



Public Health  
England

Protecting and improving the nation's health

# **Annual Epidemiological Spotlight on HIV in the South East** 2015 data

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Published February 2017  
PHE publications gateway number: 2016650



## Important note about the data in this report

With the exception of Figure 3, all analyses in this report are residence-based. Information about an individual's place of residence is not collected by the HIV and AIDS New Diagnoses and Deaths system (HANDDD). 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 individual's PHE Centre (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 (2006 to 2015) a PHEC of residence can be obtained via this linkage/imputation process for 100% of UK new HIV diagnosis reports.

Of those assigned as residents of the South East, 473 (82%) were known to be residents (identified through linkage). This number will correspond to the numbers provided in the Sexual and Reproductive Health Profiles (<http://fingertips.phe.org.uk/profile/sexualhealth>). For the remaining 105 (18%) PHEC of residence was imputed from PHEC of diagnosis.

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

Numbers may change as more information becomes available to assign area of residence to cases and as historical data is refreshed accordingly.

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# 1. Summary

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

## New diagnoses

In 2015, an estimated 578 South East residents were newly diagnosed with HIV (473 known residents and 105 where residence has been imputed from PHE Centre (PHEC) of diagnosis. See page 3 for more information). Numbers may change as more information becomes available to assign area of residence to cases. All residence-based numbers and rates at PHEC level in this report include both known and imputed residents.

For robust trend data we need to examine the number of people newly diagnosed in South East clinics (not all of whom are resident in the South East). In 2015, this was 545, a rise of 14% from 2014. 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 no clear long term trend in the number of new HIV diagnoses in MSM, in the context of increased HIV testing. The number of MSM resident in the South East newly diagnosed with HIV in 2015 (293, adjusted for missing information) was 7% higher than in 2006.

The new diagnosis rate for South East residents aged 15 years or older (8 per 100,000) was below that of England in 2015 (12 per 100,000).

In 2015, 56% of all new diagnoses in South East residents were MSM (compared to 52% in 2014 and 37% in 2006). Of the MSM newly diagnosed with HIV, 88% were white and 63% were UK born.

Heterosexual contact was the second largest exposure route for new diagnoses in South East residents in 2015 (38%). African born persons accounted for 43% of all heterosexually acquired diagnoses in 2015 (n=84), compared to 74% (n=337) in 2006. UK born persons accounted for 43% of all heterosexually acquired diagnoses in 2015.

Injecting drug use accounted for 4% of new diagnoses in the South East in 2015.

Black Africans represented 17% of all newly diagnosed South East residents in 2015 (compared to 21% in 2014 and 47% in 2006). A small proportion of new diagnoses in 2015 were in black Caribbeans (2%).

In 2015, the number of new diagnoses was highest in the 25-34 year age group in both men and women.

## Late diagnoses

It is of particular concern that a large proportion of people with HIV are diagnosed late in the South East (43% from 2013 to 2015, compared to 40% in England), as defined by a CD4 count of less than 350 cells/mm<sup>3</sup> 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 increased risk of mortality within one year of diagnosis compared to those diagnosed promptly and often have increased healthcare costs.

Heterosexuals were more likely to be diagnosed late (58% among men, 52% among women) than MSM (33%). By ethnic group, black Africans were more likely to be diagnosed late than those of white ethnicity (56% and 39% respectively).

## People living with diagnosed HIV

The 9,637 people living with diagnosed HIV in the South East in 2015 was 4% higher than in 2014 and 79% higher than in 2006. 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 the South East in 2015 was 1.7 per 1,000 residents aged 15-59 years. This was lower than the 2.3 per 1,000 observed in England as a whole. Twelve local authorities in the South East had a diagnosed HIV prevalence in excess of 2 per 1,000 population aged 15-59 years in 2015, which is the threshold for expanded HIV testing. They were Adur (2.1), Brighton and Hove (8), Crawley (3.2), Eastbourne (2.2), Hastings (2.3), Lewes (2.2), Oxford (2), Reading (3), Rushmoor (2), Slough (3.4), Southampton (2.1) and Worthing (2.6).

The two commonest probable routes of transmission for South East residents living with diagnosed HIV in 2015 were sex between men (50%) and heterosexual sex (46%).

In 2015, 47% of those living with diagnosed HIV in the South East were aged between 35 and 49 years, and 38% were aged 50 years and over (up from 18% in 2006). Men represented 70% of South East residents living with diagnosed HIV in 2015 and women represented 30%.

In 2015, 62% of South East residents living with diagnosed HIV were white and 29% were of black African ethnicity. 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 (48.3 per 1,000) than in the white population (1.1 per 1,000).

## People living with undiagnosed HIV

It is estimated that in 2015 13% (95% CrI 10%-17%) of people living with HIV in England and Wales, excluding London, were undiagnosed, although there is considerable uncertainty in this estimate.

## Implications for prevention

Free and effective antiretroviral therapy (ART) in the UK has transformed HIV from a fatal infection into a chronic, manageable condition. People living with HIV in the UK can now expect to live into old age if diagnosed promptly. For many people, treatment means one daily tablet with no or few side effects.

There are a number of approaches to the prevention of HIV transmission and continued funding in prevention activities remains critical to curb 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.

Work to improve condom use should address underlying factors that lead to risk taking behaviour, especially among MSM. These are diverse and may include low self-esteem, 'chemsex' and sero-adaptive behaviour (modifying of sexual behaviour based on one's own HIV sero-status, the perceived HIV sero-status of a sexual partner, and/or differences in risk of transmission by different sexual acts).

While testing and treatment for HIV in the UK is free and available to all, over 13,000 people living with HIV remain undiagnosed and rates of late diagnosis remain high. Late HIV diagnosis is associated with poorer health outcomes, including premature death. Furthermore, since the vast majority of people diagnosed with HIV are effectively treated, most new HIV infections are passed on from persons unaware of their infection.

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 5,830 were living with undiagnosed HIV infection in 2015 and incidence remains high. It is also important to promote HIV testing within black African communities as there are estimated to be 2,860 black Africans living with undiagnosed HIV infection in the UK.

Partner notification following the diagnosis of HIV infection is a highly effective way to detect undiagnosed HIV infections: in 2015 in England, 5.3% of partners of people diagnosed with HIV were also positive for HIV.

Referring to the recent 2016 joint PHE and NICE guidelines on HIV testing, the 2016 [PHE report on HIV testing in England](#) has recommendations on increasing testing including:

- specialist sexual health clinics (SHCs) should increase HIV testing among all attendees, but especially black African women and MSM
- specialist SHCs should improve the notification and testing of sexual partners of people with HIV
- MSM should be encouraged to have regular HIV tests at specialist SHCs, at other venues, or by ordering self-sampling HIV kits on-line ([www.freetesting.hiv](http://www.freetesting.hiv)).
- according to 2016 NICE guidelines, people admitted to hospital, especially in extremely high prevalence areas should be tested for HIV. Extremely high prevalence areas are defined as more than 5 people aged 15-59 years living with diagnosed HIV per 1,000 residents
- according to the 2016 NICE guidelines, general practices should test patients for HIV, especially in extremely high prevalence areas
- HIV testing should improve for patients with hepatitis B and hepatitis C and for people who inject drugs
- two further HIV testing programmes should continue to be developed - the prison based opt-out testing programme for HIV and other blood borne viruses and the latent tuberculosis infection testing and treatment programme
- the current high levels of HIV testing in antenatal care, blood, tissue and organ donation services, among patients with TB and among men attending specialist SHCs, should be maintained

Symptoms due to HIV and AIDS may not appear for many years, and people who are unaware of their infection may not feel themselves to be at risk. However, anyone can acquire HIV regardless of age, gender, ethnicity, sexuality or religion and it is essential to challenge assumptions about who is at risk of HIV. As well as increasing awareness of HIV, efforts to reduce stigma and other socio-cultural barriers that prevent people from testing and seeking long-term care must be strengthened.

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. Studies 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. The first phase of implementation will be the launch of a large scale clinical trial early in the 2017 to 2018 financial year. Although the evidence around the clinical effectiveness of



PrEP is strong, advice from PHE has highlighted significant outstanding implementation questions that should be answered prior to using PrEP in a sustained way on a substantial scale in England. These questions will be answered by the clinical trial, paving the way for full roll-out. NHS England will fully fund the cost of the clinical trial phase and will work in partnership with local authorities, the Local Government Association and PHE to implement the findings as part of a wider national roll-out.

It has been demonstrated that the advantages of ART extend beyond personal clinical benefit. It is now widely understood that effective HIV treatment results in an 'undetectable' viral load which is protective from passing on the virus to others. Revised guidelines from the British HIV Association and World Health Organisation have recently been published which recommend that patients start ART at diagnosis regardless of CD4 count both for clinical benefits and preventing 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

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

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.

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.

How to get an HIV test:

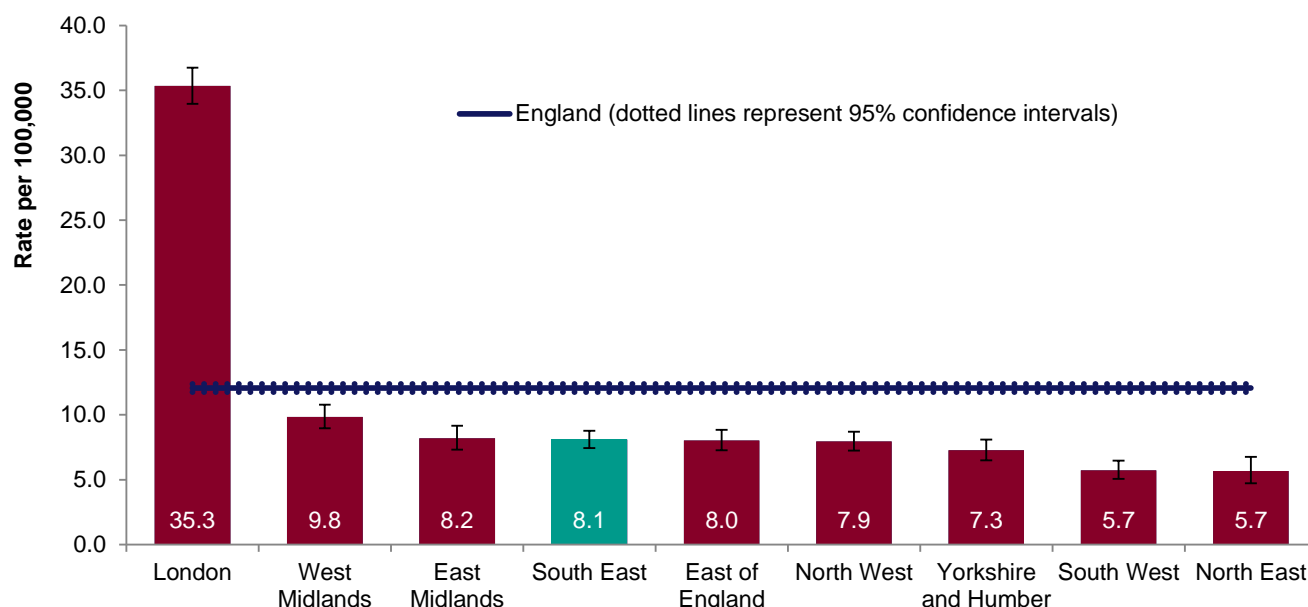
- go to an open-access STI clinic (some clinics offer 'fast-track' HIV testing) or a community testing site ([www.aidsmap.com/hiv-test-finder](http://www.aidsmap.com/hiv-test-finder))
- ask your GP for an HIV test
- request a self-sampling kit online ([www.freetesting.hiv](http://www.freetesting.hiv)) or obtain a self-testing kit

Gay, bisexual and other men who have sex with men are advised to test for HIV and other STIs at least annually and every three months if having sex with new or casual partners.

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

## 2. Charts, tables and maps

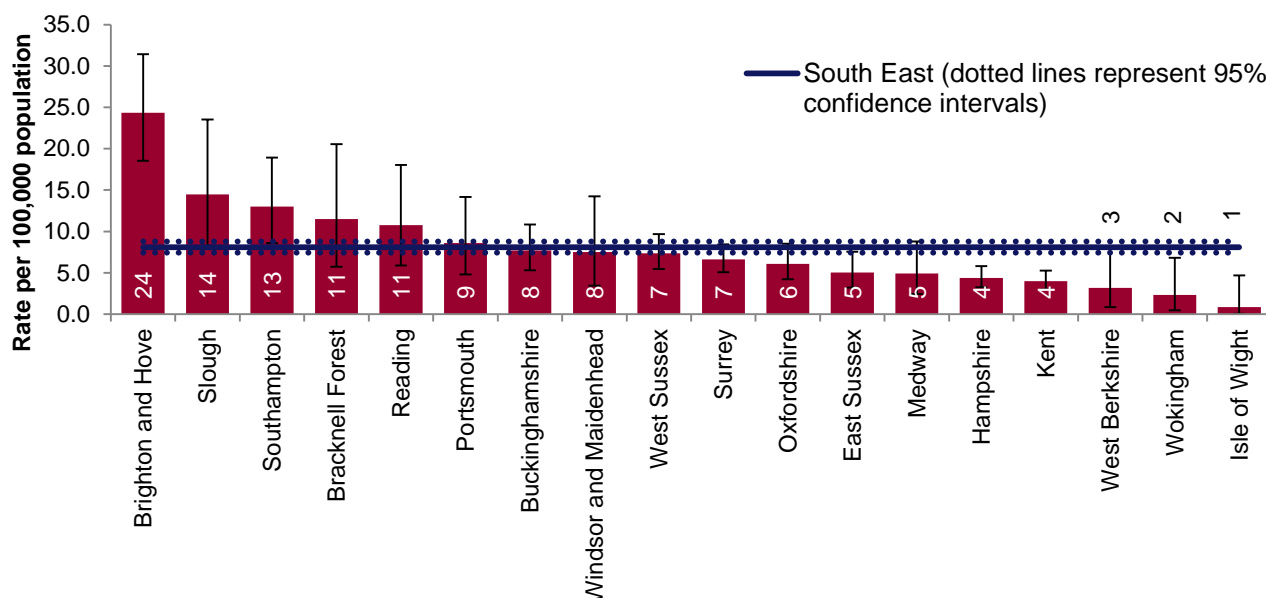
**Figure 1: New HIV diagnosis rate per 100,000 population aged 15 years or older by PHE centre of residence, 2015**



Source: Public Health England, HIV & Aids New Diagnoses and Deaths (HANDD).

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

**Figure 2: New HIV diagnosis rate per 100,000 population aged 15 years or older by upper tier local authority of residence, South East residents, 2015**

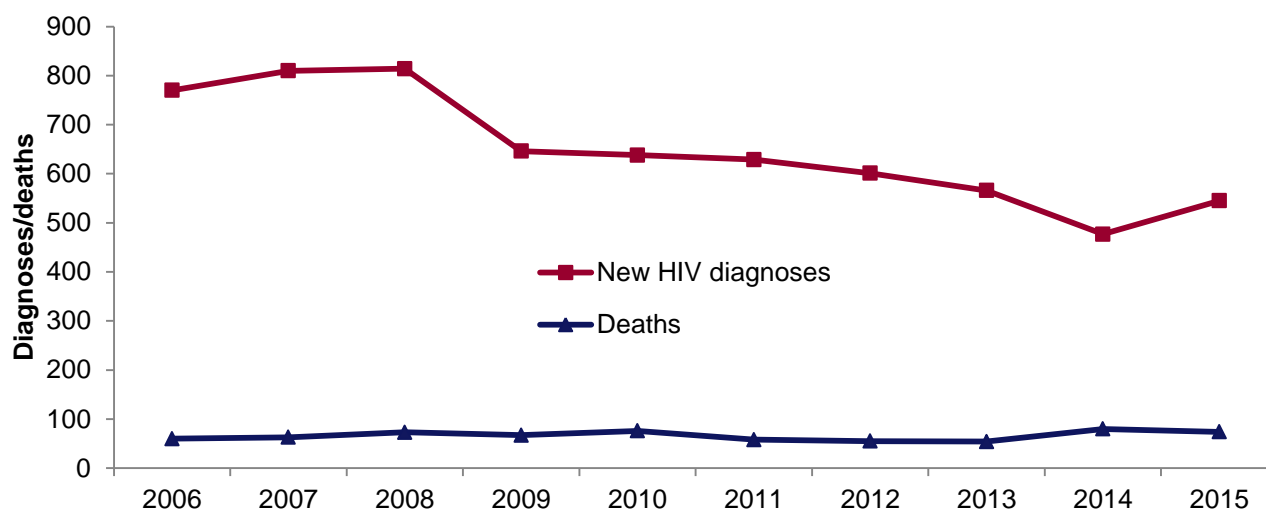


Source: Public Health England, HIV & Aids New Diagnoses and Deaths (HANDD).

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

**Figure 3: New HIV diagnoses and deaths, reported from the South East, 2006-2015**

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 death reports.

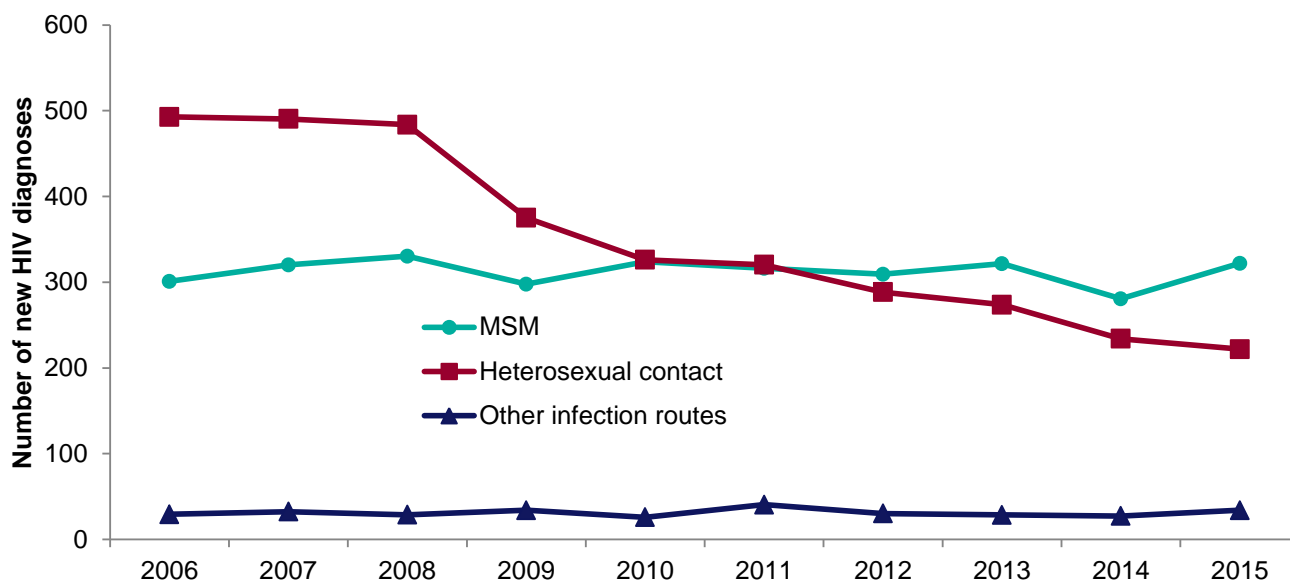


Source: Public Health England, HIV & Aids New Diagnoses and Deaths (HANDD).

The number of new diagnoses will depend upon 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), South East residents, 2006-2015 (please see footnote on interpreting trends)\***

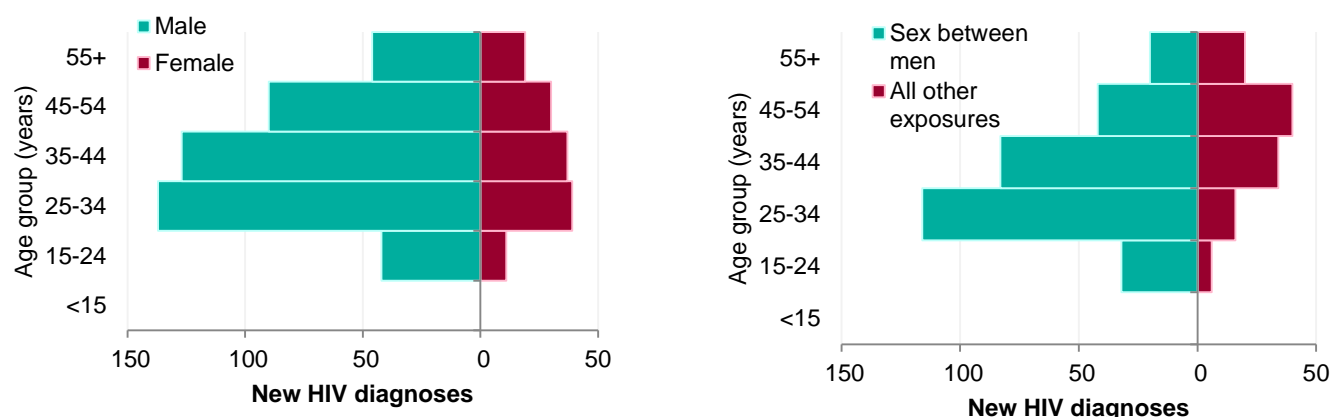


Source: Public Health England, HIV & Aids New Diagnoses and Deaths (HANDD).

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 **2015**. Please see important note on data earlier in this report. This will impact upon interpretation of trends in more recent years.

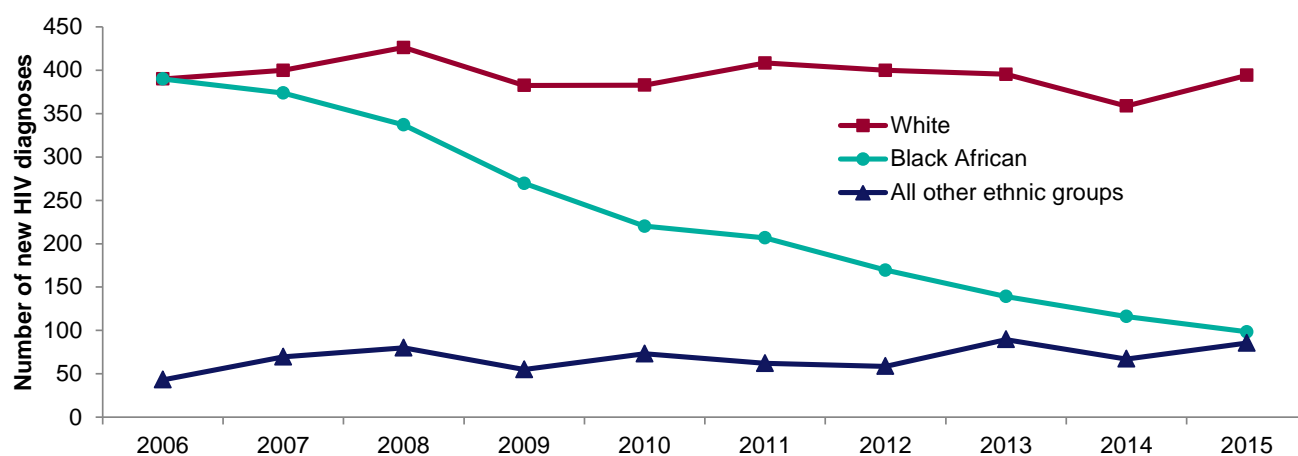
**Figure 5: Number of new HIV diagnoses by age group and gender (A) and probable route of infection in males (B), South East residents, 2015**



Source: Public Health England, HIV & Aids New Diagnoses and Deaths (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), South East residents, 2006-2015 (please see footnote on interpreting trends)\***

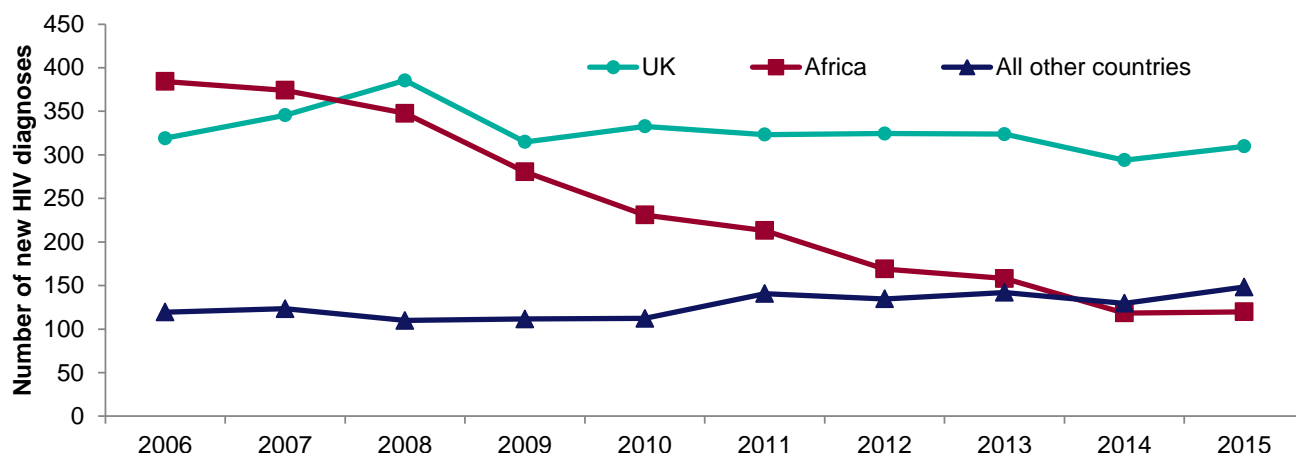


Source: Public Health England, HIV & Aids New Diagnoses and Deaths (HANDD).

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 years, particularly **2015**. Please see important note on data earlier in this report. This will impact upon 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), South East residents, 2006-2015 (please see footnote on interpreting trends)\***

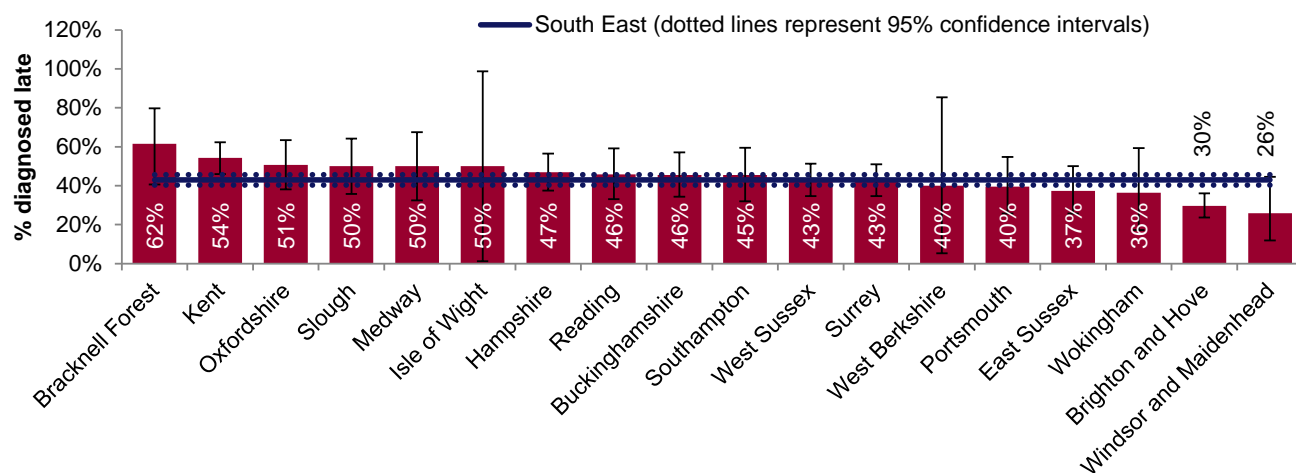


Source: Public Health England, HIV & Aids New Diagnoses and Deaths (HANDD).

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 years, particularly **2015**. Please see important note on data earlier in this report. This will impact upon 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, South East, aged 15 years and over, 2013-2015 \***

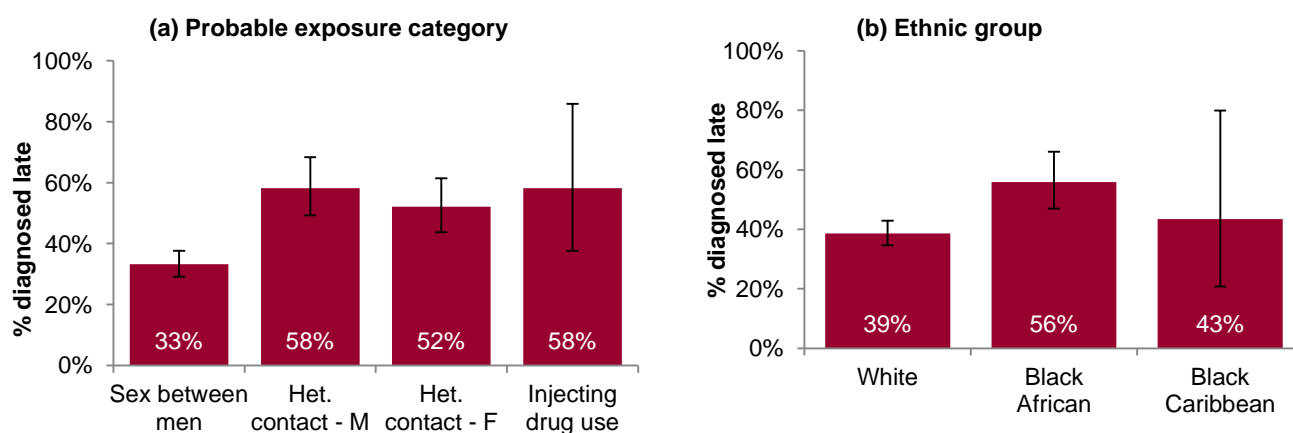


Source: Public Health England, HIV & Aids New Diagnoses and Deaths (HANDD), CD4 Surveillance, Survey of Prevalent HIV Infections Diagnosed (SOPHID).

\* Only includes new diagnoses for which CD4 count was reported within 91 days of diagnosis; late diagnosis defined as CD4 count <350 cells/mm<sup>3</sup>.

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

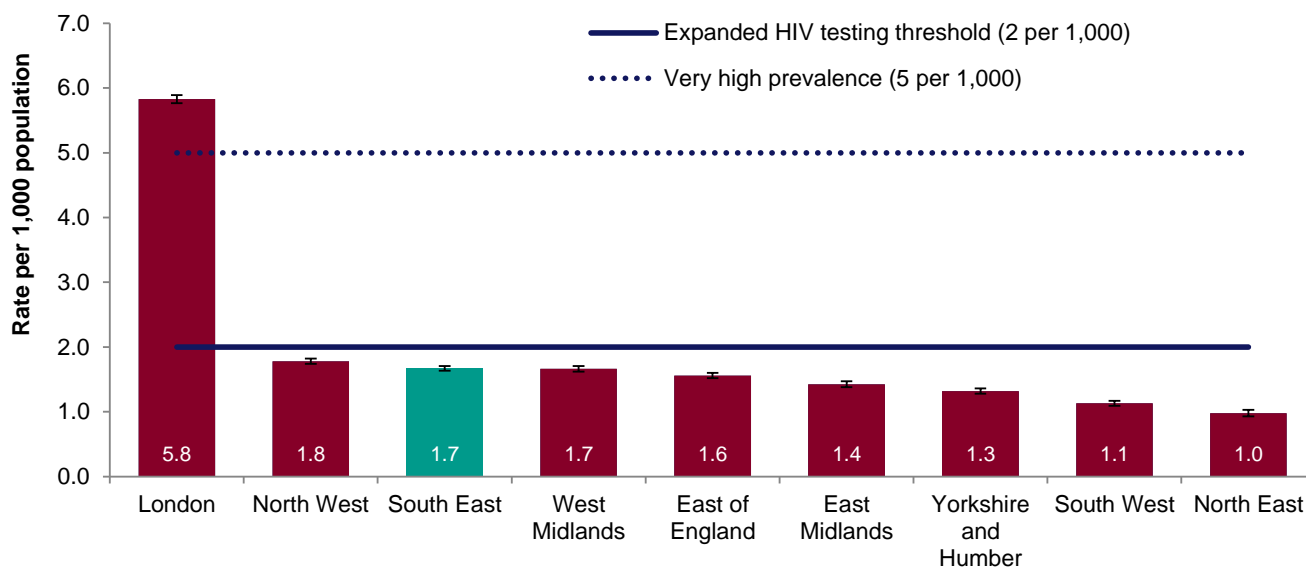
**Figure 9: Percentage of new HIV diagnoses that were diagnosed late by probable exposure category (A) and ethnic group (B), South East residents, aged 15 years and over, 2013-2015\***



Source: Public Health England, HIV & Aids New Diagnoses and Deaths (HANDD), CD4 Surveillance, Survey of Prevalent HIV Infections Diagnosed (SOPHID).

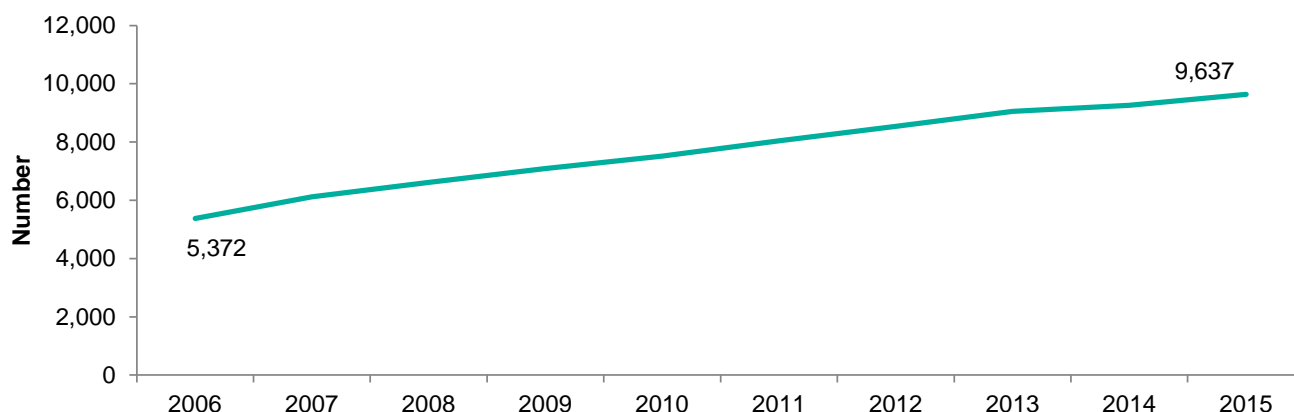
\* Only includes new diagnoses for which CD4 count was reported within 91 days of diagnosis; late diagnosis defined as CD4 count <350 cells/mm<sup>3</sup>.

**Figure 10: Diagnosed HIV prevalence per 1,000 residents aged 15-59 years by PHE Centre, 2015**



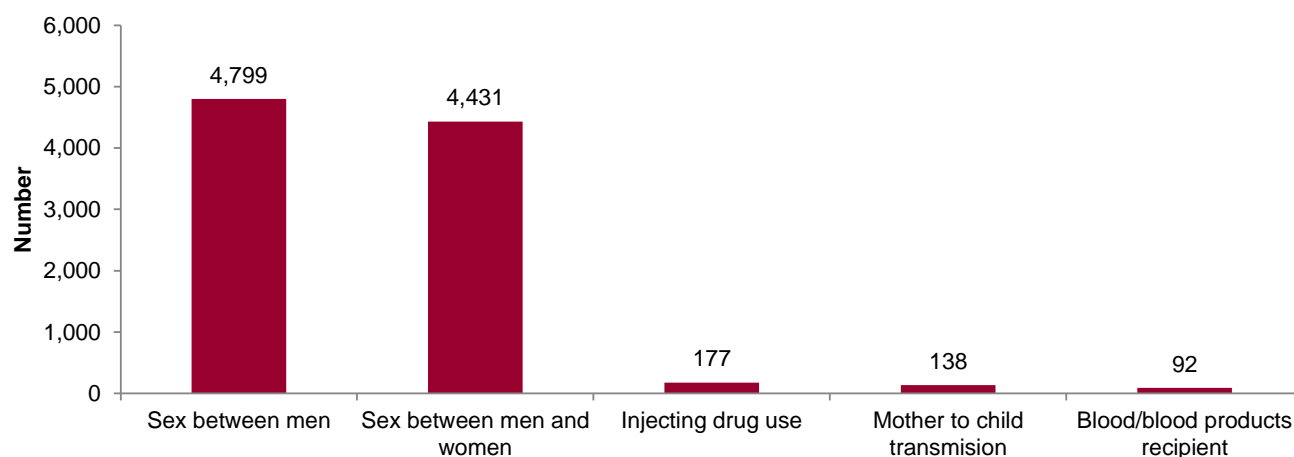
Source: Public Health England, Survey of Prevalent HIV Infections Diagnosed (SOPHID).

**Figure 11: Number of residents living with diagnosed HIV and accessing care, the South East, 2006-2015**



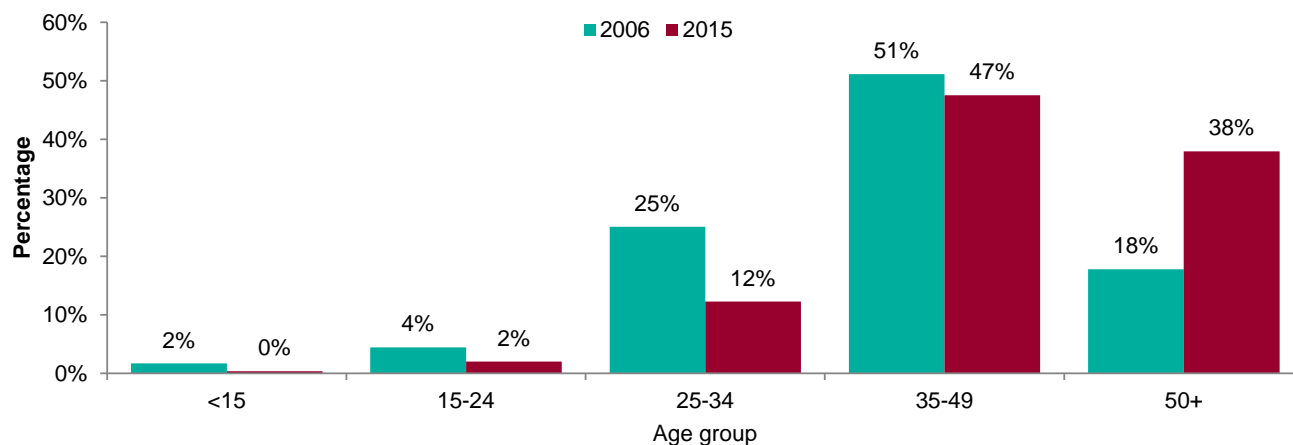
Source: Public Health England, Survey of Prevalent HIV Infections Diagnosed (SOPHID).

**Figure 12: Number of residents living with diagnosed HIV and accessing care by probable route of exposure (adjusted for missing information), the South East, 2015**



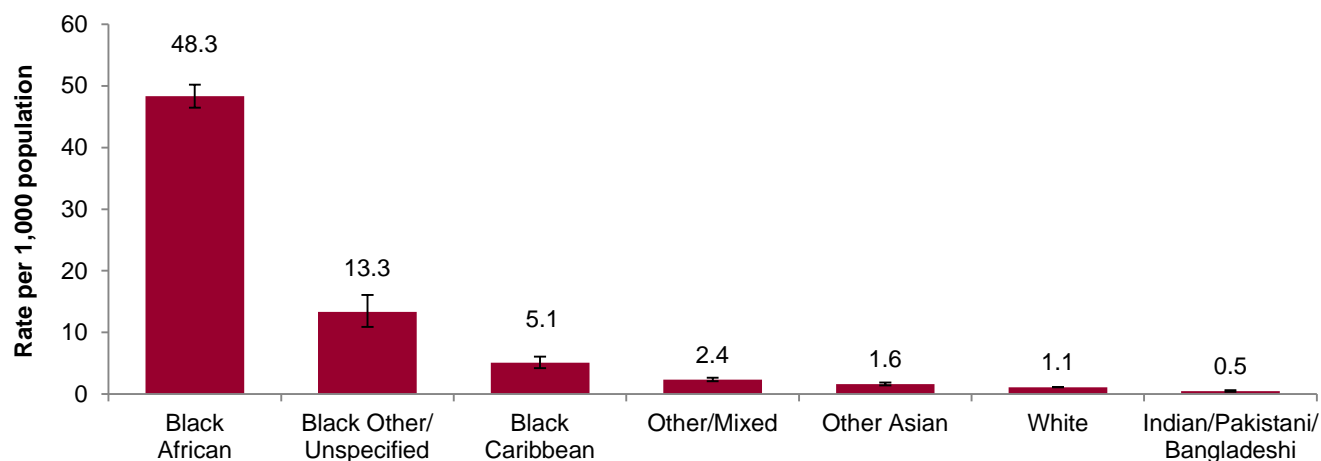
Source: Public Health England, Survey of Prevalent HIV Infections Diagnosed (SOPHID).

**Figure 13: Percentage of residents with diagnosed HIV and accessing care by age group, the South East, 2006 and 2015**



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

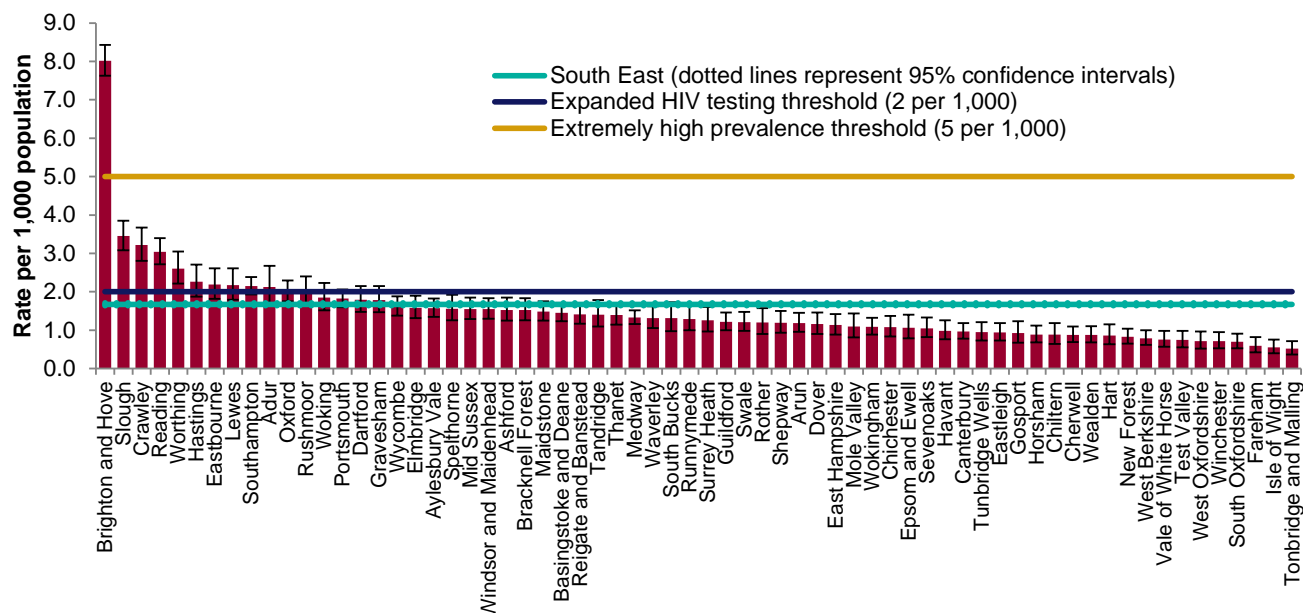
**Figure 14: Diagnosed HIV prevalence per 1,000 residents by ethnic group aged 15-59 years, the South East, 2015**



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

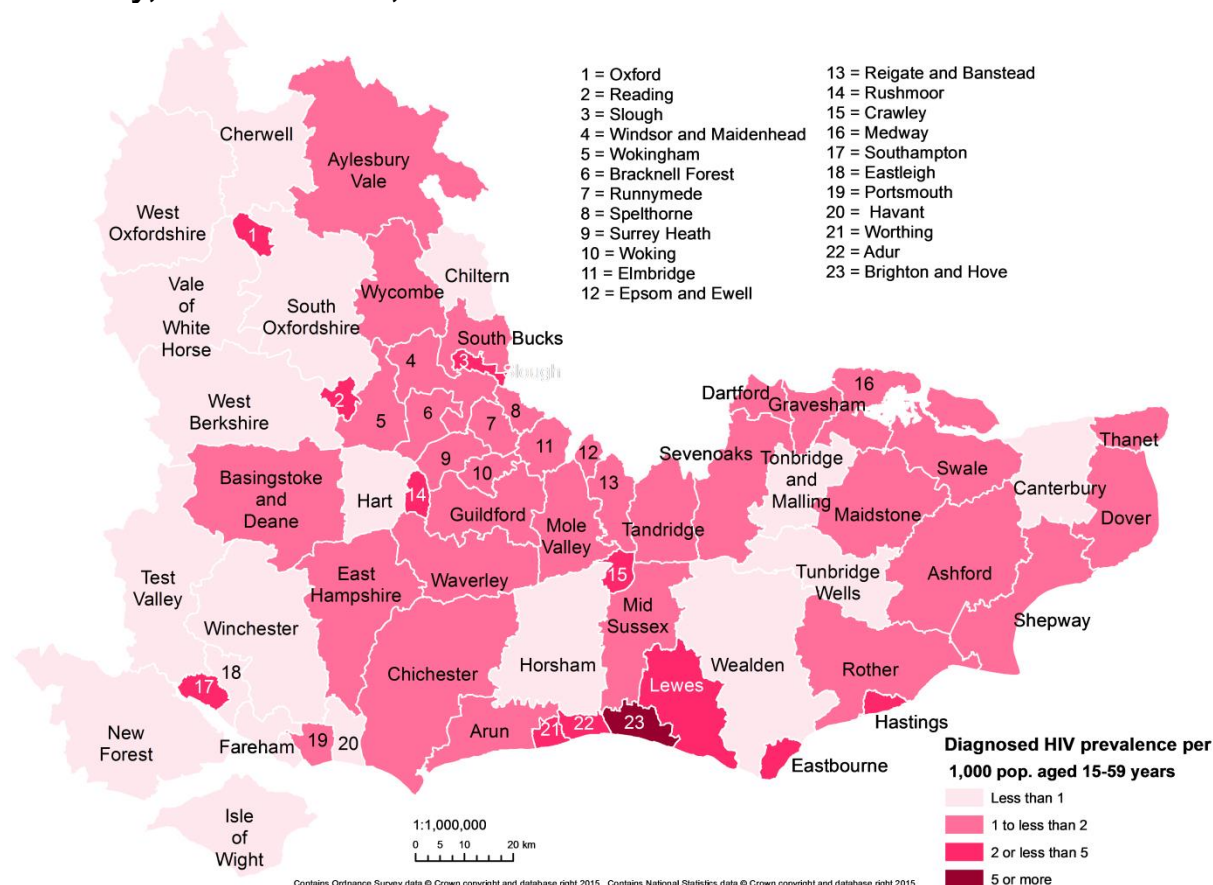


**Figure 15: Diagnosed HIV prevalence per 1,000 residents aged 15-59 years by local authority, the South East, 2015**



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, the South East, 2015**



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

### 3. Information on data sources

- HIV & AIDS New Diagnoses and Deaths (HANDD) collects information on new HIV diagnoses, AIDS at diagnosis and deaths among people diagnosed with HIV. Information is received from laboratories, genitourinary medicine (GUM) clinics, GPs and other services where HIV testing takes place in England, Wales and Northern Ireland.). The Recent Infection Testing Algorithm (RITA) and CD4 surveillance scheme are linked to HANDD to assess trends in recent and late diagnoses. Data is deduplicated across regions and therefore figures may differ from country-specific data
- The Survey of Prevalent HIV Infections Diagnosed (SOPHID) began in 1995 and is a cross-sectional survey of all adults living with diagnosed HIV infection who attend for HIV care in England, Wales and Northern Ireland. SOPHID collects information about the individual's place of residence along with epidemiological data including clinical stage and antiretroviral therapy (ART). As of 2016, SOPHID has been replaced by the HIV & AIDS Reporting System (HARS)
- Date of data extract: October 2016. Updates to HANDD and SOPHID/HARS made after this date will not be reflected in this report
- Confidence intervals for rates in the figures 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>). Confidence intervals presented in the text are produced by Bayesian analysis
- ONS mid-year estimates for 2015 were used as a denominator for rates for 2015
- The data behind charts showing absolute numbers has been adjusted for missing information; however, unless stated otherwise, the numbers in the summary section are the numbers as reported, ie unadjusted counts. 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 STIs in the South East please access the following report:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/553615/southeast\\_sti\\_spotlight.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/553615/southeast_sti_spotlight.pdf)

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/576052/PHE\\_SH\\_data\\_guide\\_December\\_2016\\_FINALNB081216.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/576052/PHE_SH_data_guide_December_2016_FINALNB081216.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](mailto: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](mailto: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](mailto:josh.forde@phe.gov.uk).

## 6. Acknowledgements

We would like to thank the following:

- Local sexual health and HIV clinics for supplying the HIV data
- 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
- Anne Presanis for providing estimates of the total number of people living with HIV and the proportion that remain undiagnosed