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England

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Annual Epidemiological Spotlight on HIV in London 2014 data

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Important note about the data in this report

With the exception of Figure 3, all analyses in this report are residence-based. Information about a patient's place of residence is not collected by the HIV and AIDS New Diagnosis Database (HANDD). Reports to this database are cross-linked to the annual survey of people accessing care for HIV, SOPHID. Please see Section 3 for more information on data sources.

If a report could not be linked to a corresponding SOPHID report, the patient's PHEC of residence (but not their LA of residence) was imputed using the location of the centre at which they were diagnosed.

For most years in the period covered by this report (2005 to 2014) a PHE centre (PHEC) of residence can be obtained via this linkage/imputation process for around 99% of UK new HIV diagnosis reports.

For diagnoses reported from centres in London in 2014 the proportion of new HIV diagnoses for which the patient's PHEC of residence at diagnosis could be identified through linkage or imputation was 100% (compared to 99% in 2013).

Imputation was not used to supplement the linkage process in the HIV Spotlight reports produced in 2014. This means that the numbers in the new diagnosis section of those reports cannot be compared directly with the numbers in these reports.

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1 Summary

HIV remains an important public health problem in London with high and increasing rates of HIV and evidence of sustained HIV transmission in men who have sex with men (MSM).

People living with HIV

In 2014, an estimated 40,900 people were living with HIV (PLWH) in London (95% credible interval (CrI) 38,200-46,300). This includes both those diagnosed and undiagnosed. It is estimated that one in 11 MSM (89.7 per 1,000 (CrI 65.9-122.6)) aged 15–44 years in London were living with HIV.

New diagnoses

In 2014, 2,516 London residents were newly diagnosed with HIV. Please note that this data refers to area of residence rather than area of diagnosis and in 2014 it was not possible to assign an area of residence for 1% of people newly diagnosed with HIV in the UK. Numbers may increase as more information becomes available to assign area of residence to cases.

For robust trend data we need to examine the number of people newly diagnosed in London clinics (not all of whom are resident in London). In 2014, this was 2,671, a fall of 2% from 2013. There has been a long term trend for a decline in the overall number of new diagnoses due in the main to a fall in the number of new diagnoses in Black Africans who have acquired HIV abroad.

There is long term trend for an increase in the number of new HIV diagnoses in MSM, in the context of increased HIV testing. The number of MSM resident in London newly diagnosed with HIV in 2014 (1,586, adjusted for missing information) was 31% higher than 2005.

The new diagnosis rate for London residents aged 15 years or older (36 per 100,000) was three times higher than England in 2014 (12 per 100,000).

In 2014, 63% of all new diagnoses in London residents were in MSM (compared to 61% in 2013 and 39% in 2005). Of the MSM newly diagnosed with HIV 73% were white and 39% were UK born.

Heterosexual contact was the second largest infection route for new diagnoses in London residents in 2014 (33%). Infections in African born persons accounted for 60%

of all heterosexually acquired cases in 2014 (n=430), compared to 76% (n=1186) in 2005. Infections in UK born persons accounted for 18% of all heterosexually acquired cases in 2014.

Injecting drug use accounted for 2% of new diagnoses in London.

Black Africans represented 22% of all newly diagnosed London residents in 2014 (compared to 23% in 2013 and 45% in 2005). A small proportion of new diagnoses in 2014 were in black Caribbeans (4%).

The number of new diagnoses was highest in the 25-34 year age group in males and the 35-44 year age group in females in 2014.

Late diagnoses

It is of particular concern that a large proportion of people with HIV are diagnosed late in London (37% from 2012 to 2014, compared to 42% in England), as defined by a CD4 count of less than 350 cells/mm³ at diagnosis. Reducing late HIV diagnoses is one of the indicators in the Public Health Outcomes Framework. People who are diagnosed late have a tenfold risk of mortality within one year of diagnosis compared to those diagnosed promptly and they have increased healthcare costs.

Heterosexuals were more likely to be diagnosed late (59% of males, 52% of females) than MSM (25%) (2012-2014). By ethnic group Black Africans were more likely to be diagnosed late than the white population (56% and 27% respectively).

People living with diagnosed HIV

The 35,363 people living with diagnosed HIV in London in 2014 was 5% higher than 2013 and 60% higher than 2005. This increase is partly due to the effectiveness of HIV treatment, which has reduced the number of deaths from HIV.

The diagnosed prevalence rate of HIV in London in 2014 was 5.9 per 1,000 residents aged 15-59 years. This was over twice as high as the rate of 2.2 per 1,000 observed in England as a whole.

Thirty two local authorities (LAs) in London had a diagnosed HIV prevalence rate in excess of 2 per 1,000 population aged 15-59 years in 2014, which is the threshold for expanded HIV testing. The only LA in London with a diagnosed prevalence below this threshold was Havering (1.9).

The two commonest probable routes of transmission for London residents living with diagnosed HIV in 2014 were sex between men (51%) and sex between men and women (45%).

In 2014, 50% of those living with diagnosed HIV in London were aged between 35 and 49 years, and 30% were aged 50 years and over (up from 12% in 2005). Males represented 70% of London residents living with diagnosed HIV in 2014 and females represented 30%.

In 2014, 48% of London residents living with diagnosed HIV were white and 32% were Black Africans. However, due to the relative sizes of the white and Black African populations the rate per 1,000 population was much higher in Black Africans (28.0 per 1,000) than in the white population (4.8 per 1,000).

People living with undiagnosed HIV

It is estimated that in 2014, 12% (95% CrI 7-23%) of people living with HIV in London were undiagnosed, although there is considerable uncertainty in this estimate.

This equates to an estimated 5,100 people living in London with undiagnosed HIV (CrI 2,600-10,500) in 2014, including an estimated 2,400 heterosexuals and 2,400 MSM (CrI 800-5,800). The number of undiagnosed MSM is estimated to have fallen since 2000 (3,400, CrI 1,300-7,200). The undiagnosed prevalence of HIV among MSM aged 15-44 years was 13.3 per 1,000 in London (CrI 4.1-35.2).

HIV treatment cascade

In the UK, free and accessible HIV treatment and care has resulted in large-scale treatment coverage. In 2014, an estimated 79% of all adult PLWH in London (diagnosed and undiagnosed) were treated and 74% of all PLWH (30,200/40,600) had an undetectable viral load (less than 200 copies/UL).

London is estimated to exceed the ambitious UNAIDS target of 73% of all PLWH being virologically suppressed, as laid out in the 90-90-90 goals (90% of people living with HIV being diagnosed, 90% of those diagnosed on ART and 90% viral suppression for those on ART by 2020).

The equivalent figures for adults in London are:

- an estimated 88% of people living with HIV are diagnosed (although there is considerable uncertainty in this estimate)
- 90% of those diagnosed are on ART
- 95% viral suppression for those on ART

Implications for prevention

There are a number of approaches to the prevention of HIV transmission and continued funding in prevention activities remains critical in curbing the HIV epidemic. Correct and consistent condom use remains an extremely effective way to prevent HIV transmission. Investment in HIV prevention has resulted in moderately high rates of condom use in key populations.

Undiagnosed HIV infection and onward transmission can be reduced through further HIV testing. HIV testing is particularly important for MSM as in the UK an estimated 6,500 have undiagnosed HIV infection and incidence remains high. It is also important to promote HIV testing within black-African communities as an estimated 3,900 have undiagnosed HIV infection in the UK.

Increased testing can be achieved through improving testing coverage in STI clinics, the introduction and consolidation of HIV testing in a variety of different medical services, in addition to further development of community testing, including self-sampling. The success of self-sampling pilots has resulted in the establishment of a national self-sampling service co-commissioned by PHE and 89 collaborating local authorities. This service, for those at high HIV risk, began in November 2015 as part of 'National HIV Testing Week'.

The London HIV Prevention Programme (LHPP) is a London-wide sexual health promotion initiative, funded by every London local authority. The initiative recently launched the Do It London sexual health campaign aimed at increasing HIV testing and promoting safer sex to all residents in the capital <http://doitlondon.org/>.

Partner notification following the diagnosis of HIV infection is a highly effective way to detect undiagnosed HIV infections: in 2014 in England, 6.4% of MSM sexual partners and 5.5% of heterosexual male partners of people diagnosed with HIV were also positive for HIV infection. STI clinics could review partner notification to see how improvements can be achieved.

HIV Pre Exposure Prophylaxis (HIV-PrEP) is the use of antiretroviral agents by people who do not have HIV prior to a potential exposure to HIV to prevent acquisition of infection. Research studies in different populations have shown that consistent use of HIV-PrEP can be an efficacious and effective prevention intervention. HIV-PrEP has the potential, within a combination prevention approach, to have a significant role in the control of HIV transmission. In England, use of anti-retroviral drugs is designated as a specialised service commissioned by NHS England. PHE is actively involved in supporting NHS England and local authorities as they prepare to make commissioning decisions about PrEP, through the delivery of data and intelligence, including a comprehensive evidence review and health economic analyses.

National and international treatment guidelines recommend early treatment to prevent onward transmission. People living with HIV and their health care providers can discuss starting ART to reduce their risk of transmitting HIV to their sexual partners.

HIV risk reduction messages

Early diagnosis of HIV infection enables better treatment outcomes and reduces the risk of transmitting the infection to others. Have an HIV test if you think you may have been at risk.

Always use a condom correctly and consistently, and until all partners have had a sexual health screen.

Reduce the number of sexual partners and avoid overlapping sexual relationships.

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.

Unprotected sex with partners believed to be of the same HIV status (serosorting) is unsafe. For the HIV positive person, there is a high risk of acquiring other STIs and hepatitis. For the HIV negative person, there is a high risk of acquiring HIV infection as well as of acquiring STIs and hepatitis.

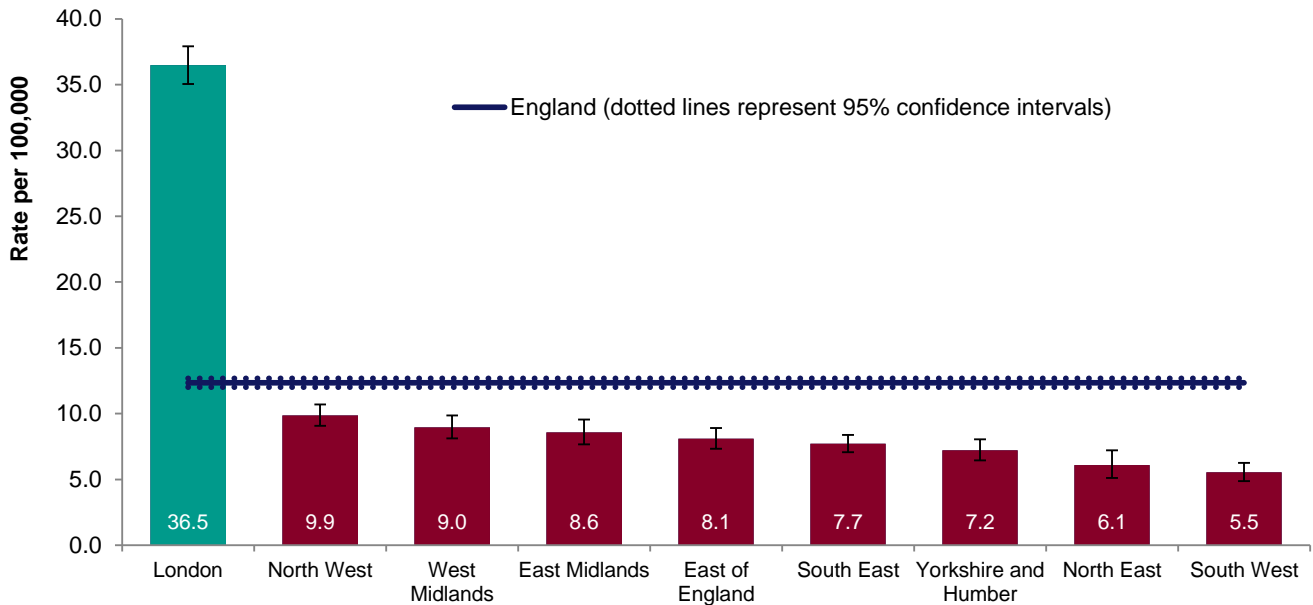
Black African men and women are advised to have an HIV test and a regular HIV and STI screen if having unprotected sex with new or casual partners.

How to get an HIV test:

- go to an open-access sexually transmitted infection (STI) 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>).
- ask your GP for an HIV test – nowadays there is no need for a lengthy discussion about the test, it just involves having blood taken, or even a finger prick.
- ask online for a self-sampling kit (<http://www.freetesting.hiv>)

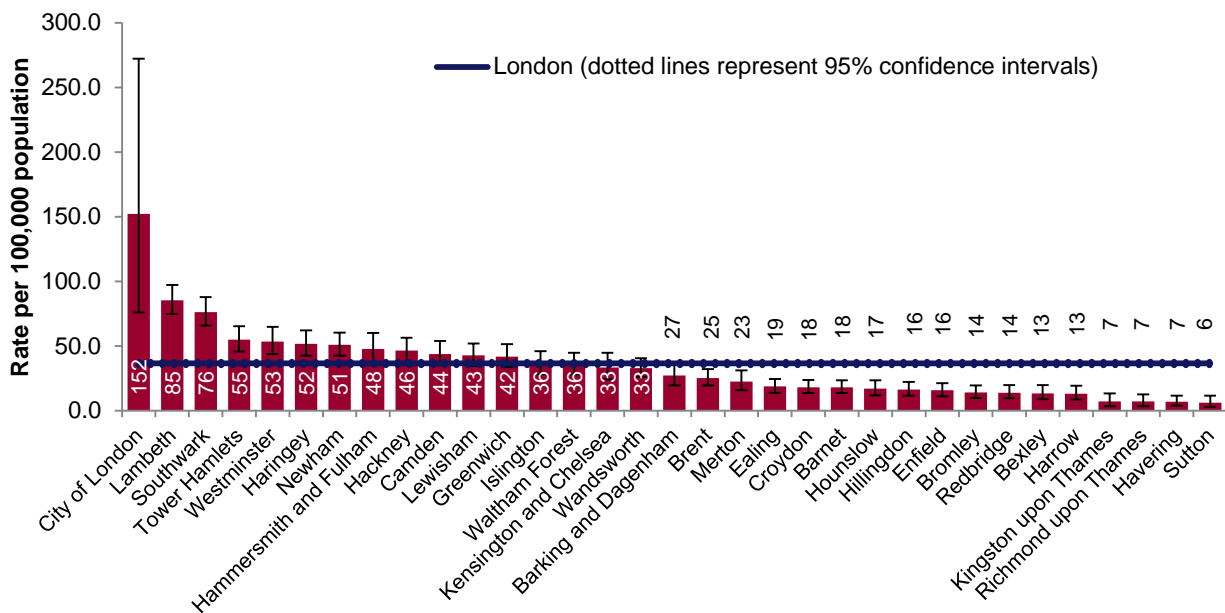
2 Charts, tables and maps

Figure 1: New HIV diagnosis per 100,000 population aged 15 years or older by PHE centre of residence, 2014



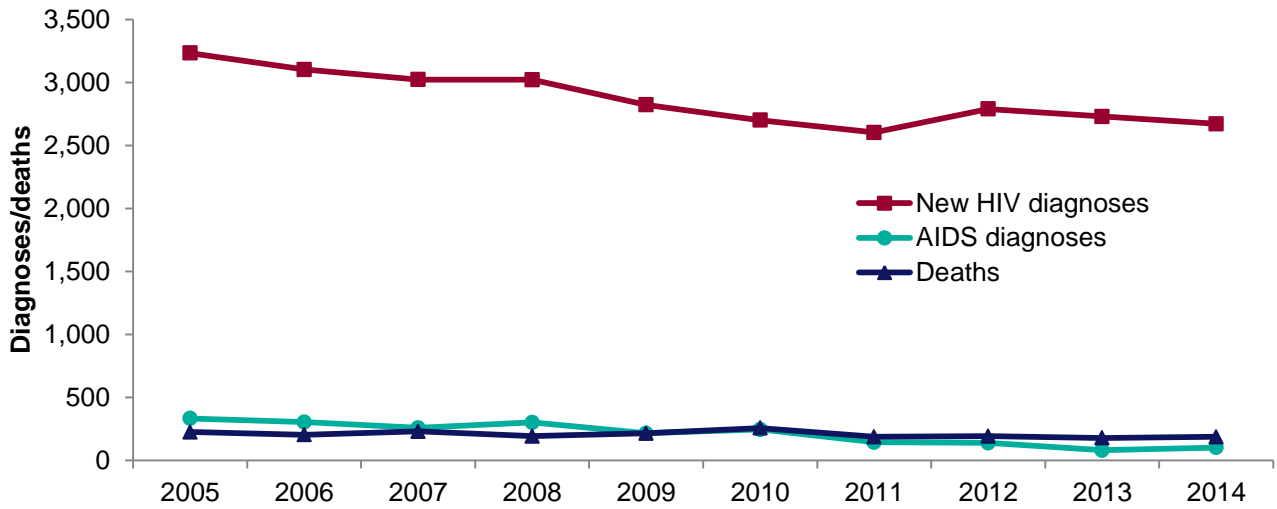
Source: Public Health England, HIV and Aids New Diagnosis Database (HANDD).
 The number of new diagnoses will depend on accessibility of testing as well as infection transmission.

Figure 2: New HIV diagnoses per 100,000 population aged 15 years or older by upper tier local authority of residence, London residents, 2014



Source: Public Health England, HIV and Aids New Diagnosis Database (HANDD).
 The number of new diagnoses will depend on accessibility of testing as well as infection transmission.

Figure 3: New HIV and AIDS diagnoses and deaths, reported from London, 2005-2014



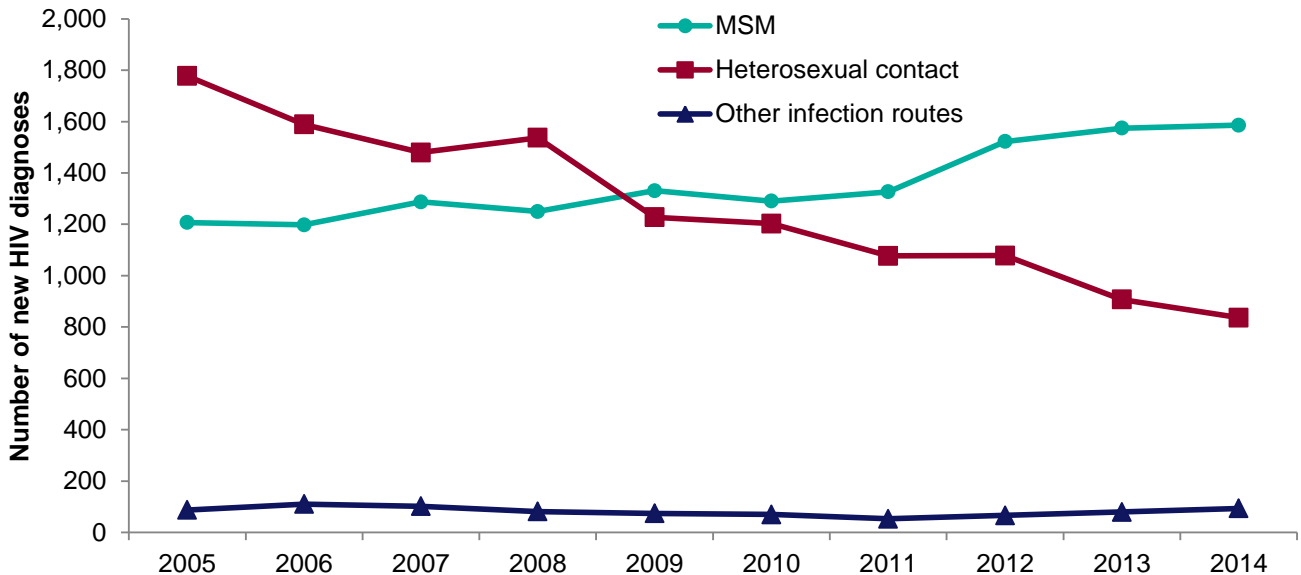
Please note that this chart is based on the PHEC from which the report originated (which is not necessarily the same as the PHEC of residence) as PHEC of residence is not available for AIDS and death reports.

Source: Public Health England, HIV and Aids New Diagnosis Database (HANDD).

The number of new diagnoses will depend on accessibility of testing as well as infection transmission.

*Numbers may rise as further reports are received. This will impact on interpretation of trends in more recent years.

Figure 4: New HIV diagnoses by probable route of infection (adjusted for missing route of infection information), London residents, 2005-2014 (please see footnote on interpreting trends)*

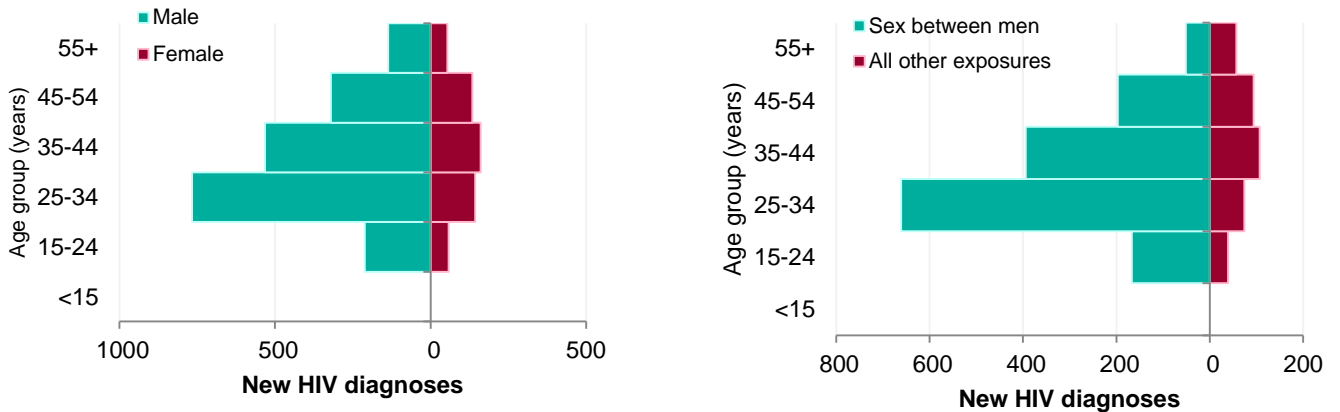


Source: Public Health England, HIV and Aids New Diagnosis Database (HANDD).

The number of new diagnoses will depend on accessibility of testing as well as infection transmission.

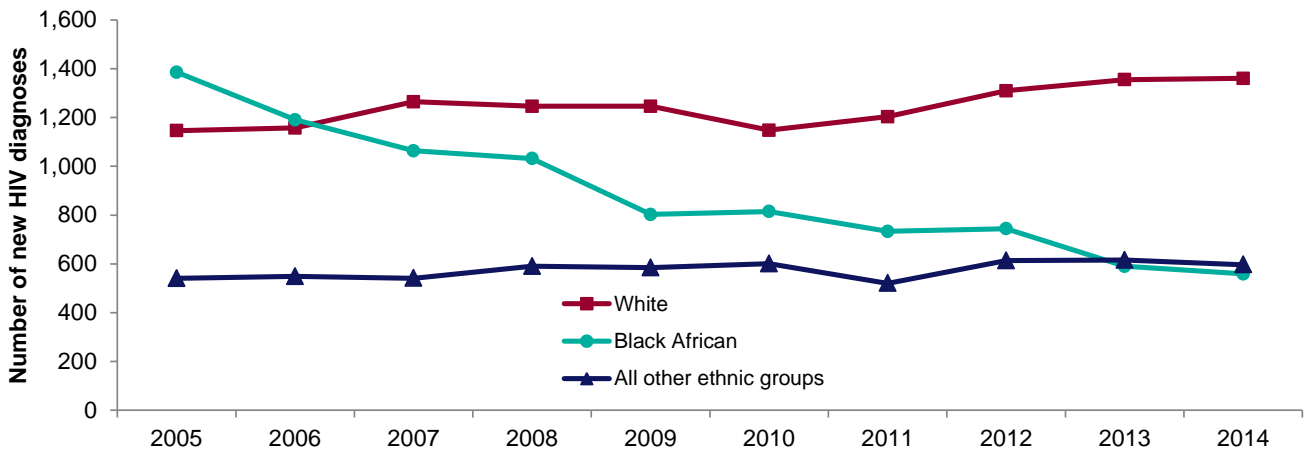
*Numbers may rise as further reports are received and more information is obtained on area of residence of those diagnosed. This is more likely to affect more recent year, particularly 2014. Please see important note on data earlier in this report. This will impact on interpretation of trends in more recent years.

Figure 5: Number of new HIV diagnoses by age group and gender (A) and probable route of infection in males (B), London residents, 2014



Source: Public Health England, HIV and Aids New Diagnosis Database (HANDD).
 The number of new diagnoses will depend on accessibility of testing as well as infection transmission.

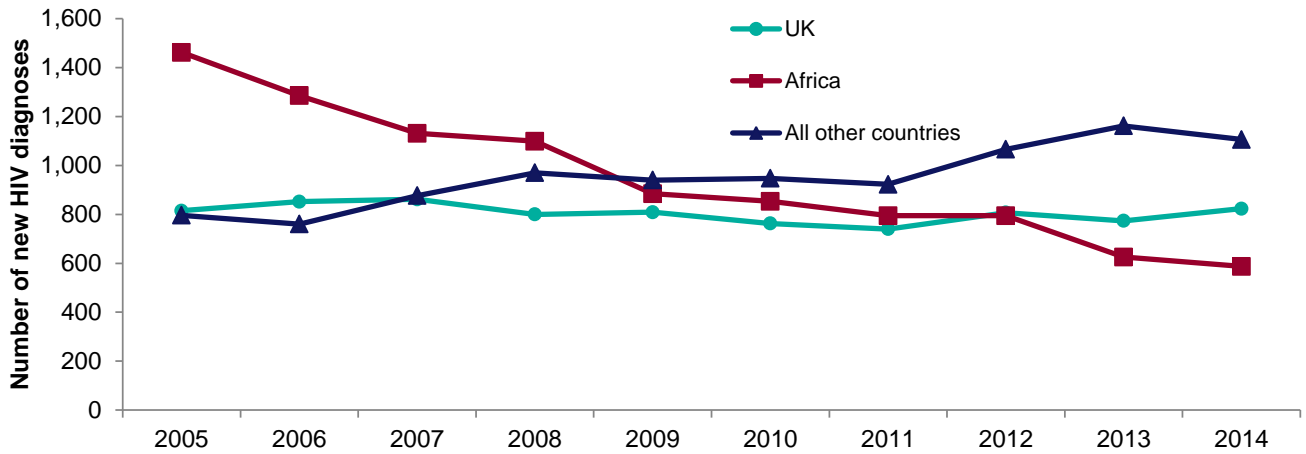
Figure 6: Number of new HIV diagnoses by ethnic group (adjusted for missing ethnic group information), London residents, 2005-2014 (please see footnote on interpreting trends)*



Source: Public Health England, HIV and Aids New Diagnosis Database (HANDD).
 The number of new diagnoses will depend on accessibility of testing as well as infection transmission.

*Numbers may rise as further reports are received and more information is obtained on area of residence of those diagnosed. This is more likely to affect more recent year, particularly 2014. Please see important note on data earlier in this report. This will impact on interpretation of trends in more recent years.

Figure 7: Number of new HIV diagnoses by world region of birth (adjusted for missing world region of birth information), London residents, 2005-2014 (please see footnote on interpreting trends)*

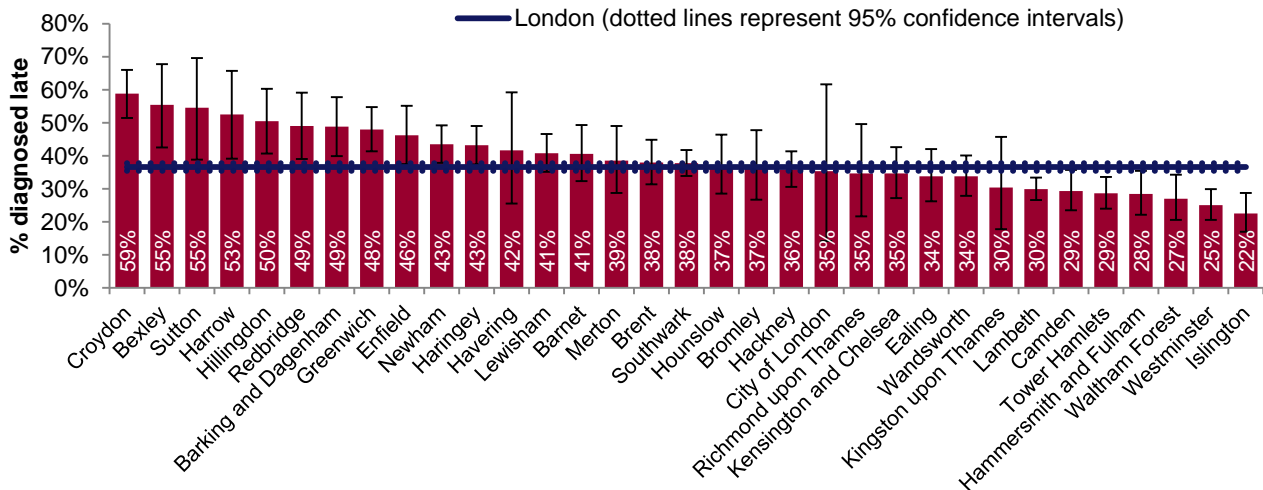


Source: Public Health England, HIV and Aids New Diagnosis Database (HANDD).

The number of new diagnoses will depend on accessibility of testing as well as infection transmission.

*Numbers may rise as further reports are received and more information is obtained on area of residence of those diagnosed. This is more likely to affect more recent year, particularly 2014. Please see important note on data earlier in this report. This will impact on interpretation of trends in more recent years.

Figure 8: Percentage of new HIV diagnoses that were diagnosed late by upper tier local authority of residence, London, aged 15 years and over, 2012-2014 *

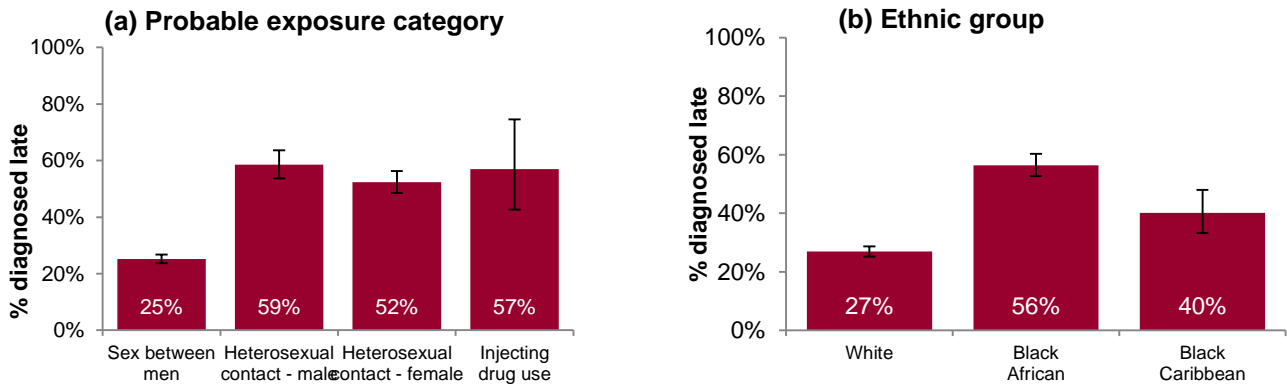


Source: Public Health England, HIV and AIDS New Diagnosis Database, CD4 Surveillance, Survey of Prevalent HIV Infections Diagnosed (SOPHID).

* Only includes new diagnoses for which CD4 count was reported within 91 days of diagnosis; late diagnosis defined as CD4 count <350 cells/mm³.

The underlying population will impact on the proportion diagnosed late, eg MSM are less likely to be diagnosed late.

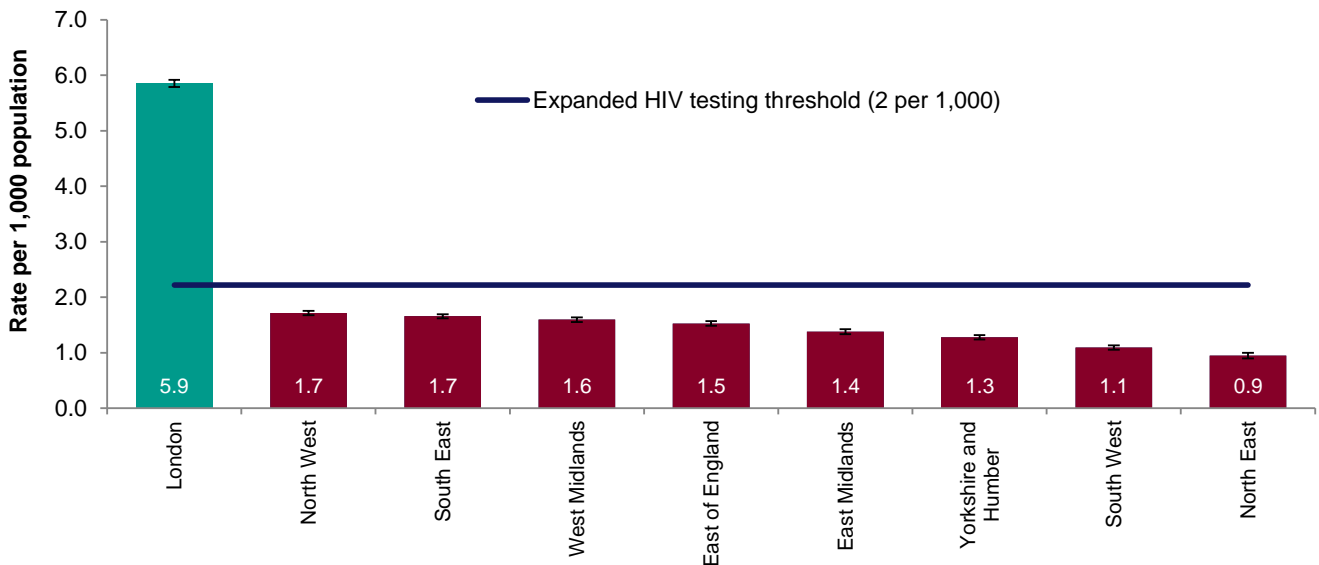
Figure 9: Percentage of new HIV diagnoses that were diagnosed late by probable route of infection (A) and ethnic group (B), London residents, ages 15 years and over, 2012-2014*



Source: Public Health England, HIV and AIDS New Diagnosis Database, CD4 Surveillance, Survey of Prevalent HIV Infections Diagnosed (SOPHID).

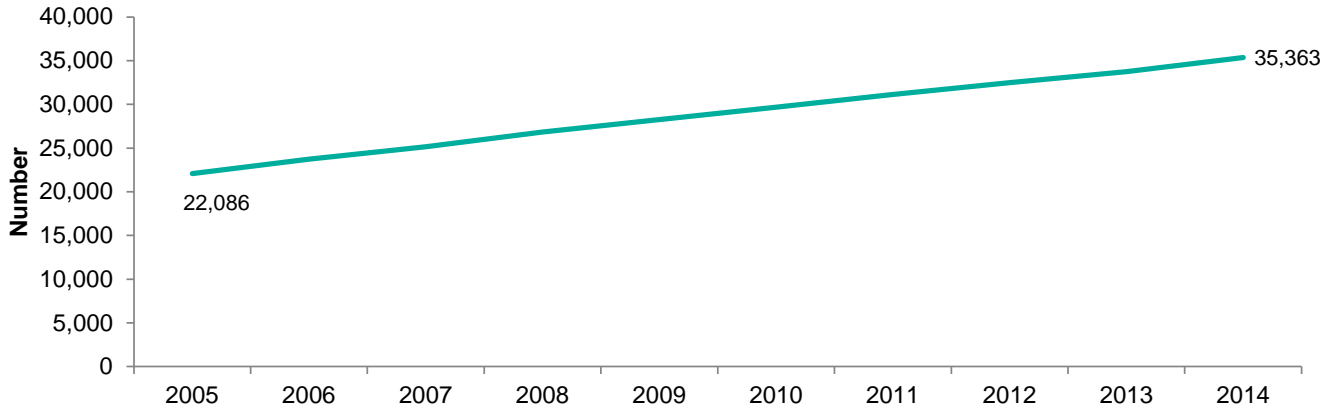
* Only includes new diagnoses for which CD4 count was reported within 91 days of diagnosis; late diagnosis defined as CD4 count <350 cells/mm³.

Figure 10: Diagnosed HIV prevalence per 1,000 residents aged 15-59 years by PHE Centre, 2014



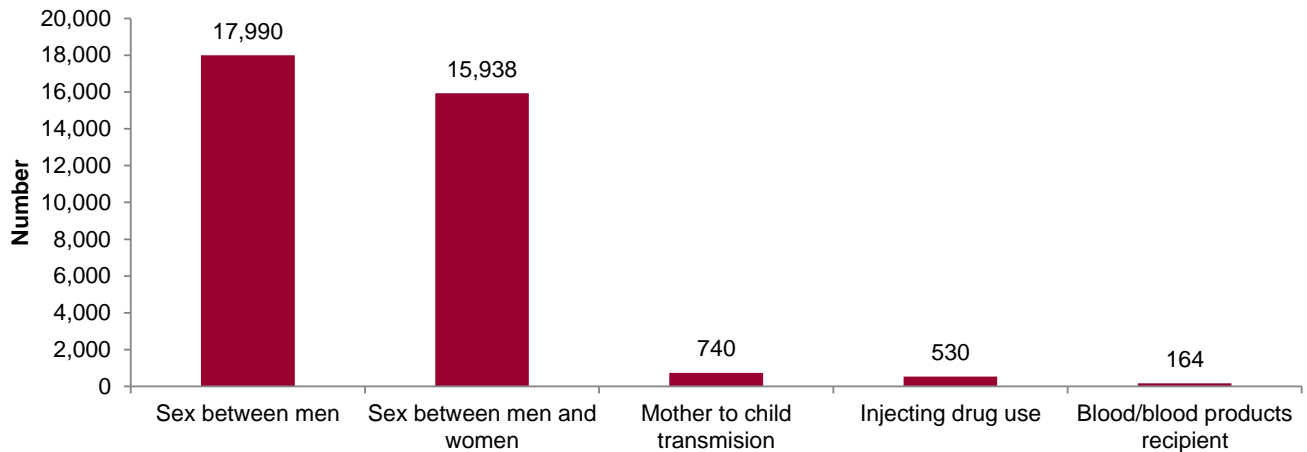
Source: Public Health England, Survey of Prevalent HIV Infections Diagnosed (SOPHID).

Figure 11: Number of residents living with diagnosed HIV and accessing care, London, 2005-2014



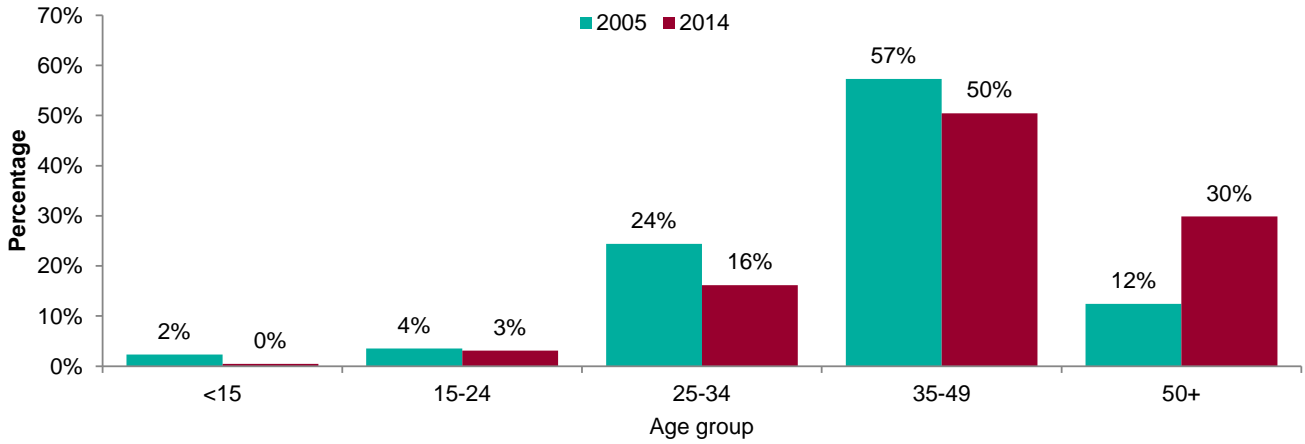
Source: Public Health England, Survey of Prevalent HIV Infections Diagnosed (SOPHID).

Figure 12: Number of residents living with diagnosed HIV and accessing care by probable route of transmission (adjusted for missing information), London, 2014



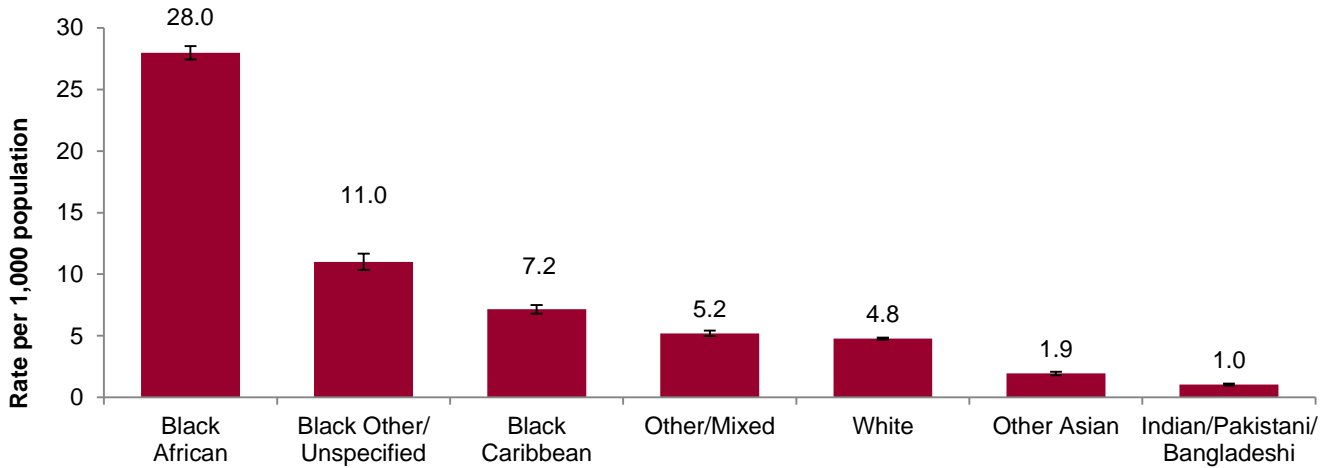
Source: Public Health England, Survey of Prevalent HIV Infections Diagnosed (SOPHID).

Figure 13: Percentage of residents with diagnosed HIV and accessing care by age group, London, 2005 and 2014



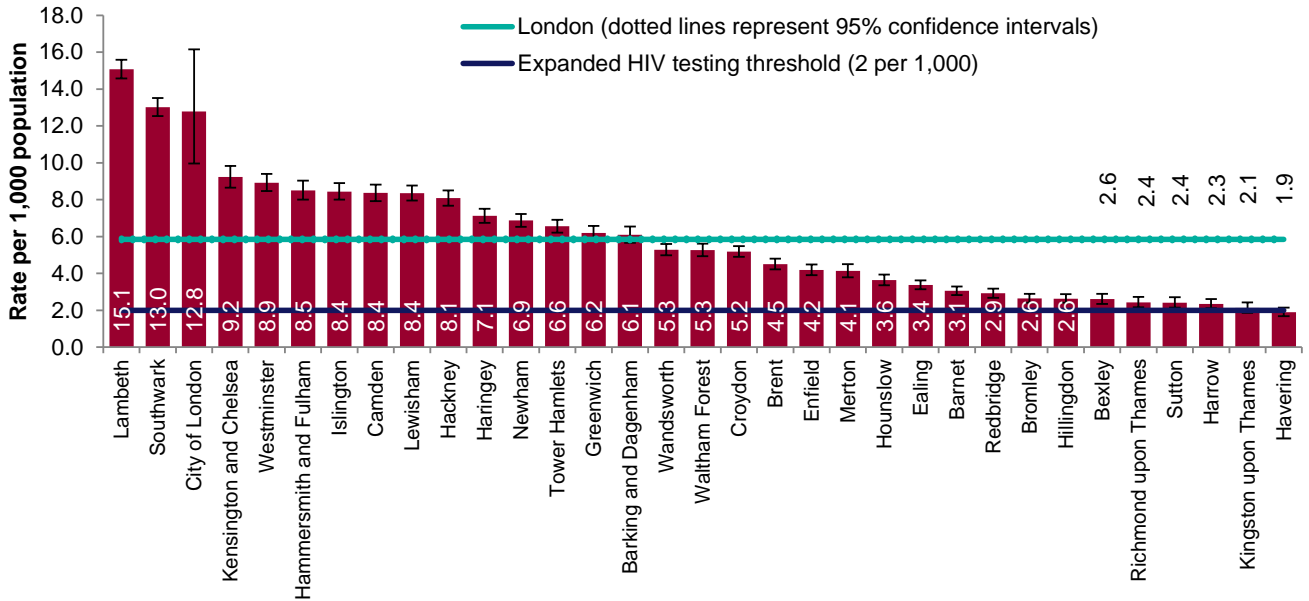
Source: Public Health England, Survey of Prevalent HIV Infections Diagnosed (SOPHID).

Figure 14: Diagnosed HIV prevalence per 1,000 residents by ethnic group aged 15-59 years, London, 2014



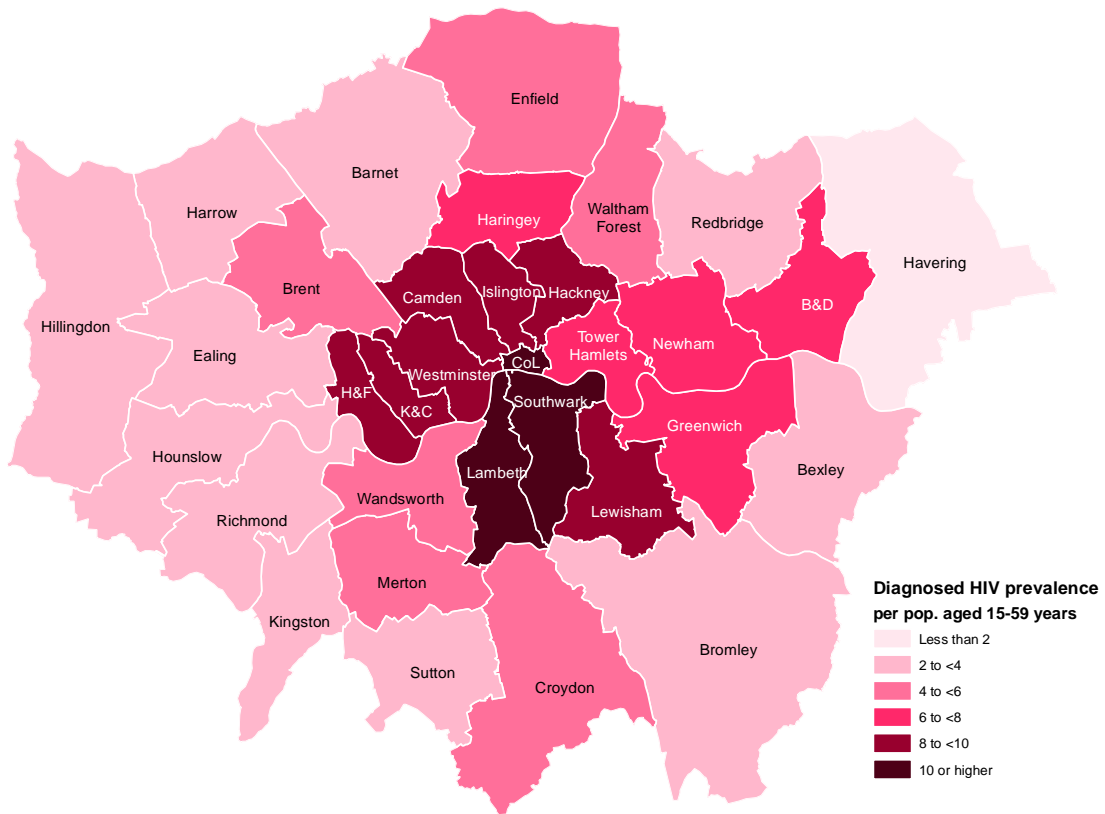
Source: Public Health England, Survey of Prevalent HIV Infections Diagnosed (SOPHID).

Figure 15: Diagnosed HIV prevalence per 1,000 residents aged 15-59 years by local authority, London, 2014



Source: Public Health England, Survey of Prevalent HIV Infections Diagnosed (SOPHID).

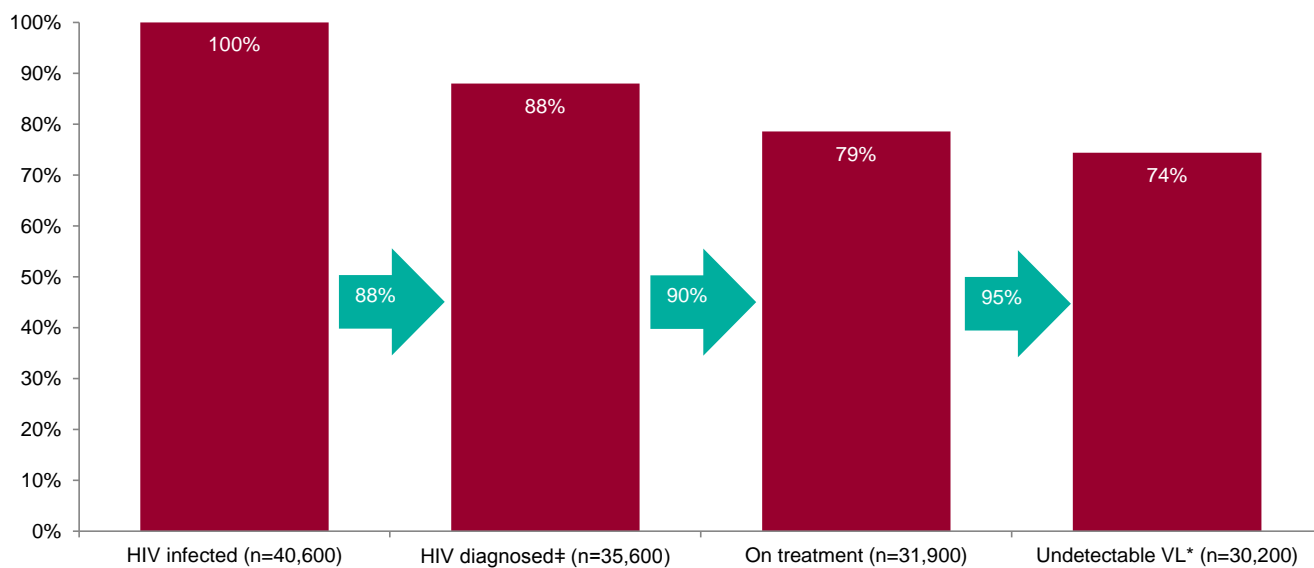
Figure 16: Diagnosed HIV prevalence per 1,000 residents aged 15-59 years by local authority, London, 2014



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Source: Public Health England, Survey of Prevalent HIV Infections Diagnosed (SOPHID).

Figure 17: The London HIV treatment cascade among adults living with HIV, 2014



‡ The number of diagnosed from multi-parameter evidence synthesis data. * Viral load (VL) <200 copies/ml

3 Information on data sources

- The HIV & AIDS New Diagnosis Database (HANDD) collects information on new HIV diagnoses, first AIDS diagnoses and deaths in HIV-infected individuals. Information is received from laboratories, genitourinary medicine (GUM) clinics, GPs and other services where HIV testing takes place in England, Wales and Northern Ireland. Scottish data (Health Protection Scotland) and data concerning paediatric infections (Institute of Child Health) are collected separately and collated to produce the national surveillance tables.
- The Survey of Prevalent HIV Infections Diagnosed (SOPHID) began in 1995 and is a cross-sectional survey of all persons with diagnosed HIV infection who attend for HIV care at an NHS site in England, Wales and Northern Ireland. Scottish data is collected by Health Protection Scotland. It collects information about the individual's place of residence along with epidemiological data including clinical stage and antiretroviral (ART) regime.
- Date of data extract: October 2015. Updates to HANDD and SOPHID made after this date will not be reflected in this report.
- Confidence intervals for rates have been calculated to the 95% level using the Byar's method; confidence intervals for percentages have been calculated to the 95% level using the Wilson Score method (see <http://www.apho.org.uk/resource/item.aspx?RID=48457>).
- ONS mid-year estimates for 2014 were used as a denominator for rates for 2014. ONS published a revised version of its mid-year estimates for 2013 and this version has been used here as a denominator for rates for 2013.
- The data behind charts showing absolute numbers has been adjusted for missing information; however the numbers in the summary section are the numbers as reported, ie unadjusted counts unless otherwise noted. Where charts are displaying adjusted data this is indicated in the chart title.
- The denominators for all percentages exclude records for which information was unknown, ie the proportion of new diagnoses where probable route of infection was sex between men would be calculated using new diagnoses for which route of infection was known as the denominator.

4 Further information

Please access the online 'Sexual and Reproductive Health Profiles' for further information on a whole range of sexual health indicators:

<http://fingertips.phe.org.uk/profile/sexualhealth>

For more information on local sexual health data sources please access the PHE guide:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/395207/PHE_Guide_to_National_Local_Sexual_Reproductive_Health_Data.pdf

Local authorities have access to LA HIV, sexual and reproductive health epidemiology reports (LASERs) and other HIV and STI intelligence via the HIV and STI portal. They should contact josh.forde@phe.gov.uk if they do not have access to this information.

5 About Field Epidemiology Services

The Field Epidemiology Service (FES) supports Public Health England Centres and partner organisations through the application of epidemiological methods to inform public health action.

FES does this in two main ways, firstly by providing a flexible expert resource, available, as and when needed, to undertake epidemiological investigations for key health protection work and secondly through the expert analysis, interpretation and dissemination of surveillance information to PHE Centres, local health partners, service providers and commissioners of services.

Within the FES network, excellence and innovation is encouraged, we foster academic collaborations and take active part and lead in research, development and training.

You can contact your local FES team at fes.seal@phe.gov.uk.

If you have any comments or feedback regarding this report or the FES service, please contact josh.forde@phe.gov.uk.

6 Acknowledgements

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- Institute of Child Health
- PHE Centre for Infectious Disease Surveillance and Control (CIDSC) HIV and STI surveillance teams for collection, analysis and distribution of data
- Stefano Conti of the PHE CIDSC modelling team for providing estimates of the total number of people living with HIV and the proportion that remain undiagnosed