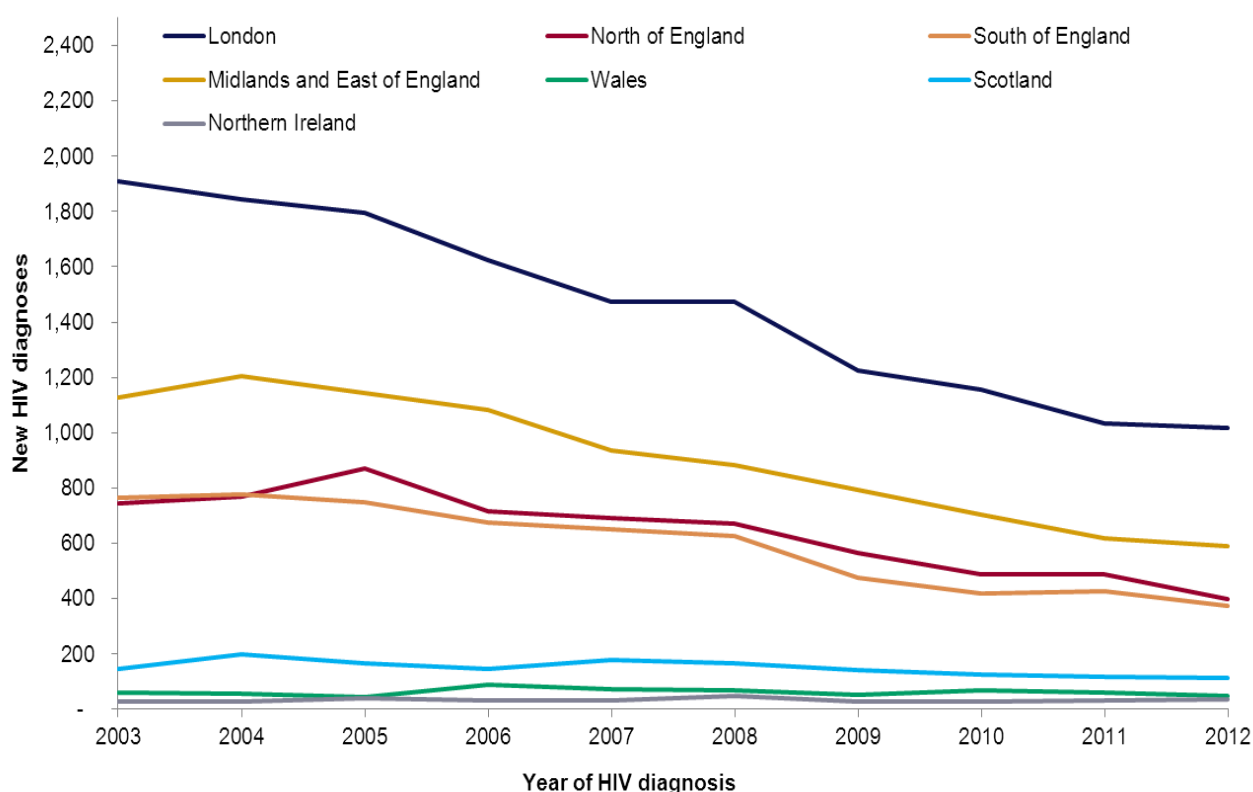
Heterosexual men and women

People who acquired their infection through heterosexual contact were the second largest group of people newly diagnosed with HIV in 2012. After adjusting for missing risk information, they accounted for 2,880 (45%) of new HIV diagnoses. Over the last decade, the number of new diagnoses among heterosexuals declined in England, especially in London. In 2012, numbers were highest in London (1,020; 35%) followed by the PHE regions Midlands and the East of England (590) and the North (400) and South of England (370).^d In Scotland, Wales and Northern Ireland, the numbers of new diagnoses acquired heterosexually were lower, with 110, 50 and 40, respectively (Figure 5).

In 2012, a higher number of heterosexual women (1,530) than men (1,050) were newly diagnosed with HIV. The median age of diagnosis was 39 years overall; 42 years among men and 37 years among women.

The proportion of new diagnoses that were recently acquired HIV infections was 6% (30/440) among heterosexual men and 8% (50/640) among women.

Figure 5: Geographical trends of new HIV diagnoses among heterosexuals: UK, 2003-2012

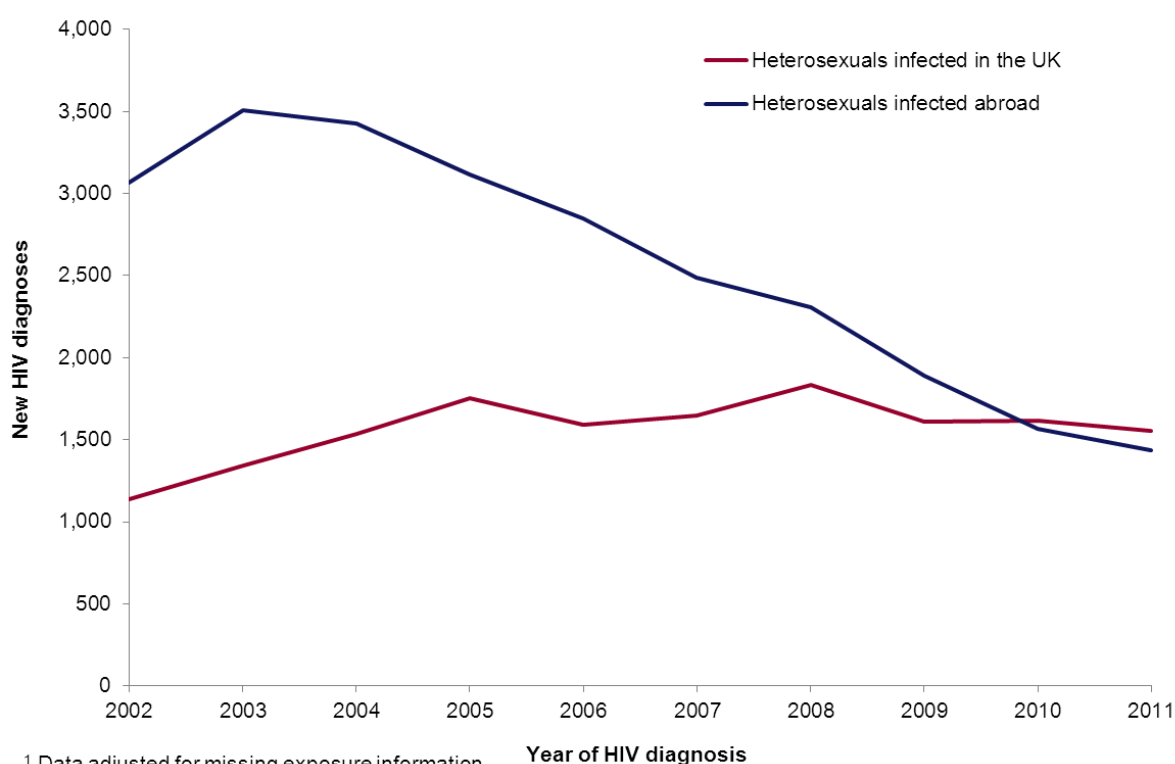


^d Regional data not adjusted for missing risk information.

A method to assign probable country of infection using information on CD4 decline rates suggests approximately half (52%, 1,560/2,990 in 2011) of all infections among heterosexuals were probably acquired in the UK and that this proportion has increased over recent years, up from 27% (1,100/4,090) in 2002 (Figure 6). [5] Conversely, the number of infections acquired abroad has more than halved, with 1,320 in 2011 compared to 2,990 in 2002. This has resulted in an overall decrease in the number of diagnoses among heterosexuals over the past decade.

Approximately half of heterosexuals born abroad (48%) acquired their infection in the UK. This highlights the need for further prevention efforts for those born abroad, particularly in sub-Saharan African countries.

Figure 6: New HIV diagnoses among heterosexuals by probable country of infection: UK, 2002-2011¹



People who inject drugs and other groups

The number of infections acquired through injecting drug use and through other routes has remained low (Figure 7). After adjusting for missing data, 120 new HIV diagnoses in 2012 were infections acquired through injecting drug use and 110 through other means such as mother-to-child transmission and through exposure to contaminated blood products abroad. In 2012, 52% of new diagnoses among people who inject drugs were among people born abroad.

Figure 7. New HIV diagnoses* among people who inject drugs by country of birth: UK, 2003-2012



Late diagnoses, AIDS and deaths

Late diagnosis is the most important predictor of morbidity and one-year mortality among people with HIV infection. Over the last decade, 81% of the 2,000 AIDS-related deaths in England and Wales were attributable to late diagnosis [6]. A number of national HIV testing guidelines, including expanded testing initiatives, have been introduced to tackle late diagnosis [7-9] and it is a key indicator of the Public Health Outcomes Framework.

A late diagnosis is defined as having a CD4 count <350 cells/mm³ within three months of diagnosis; <350 cells/mm³ is the threshold at which ART should begin. In 2012, 47% of new diagnoses (2,990) were diagnosed late (CD4 data were available for 75% of diagnoses). Twenty-eight percent (1,770) were severely immunocompromised at diagnosis having a CD4 count <200 cells/mm³.

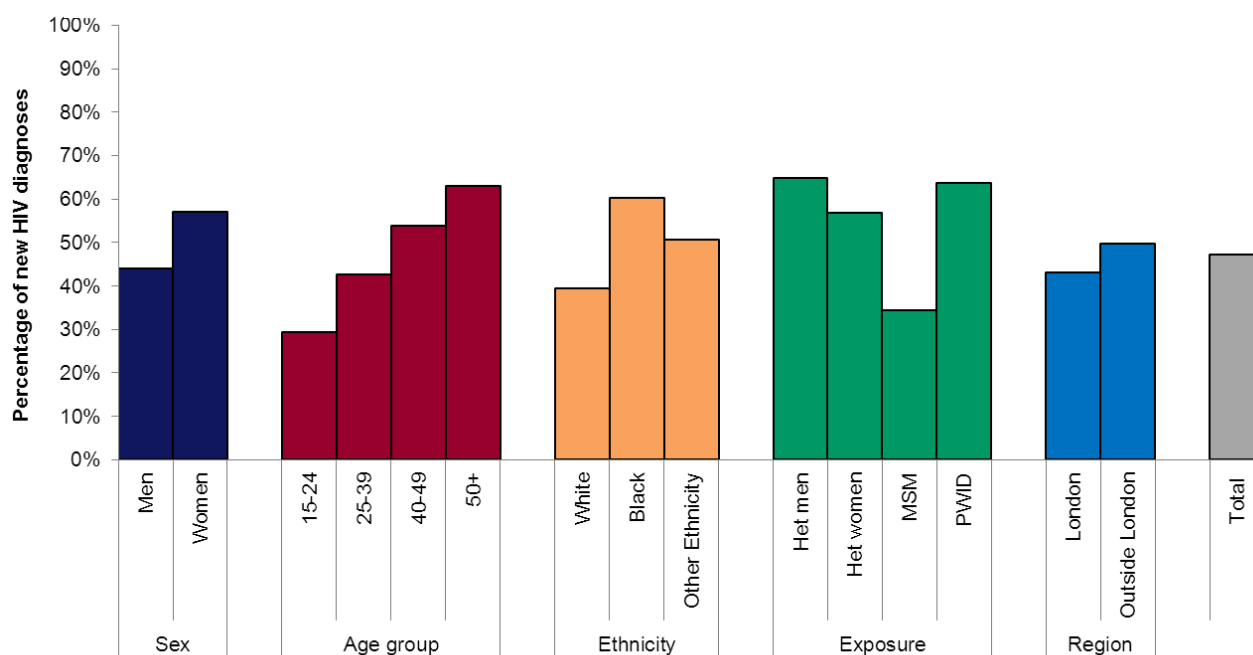
Late diagnosis was highest among heterosexuals, with two-thirds of men (65%; 750/1,160) and over half of women 57% (860/1,730) diagnosed late (Figure 8, Appendix 8). In 2012, the lowest proportion of late diagnosis was among MSM, with 34% (1,110/3,250) diagnosed late. This is a result of more frequent testing among MSM. A higher proportion of older adults, aged 50 years and over, were diagnosed late compared to adults aged under 50 (63% vs. 44%).

The proportion of late diagnosis was particularly high among black-African and black-Caribbean heterosexual men (both 66%) followed by white heterosexual men (47%). Among women, the proportion diagnosed late was highest among black-African (61%), followed by black-Caribbean (47%) and white (44%) women.

Late diagnosis varied geographically, with highest rates observed in the Midlands and the East of England (58%) followed by the North of England (50%), the South of England (49%) and London (43%).

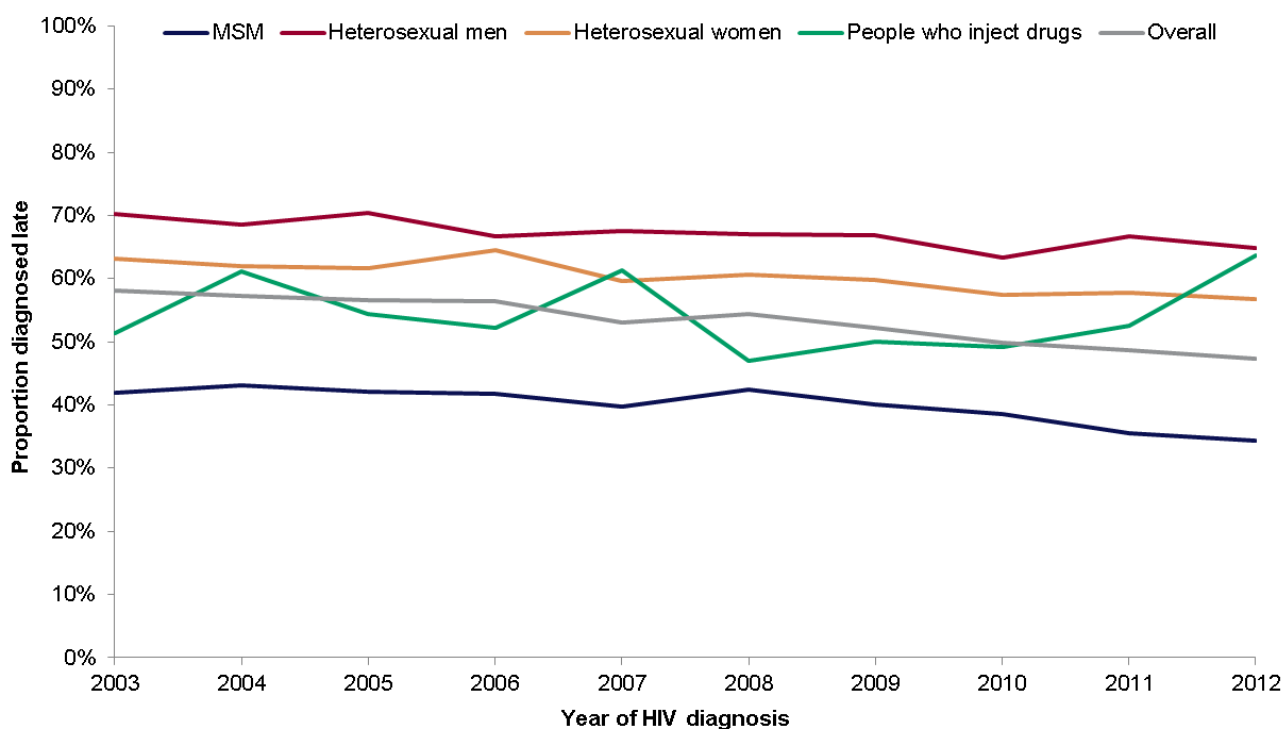
Over the last decade, the proportion of people diagnosed late has declined significantly, from 58% (4,300/7,710) in 2003 to 47% (2,990/6,360) in 2012 ($p < 0.0001$ for trend), and across all exposure groups (Figure 9). This decline was steeper among MSM, with 42% (920/2,180) in 2003 compared to 34% in 2012; however the number of late diagnoses rose (from 900 to 1,100). Among heterosexuals the proportion diagnosed late reduced from 65% to 58% with the number halving from 3,180 to 1,610.

Figure 8: Late diagnosis*: proportion of adults diagnosed with a CD4 count <350 cells/mm³: UK, 2012



* CD4 <350 cells/mm³ within three months of diagnosis

Figure 9: Trends in late diagnosis* by exposure group: UK, 2003-2012



* CD4 <350 cells/mm³ within three months of diagnosis

The number of deaths and AIDS diagnoses has steadily declined over the past decade, with the latter decreasing from 1,030 in 2003 to 390 in 2012, the vast majority were among people presenting late. The most common AIDS-defining illnesses among the 1,470 diagnoses reported between 2010 and 2012 were: *Pneumocystis jirovecii* pneumonia (33%; 590), *Mycobacterium tuberculosis* (TB) (15%; 280), Kaposi's sarcoma (7%; 130) and oesophageal candidiasis (9%; 160). In 2012, there were 490 deaths among people diagnosed with HIV (370 men and 120 women) (Appendix 3); over half (55%; 270) were aged 50 years or older.

All-cause mortality among people with HIV aged 15-59 years in England and Wales between 2002 and 2012 declined from 15 per 1,000 in 2002 to 4.5 per 1,000 in 2012 (Figure 10). This compares to a mortality rate of 1.5 per 1,000 in the general population in 2012. Mortality rates were higher among men (4.9 per 1,000) compared to women (3.8 per 1,000); in the general population, this was 1.8 per 1,000 and 1.2 per 1,000, respectively for the same year.

Mortality rates were similar among MSM and heterosexuals diagnosed with HIV in 2012, with 3.4 per 1,000 among MSM and 3.5 per 1,000 among heterosexuals. People diagnosed with HIV who injected drugs had the highest rates of death, with 18.4 per 1,000; this compares to 2.0 per 1,000 among people who inject drugs who are not infected with HIV, based on data from 2008. [6]

While AIDS-related mortality has declined from 11 per 1,000 in 1999 to 2.6 per 1,000 in 2008 ($p < 0.001$) [6], 43% (1,990/4,600) of deaths among HIV-diagnosed adults were AIDS-related in 2012.

Late presenters continued to have high rates of morbidity and mortality in the era of ART; there was a ten-fold increase in the risk of death within the first year of diagnosis, compared to those diagnosed with a CD4 count >350 cells/mm³ (Figure 11) [10]. One-year mortality is particularly marked for people aged 50 years and over at diagnosis, where more than one in 10 diagnosed late died within a year. [11]

Figure 10: Trends in all-cause mortality rates among people diagnosed with HIV: England and Wales, 2002-2012

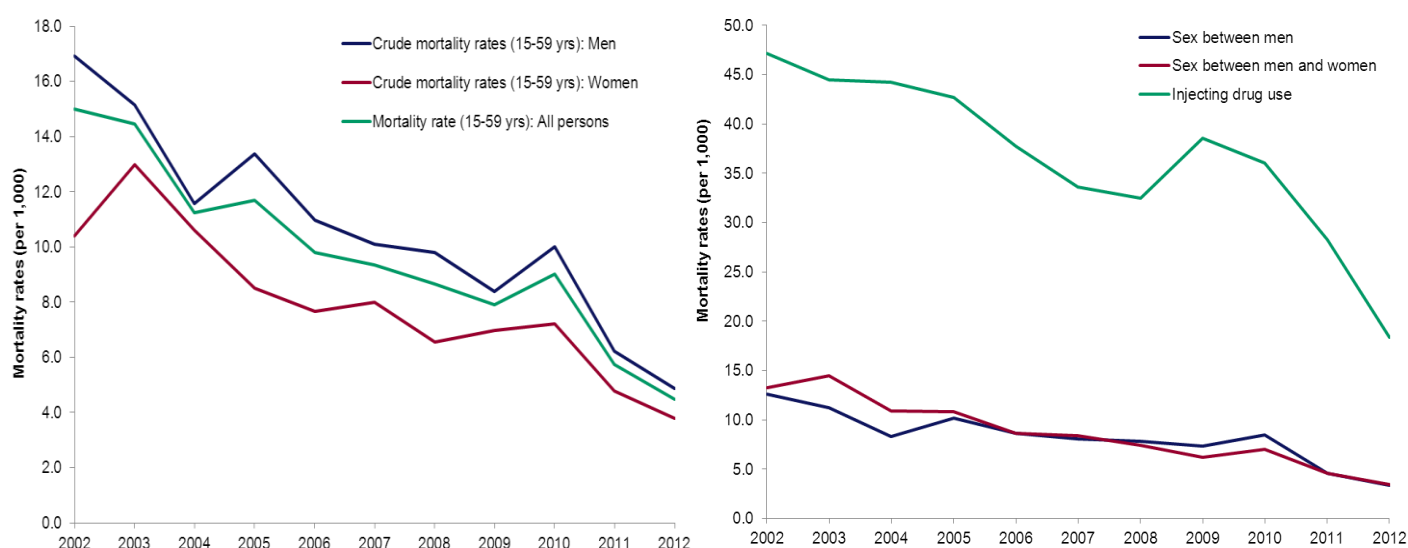
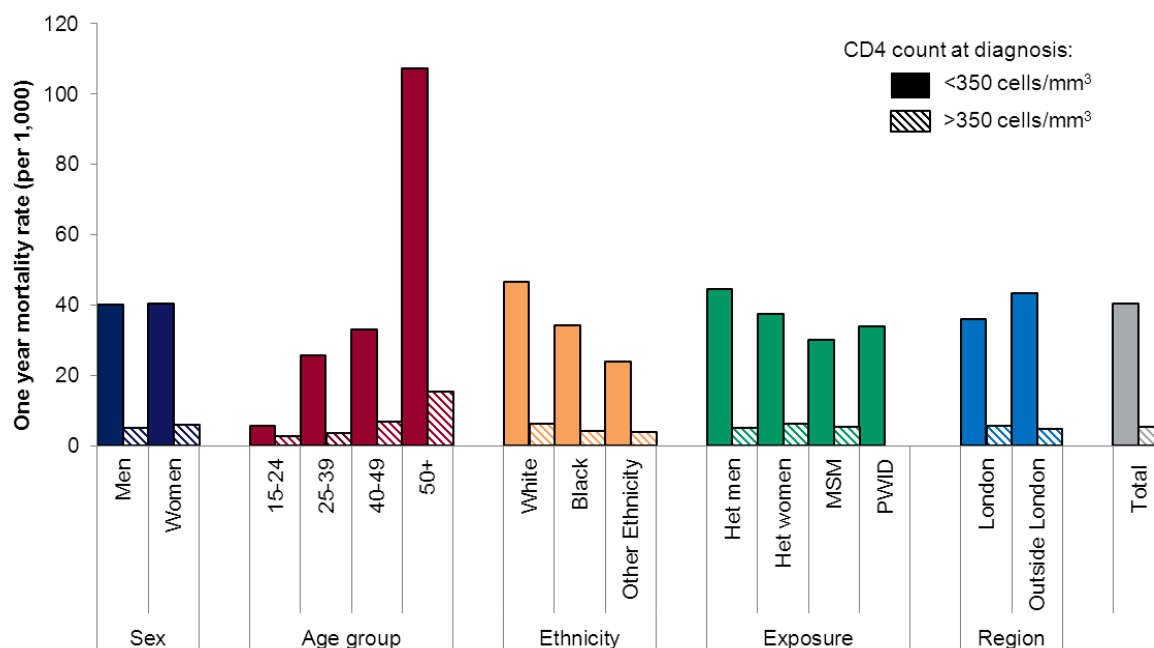


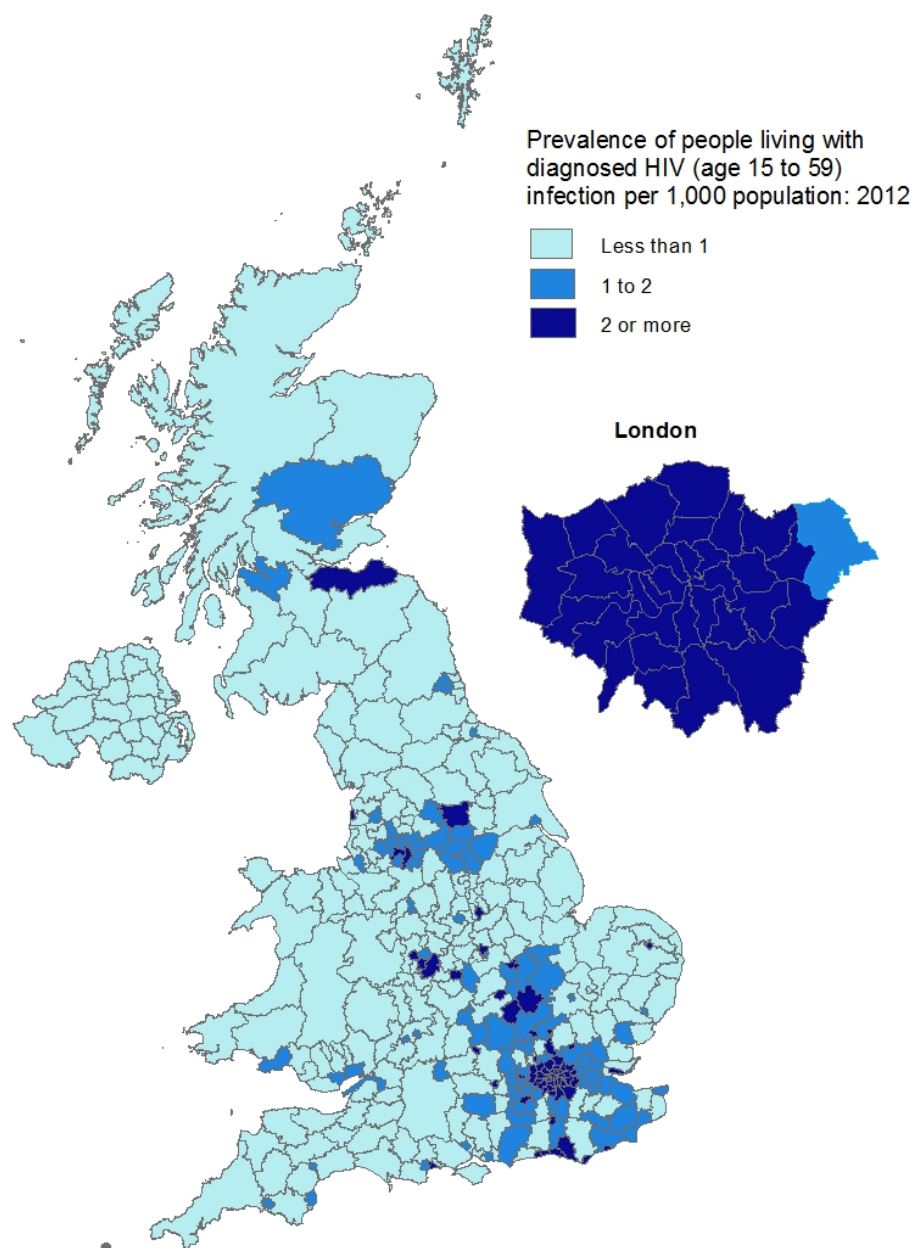
Figure 11: One-year mortality among adults newly diagnosed with HIV by CD4 count at diagnosis: UK, 2010



HIV testing

UK national guidelines recommend expanding HIV testing beyond specialised sexual health services to people admitted to a general hospital ward and new registrants to general practice in areas with a diagnosed HIV prevalence of ≥ 2 per 1,000 population aged 15-59 years [12]. In 2012, 64 of 326 (20%) local authorities (LAs) had a diagnosed prevalence above this threshold. All but one of the 33 London LAs had a prevalence above this threshold. Outside London, the five LAs with the highest prevalence, and above ≥ 2 per 1,000, were: Brighton and Hove, Salford, Manchester, Blackpool and Luton (Figure 12). (See Appendix 9 for full listing.)

Figure 12: Prevalence of diagnosed HIV infection by region of residence among population aged 15-59 years: UK, 2012



A synthesis of data from eight testing pilot projects undertaken in hospital services and general practices across England demonstrated that the offer and recommendation of a routine HIV test was feasible and acceptable to both patients and staff. [13] In June 2012, an audit was undertaken among 40 sexual health commissioners for areas with higher diagnosed HIV prevalence. Findings indicate that 31% (11/35) had commissioned HIV testing for some new patient registrations in general practice, but only 14% (5/35) had commissioned routine HIV testing as part of general medical admissions to hospitals. [14]

Community surveys of MSM have shown an increase in the percentage of people who have had an HIV test since the early 2000s. In 2011, 58% (640/1,110) reported having had an HIV test in the last year, an increase from 48% in 2006 (840/1,760) [15;16]. However, 8% of MSM reported never having tested. The uptake of testing among black-African men and women has remained low. [17]

Antenatal screening

In 2012, 675,800 pregnant women were screened for HIV in England, comprising an uptake rate of 98%. Of these, 0.19% (1,310/675,800) were positive and one in 2,500 (0.04%) were newly diagnosed. Of all children born to HIV-infected women in the UK between 2005 and 2011, an estimated 2% became infected with HIV. However, the transmission rate of HIV among children born to women with diagnosed HIV infection was under 1%. [18]

HIV screening in sexual health services

HIV testing continued to increase in 2012, with 902,610 HIV tests performed in sexual health services in England. Overall, 71% (902,610/1,263,980) of attendees were tested; a higher proportion of MSM (84%; 72,710/86,360) were tested compared to heterosexual men (76%; 355,460/469,450) and women (67%; 454,930/677,620) (Appendix 10). The number of MSM having an HIV test in the UK increased by 13%, from 64,270 in 2011 to 72,710 in 2012, while in London the increase was 19% (from 28,640 to 34,000). Among heterosexuals, the number of tests rose by 6%, from 815,450 in 2011 to 863,820 in 2012, with a 12% increase in London from 230,040 to 256,650.

Not all sexual health clinic attendees were offered or accepted an HIV test at every visit; in 2012, of the 1,568,010 episodes of care among people not previously diagnosed with HIV, only 79% (1,238,340) included the offer of an HIV test. Nearly one in five people (19%, 234,510) declined a test (Appendix 11). A higher proportion of heterosexual men (83%) compared to women (78%) were tested, with uptake highest among MSM (94%).

Between 2010 and 2012, 49% of MSM newly diagnosed were diagnosed at their first HIV test at that clinic, an indication that many MSM who require an HIV test have yet to seek one.

Unlinked anonymous testing in sexual health clinics

A new unlinked anonymous survey of undiagnosed HIV infection among sexual health clinic attendees is currently under implementation. This survey involves the collection of urine specimens and demographic data from men who declined an HIV test at their attendance and were not known to be positive. In 2012, leftover urine samples from 3,142 men attending 19 sexual health clinics were tested anonymously for HIV. Of those, 25 (0.8%) were HIV positive. These samples were tested for the presence of antiretrovirals, of which nine (36%) tested positive, indicating that the patient knew their status and chose not to disclose it at that visit. Excluding these patients, the prevalence of undiagnosed infection was 0.51% (16/3,133) among men not having an HIV test and therefore leaving the clinic undiagnosed. The highest prevalence of undiagnosed HIV infection was observed among MSM, whom among 3.6% not having an HIV test had an undiagnosed infection.

HIV screening in blood donors

Since 1985, all blood donors have been screened for HIV infection to prevent onward transmission. There has been no known case of HIV acquisition through blood transfusion in the UK since 2002. In the UK in 2012, 15 donors tested positive for HIV infection at screening,

representing 0.6 detected infections per 100,000 donations. The majority of infections were detected among men (11/15) and were probably infected through heterosexual transmission (8/12). The majority were among repeat donors, most of whom had probably acquired their HIV infection within the previous three years (8/15). [19]

HIV and STI co-infections

People with HIV who have an STI are more likely to transmit HIV during sex. [20] Data from sexual health services show that, of the 4,220 people newly diagnosed with HIV in a sexual health clinic in England in 2012, nearly one in five (19%, n=810) were diagnosed with a concurrent acute STI (chlamydia, gonorrhoea and syphilis). This was highest among MSM, with 29% (600/2,070) having a concurrent STI, compared to 11% (110/940) among heterosexual men and 9% (90/1,080) among heterosexual women.

Acute STIs are more common among HIV-diagnosed MSM. In 2012, a total of 28,000 acute STIs were diagnosed among MSM attending sexual health services across England and, of these, 4,000 (14%) were among HIV-diagnosed men. This represents a rate of 13% for the 30,000 MSM living with diagnosed HIV, compared to a rate of 5% among MSM with a negative or unknown HIV status (2,400/470,000).

HIV and TB co-infections

In 2011, 300 people (equivalent to 4 per 1,000) living with HIV were diagnosed with tuberculosis (TB) in England, Wales and Northern Ireland, estimated through the linkage of national HIV and TB datasets. TB incidence rates are highest among people living with HIV born in a country with high prevalence of both infections, those diagnosed late and those not on treatment.

The incidence of TB among people living with HIV in 2010 was 10.9 per 1,000 among black-African heterosexuals compared to 3.1 per 1,000 among white heterosexuals.[21] Among people with HIV, TB incidence rates remained substantially higher than among the general population (0.14 per 1,000 population).

These data highlight the importance of the universal offer of an HIV test to all patients diagnosed with TB and screening for TB among people living with HIV. TB is one of the most common AIDS-defining illnesses in the UK and HIV testing should therefore be part of the routine workup tests for TB patients. The British HIV Association (BHIVA) also recommends latent TB infection (LTBI) testing for patients with HIV and a low CD4 count, or if they come from a sub-Saharan African country, where co-infections are more common. There are current plans to strengthen the coordination and quality of local LTBI screening pilots among migrants from high TB incidence countries. The LTBI screening algorithm includes an HIV test to aid interpretation if patients are also from a high HIV prevalence country.[22]

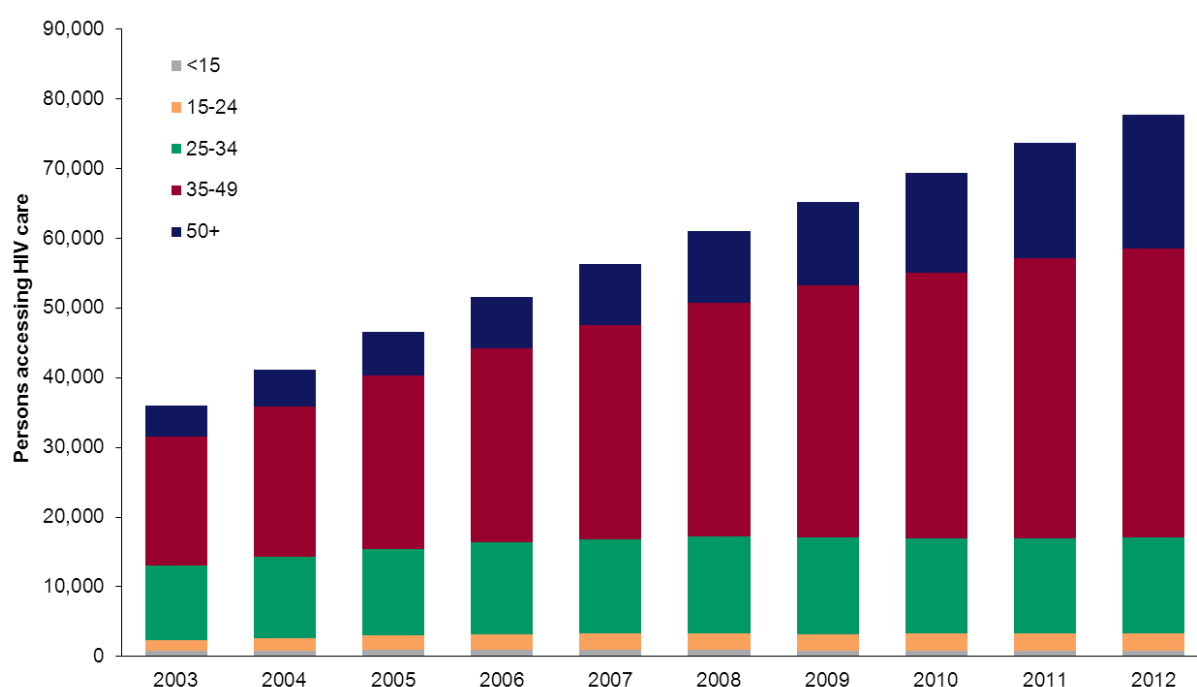
Quality of HIV care

Number of people accessing HIV care

In April 2013, the reconfiguration of the NHS in England led to changes in the commissioning of HIV services. HIV prevention and HIV treatment and care services are now commissioned separately by local authorities and NHS England respectively. Clinical Reference Groups, which include a range of HIV specialists, inform and specify treatment and care service needs.

In 2012, there were 77,610 people living with diagnosed HIV infection who received care in the UK (52,060 men and 25,550 women) (Appendix 6). This is a 5% increase from 73,650 people accessing HIV-related care the previous year and more than double the number a decade ago up from 35,970 in 2003 (Figure 13). This rise is due to a combination of on-going transmission and improvement in survival [23;24], but is also reduced by a small number of people who have left the UK or not been linked to HIV care. The increase in the number of new diagnoses among older people (500 diagnoses among people aged 50 years and over in 2003 compared to 990 in 2012), and an ageing cohort has led to a disproportionate rise in the number of people accessing HIV-related care aged 50 and over. In 2012, one in four adults (19,120/76,840) who were accessing care were aged 50 and over, compared to one in eight (4,360/35,210) in 2003.

Figure 13: Trends in people diagnosed with HIV accessing care by age group: UK, 2003–2012

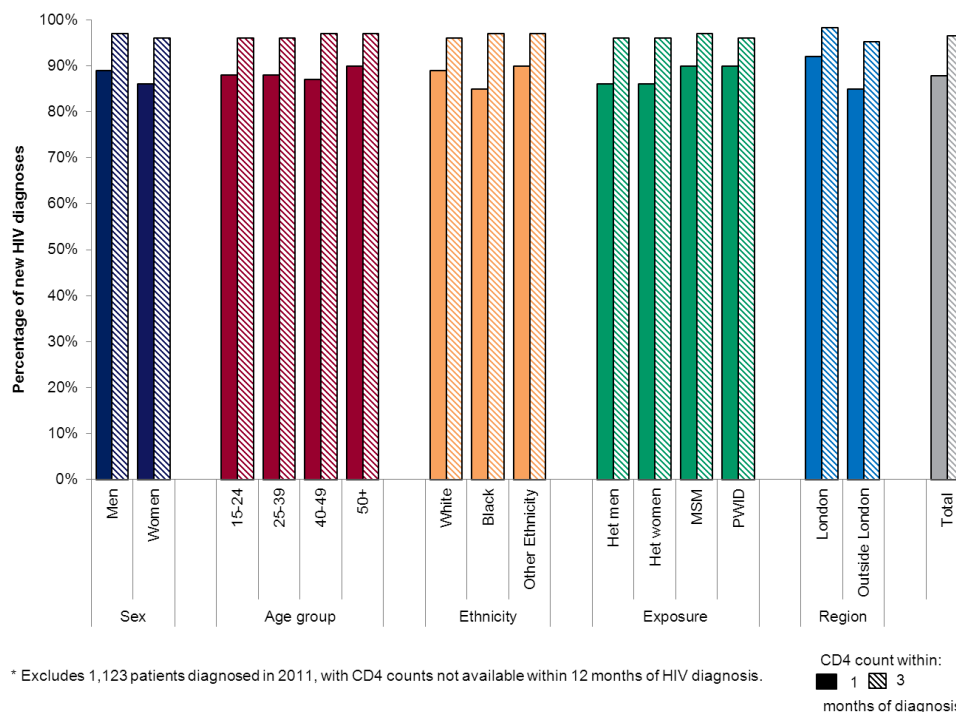


Linkage to care within a year of diagnosis

The BHIVA Standard of Care guidelines (2012) indicate that all patients should have a baseline test, including a CD4 count within two weeks of diagnosis with HIV.[25] In 2011, 76% and 88% of adults newly diagnosed with HIV had a CD4 count performed within two weeks and one

month of diagnosis, respectively. [10] Almost all (97%) had a CD4 count within three months. Linkage into care was high and rapid across all age groups, ethnicities, exposure categories, sex and geographies. (Figure 14).

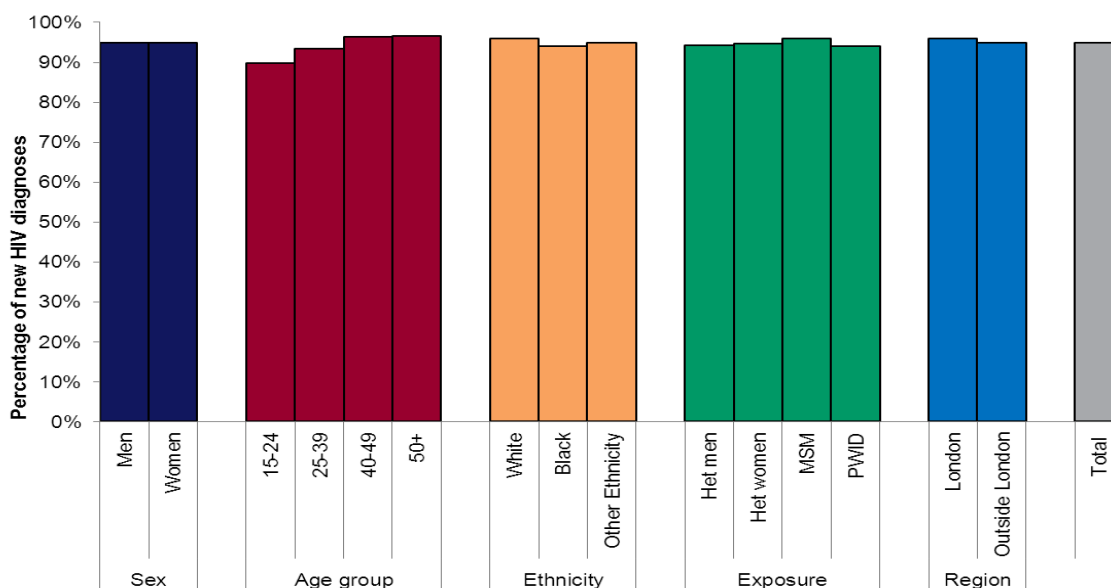
Figure 14: Link to care: proportion of adults with a CD4 count within 1 and 3 months of diagnosis: UK, 2011*



Retention in HIV care

The 12 month retention rate of all 72,840 adults seen for HIV care in 2011 was 95%. This did not vary greatly by age, sex, ethnicity, exposure group or region (Figure 15).

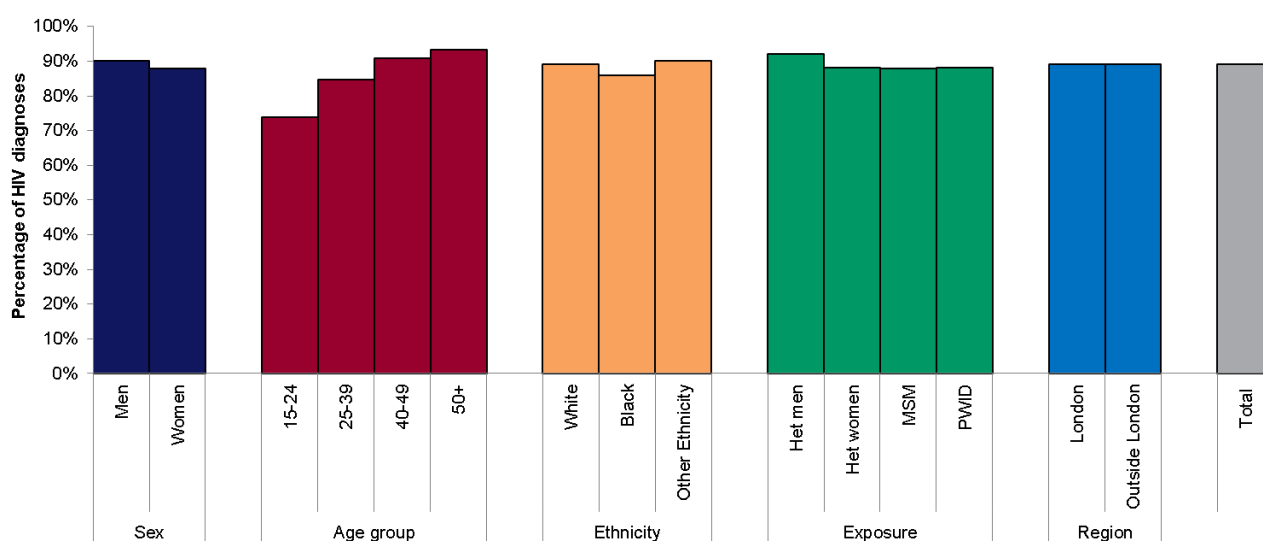
Figure 15: Retention in care: proportion of adults diagnosed in 2011 seen for care the following year: UK, 2012



Treatment coverage

The BHIVA treatment guidelines (2008) recommend ART should start when a person with HIV has a CD4 count <350 cells/mm³. [26] In 2012, 89% of patients with a CD4 count <350 cells/mm³ were receiving treatment (Appendix 7); the majority of the 11% of patients not on treatment were diagnosed recently and had not yet had the opportunity to start treatment. [10] There was variation in treatment coverage by age, with higher coverage rates among older people; 81% among people aged 15-24 years compared to 96% among people aged 50 years and over (Figure 16).

Figure 16: Treatment guidelines: proportion of adults with CD4 <350 cells/mm³ receiving ART: UK, 2012



Impact of treatment on HIV prevention in the UK

Patients treated successfully so that their viral load is undetectable (<50 copies/mL) can almost eliminate their risk of passing on infection through sexual contact. [27] To reduce HIV transmission through “treatment as prevention”, the World Health Organisation produced HIV treatment guidelines in 2013 which recommend that ART begins when CD4 counts reach <500 cells/mm³ [28] and in 2012, BHIVA treatment guidelines were updated to consider ART for all HIV patients, in response to the demonstration of the prevention effect of treatment. [29]

In the UK, free and accessible HIV treatment and care has resulted in large-scale treatment coverage: in 2012, 67% of the entire HIV population (diagnosed and undiagnosed) were treated compared to 85% among the diagnosed population. It was estimated that 48% (40,800/96,000) of the entire HIV population had an undetectable viral load in 2011. [30]

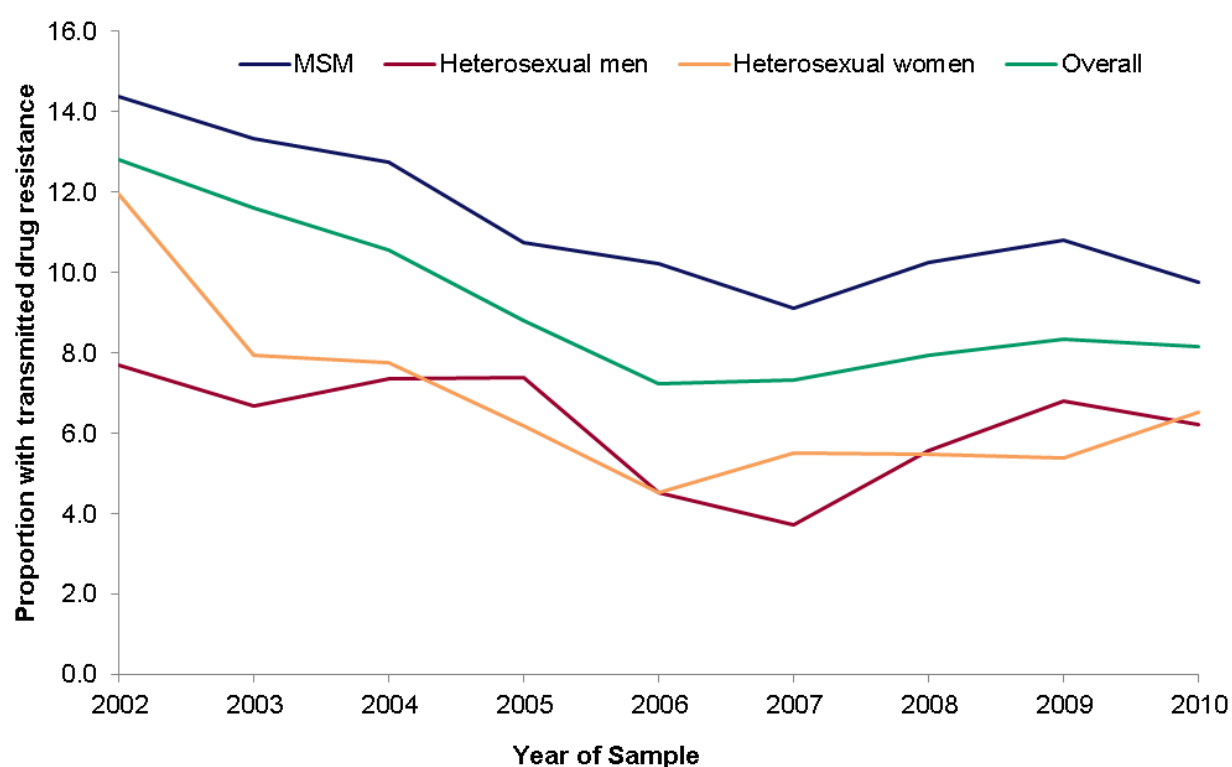
Despite this, “treatment as prevention” is unlikely to be sufficient to reduce HIV transmission in the UK. Using MSM as an example, while the proportion of all HIV-positive MSM who had viral loads $>1,500$ copies/mL decreased from 47% in 2006 to 35% in 2010 [31], HIV incidence remained steady during this period [4]. It is estimated that if diagnosed and untreated patients with CD4 counts <500 cells/mm³ were treated, the proportion of the HIV population with detectable viral loads could have decreased from 42% (40,800) to 38% (36,500). In contrast,

halving the undiagnosed population from 22,600 to 11,300 could have led to a decrease in the proportion of MSM living with HIV with detectable viral load from 42% to 28% (27,000). This demonstrates that “treatment as prevention” is unlikely to reduce HIV transmission, unless it is combined with very frequent HIV testing alongside primary prevention programmes.

Trends in drug resistance

In the UK, the prevalence of transmitted HIV drug resistance (evidence of one or more mutations associated with ART resistance among treatment naïve people) declined from 12.8% in 2002 to 7.9% in 2008, followed by a slight increase to 8.2% in 2010 (Figure 17). This suggests that the decline in transmitted drug resistant HIV infections has stabilised over recent years and emphasises the importance of continued resistance testing for all those newly diagnosed. In 2010, levels of transmitted drug resistance was highest among MSM (9.8%), followed by heterosexual women (6.5%) and heterosexual men (6.2%).

Figure 17: Proportion of ART naïve HIV-diagnosed people with evidence of transmitted drug resistance (any class) by exposure: UK, 2002-2010

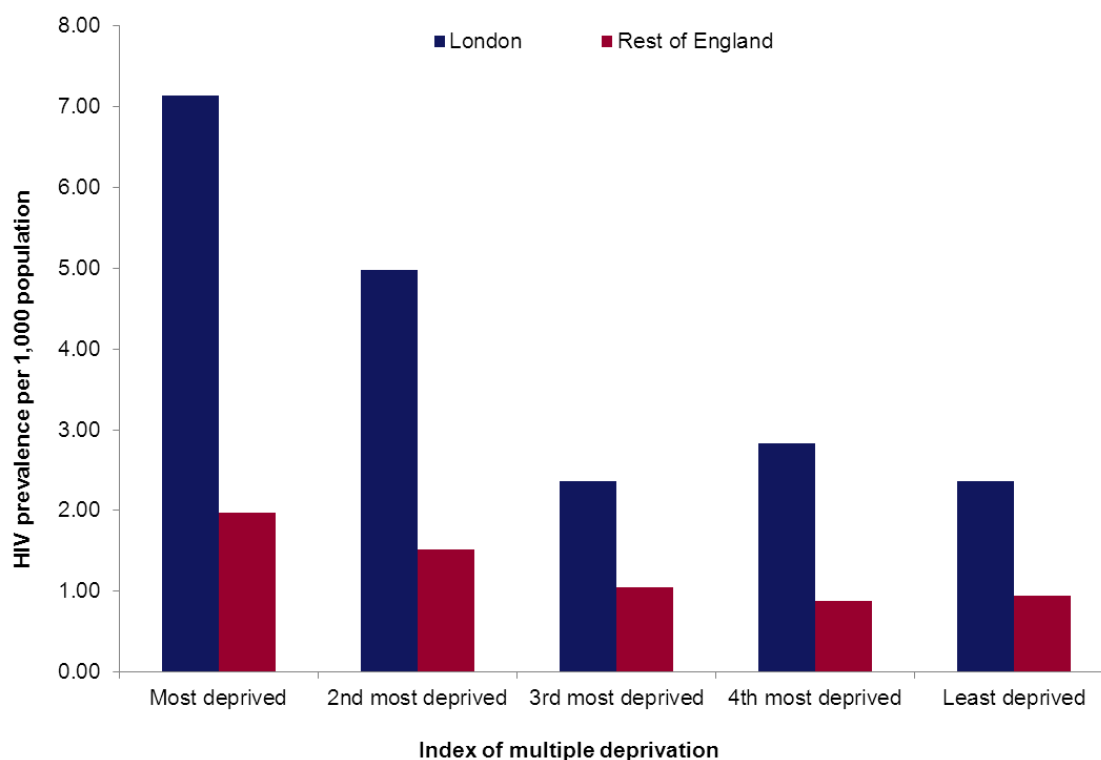


HIV and health inequality

In 2012, the prevalence of HIV was approximately 30 times higher for MSM and black-African men and women compared to the general population in England. Individual, societal and structural factors such as sexual behaviours, infections acquired abroad [5], migration and HIV-related stigma and discrimination contribute to this disparity [32]. The wider social determinants of health must be addressed to tackle inequalities in the risk of HIV acquisition and onward transmission. [33] Further, once diagnosed and on treatment, living with HIV can impact on an individual's ability to work and their employment opportunities, and lead to financial difficulties [34] and social challenges such as residential status. [35]

HIV prevalence is highest in the most deprived areas in England; this is particularly evident in London, where diagnosed HIV prevalence is as high as 7.0 per 1,000 in the most deprived areas and less than 2.4 per 1,000 in the least deprived areas (Figure 18). Health inequalities are also apparent through the higher rates of late diagnoses observed among older people and black ethnic groups; the latter of which can be partially explained by the high proportion who acquired infections abroad. Importantly, once in care, the indicators used to measure access to and the quality of care suggest there are few inequalities in HIV care (Figures 14-16). Analysis of comprehensive surveillance data indicate little difference between population groups linked into care within three months of diagnosis, or retained in care in the year following diagnosis. There was slight variation in treatment coverage by age, with lower coverage rates among people aged 15-24 years compared to those aged 50 years and over.

Figure 18: Prevalence of diagnosed HIV infection among adults aged 15-59 years by deprivation residential area of England: 2012



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Appendix 1:

Estimated number¹ of people living with HIV (both diagnosed and undiagnosed): UK, 2012

Exposure group		Number diagnosed (credible interval) ²	Number undiagnosed (credible interval) ²	Total (credible interval) ²	% Undiagnosed (credible interval) ²
Men who have sex with men		33,600 (33,000, 34,300)	7,300 (3,700, 12,300)	41,000 (37,300, 46,000)	18% (10, 27%)
People who inject drugs		1,900 (1,700, 2,000)	300 (200, 600)	2,200 (2,000, 2,500)	14% (8, 24%)
Heterosexuals		38,800 (38,000, 39,700)	14,100 (11,300, 17,500)	53,000 (50,000, 56,400)	27% (23, 31%)
	Men	14,900 (14,500, 15,200)	6,300 (4,700, 8,600)	21,200 (19,500, 23,500)	30% (24, 37%)
	African born	8,100 (7,900, 8,400)	3,000 (2,100, 4,300)	11,100 (10,200, 12,400)	27% (20, 34%)
	Non-African born	6,700 (6,500, 6,900)	3,300 (2,000, 5,200)	10,000 (8,700, 12,000)	33% (23, 44%)
	Women	24,000 (23,400, 24,600)	7,700 (6,300, 9,400)	31,700 (30,100, 33,600)	24% (21-28%)
	African born	16,400 (16,000, 16,900)	4,300 (3,200, 5,700)	20,700 (19,500, 22,200)	21% (16, 26%)
	Non-African born	7,600 (7,300, 7,800)	3,400 (2,400, 4,700)	11,000 (10,000, 12,300)	31% (24, 38%)
Total ³		76,500 (75,000, 78,000)	21,900 (17,200, 27,600)	98,400 (93,500, 104,300)	22% (18, 27%)

¹ National estimates of the number of individuals living with HIV in the UK are obtained from a complex statistical model fitted to an ensemble of surveillance and survey-type data (1).

² Lower bound, upper bound.

³ Numbers may not add to total due to rounding and exclusion of data relating to HIV acquired through mother to child transmission and other transmission routes.

Appendix 2:**Adjusted number of HIV diagnoses by year of diagnosis and probable exposure group: UK, 2003-2012**

Probable exposure category ¹		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Sex between men	Adjusted	2,180	2,480	2,680	2,670	2,900	2,810	2,850	2,850	2,960	3,250
	Observed	2,145	2,446	2,644	2,616	2,834	2,657	2,655	2,691	2,781	2,964
Heterosexual contact	Adjusted	4,850	4,940	4,870	4,450	4,140	4,130	3,490	3,210	2,980	2,880
	Observed	4,783	4,880	4,808	4,362	4,034	3,942	3,286	2,992	2,779	2,581
Injecting drug use	Adjusted	170	160	190	200	180	190	170	160	140	120
	Observed	167	155	186	196	177	176	154	148	132	111
Other exposure categories	Adjusted	210	210	180	190	170	140	170	150	140	110
	Observed	203	197	176	182	164	140	160	142	129	103
Not Reported	<i>Observed</i>	110	108	114	142	179	358	421	389	398	605
Total		7,408	7,786	7,928	7,498	7,388	7,273	6,676	6,362	6,219	6,364

¹ Data are adjusted for exposure group not reported.² Based on probable country of infection among those UK-born and estimates of CD4 decline in those born abroad.**Note: Appendices show actual numbers. Numbers presented in text are rounded.**

Appendix 3:

Annual new HIV and AIDS diagnoses and deaths by year of diagnosis or death: UK, 1980-2012

Report type and sex		1997 or earlier	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Cumulative total ^{1,2,3}
HIV diagnoses	Men	30,389	2,149	2,263	2,550	3,169	3,676	4,111	4,497	4,676	4,514	4,716	4,619	4,476	4,321	4,431	4,559	89,116
	Women	5,673	788	1,031	1,451	2,020	2,705	3,297	3,289	3,252	2,984	2,672	2,654	2,200	2,041	1,788	1,805	39,650
Total ¹		36,097	2,938	3,296	4,001	5,190	6,381	7,408	7,786	7,928	7,498	7,388	7,273	6,676	6,362	6,219	6,364	128,805
First AIDS diagnoses	Men	14,030	619	584	627	531	637	582	598	614	525	552	512	441	434	286	269	21,841
	Women	1,804	202	204	262	262	359	452	420	355	357	286	315	208	225	125	121	5,957
Total		15,834	821	788	889	793	996	1,034	1,018	969	882	838	827	649	659	411	390	27,798
Deaths ²	Men	11,636	416	391	388	359	417	400	339	441	414	426	456	426	530	401	367	17,807
	Women	1,280	97	79	97	119	106	164	149	147	149	170	154	163	175	137	121	3,307
Total ³		12,919	513	470	485	478	523	564	488	588	563	596	610	589	705	538	488	21,117

Will include some records for the same individuals which are unmatchable because of differences in the information supplied.

Numbers will rise as further reports are received, particularly for recent years.

¹ Includes 39 HIV diagnoses of individuals with sex not reported (the majority of which are in earlier years).

² Includes all reported deaths (all cause) in HIV diagnosed individuals.

³ Includes 3 death reports of individuals with sex not reported.

Note: Appendices show actual numbers. Numbers presented in text are rounded.

Appendix 4:

New HIV diagnoses by country and PHE region of diagnosis: UK, 1980-2012

Country and PHE region of diagnosis	1997 or earlier	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
ENGLAND																	
North of England	3,792	312	351	400	678	883	1,163	1,291	1,406	1,250	1,221	1,232	1,122	1,024	1,031	1,004	18,160
Midlands and East of England	2,811	288	323	488	763	1,238	1,435	1,562	1,518	1,520	1,417	1,320	1,226	1,197	1,093	1,121	19,320
London	21,704	1,796	2,057	2,380	2,815	3,012	3,273	3,271	3,253	3,115	3,024	3,039	2,839	2,730	2,615	2,832	63,755
South of England	2,377	194	217	274	426	563	685	673	744	694	695	678	605	527	562	543	10,457
ENGLAND (Total)	32,421	2,724	3,081	3,774	4,922	6,043	6,983	7,269	7,405	6,983	6,794	6,709	6,152	5,840	5,674	5,846	118,620
Wales	539	34	35	47	64	81	107	105	112	159	174	143	141	151	168	125	2,185
Northern Ireland	173	9	18	18	20	27	36	63	58	57	60	90	67	84	81	95	956
Scotland	2,812	163	161	161	171	219	272	345	348	287	353	325	309	283	286	287	6,782
Channel Islands and Isle of Man	52	7	0	1	5	8	4	4	4	9	7	5	4	4	8	6	128
UK Total¹	36,097	2,938	3,296	4,001	5,190	6,381	7,408	7,786	7,928	7,498	7,388	7,273	6,676	6,362	6,219	6,364	128,805

Will include some records for the same individuals which are unmatchable because of differences in the information supplied.

Numbers will rise as further reports are received, particularly for recent years.

¹ Includes 51 cases where region is not known.

Note: Appendices show actual numbers. Numbers presented in text are rounded.

Appendix 5:**Number and proportion of recently acquired infections at diagnosis (ascertained through the Recent Infection Testing Algorithm) by exposure and age group: England, Wales and Northern Ireland, 2012**

		15-24	25-34	35-49	50+	Total
MSM	Recent infections	55	137	80	19	291
	Number RITA tested	249	572	540	155	1,516
	%	22%	24%	15%	12%	19%
	95% CI	17.1-27.8	20.5-27.7	11.9-18.1	7.5-18.5	17.2-21.3
Heterosexual men	Recent infections	3	6	12	7	28
	Number RITA tested	23	87	220	109	439
	%	13%	7%	5%	6%	6%
	95% CI	2.8-33.6	2.6-14.4	2.8-9.3	2.6-12.8	4.3-9.1
Heterosexual women	Recent infections	12	20	10	7	49
	Number RITA tested	70	203	281	88	642
	%	17%	10%	4%	8%	8%
	95% CI	9.2-28.0	6.1-14.8	1.7-6.4	3.3-15.7	5.7-10.0
All Heterosexuals	Recent infections	15	27	24	14	80
	Number RITA tested	94	297	522	204	1,117
	%	16%	9%	5%	7%	7%
	95% CI	9.2-25.0	6.1-13.0	3.0-6.8	3.8-11.2	5.7-8.8
Total	Recent infections	70	174	111	38	393
	Number RITA tested	363	947	1,170	402	2,882
	%	19%	18%	9%	9%	14%
	95% CI	15.4-23.7	16.0-21.0	7.9-11.3	6.8-12.7	12.4-14.9

¹ Overall, 48% of new HIV diagnoses had a test for recent infection and this was similar across exposure groups.

Note: Appendices show actual numbers. Numbers presented in text are rounded.

Appendix 6:**Number of people living with diagnosed HIV infection by gender and age group seen for care: UK, 2003-2012**

Gender ¹	Age group ¹	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Men	<15	375	419	469	456	469	470	440	404	372	365
	15-24	682	745	889	1,044	1,106	1,165	1,216	1,307	1,431	1,535
	25-34	6,006	6,330	6,560	6,834	7,097	7,367	7,535	7,697	7,927	8,328
	35-49	13,764	15,683	17,596	19,497	21,227	22,764	24,200	25,179	26,227	26,895
	>50	3,708	4,425	5,156	5,983	7,080	8,286	9,651	11,347	13,073	14,938
	Total	24,535	27,602	30,670	33,814	36,979	40,052	43,042	45,934	49,030	52,061
Women	<15	382	411	452	473	503	493	450	447	433	410
	15-24	910	1,077	1,209	1,232	1,198	1,190	1,150	1,118	1,051	981
	25-34	4,635	5,293	5,899	6,341	6,446	6,514	6,337	6,012	5,795	5,431
	35-49	4,842	5,921	7,205	8,335	9,493	10,786	11,843	12,883	13,868	14,546
	>50	653	860	1,088	1,339	1,592	1,984	2,391	2,904	3,468	4,185
	Total	11,422	13,562	15,853	17,720	19,232	20,967	22,171	23,364	24,615	25,553
UK Total		35,971	41,168	46,527	51,535	56,211	61,019	65,213	69,298	73,645	77,614

¹ Missing information is excluded, with the exception of the UK total.

Note: Appendices show actual numbers. Numbers presented in text are rounded.

Appendix 7:**Proportion of people living with diagnosed HIV infection receiving antiretroviral therapy by current CD4 count: UK, 2003-2012**

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Proportion receiving antiretroviral therapy		68%	69%	69%	71%	71%	76%	78%	82%	84%	85%
Adjusted ¹	n	24,558	28,241	32,016	36,680	40,045	46,124	50,772	56,576	61,506	66,351
	N	35,971	41,168	46,527	51,535	56,211	61,019	65,213	69,298	73,645	77,614
Observed	n	24,090	27,797	31,590	35,560	39,562	45,822	50,213	55,973	61,270	66,090
	N	35,285	40,521	45,908	49,961	55,533	60,620	64,495	68,560	73,362	77,309
Proportion with CD4 <350 receiving antiretroviral therapy		75%	75%	74%	75%	76%	81%	83%	87%	88%	89%
Adjusted ¹	n	11,249	12,426	13,490	13,707	14,003	14,344	13,883	13,605	14,068	13,135
	N	15,054	16,625	18,152	18,340	18,455	17,621	16,688	15,680	15,980	14,760
Observed	n	9,525	11,302	12,343	12,413	12,515	13,246	12,520	12,396	13,338	11,954
	N	12,752	15,143	16,622	16,628	16,513	16,297	15,062	14,293	15,178	13,431

¹ Adjusted for missing treatment and CD4 information.

Note: Appendices show actual numbers. Numbers presented in text are rounded.

Appendix 8:**Proportion of newly HIV diagnosed people diagnosed late (CD4<350/mm³ within three months of diagnosis) by exposure group: UK, 2003-2012**

Exposure group		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
MSM	%<350	42%	43%	42%	42%	40%	42%	40%	38%	36%	34%
	Adjusted <350 ¹	916/2,180	1,065/2,480	1,126/2,680	1,122/2,670	1,160/2,900	1,181/2,810	1,140/2,850	1,083/2,850	1,066/2,960	1,105/3,250
	Observed <350 ²	704/1,679	835/1,933	898/2,136	937/2,360	937/2,360	940/2,213	931/2,324	920/2,390	885/2,489	821/2,392
Heterosexual men	%<350	70%	69%	70%	67%	68%	67%	67%	63%	67%	65%
	Adjusted <350 ¹	1,200/1,714	1,249/1,810	1,230/1,756	1,088/1,623	1,097/1,612	1,068/1,594	956/1,427	818/1,297	871/1,300	751/1,155
	Observed <350 ²	874/1,243	928/1,354	951/1,351	816/1,224	795/1,176	786/1,172	733/1,095	669/1,056	692/1,037	557/860
Heterosexual women	%<350	63%	62%	62%	64%	60%	61%	60%	57%	58%	57%
	Adjusted <350 ¹	1,975/3,134	1,942/3,131	1,932/3,116	1,806/2,821	1,514/2,523	1,549/2,538	1,240/2,066	1,087/1,907	975/1,680	864/1,728
	Observed <350 ²	1,478/2,337	1,501/2,422	1,494/2,422	1,354/2,100	1,084/1,817	1,147/1,892	991/1,657	867/1,510	758/1,311	671/1,181
People who inject drugs	%<350	51%	61%	54%	52%	61%	47%	50%	49%	53%	64%
	Adjusted <350 ¹	87/170	98/160	103/190	104/200	110/180	90/190	85/170	79/160	75/140	77/120
	Observed <350 ²	56/109	63/103	68/125	73/140	73/119	61/130	59/118	59/120	51/97	49/77
Overall	%<350	58%	57%	57%	56%	53%	54%	52%	50%	49%	47%
	Adjusted <350 ¹	4,297/7,408	4,438/7,786	4,519/7,928	4,199/7,498	3,916/7,388	3,928/7,273	3,472/6,676	3,181/6,362	3,048/6,219	2,991/6,364
	Observed <350 ²	3,154/5,428	3,358/5,856	3,457/6,100	3,146/5,574	2,962/5,575	3,071/5,647	2,850/5,467	2,623/5,270	2,514/5,167	2,243/4,745

¹ Adjusted for missing exposure information and missing CD4 counts.² New diagnoses are matched to the CD4 surveillance scheme and 82% had a CD4 cell count available within 14 days prior to and 91 days after diagnosis date.**Note: Appendices show actual numbers. Numbers presented in text are rounded.**

Appendix 9:**Prevalence of diagnosed HIV infection ≥ 2 per 1,000 population (aged 15-59 years) by local authority: London, 2012**

Local Authority	Number living with diagnosed HIV infection (aged 15-59)	Estimated resident population in 1,000s ¹ (aged 15-59)	Diagnosed HIV prevalence per 1,000 (aged 15-59)
London			
Lambeth	3,232	224.6	14.39
Southwark	2,554	209.9	12.17
Kensington and Chelsea	958	104.4	9.18
City of London	48	5.4	8.89
Westminster	1,373	156.5	8.77
Islington	1,295	153.4	8.44
Camden	1,304	155.5	8.39
Lewisham	1,509	190.0	7.94
Hackney	1,374	177.4	7.75
Hammersmith and Fulham	990	128.0	7.73
Haringey	1,154	177.1	6.52
Newham	1,398	216.3	6.46
Tower Hamlets	1,193	191.0	6.25
Barking and Dagenham	668	116.6	5.73
Greenwich	950	169.7	5.60
Croydon	1,168	230.2	5.07
Wandsworth	1,094	220.1	4.97
Waltham Forest	817	172.8	4.73
Enfield	814	196.5	4.14
Brent	827	208.0	3.98
Merton	511	131.8	3.88
Hounslow	611	169.8	3.60
Ealing	704	222.4	3.17
Barnet	660	225.8	2.92
Redbridge	485	177.3	2.74
Hillingdon	460	177.3	2.59
Bexley	333	138.7	2.40
Sutton	285	118.8	2.40
Bromley	439	184.8	2.38
Richmond upon Thames	275	116.5	2.36
Harrow	321	150.1	2.14

¹ Office for National Statistics

Prevalence of diagnosed HIV infection ≥ 2 per 1,000 population (aged 15-59 years) by local authority: England (Outside London), 2012

Local Authority	Residents receiving HIV-related care (aged 15-59)	Estimated resident population in 1,000s ¹ (aged 15-59)	Diagnosed HIV prevalence per 1,000 (aged 15-59)
Outside London			
Brighton and Hove	1,434	185.0	7.75
Manchester	1,983	350.1	5.66
Salford	663	148.0	4.48
Luton	541	128.2	4.22
Blackpool	290	81.5	3.56
Leicester	757	213.1	3.55
Slough	306	90.6	3.38
Reading	324	103.2	3.14
Northampton	402	132.2	3.04
Crawley	206	68.0	3.03
Coventry	608	200.7	3.03
Bournemouth	335	116.2	2.88
Watford	165	58.1	2.84
Southend-on-Sea	287	101.8	2.82
Nottingham	576	207.2	2.78
Milton Keynes	422	156.3	2.70
Harlow	123	49.8	2.47
Wolverhampton	369	150.0	2.46
Oxford	255	105.0	2.43
Worthing	142	59.3	2.39
Birmingham	1,542	666.2	2.31
Lewes	120	52.5	2.29
Leeds	1,048	475.2	2.21
Eastbourne	119	54.7	2.18
Stevenage	112	52.3	2.14
Woking	127	59.5	2.13
Adur	72	33.9	2.12
Corby	81	38.7	2.09
Norwich	181	87.1	2.08
Sandwell	376	185.5	2.03
Bedford	191	94.4	2.02
Hastings	107	52.9	2.02

¹ Office for National Statistics

Appendix 10: HIV testing coverage by gender, male sexual orientation, and age group: England, 2012

			HIV testing				
			GUM attendees ¹	Offered	Tested	Offered %	Coverage %
Gender	Age group						
Men (by sexual orientation)	Heterosexual	<15	637	487	357	76	56
		15-19	57,953	52,202	42,711	90	74
		20-24	131,386	119,645	101,280	91	77
		25-34	161,948	146,008	125,618	90	78
		35-44	67,198	58,927	49,920	88	74
		45-64	45,737	38,816	32,712	85	72
		65+	4,566	3,462	2,849	76	62
		Total ²	469,448	419,565	355,463	89	76
	MSM	<15	68	58	51	85	75
		15-19	6,141	5,640	5,304	92	86
		20-24	17,049	15,711	14,993	92	88
		25-34	30,888	27,964	26,730	91	87
		35-44	17,991	15,634	14,669	87	82
		45-64	12,865	10,723	9,930	83	77
		65+	1,345	1,118	1,024	83	76
		Total ²	86,356	76,856	72,706	89	84
	All	<15	770	575	432	75	56
		15-19	67,872	60,580	50,392	89	74
		20-24	156,148	141,313	121,583	90	78
		25-34	202,830	181,459	159,068	89	78
		35-44	89,976	77,840	67,488	87	75
		45-64	62,097	51,685	44,527	83	72
		65+	6,287	4,765	4,028	76	64
		Total ²	586,217	518,364	447,601	88	76
Women	<15	5,548	4,090	2,733	74	49	
	15-19	149,538	124,866	94,185	84	63	
	20-24	197,832	169,729	138,834	86	70	
	25-34	201,202	167,850	139,849	83	70	
	35-44	78,080	63,024	51,345	81	66	
	45-64	42,726	33,283	26,935	78	63	
	65+	2,257	1,197	917	53	41	
	Total ²	677,620	564,273	454,926	83	67	
Total	<15	6,318	4,665	3,165	74	50	
	15-19	217,432	185,463	144,589	85	66	
	20-24	354,014	311,064	260,435	88	74	
	25-34	404,080	349,345	298,947	86	74	
	35-44	168,075	140,879	118,846	84	71	
	45-64	104,836	84,977	71,470	81	68	
	65+	8,544	5,962	4,945	70	58	
	Total ²	1,263,977	1,082,738	902,609	86	71	

¹Includes people where any of the following variables were not known: ethnicity, sexual orientation, sex, area of residence.

²Totals include where age is not known.

Note: Appendices show actual numbers. Numbers presented in text are rounded

Appendix 11: HIV test uptake by gender, male sexual orientation, and age group: England, 2012

			HIV testing				
			New GUM episode ¹	Offered	Tested	Offered %	Uptake %
Gender	Age group						
Men (by sexual orientation)	Heterosexual	<15	765	554	399	72	72
		15-19	71,239	60,241	47,801	85	79
		20-24	157,708	134,694	110,948	85	82
		25-34	190,886	160,768	135,338	84	84
		35-44	79,754	64,005	53,189	80	83
		45-64	55,476	41,921	34,757	76	83
		65+	5,861	3,742	3,025	64	81
		Total ²	561,718	465,945	385,474	83	83
	MSM	<15	97	69	60	71	87
		15-19	8,733	7,157	6,653	82	93
		20-24	23,839	19,933	18,816	84	94
		25-34	43,122	35,687	33,799	83	95
		35-44	25,055	19,601	18,192	78	93
		45-64	18,022	13,072	11,955	73	91
		65+	1,941	1,339	1,216	69	91
		Total ²	120,821	96,868	90,698	80	94
	All	<15	940	658	487	70	74
		15-19	84,456	70,511	57,124	83	81
		20-24	190,455	161,178	135,554	85	84
		25-34	245,373	204,528	176,311	83	86
		35-44	110,474	87,177	74,508	79	85
		45-64	77,696	57,281	48,702	74	85
		65+	8,293	5,285	4,408	64	83
		Total ²	717,978	586,780	497,182	82	85
Women	<15	7,920	5,221	3,289	66	63	
	15-19	199,271	152,188	109,354	76	72	
	20-24	247,082	196,820	155,396	80	79	
	25-34	244,404	189,463	153,198	78	81	
	35-44	95,046	69,882	55,421	74	79	
	45-64	52,597	36,338	28,800	69	79	
	65+	3,030	1,278	964	42	75	
	Total ²	849,885	651,453	506,559	77	78	
Total	<15	8,860	5,879	3,776	66	64	
	15-19	283,751	222,716	166,490	78	75	
	20-24	437,572	358,021	290,968	82	81	
	25-34	489,825	394,027	329,539	80	84	
	35-44	205,542	157,076	129,944	76	83	
	45-64	130,306	93,628	77,510	72	83	
	65+	11,323	6,563	5,372	58	82	
	Total ²	1,568,009	1,238,337	1,003,825	79	81	

¹ Defined as a visit to an STI clinic including all subsequent STI attendances during the following six weeks.

Note: Appendices show actual numbers. Numbers presented in text are rounded.