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# **Annual Epidemiological Spotlight on HIV in the West Midlands 2017 data**

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# Contents

1. Executive summary	4
2. New HIV diagnoses, AIDS and deaths	6
3. Probable route of transmission	9
4. Geography of new HIV diagnosis	11
5. Late diagnosis and testing	12
6. People living with diagnosed HIV	17
7. Geography of HIV prevalence	20
8. Public health implications	22
9. Information on data sources	27
10. Further information	28
11. About the Field Service	29
12. Acknowledgements	30

# 1 Executive summary

This report summarises trends in HIV infection in residents of the West Midlands from 1981 to the end of 2017. The new diagnosis data presented in this report refers to patients known to be resident in the West Midlands at diagnosis and patients of unknown residence who were diagnosed in the West Midlands. All data are provisional and may change as further reports are received.

In 2017, the number of West Midlands residents newly diagnosed with HIV decreased by 23% (2016: 425 cases; 2017: 329 cases), but problems with late diagnosis remain. The cumulative total of new diagnoses from 1981 to 2017 was 9,568 cases (Figure 1). This decrease has also been seen nationally.

In 2017, the highest new diagnosis rates in individuals aged 15 years and over were observed in the major urban centres of Wolverhampton (16.3 per 100,000), Sandwell (14.1 per 100,000) and Birmingham (11.9 per 100,000). The lowest rates were observed in Worcestershire (1.8 per 100,000) and Telford and Wrekin (0.0 per 100,000). The overall rate for the West Midlands was 6.8 per 100,000. This was lower than the rate for England (8.7 per 100,000) (Figure 7).

Heterosexual contact remains the largest exposure group in the West Midlands, accounting for 43% of cases in 2017, although the number decreased by 29% since 2016, and by 66% from the peak in 2004.

A marked decrease in the number and proportion of infections acquired in Africa has been observed. In 2017, 35% of heterosexually contracted infections were acquired in Africa (when cases with an unknown country of infection are excluded), compared to 85% in 2003. However, incidence rates in the Black African ethnic group remain significantly higher than those for other ethnic groups; in 2017, the rate in the Black African population was 27 times that of the white population (Table 1; Figure 4). This suggests that health improvement messages for the wider population and specific services for Black African populations continue to be needed, particularly aimed at promoting HIV testing.

New diagnoses reported in men who have sex with men (MSM) decreased by 12% from 2016 to 2017 (Figure 5). This decrease was also seen nationally. However, rates remain at historically high levels. So, health improvement efforts need to be sustained for this group, and updated for any changes in sexual behaviour.

Eight cases of vertically transmitted (mother to infant) HIV were reported in the West Midlands in 2017. This was higher than the 5 cases reported in 2016, but the same as the eight cases

reported in both 2014 and 2015. Two of the 2017 cases were born in the UK. Antenatal screening is recommended for all pregnant women, as effective interventions exist to substantially reduce the risk of transmission to the baby.

In 2017, 6 new cases in People Who Inject Drugs (PWIDs) were reported. This is the lowest number of cases since 2005. Cases in 2017 were spread across the West Midlands. Prevention services for PWIDs, such as needle exchange programmes, remain important and will also protect against other blood-borne infections.

From 2015 to 2017, 46% of newly diagnosed West Midlands residents were diagnosed at a late stage of infection. This was similar to the 45% observed in the West Midlands from 2014 to 2016, but significantly higher than the 41% figure for England from 2015 to 2017. Over the same time period, 26% of newly diagnosed West Midlands residents were diagnosed at a very late stage of infection (Figure 8). Late diagnosis rates are higher in Black Africans, heterosexuals and in those aged over 50. Early diagnosis benefits patients (treatment offers near normal life expectancy), the community (transmission can be minimised) and the health economy (treatment is less expensive). Improvements in screening of GUM attendees in all areas and implementation of expanded HIV testing in high prevalence areas are required to help address this.

From 2016 to 2017, the proportion of eligible new episodes at specialist sexual health services in the West Midlands that included the offer of a HIV test fell from 78% to 71%. The lowest proportions were in Wolverhampton, Sandwell and Dudley in 2017. Uptake of offered HIV tests in the West Midlands was 81% in both 2016 and 2017 with the lowest proportions reported in Telford and Wrekin, Shropshire and Worcestershire in 2017. HIV test coverage (the proportion of attendees at specialist sexual health services who received a HIV test) fell from 69% in 2016 to 63% in 2017, with the lowest coverage in Wolverhampton and Sandwell. Further efforts are needed in all areas to improve on this in the light of the late diagnosis figures (see Figure 12 for local data).

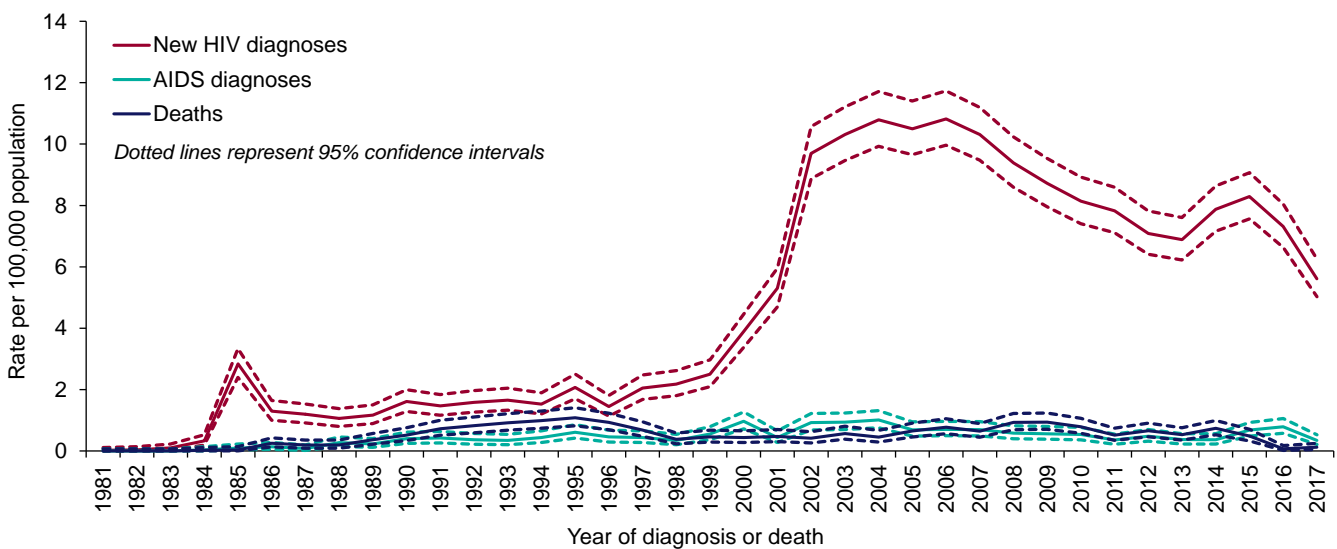
Overall, in the West Midlands the prevalence of diagnosed HIV was 1.8 per 1,000 population aged 15-59 years in 2017. However, 6 local authorities in the West Midlands (Wolverhampton, Coventry, Sandwell, Birmingham, Walsall and Stoke-on-Trent) had a prevalence of diagnosed HIV of at least 2.0 per 1,000 population aged 15-59 years in 2017, the threshold at which expanded HIV testing (in hospital admissions and GP registrations) is recommended by DH (Figure 17).

During 2017, a total of 6,855 West Midlands residents accessed HIV-related care in the UK (Figure 13), of whom just over a third were aged 50 years and over (Figure 14). Since 2008, the number of individuals accessing care has increased by 84% and the number aged 50 years and over has increased by 299%, reflecting the dramatically improved life-expectancy for those who are diagnosed early and treated appropriately.

## 2 New HIV diagnoses, AIDS and deaths

A cumulative total of 9,568 West Midlands residents had been diagnosed with HIV by the end of 2017, with 46% of cases (n=4,362) diagnosed between 2008 and 2017. Since 1981, there have been 900 AIDS diagnoses within three months of HIV diagnosis (287 since 2008) and 1,009 patients are known to have died in the West Midlands (324 since 2008). However, it is important to note that some of those lost to follow up may also have died. In 2017, 329 new diagnoses of HIV infection were reported in West Midlands residents, a 23% decrease from the 425 new diagnoses reported in 2016. Overall, the rate of new diagnoses of HIV has been decreasing since 2006, with an exception of an increase in 2014 and 2015 (Figure 1).

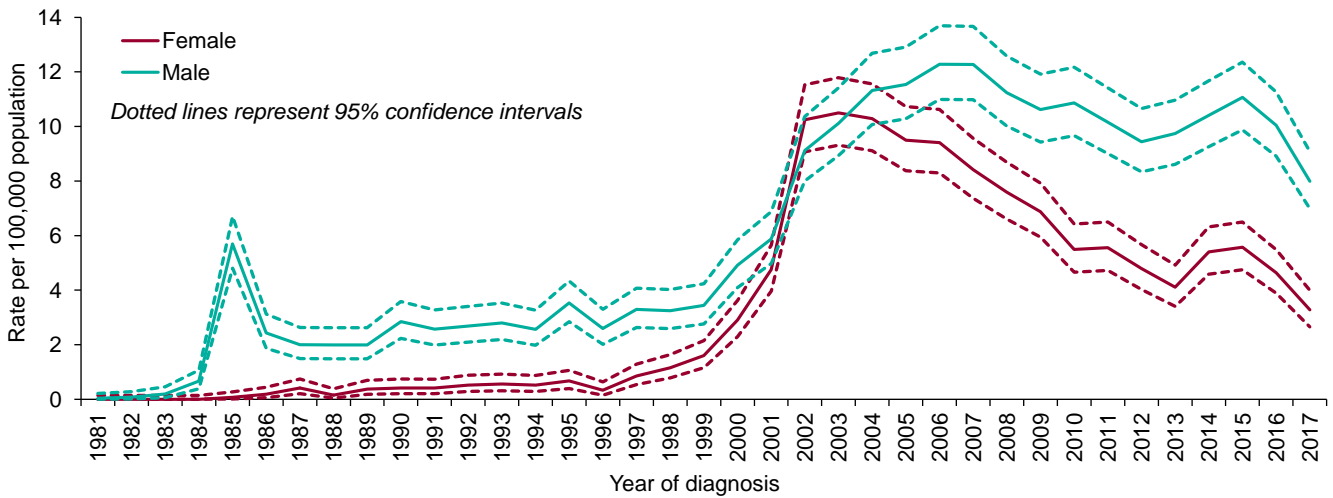
**Figure 1: New HIV and AIDS diagnosis and death rates by year of diagnosis or death (all ages), West Midlands residents, 1981-2017**



Source: Public Health England, HIV & AIDS New Diagnoses & Deaths Database (HANDD).

Males represented 63% of all new HIV diagnoses from 1981 to 2017, with diagnosis rates significantly higher in males than in females in most years from 1984 onwards, apart from 2001 to 2005. The only years in which the female rate exceeded the male rate were 2002 and 2003, although this was not statistically significant (Figure 2). Almost half (47%) of new diagnoses in males have been diagnosed over the most recent 10 years.

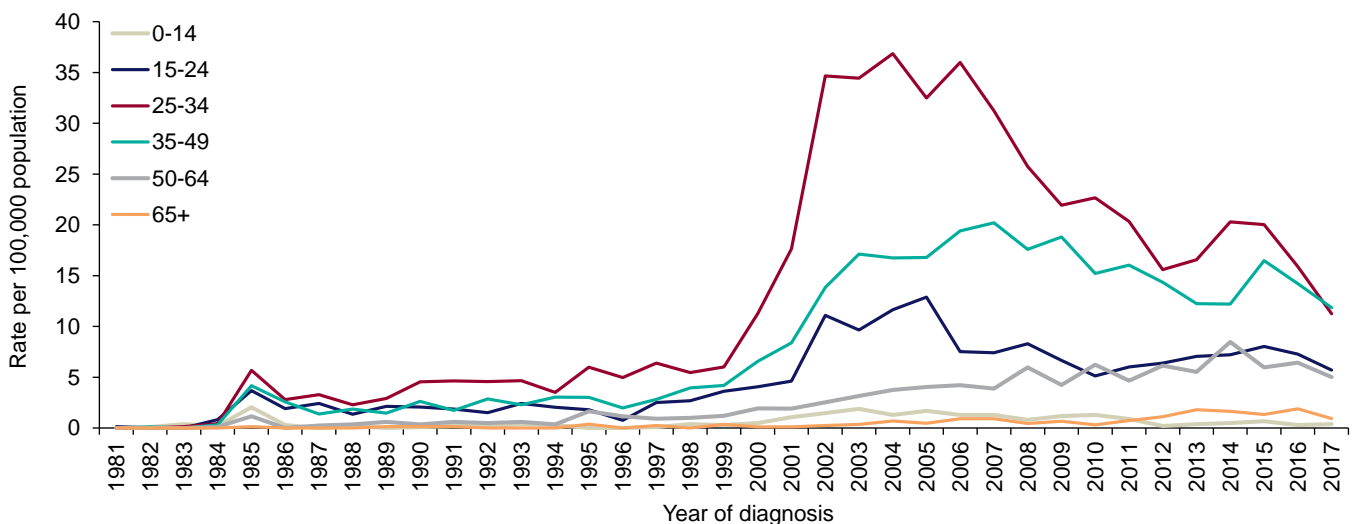
**Figure 2: New HIV diagnosis rates by year of diagnosis and gender, West Midlands residents, 1981-2017**



Source: Public Health England, HIV & AIDS New Diagnoses & Deaths Database (HANDD).

New diagnosis rates have generally been highest in the 25-34 and 35-49 age groups. New diagnoses in individuals aged 50 years and over have been on a general upward trend for the last few years. Those aged 50 years and over at diagnosis accounted for 11% of all cases ever diagnosed from 1981 to 2017, but almost one in five (19%) of new diagnoses in 2017 (Figure 3).

**Figure 3: New HIV diagnosis rates by year of diagnosis and age group, West Midlands residents, 1981-2017**



Source: Public Health England, HIV & AIDS New Diagnoses & Deaths Database (HANDD).

Individuals of white ethnicity accounted for the largest proportion of new HIV diagnoses in West Midlands residents in 2017 (171/329; 52%), with Black Africans (65/329; 20%) the second largest group. From 2001 to 2009, the number of new HIV diagnoses in Black Africans was actually higher than the number in the White population. The

number of newly diagnosed Black Africans decreased by 45% from 2016 to 2017 (Figure 4).

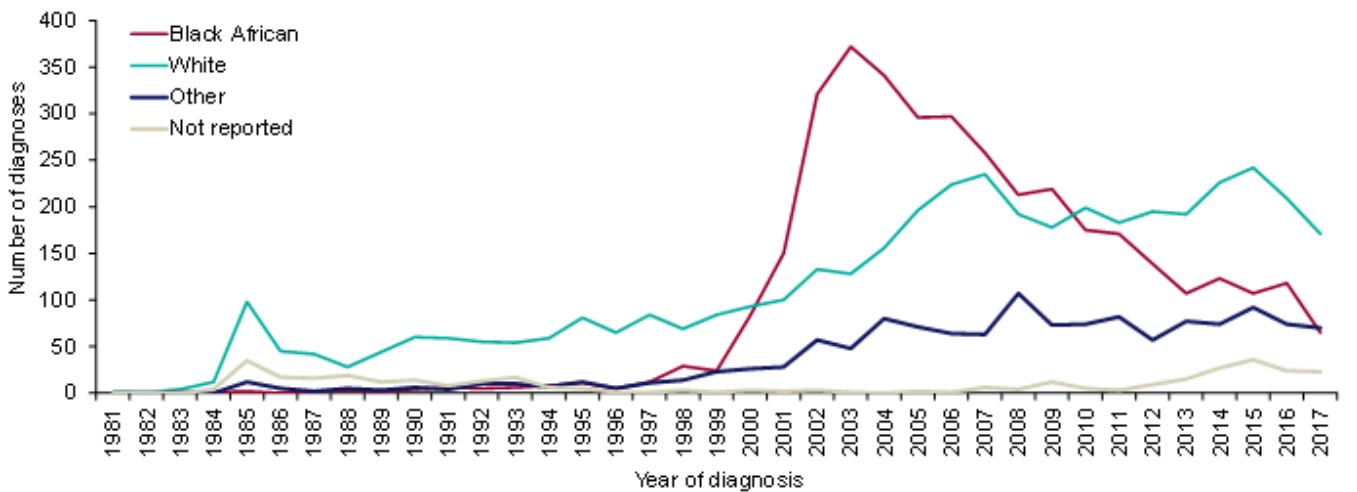
Large ethnic inequalities are clearly illustrated by the difference in rates of infection between the Black and White ethnic groups. The rate per 100,000 population for Black Africans was 27 times higher than that of the white population in 2017 (Table 1).

**Table 1: New HIV diagnoses by ethnic group (all ages), West Midlands residents, 2017**

Ethnic group	Number	Rate per 100,000	95% confidence interval
Black African	65	101.2	[78.1-128.9]
Black Caribbean	14	16.1	[8.8-27.1]
Black other/unspecified	7	22.5	[9.1-46.4]
Other/mixed	18	9.9	[5.9-15.7]
Asian	31	5.1	[3.5-7.3]
White	171	3.7	[3.2-4.3]
Not known	23	N/A	N/A

Source: Public Health England, HIV & AIDS New Diagnoses & Deaths Database (HANDD).

**Figure 4: New HIV diagnoses by year of diagnosis and ethnic group, West Midlands residents, 1981-2017**



Source: Public Health England, HIV & AIDS New Diagnoses & Deaths Database (HANDD).



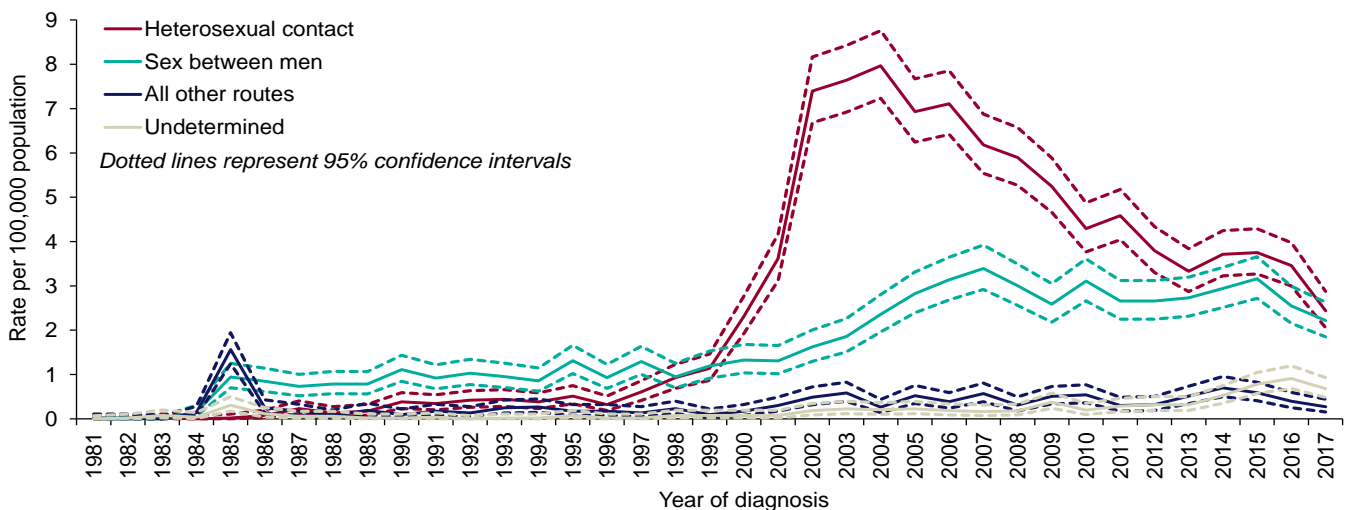
### 3 Probable route of transmission

In the UK, men who have sex with men (MSM) are the group most at risk of HIV infection, with this group accounting for 45% of observed newly acquired HIV cases nationally in 2017, compared to 33% for heterosexual exposure. In the West Midlands, heterosexuals were the largest exposure group (43% in 2017) followed by MSM (40% in 2017). Between 2016 and 2017, there was a 12% decrease in the MSM exposure group in the West Midlands.

A decrease in the MSM group has also been observed nationally (31% decline from 2015 to 2017) and particularly in London (44% decline from 2015 to 2017). This decline is best explained by the large increases in HIV testing, particularly in repeat HIV testing among higher risk men, as well as improvements in the uptake of anti-retroviral therapy (ART). It is too early to know the size of the expected additional effect on HIV transmission of the gradual scale-up of pre-exposure prophylaxis (PrEP) since the results of the PROUD Trial were published at the beginning of 2015<sup>1</sup>.

In the West Midlands in 2017, newly diagnosed cases in people who inject drugs (PWIDs) were at their lowest level since 2005 and remain much lower than those acquiring HIV by sexual contact. Six cases were reported in 2017, compared to 14 cases in 2016 and 22 cases in 2015; these cases were distributed throughout the West Midlands.

**Figure 5: New HIV diagnosis rates by year of diagnosis and probable exposure category, West Midlands residents, 1981-2017**



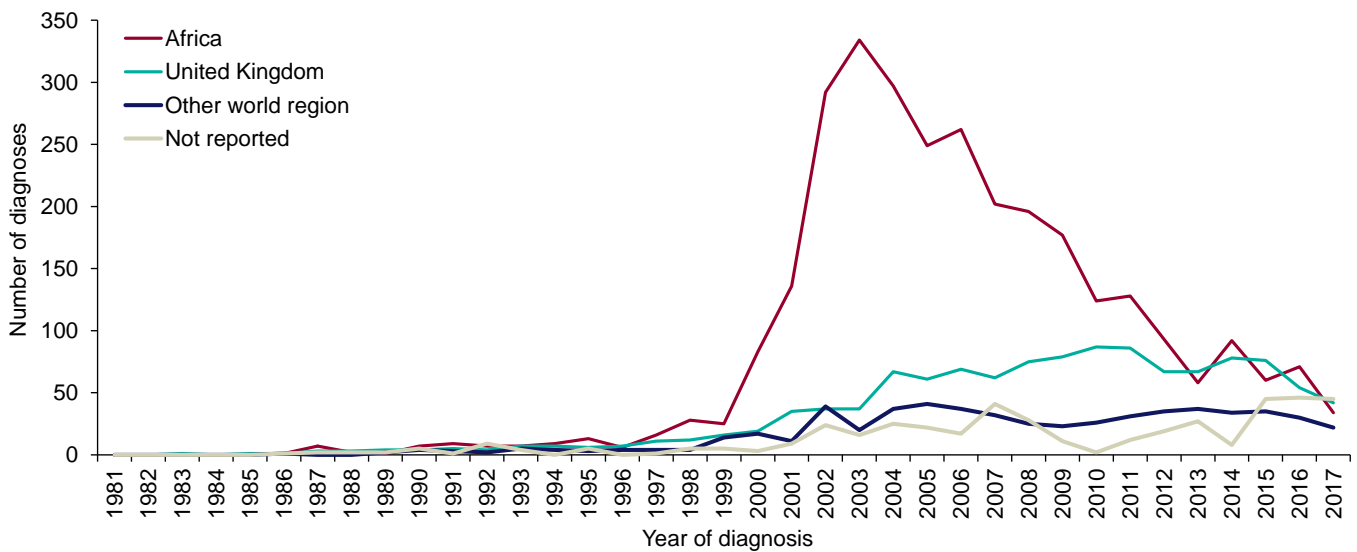
Source: Public Health England, HIV & AIDS New Diagnoses & Deaths Database (HANDD).

<sup>1</sup> Public Health England. Trends in new HIV diagnoses and people receiving HIV-related care in the United Kingdom: data to the end of December 2017. Available at: [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/648913/hpr3517\\_HIV\\_AA.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/648913/hpr3517_HIV_AA.pdf)

People who acquired their infection through heterosexual contact continue to represent the largest proportion of new HIV diagnoses among residents of the West Midlands (Figure 5). However, the proportion of individuals acquiring HIV through heterosexual contact has fallen from a peak of 76% in 2002 to 43% in 2017. The actual number of newly diagnosed heterosexual cases decreased by 29% from 2016 to 2017; and by 66% since the 2004 peak.

The fall in cases acquired through heterosexual contact in the past 13 years is largely due to a steep decrease in infections acquired in Africa (Figure 6). In 2017, the number of infections acquired in Africa was at its lowest level this century. Of the 1,190 cumulative heterosexual cases (1983 to 2017) thought to have acquired their infection in the UK, 51% were of white ethnicity, 25% were Black Africans and 13% were from the Black Caribbean ethnic group.

**Figure 6: New HIV diagnoses acquired through heterosexual contact by year of diagnosis and world region of infection, West Midlands residents, 1981-2017**

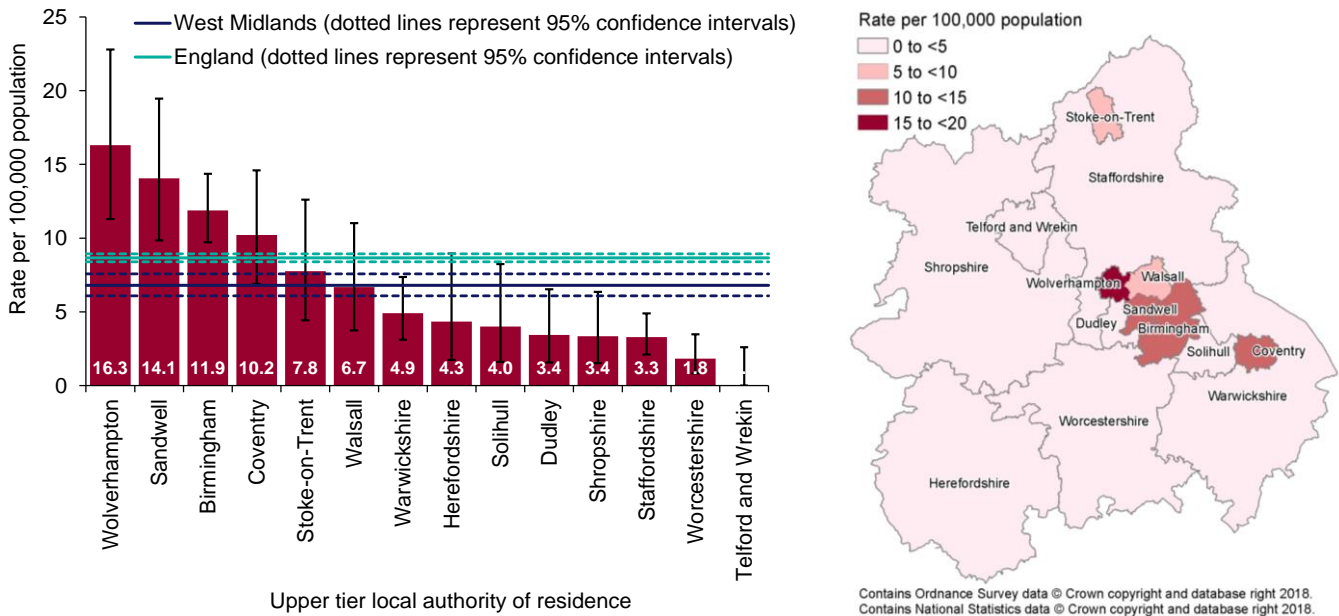


Source: Public Health England, HIV & AIDS New Diagnoses & Deaths Database (HANDD).

## 4 Geography of new HIV diagnosis

The new diagnosis rate per 100,000 population aged 15 years and over was 6.8 in the West Midlands in 2017. This was lower than the rate for England (8.7). Newly diagnosed HIV cases are not distributed uniformly across the West Midlands. In 2017, the highest rates per 100,000 population in individuals aged 15 years and over were observed in the major urban centres of Wolverhampton (16.3 per 100,000), Sandwell (14.1) and Birmingham (11.9). These 3 upper tier local authorities had a new diagnosis rate that was statistically significantly higher than the West Midlands rate of 6.8 per 100,000 (Figure 7). The lowest rates were seen in Staffordshire (3.3), Worcestershire (1.8) and Telford and Wrekin which reported no new diagnoses in 2017; each of these 3 local authorities had a new diagnosis rate that was significantly lower than the West Midlands rate.

**Figure 7: New HIV diagnosis rate per 100,000 population by upper tier local authority of residence, ages 15 years and over, West Midlands, 2017**



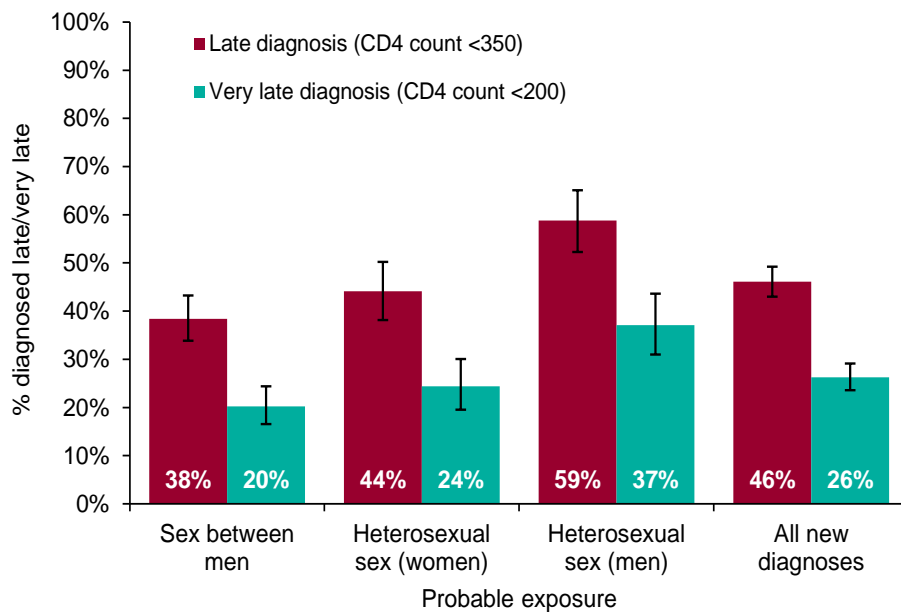
Source: Public Health England, HIV & AIDS New Diagnoses & Deaths Database (HANDD).

## 5 Late diagnosis and testing

Late HIV diagnosis is defined as a CD4 count of less than 350 cells/mm<sup>3</sup> within 3 months of diagnosis, the threshold at which treatment should commence. Very late diagnosis is defined as a CD4 count of less than 200 cells/mm<sup>3</sup> within 3 months of diagnosis, at which stage the patient will be severely immunocompromised. Late diagnosis is used to assess progress in HIV testing and reductions in undiagnosed infection. People who are diagnosed late have poorer outcomes, increased likelihood of transmission and require more expensive care.

From 2015 to 2017, 46% of newly diagnosed West Midlands residents were diagnosed at a late stage of infection, compared to 41% for England. Over the same time period 26% of newly diagnosed West Midlands residents were diagnosed at a very late stage of infection (Figure 8).

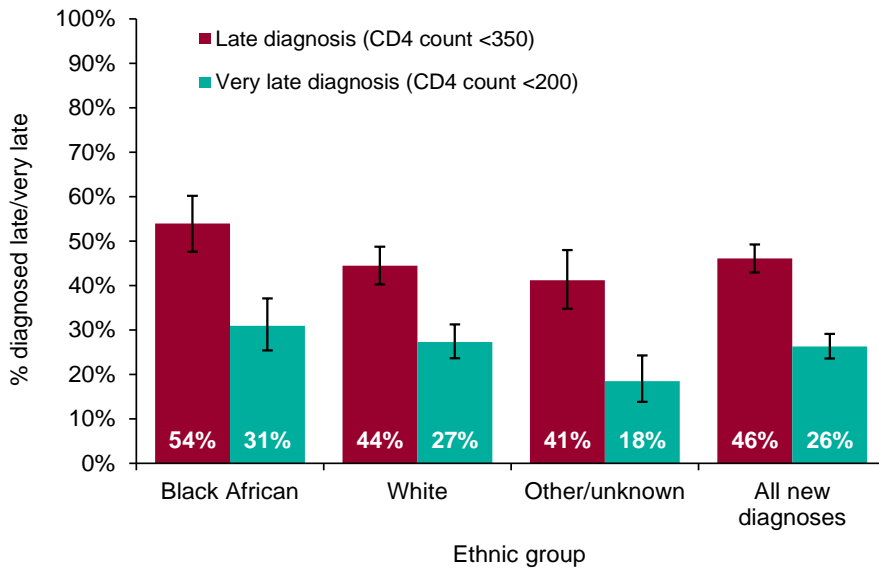
**Figure 8: Late diagnosis of HIV by probable exposure category, West Midlands residents aged 15 years and over, 2015-2017**



Source: Public Health England, HIV & AIDS New Diagnoses & Deaths Database (HANDD).

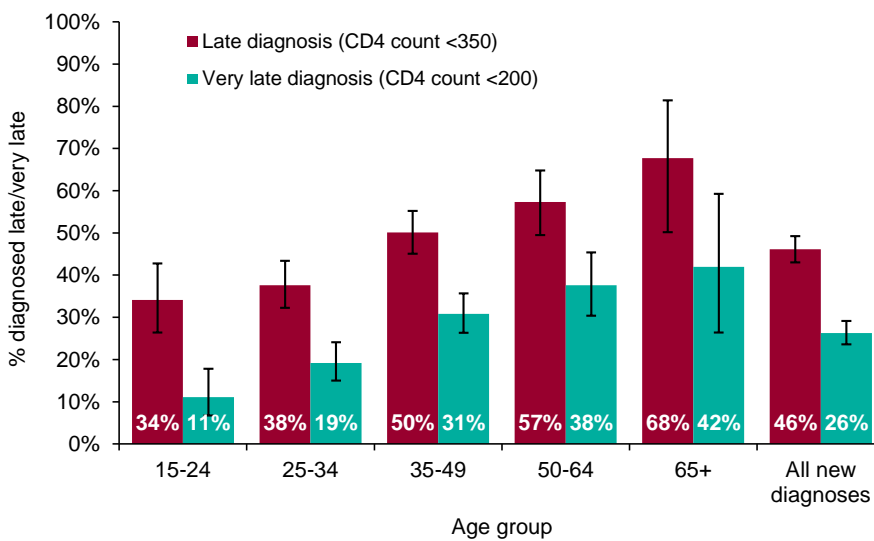
The proportion of individuals diagnosed late was higher among heterosexual cases (males 59%; females 44%) than among men who have sex with men (38%). The proportion of Black Africans diagnosed late (54%) was higher than that of the white population (44%) (Figure 9). The risk of late diagnosis increases with age. From 2015 to 2017, 57% of West Midlands residents who were aged 50 to 64 years at diagnosis and 68% of those aged 65 and over at diagnosis were diagnosed at a late stage of infection (Figure 10).

**Figure 9: Late diagnosis of HIV by ethnic group, West Midlands residents aged 15 years and over, 2015-2017**



Source: Public Health England, HIV & AIDS New Diagnoses & Deaths Database (HANDD).

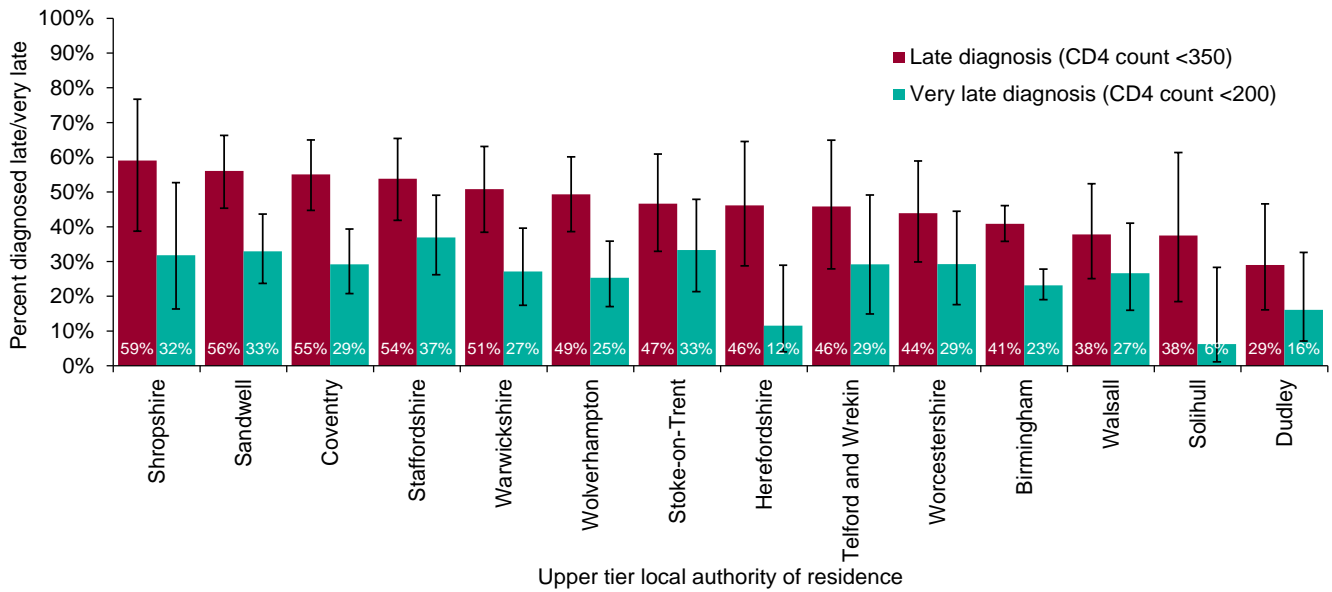
**Figure 10: Late diagnosis of HIV by age group, West Midlands residents aged 15 years and over, 2015-2017**



Source: Public Health England, HIV & AIDS New Diagnoses & Deaths Database (HANDD).

By upper tier local authority, the proportion of individuals diagnosed late varied from 29% of Dudley residents to 59% of Shropshire residents. Very late diagnosis was highest among residents of Staffordshire (37%) and lowest among residents of Solihull (6%) (Figure 11). However, it should be noted that no upper tier local authority had a late or very late diagnosis proportion that was statistically significantly different from the proportion recorded for the West Midlands overall.

**Figure 11: Late diagnosis of HIV by upper tier local authority of residence, West Midlands residents aged 15 years and over, 2015-2017**

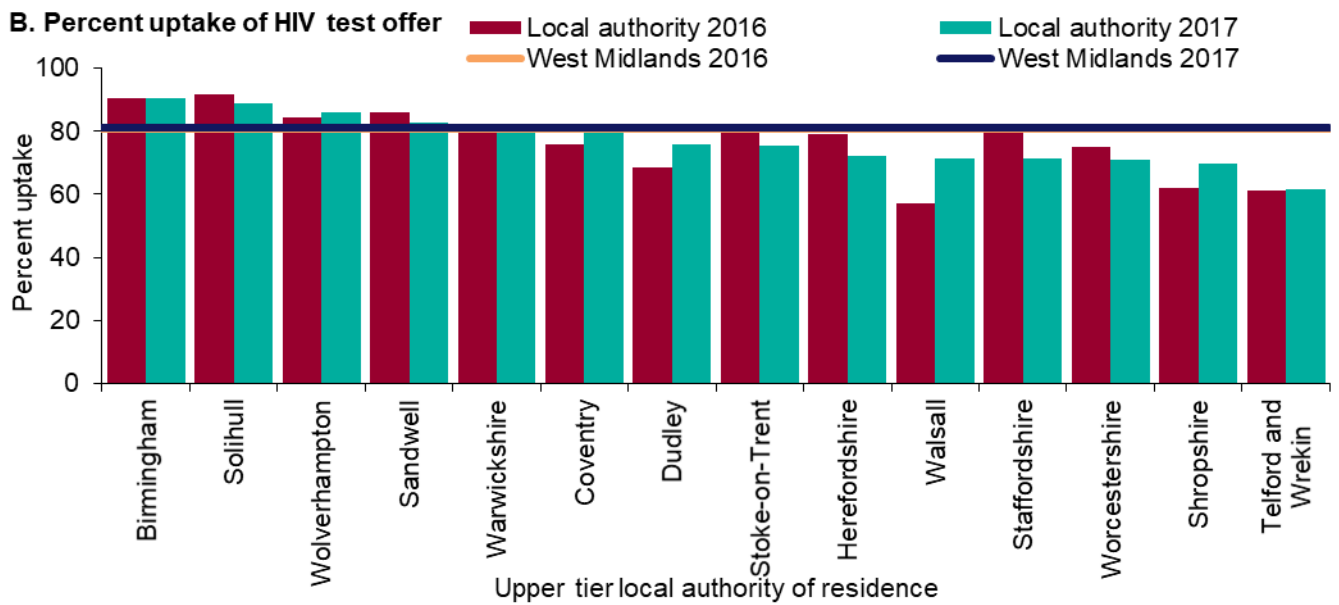
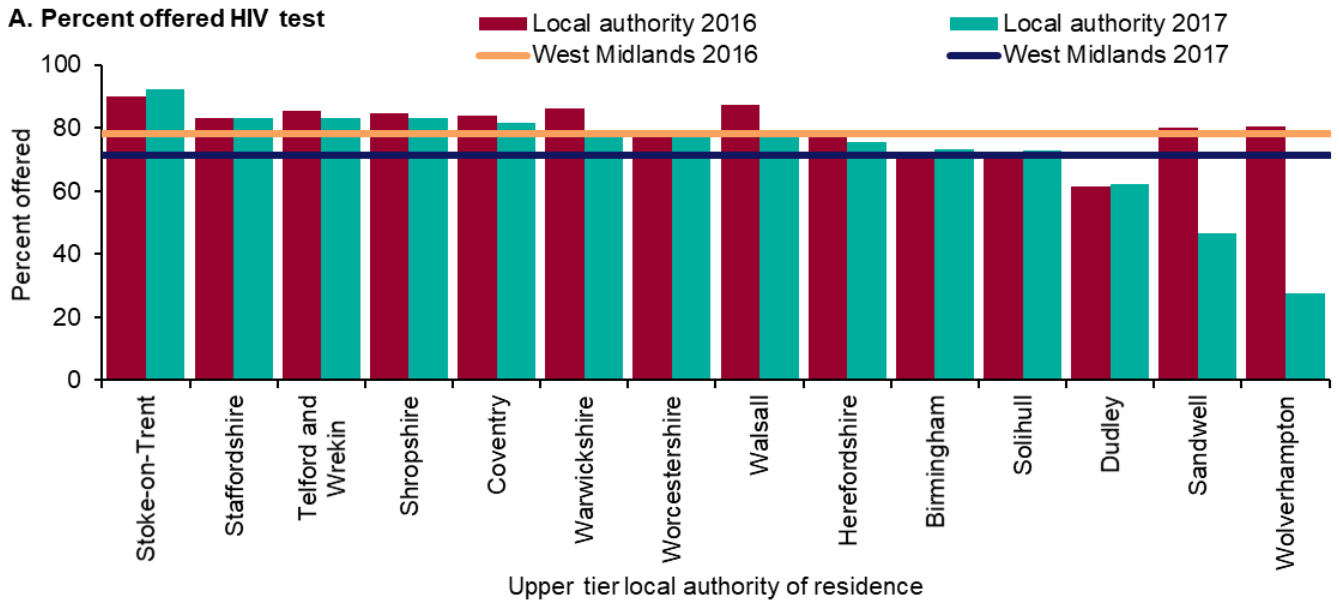


Source: Public Health England, HIV & AIDS New Diagnoses & Deaths Database (HANDD).

Note: Only includes new diagnoses for which CD4 count was reported within 91 days of diagnoses.

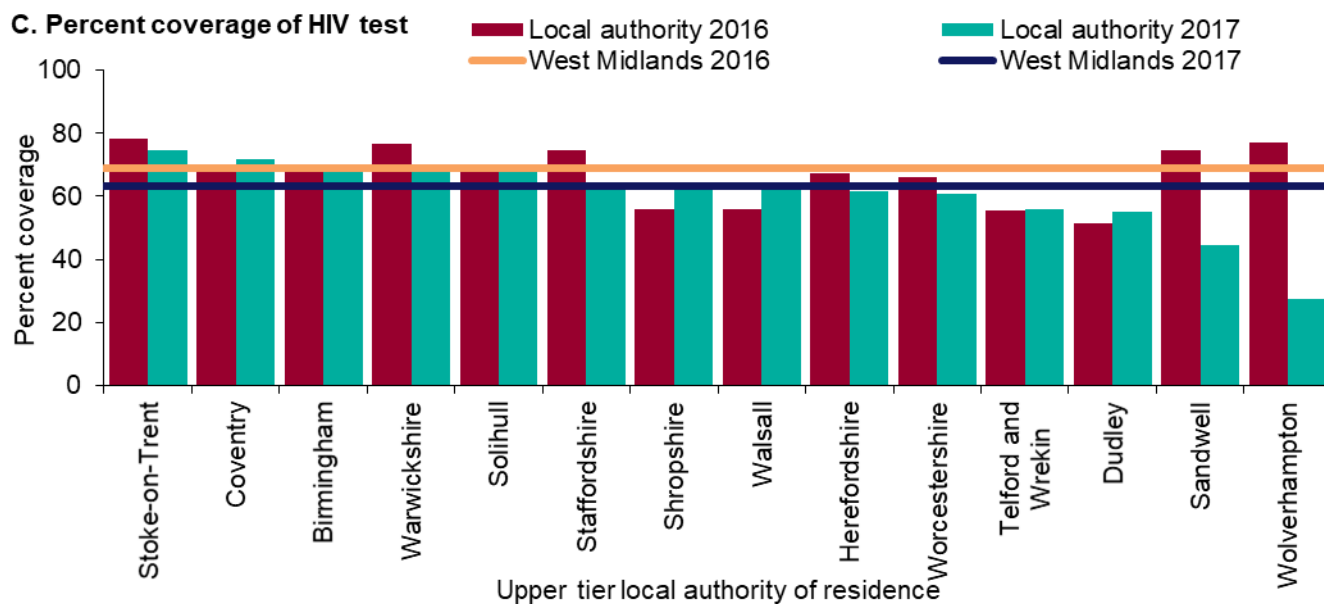
HIV testing is the key to reducing late diagnosis. Across the West Midlands from 2016 to 2017, the proportion of eligible new episodes at specialist sexual health services that included the offer of a HIV test fell from 78% to 71%. The lowest proportions were in Wolverhampton, Sandwell and Dudley in 2017 (Figure 12A). Uptake of offered HIV tests in the West Midlands was 81% in both 2016 and 2017 with the lowest proportions reported in Telford and Wrekin, Shropshire and Worcestershire in 2017 (Figure 12B). HIV test coverage (the proportion of attendees at specialist sexual health services who received a HIV test) fell from 69% in 2016 to 63% in 2017, with the lowest proportions in 2017 reported in Wolverhampton, Sandwell and Dudley (Figure 12C).

**Figure 12: Offer (A), uptake (B) and coverage (C) of HIV testing in GUM clinics by upper tier local authority of residence, West Midlands, 2016 and 2017**



Source: Public Health England, Genitourinary Medicine Clinic Activity Dataset (GUMCAD).

**Figure 12 (continued): Offer (A), uptake (B) and coverage (C) of HIV testing in GUM clinics by upper tier local authority of residence, West Midlands, 2016 and 2017**



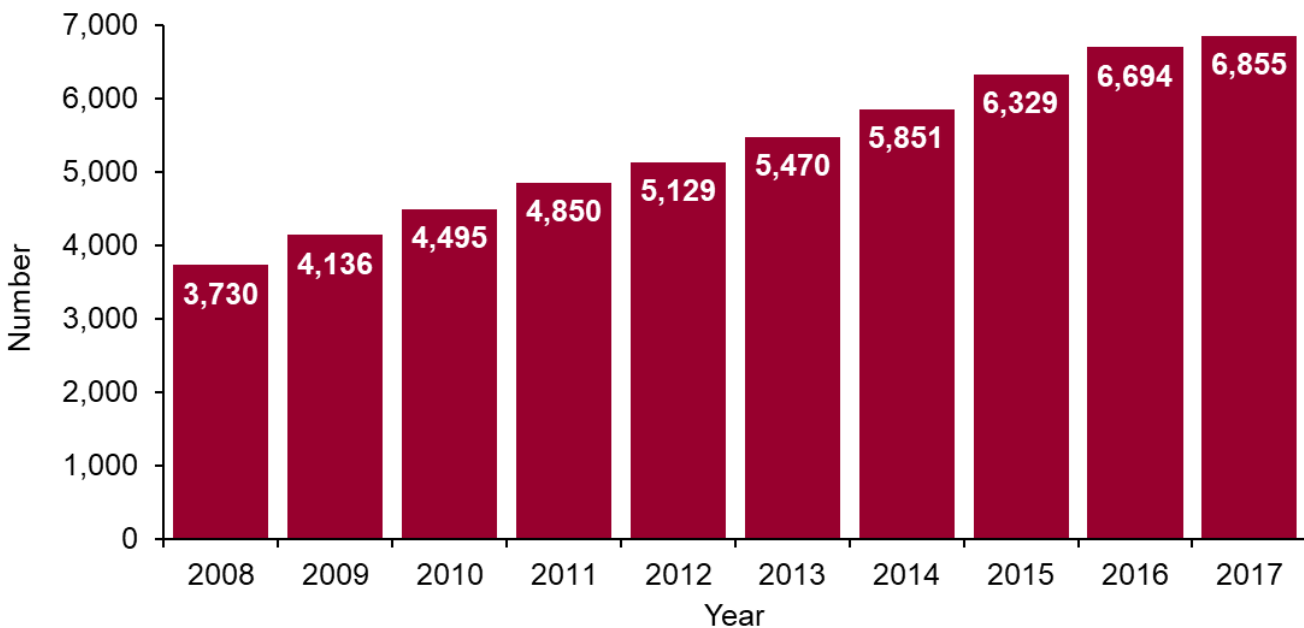


## 6 People living with diagnosed HIV

During 2017, a total of 6,855 West Midlands residents with diagnosed HIV infection were seen for HIV treatment or care at NHS sites in the United Kingdom. This represents an increase of 2% since 2016 and 84% since 2008 (Figure 13). It should be noted that because these numbers only include people living with diagnosed HIV they underestimate the true burden of the disease. It is estimated that 8% of people living with HIV in the UK in 2017 were undiagnosed.<sup>2</sup>

The increase in numbers over the past decade partly reflects the relatively high number of new diagnoses, but also indicates the success of anti-retroviral therapy (ARV). In 2017, 98% of West Midlands residents who were accessing HIV care were receiving ARV.

**Figure 13: People living with diagnosed HIV and accessing HIV-related care, West Midlands residents, 2008-2017**

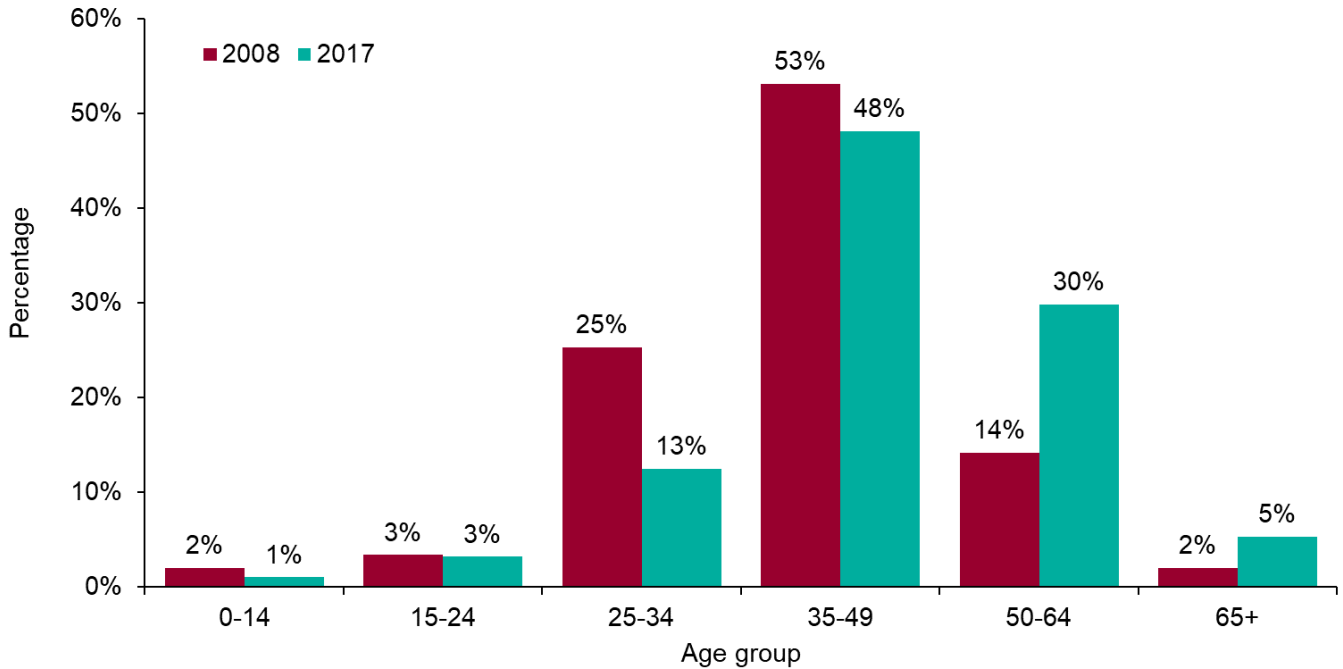


Source: Public Health England, HIV and AIDS Reporting System (HARS).

In 2008, 16% of people living with diagnosed HIV in the West Midlands were aged 50 years or over. This proportion had more than doubled to 35% by 2017 (Figure 14).

<sup>2</sup> Public Health England. Progress towards ending the HIV epidemic in the UK: 2018 report. Available at: [www.gov.uk/government/publications/hiv-in-the-united-kingdom](http://www.gov.uk/government/publications/hiv-in-the-united-kingdom)

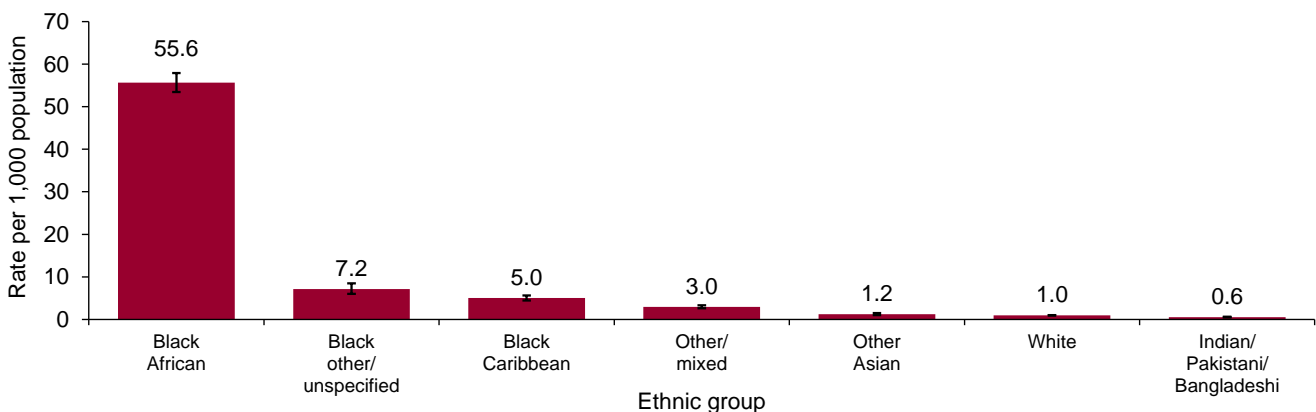
**Figure 14: Percentage of people living with diagnosed HIV and accessing HIV-related care by age group, West Midlands residents, 2008 and 2017**



Source: Public Health England, HIV and AIDS Reporting System (HARS).

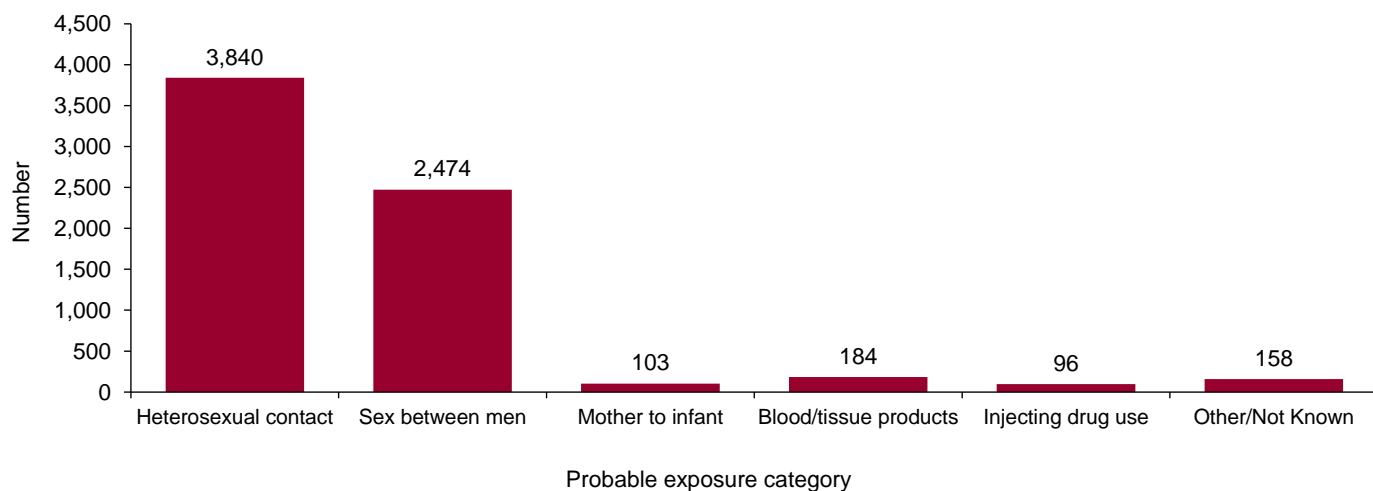
In 2017, the diagnosed prevalence for Black African individuals aged 15 to 59 years was 55.6 per 1,000 population, compared to just 1.0 per 1,000 people of white ethnicity (Figure 15). Over half of West Midlands residents living with diagnosed HIV in 2017 are thought to have acquired their infection heterosexually (56%; n=3,840) and just over a third (36%; n=2,474) through sex between men (Figure 16).

**Figure 15: Diagnosed HIV prevalence per 1,000 population by ethnic group, ages 15-59 years, West Midlands residents, 2017**



Source: Public Health England, HIV and AIDS Reporting System (HARS).

**Figure 16: Number of people living with diagnosed HIV and accessing HIV-related care by probable exposure category, West Midlands residents, 2017**

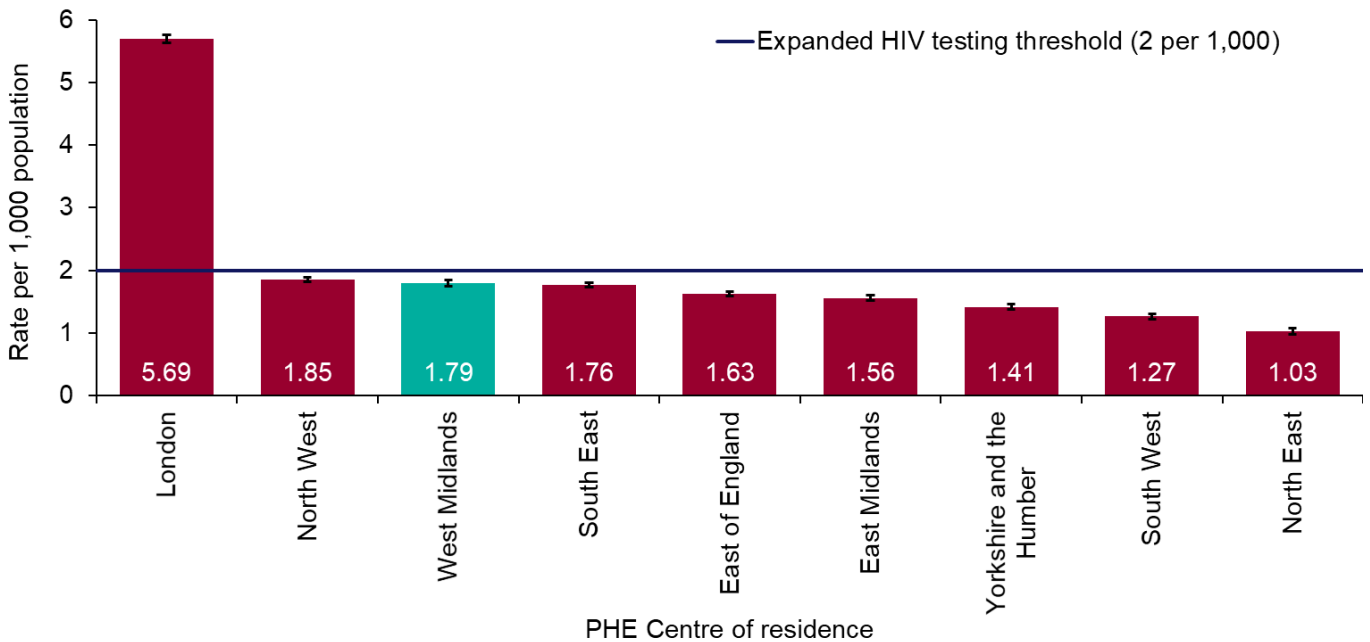


Source: Public Health England, HIV and AIDS Reporting System (HARS).

## 7 Geography of HIV prevalence

Nationally, it is recommended that in areas where diagnosed HIV prevalence is 2 or more cases per 1,000 population aged 15-59 years, HIV testing should be expanded to include all general medical admissions as well as new registrants in primary care. In 2017, diagnosed HIV prevalence in the West Midlands as a whole was below the expanded HIV testing threshold at 1.8 per 1,000 residents aged 15-59 years. The highest prevalence rate in the UK was reported in London (5.7 per 1,000 aged 15-59 years) (Figure 19).

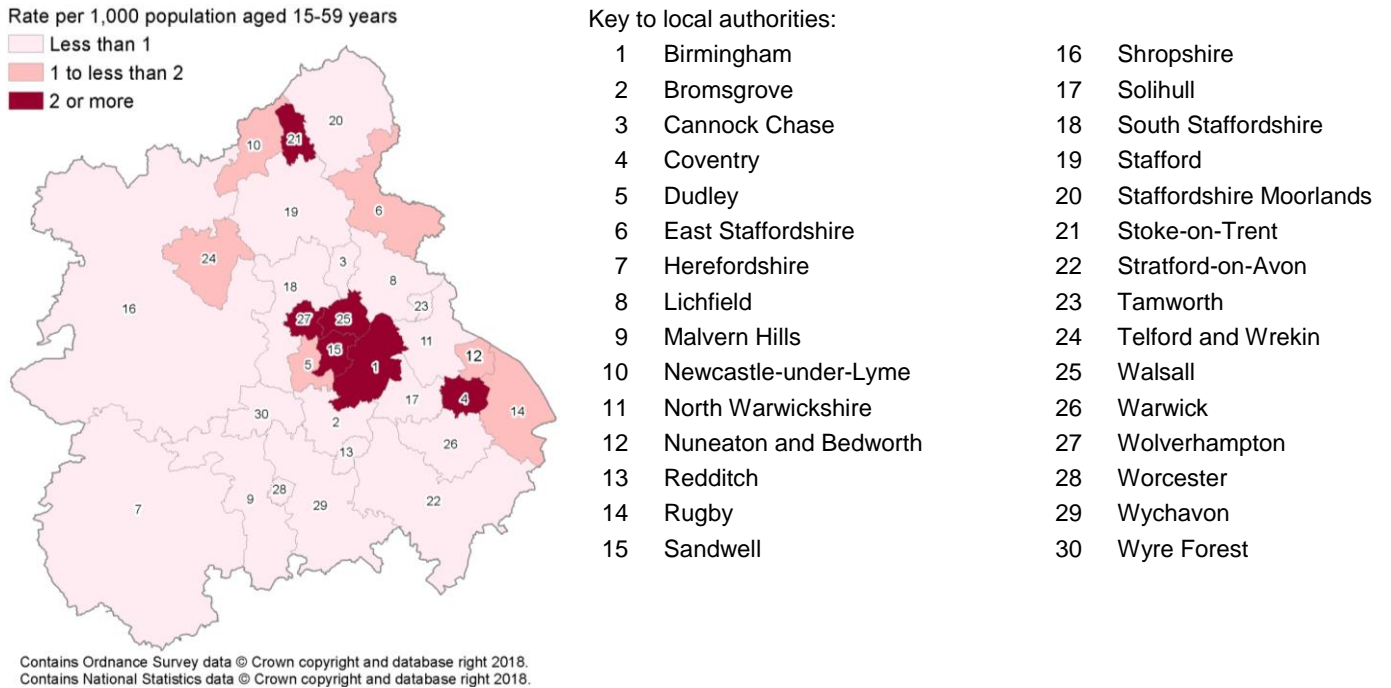
**Figure 17: Diagnosed HIV prevalence in 15-59 year olds per 1,000 population by local authority, West Midlands residents, 2017**



Source: Public Health England, HIV and AIDS Reporting System (HARS).

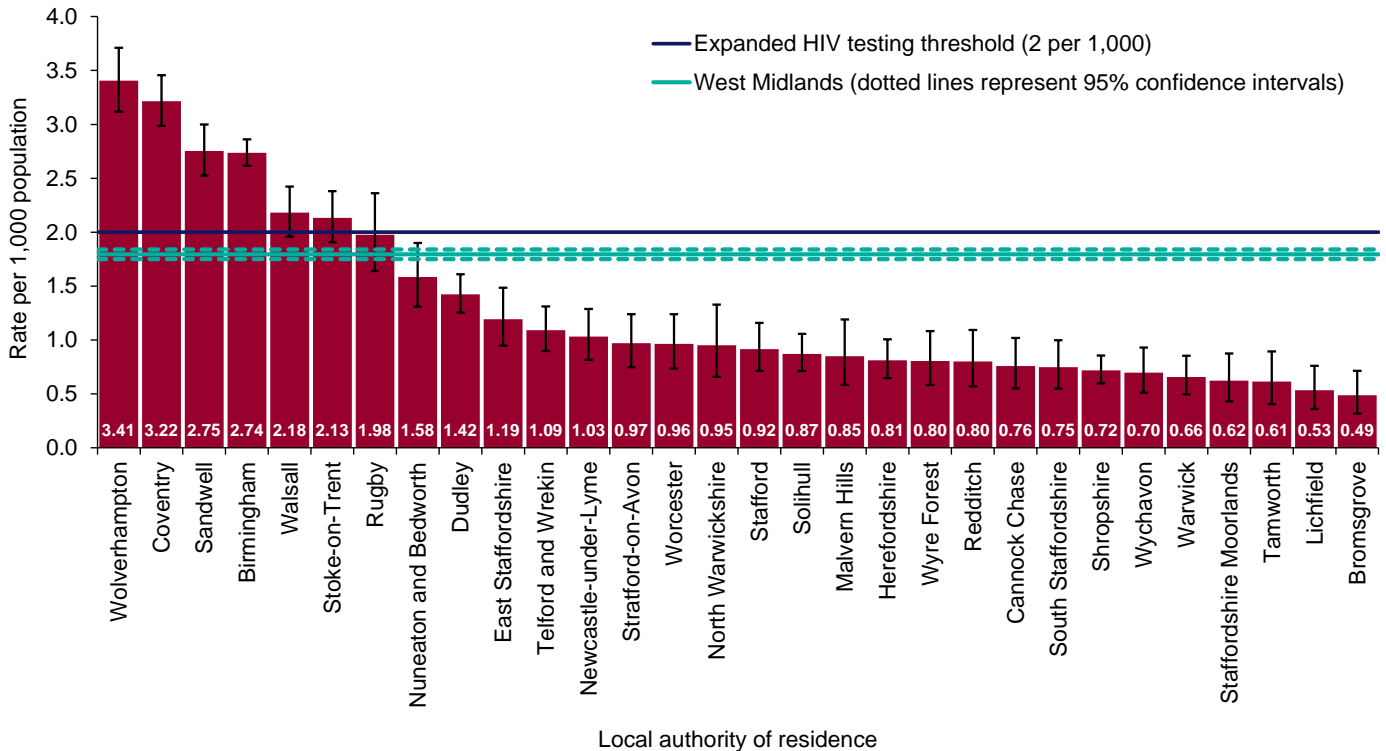
Within the West Midlands 6 local authorities had a prevalence rate above the expanded HIV testing threshold. These were Wolverhampton (3.41), Coventry (3.22), Sandwell (2.75), Birmingham (2.74), Walsall (2.18) and Stoke-on-Trent (2.13). The lowest prevalence rates were observed in Bromsgrove (0.49), Lichfield (0.53), Tamworth (0.61) and Staffordshire Moorlands (0.62) (Figure 17; Figure 18).

**Figure 18: Diagnosed HIV prevalence in 15-59 year olds per 1,000 population by local authority, West Midlands residents, 2017**



Source: Public Health England, HIV and AIDS Reporting System (HARS).

**Figure 19: Diagnosed HIV prevalence in 15-59 year olds per 1,000 population by local authority, West Midlands residents, 2017**



Source: Public Health England, HIV and AIDS Reporting System (HARS).

## 8 Public health implications

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. Prevention should be targeted at MSM and black African people who are the population groups most at risk of HIV.

The UK was one of the first countries in Europe to witness a substantive decline in HIV diagnoses in gay and bisexual men. A combination of HIV prevention efforts has been a key reason for the decline.<sup>3</sup> Increased HIV testing has led to earlier diagnosis and once people know they have HIV, they can be linked into care and offered treatment. Successful HIV treatment means HIV diagnosed people with an undetectable viral load cannot pass on the infection to others. Alongside correct and consistent condom use, early diagnosis through testing, and treatment of HIV to stop onward transmission, we now have PrEP - an HIV prevention drug.

Correct and consistent condom use remains an extremely effective way to prevent HIV transmission. However, in the UK uptake among key populations is insufficient. 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' (the use of drugs before or during planned sexual activity to sustain, enhance, disinhibit or facilitate the experience) 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, large numbers of 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.

HIV testing is pivotal in reducing HIV transmission as it decreases the number of people living with HIV who are unaware of their infection. Due to the relatively high numbers of

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<sup>3</sup> Public Health England. Progress towards ending the HIV epidemic in the UK: 2018 report. Available at: [www.gov.uk/government/publications/hiv-in-the-united-kingdom](http://www.gov.uk/government/publications/hiv-in-the-united-kingdom)

MSM and black Africans who remain undiagnosed, HIV testing is particularly important for these groups and in MSM, where the incidence remains high.

Missed opportunities for testing remain in England:<sup>4</sup>

- less than half of MSM testing for HIV have had at least one HIV test at the same service during the previous year (2017)
- less than half of MSM who have had an ano-genital bacterial STI were tested during the year following their STI diagnosis (2017, 4.4% positivity)
- a third of heterosexual women attending sexual and reproductive health (SRH) services were tested for HIV, even though their HIV test positivity was the same as for women attending specialist sexual health services (SHS) (2017)
- uptake of testing at prisons is increasing but is low (71% of prisoners eligible were offered and 33% of these accepted a test in 2017/18)<sup>4</sup>
- a high proportion of people who inject drugs in England who accessed a clinical service in the preceding year had not been tested for HIV (67%) (2017)

Partner notification following the diagnosis of HIV infection remains a highly effective way to detect undiagnosed HIV infections: in 2017 in England, 4.3% of partners of people diagnosed with HIV were also positive for HIV.

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 should 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 the 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 is the 3-year clinical trial which launched in October 2017

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<sup>4</sup> Public Health England. Progress towards ending the HIV epidemic in the UK: 2018 report. Available at: [www.gov.uk/government/publications/hiv-in-the-united-kingdom](http://www.gov.uk/government/publications/hiv-in-the-united-kingdom)

which aims to recruit 13,000 participants in England.<sup>5</sup> As of October 2018, almost 9,000 participants had been recruited.

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 protects individuals living with HIV from passing on the virus to others. Revised guidelines from the British HIV Association and World Health Organization recommend that patients start ART at diagnosis regardless of CD4 count both for clinical benefits and preventing onward transmission.<sup>6</sup> People living with HIV and their health care providers can discuss starting ART to reduce their risk of transmitting HIV to their sexual partners. The policy of immediate anti-retroviral therapy at HIV diagnosis is being implemented by NHS England which complements the current Treatment as Prevention policy. As a result the proportion of newly diagnosed people in care starting treatment within 91 days of diagnosis (72% in England 2017), has increased.

As rates of other infections transmitted sexually such as gonorrhoea, syphilis, lymphogranuloma venereum, hepatitis C and *Shigella* have been shown to be higher in MSM who are HIV positive, it is important that MSM living with HIV are specifically made aware of the risks of these infections and how to prevent them.

The population of people living with diagnosed HIV is diversifying and growing older. It is critical that HIV and other services continue to evolve to meet the needs of older people living with HIV including the management of comorbidities and other complex health conditions.

With progressive strengthening of combination prevention (including condom use, expanded HIV testing, prompt ART and availability of PrEP), HIV transmission, AIDS and HIV-related deaths could be eliminated in the UK. The recent encouraging changes are dependent upon sustained prevention efforts. The inconsistencies between groups and geographies demonstrate that combination prevention needs to be replicated for all those at risk of acquiring of HIV, whoever they are and wherever they live.

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<sup>5</sup> [www.prepimpacttrial.org.uk](http://www.prepimpacttrial.org.uk)

<sup>6</sup> British HIV Association. *Guidelines for the treatment of HIV-1-positive adults with antiretroviral therapy 2015*. (2016 interim update), BHIVA: London



## Recommendations for providers<sup>7</sup>

SHS should increase HIV test coverage among heterosexual attendees with an STI related need, including black Africans and people born in countries with high diagnosed HIV prevalence.

SHS should increase HIV test coverage among MSM. This is particularly important for men who have not tested recently, and for those who have recently had a bacterial STI.

SHS should increase quarterly testing, including an STI screen, in MSM if they are having unprotected sex with new or casual partners.

SHS should improve notification and testing of partners of heterosexuals and MSM newly diagnosed as living with HIV.

General practices and hospitals in high and extremely high prevalence areas (where diagnosed HIV prevalence is 2 or more per 1,000 people aged 15 to 59 years) should continue to follow NICE guidance and recommend the offer of HIV tests to patients.

Guidelines recommend that all people should be offered an HIV test when entering prison. Prisons should increase their opt-out blood-borne virus testing activity for new receptions and transfers.

UK clinical guidelines recommend that all people who inject drugs accessing treatment services should be tested for hepatitis C (HCV) and HIV at first assessment, and that repeat testing should be considered when the risk of exposure continues (testing may need to be carried out up to once or twice a year). Healthcare professionals should take every opportunity to offer HIV and HCV tests to any patient who has injected drugs.

Clinical outcomes are excellent among people living with HIV with little evidence of inequality by sub-populations; services should continue to review their key clinical indicators for HIV patients including linkage to and retention in care to ensure that high standards of care are maintained.

Following a discussion of the individual and public health benefits of treatment, all people newly diagnosed with HIV should be offered and recommended ART, in line with the 2015 BHIVA guidelines.

As people living with HIV continue to age, auxiliary support services should be available to meet their needs and ensure good general health and wellbeing.

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<sup>7</sup> Public Health England. Progress towards ending the HIV epidemic in the UK: 2018 report. Available at: [www.gov.uk/government/publications/hiv-in-the-united-kingdom](http://www.gov.uk/government/publications/hiv-in-the-united-kingdom)

Comprehensive surveillance is essential to monitor progress towards the elimination of HIV in the UK. The quality of HIV public health data in the UK is high, due to the continued commitment of HIV testing and care services to reporting information in a timely manner to Public Health England.

Providers of health services to patients with hepatitis B and C, TB and people who inject drugs should consider how they can ensure that all patients are offered and recommended to have HIV tests.

Providers of HIV testing in prisons should consider how they can ensure that HIV testing is implemented and monitored effectively.

Antenatal service providers and blood, tissue and organ donation services should continue to maintain current high levels of HIV testing.

### Recommendations for commissioners<sup>8</sup>

Local authorities should consider commissioning HIV testing for people at increased risk, with access to HIV testing online and in community settings. All commissioned HIV testing programmes should have a well-defined referral pathway to HIV care for all people with a reactive/positive test result.

Commissioning of prevention activities should reinforce the combination prevention approach.

### Recommendations for the public

All men who have ever had sex with another man should have an HIV test even if they do not consider themselves to be gay or bisexual.

Gay, bisexual and other men who have sex with men should have an HIV test at least annually.

Gay, bisexual and other men who have sex with men should test for HIV and have an STI screen every 3 months if they are having unprotected sex with new or casual partners.

Black African men and women should have an HIV test, and repeat this annually if having unprotected sex with new or casual partners.

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<sup>8</sup> Public Health England. Progress towards ending the HIV epidemic in the UK: 2018 report. Available at: [www.gov.uk/government/publications/hiv-in-the-united-kingdom](http://www.gov.uk/government/publications/hiv-in-the-united-kingdom)

All people born in countries where HIV is common, even if they do not consider themselves at risk, should have an HIV test.

Anyone who is offered an HIV test by their healthcare professional should have the test. All HIV testing by the NHS is free and confidential for everyone, regardless of immigration or residency status.

There are many ways to get tested for HIV:

- go to an STI clinic or a community testing site ([www.nhs.uk/Service-Search/HIV-testing](http://www.nhs.uk/Service-Search/HIV-testing)) ([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.

Anyone who is diagnosed with HIV should begin treatment immediately, unless there are particularly unusual circumstances. Early treatment initiation after diagnosis enables people living with HIV to live a long and healthy life and will minimise the risk of passing the infection to others. HIV treatment is free to all in England regardless of immigration or residency status.

## 9 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, specialist SHSs, 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 de-duplicated across regions and therefore figures may differ from country-specific data.

The Survey of Prevalent HIV Infections Diagnosed (SOPHID) began in 1995 and was a cross-sectional survey of all adults living with diagnosed HIV infection who attend for HIV care in England, Wales and Northern Ireland. SOPHID collected information about the individual's place of residence along with epidemiological data including clinical stage and antiretroviral therapy (ART). In 2015, SOPHID reporting in England was replaced by the HIV & AIDS Reporting System (HARS) which captures information at every attendance for HIV care.

Date of data extract: September 2018. 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 ([www.apho.org.uk/resource/item.aspx?RID=48457](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 2017 were used as a denominator for rates for 2017.

Information about a patient's place of residence is not collected by HANDD. Reports to this database are cross-linked to the database of people accessing care for HIV, HARS. If a report could not be linked to a corresponding HARS 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 where sufficient information about the latter was available.

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

## 10 Further information

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

[fingertips.phe.org.uk/profile/sexualhealth](https://fingertips.phe.org.uk/profile/sexualhealth)

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

[www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/576052/PHE\\_S\\_H\\_data\\_guide\\_December\\_2016\\_FINALNB081216.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/576052/PHE_S_H_data_guide_December_2016_FINALNB081216.pdf)

For the national HIV report: 2017 data, please access:

[www.gov.uk/government/publications/hiv-in-the-united-kingdom](https://www.gov.uk/government/publications/hiv-in-the-united-kingdom)

## 11 About the Field Service

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

FS does this in 2 main ways. Firstly, by providing a flexible expert resource, available, as and when needed, to undertake epidemiological investigations for key health protection work. 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 FS 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 FS team at: [FES.WestMidlands@phe.gov.uk](mailto:FES.WestMidlands@phe.gov.uk)

If you have any comments or feedback regarding this report or the FS, please contact: [WMSexualHealth@phe.gov.uk](mailto:WMSexualHealth@phe.gov.uk)

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- local sexual health and HIV clinics for supplying the HIV data
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