

Protecting and improving the nation's health

# Annual epidemiological spotlight on HIV in the North East 2017 data

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## 1 Summary

HIV remains an important public health problem in the North East. The HIV Network and other collaborating organisations have completed a range of projects and continue to focus on reducing HIV acquisition and transmission. Examples of workstreams include:

- the HIV Network doing an audit of late diagnosis and making recommendations about how these cases are investigated, with an aim of sharing learning so that we can develop resources across the region
- a range of local projects being progressed to raise awareness with clinicians working outside sexual health/ID to encourage testing, particularly for indicator conditions
- a review of sexual health prevention activities taking place across the region is underway (through the North East Sexual Health Network) – examples of good practice will be shared when available and any areas of concern will be flagged
- all local authorities continue to be signed up for the HIV self-sampling programme – the Sexual Health Communications network are looking at ways to promote the service across the North East
- a wide range of activities for HIV Testing Week and World AIDs Day are planned

We will be carefully monitoring new diagnoses and changing epidemiology and adapting our approaches to prevention and testing accordingly.

#### New diagnoses

In 2017, an estimated 104 north-east residents were newly diagnosed with HIV, accounting for 3% of new diagnoses in England. This represents a fall of 27% from 2016. Nationally, 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.

The new diagnosis rate for north-east residents aged 15 years or older (4.7 per 100,000) was below that of England in 2017 (8.7 per 100,000).

In 2017, 47% of all new diagnoses in north-east residents were in gay, bisexual and other men who have sex with men (MSM) (compared to 53% in 2016 and 39% in 2008). The number of MSM resident in the North East newly diagnosed with HIV (49, adjusted for missing information) was 4% higher than in 2008. Of the MSM newly diagnosed with HIV 86% were white and 78% were UK-born.

Heterosexual contact was the joint largest infection route for new diagnoses in north-east residents in 2017 (47%, n=38). Infections in African-born persons accounted for

43% of all heterosexually acquired cases in 2017 (n=15), compared to 14% (n=8) in 2016 and 56% (n=34) in 2008. There was a decrease of almost 5% (or 3 diagnoses) per year of new HIV diagnoses in African-born persons between 2008 and 2016. Infections in UK-born persons accounted for 49% of all heterosexually acquired cases in 2017 (n=17).

Injecting drug use accounted for 4% of new diagnoses in north-east residents (n=3).

Black Africans represented 15% of all newly diagnosed north-east residents in 2017 (compared to 8% in 2016 and 32% in 2008). A small proportion of new diagnoses in 2017 were in black Caribbeans (1%; n=1).

The number of new diagnoses was highest in the 35-44 year age group in males and the 25-34 year age group in females in 2017.

#### Late diagnoses

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 1 year of diagnosis compared to those diagnosed promptly, and they have increased healthcare costs.

It is of particular concern that over a third of north-east residents with HIV are diagnosed late (40% from 2015 to 2017, compared to 41% in England), as defined by a CD4 count of less than 350 cells/mm<sup>3</sup> at diagnosis.

In the North East, heterosexuals were more likely to be diagnosed late (52% of males, 43% of females) than MSM (35%). By ethnic group black Africans were less likely to be diagnosed late than the white population (35% and 42% respectively).

#### People living with diagnosed HIV

The 1,808 people living with diagnosed HIV in the North East in 2017 was 1% higher than 2016. This increase is due to the effectiveness of HIV treatment, which has reduced the number of deaths from HIV.

The diagnosed prevalence rate of HIV in the North East in 2017 was 1.0 per 1,000 residents aged 15-59 years. This was lower than the 2.3 per 1,000 observed in England as a whole. No local authorities in the North East had a diagnosed HIV prevalence rate in excess of 2 per 1,000 population aged 15-59 years in 2017, which is the threshold for expanded HIV testing. The diagnosed HIV prevalence rate for Newcastle local authority was above the threshold in 2016 (2.1 per 1,000) but has fallen below the threshold in 2017 (1.99 per 1,000). Gateshead and Middlesbrough continue to have the second and

third highest prevalence, 1.5 and 1.3 per 1,000 respectively, although the prevalence appears to be stable compared to last year. The prevalence in North Tyneside local authority has been consistently increasing and has now reached 1.2 per 1,000.

The 2 most common probable routes of transmission for north-east residents living with diagnosed HIV in 2017 were sex between men (51%) and sex between men and women (46%).

In 2017, 44% of those living with diagnosed HIV in the North East were aged between 35 and 49 years, and 38% were aged 50 years and over (up from 21% in 2008). Males represented 72% of north-east residents living with diagnosed HIV in 2017 and females represented 28%.

In 2017, 69% of north-east residents living with diagnosed HIV were white and 20% were black Africans. However, due to the relative sizes of the white and black African populations the rate per 1,000 population aged 15-59 years was much higher in black Africans (41.8 per 1,000) than in the white population (0.7 per 1,000).

#### Continuum of HIV care

In the North East in 2017, 97% of residents were receiving anti-retroviral treatment. Of these, 96% were virally suppressed (viral load <200) and were very unlikely to pass on HIV, even if having sex without condoms (untransmissible virus).

#### People living with undiagnosed HIV<sup>1</sup>

It is estimated that in 2016, 13% (Credible Interval (CrI) 10%-17%) of people living with HIV in England, excluding London, were undiagnosed. This equates to an estimated 6,700 (CrI 5,000-9,400) undiagnosed people. For the North East, this could mean between 180 and 310 undiagnosed people.

It is estimated that 3,900 MSM in England, outside London, are undiagnosed (Crl 2,300-5,800) and 2,400 heterosexuals (Crl 1,600-4,500), including 1,000 black Africans.

The proportion undiagnosed varied by exposure group with the highest proportion undiagnosed among people living with HIV who inject drugs (25%, Crl 11%-56%), who are MSM (16%, Crl 10%-22%) and who are heterosexual men (14%, Crl 8%-28%).

<sup>&</sup>lt;sup>1</sup> Data for 2017 was unavailable at the time of publication

#### **HIV** testing

A total of 41,738 HIV tests were conducted in specialist sexual health services (SHSs) in the North East, a decrease of 5% since 2013. The HIV testing coverage at specialist SHSs in the North East was 63%, which compares to 66% across England. HIV testing coverage in specialist SHSs in the North East is higher in heterosexual men (75%) than heterosexual women (57%), and highest in MSM (91%).

#### 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 1 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>2</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 Pre Exposure Prophylaxis (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.

<sup>&</sup>lt;sup>2</sup> PHE. Progress towards ending the HIV epidemic: 2018 report. 2018.

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 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 including:<sup>3</sup>

- less than half of MSM testing for HIV have had at least 1 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 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>2</sup>
- a high proportion of people who inject drugs in England who access 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-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 is

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<sup>&</sup>lt;sup>3</sup> PHE. Progress towards ending the HIV epidemic: 2018 report.

the 3-year clinical trial which launched in October 2017 which aims to recruit 13,000 participants in England.<sup>4</sup> As of October 2018, almost 9,000 participants had been recruited.

It has been demonstrated that the advantages of antiretroviral therapy (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. People living with HIV and their healthcare providers can discuss starting ART to reduce their risk of transmitting HIV to their sexual partners. The policy of immediate ART 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.

<sup>4</sup> www.prepimpacttrial.org.uk

<sup>&</sup>lt;sup>5</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>6</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 of 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 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 the high standard of care is maintained.

Following a discussion of the individual and public health benefits of treatment, all people newly diagnosied 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 well-being.

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<sup>&</sup>lt;sup>6</sup> PHE. Progress towards ending the HIV epidemic: 2018 report. 2018

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>7</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 to 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>&</sup>lt;sup>7</sup> PHE. Progress towards ending the HIV epidemic: 2018 report. 2018

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:

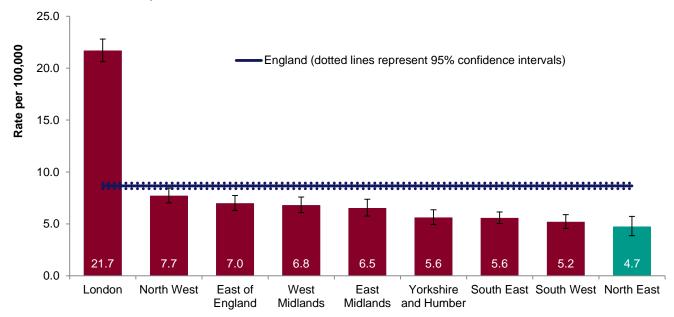
- go to an STI clinic or a community testing site (www.nhs.uk/Service-Search/HIV-testing/) (www.aidsmap.com/hiv-test-finder)
- ask your GP for an HIV test
- request a self-sampling kit online (www.freetesting.hiv) or obtain a self-testing kit

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.

There are many methods to prevent HIV acquisition currently available in the UK. A healthcare professional will be able to advise what combination of methods will work best depending on each individual health and circumstances.

## 2 Charts, tables and maps

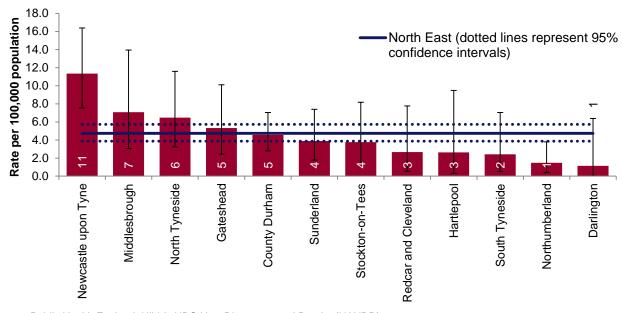
Figure 1: New HIV diagnoses per 100,000 population aged 15 years or older by PHE centre of residence, 2017



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 and transmission.

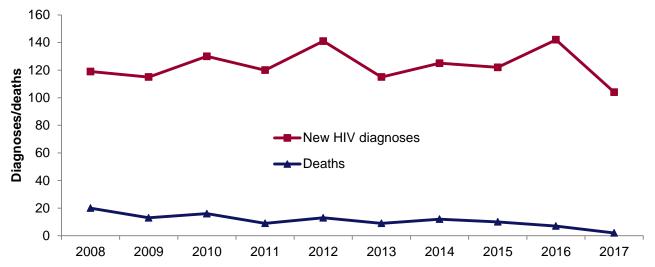
Figure 2: New HIV diagnoses per 100,000 population aged 15 years or older by upper tier local authority of residence, north-east residents, 2017



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

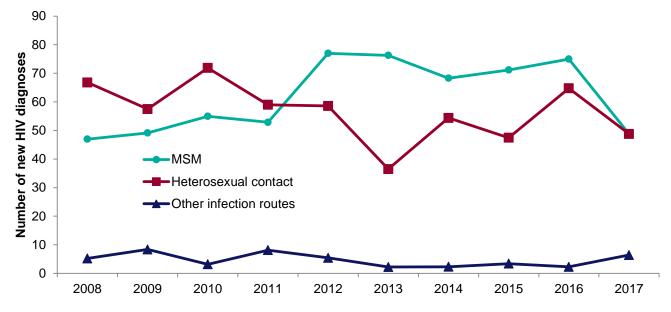
The number of new diagnoses will depend on accessibility of testing as well as infection and transmission.

Figure 3: New HIV diagnoses and deaths, north-east residents and deaths, 2008 to 2017



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

Figure 4: New HIV diagnoses by probable route of infection (adjusted for missing route of infection information), north-east residents, 2008 to 2017 (please see footnote on interpreting trends)\*



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

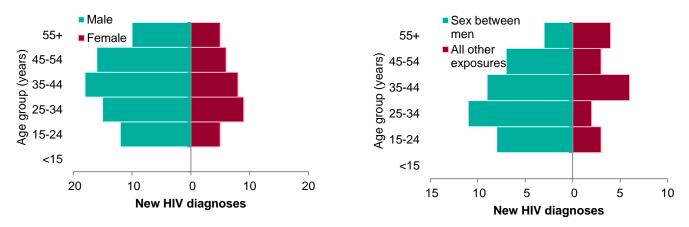
The number of new diagnoses will depend on accessibility of testing as well as infection and transmission.

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

<sup>\*</sup>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 **2017**. Please see important note on data earlier in this report. This will impact on interpretation of trends in more recent years.

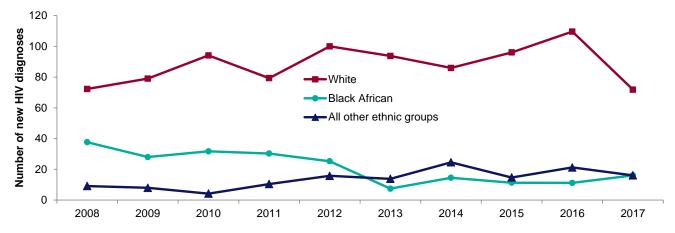
Figure 5: Number of new HIV diagnoses by age group and gender (A) and probable route of infection in males (B), north-east residents, 2017



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 and transmission.

Figure 6: Number of new HIV diagnoses by ethnic group (adjusted for missing ethnic group information), north-east residents, 2008 to 2017 (please see footnote on interpreting trends)\*

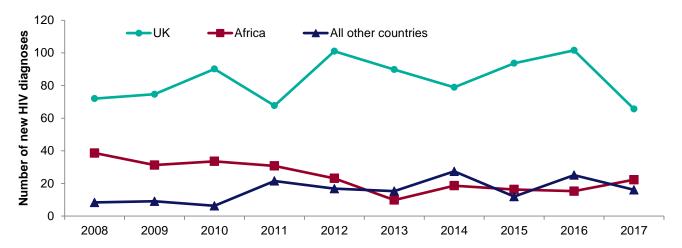


Source: Public Health England, HIV & AIDS New Diagnoses and Deaths (HANDD).

The number of new diagnoses will depend on accessibility of testing as well as infection and 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 **2017**. Please see important note on data earlier in this report. This will impact on interpretation of trends in more recent years.

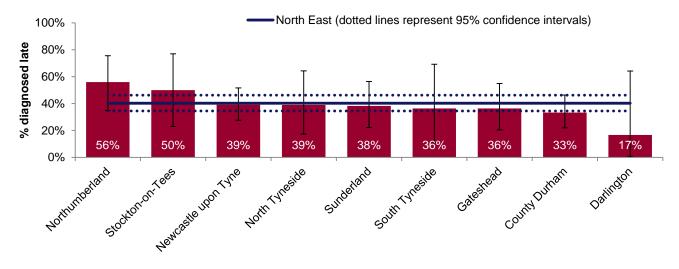
Figure 7: Number of new HIV diagnoses by world region of birth (adjusted for missing world region of birth information), north-east residents, 2008 to 2017 (please see footnote on interpreting trends)\*



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 and transmission.

Figure 8: Percentage of new HIV diagnoses that were diagnosed late by upper tier local authority of residence, North East, aged 15 years and over, 2015 to 2017 \*



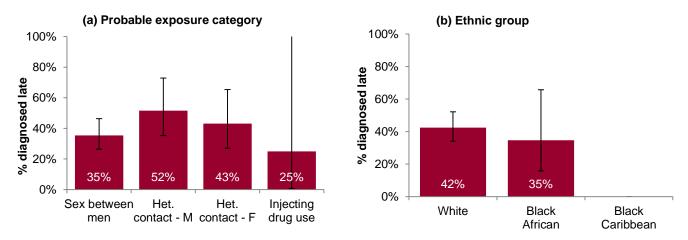
Source: Public Health England, HIV and AIDS New Diagnosis Database/System, HIV & AIDS Reporting System (HARS).

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

<sup>\*</sup>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 **2017**. Please see important note on data earlier in this report. This will impact on interpretation of trends in more recent years.

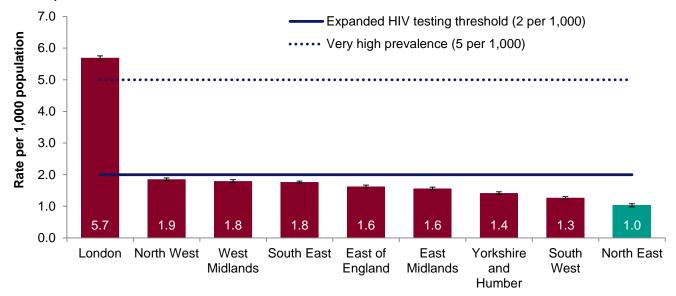
<sup>\*</sup> Only includes new diagnoses for which CD4 count was reported within 91 days of diagnosis; late diagnosis defined as CD4 count <350 cells/mm³. Percentages for UTLAs with fewer than 5 late diagnoses are excluded as the denominator for this calculation is valid new HIV diagnoses which will always be lower than 10,000.

Figure 9: Percentage of new HIV diagnoses that were diagnosed late by probable route of infection (A) and ethnic group (B), north-east residents, ages 15 years and over, 2015 to 2017\*



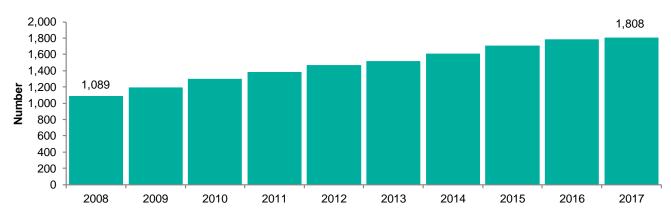
Source: Public Health England, HIV and AIDS New Diagnosis Database/System, HIV & AIDS Reporting System (HARS).

Figure 10: Diagnosed HIV prevalence per 1,000 residents aged 15-59 years by PHE Centre, 2017



<sup>\*</sup> 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 11: Number of residents living with diagnosed HIV and accessing care, the North East, 2008 to 2017



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

Figure 12: Number of residents living with diagnosed HIV and accessing care by probable route of transmission (adjusted for missing information), the North East, 2017

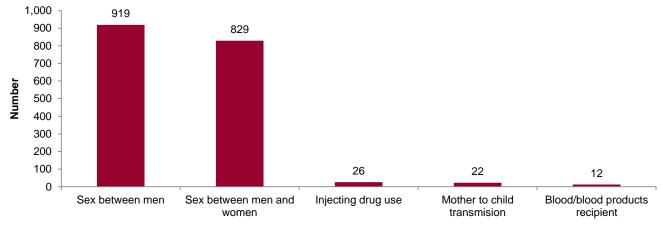
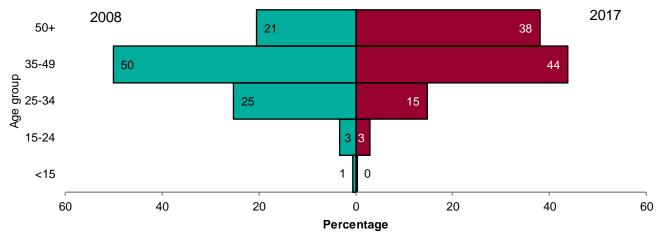


Figure 13: Percentage of residents with diagnosed HIV and accessing care by age group, the North East, 2008 and 2017



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

Figure 14: Diagnosed HIV prevalence per 1,000 residents by ethnic group aged 15 to 59 years, the North East, 2017

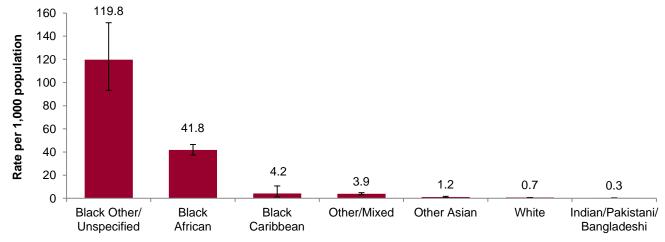
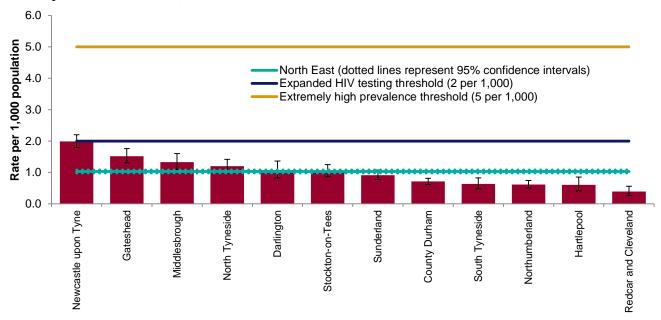


Figure 15: Diagnosed HIV prevalence per 1,000 residents aged 15-59 years by local authority, the North East, 2017



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

Figure 16: Diagnosed HIV prevalence per 1,000 <u>residents</u> aged 15-59 years by local authority, the North East, 2017

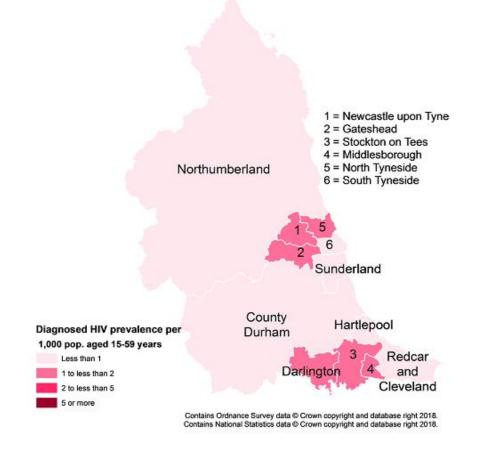
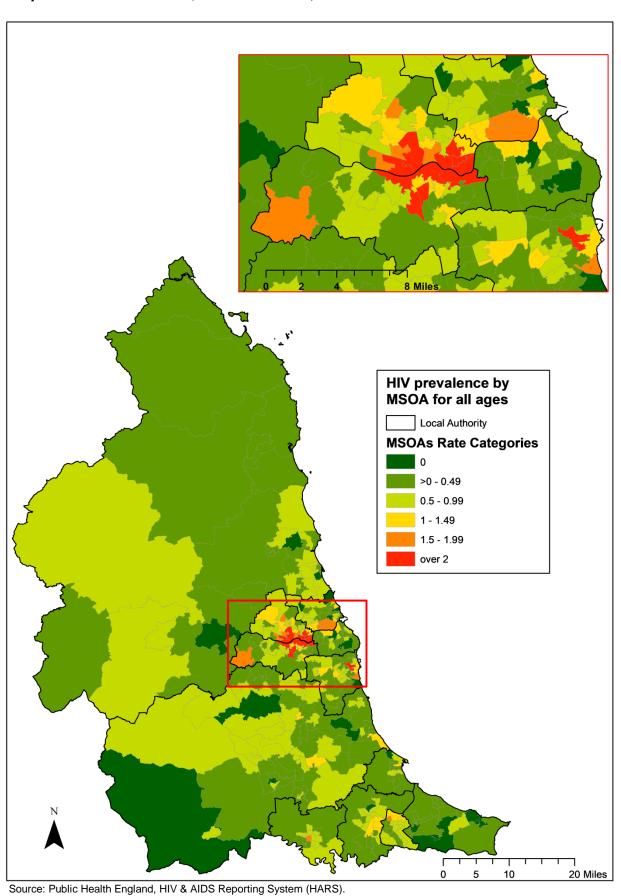


Figure 17: Diagnosed HIV prevalence per 1,000 residents (all ages) by middle super output area of residence, the North East, 2017



## 3 Appendix

Figure 18: Percentage decrease of new HIV diagnoses, 2005 to 2017, and number of new HIV diagnoses (2017), by region of diagnosis

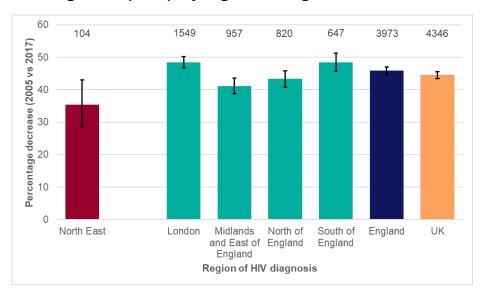


Figure 19: Rate of new HIV diagnoses per 1,000 population by ethnic group, 2008 to 2017, North East

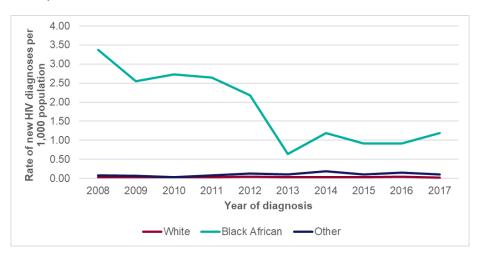


Figure 20: Percentage of new HIV diagnoses by CD4 count, north-east residents, 2008 to 2017

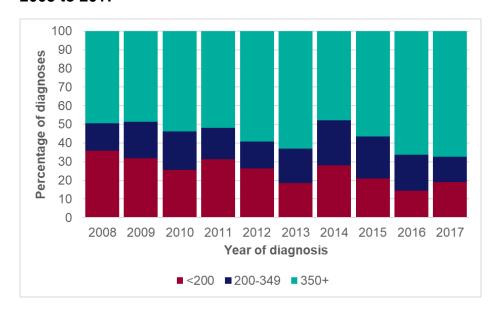


Figure 21: Number of late and very late new HIV diagnose by ethnic group, 2008 to 2017, North East

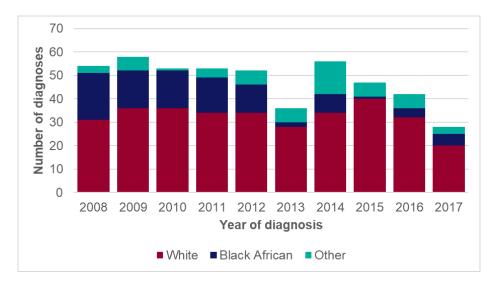


Figure 22: Age group and sex for new HIV diagnoses 2017 by baseline CD4 count, North East

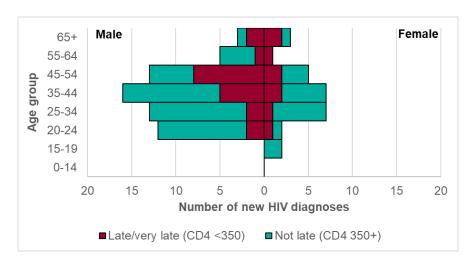


Figure 23: Age and sex of diagnosed HIV infected patients, 2017, North East

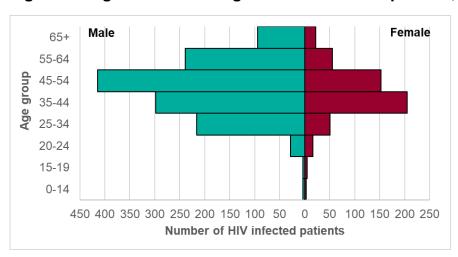


Figure 24: Number of new HIV diagnoses, RITA tested and recent infections, 2017, North East

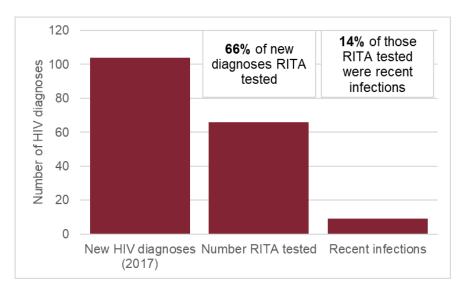


Table 1: Number and proportion of likely recently acquired infections at diagnosis by exposure category and age group: England, Wales and Northern Ireland, 2017<sup>1,2</sup>

Exposure category		15 to 24	25 to 34	35 to 49	50+	Total
	Recent infections	46	112	95	33	286
Gay and bisexual	Number of samples RITA tested	147	356	316	128	947
men	%	31%	31%	30%	26%	30%
	(95% C.I.)	(24-39)	(27-37)	(25-35)	(18-34)	(27-33)
Heterosexual men	Recent infections	4	7	13	9	33
	Number RITA tested	12	55	129	91	287
	%	33%	13%	10%	10%	12%
	95% C.I.	(10-65)	(5-24)	(5-17)	(5-18)	(8-16)
	Recent infections	13	17	8	7	45
Heterosexual	Number RITA tested	36	104	132	76	348
women	%	36%	16%	6%	9%	13%
	95% C.I.	(21-54)	(10-25)	(3-11)	(4-18)	(10-17)
All heterosexuals	Recent infections	17	24	21	16	78
	Number RITA tested	48	159	261	167	635
	%	35%	15%	8%	10%	12%
	95% C.I.	(22-51)	(10-22)	(5-12)	(5-13)	(6-15)
Total	Recent infections	71	150	132	58	411
	Number RITA tested	228	586	703	368	1,885
	%	31%	26%	19%	16%	22%
	95% C.I.	(25-38)	(22-29)	(16-22)	(12-20)	(20-24)

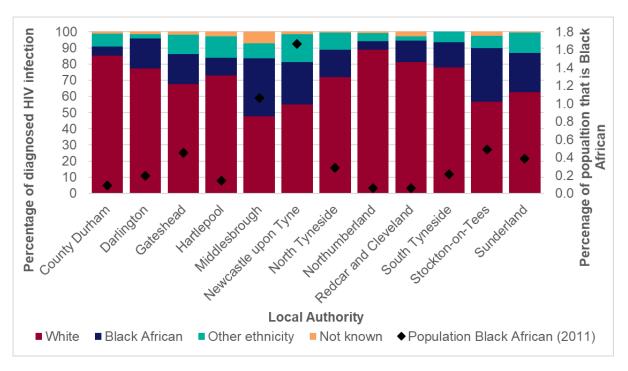
<sup>&</sup>lt;sup>1</sup> Ascertained through the Recent Infection Testing Algorithm (RITA). <sup>2</sup> Overall, 43% of new HIV diagnoses had a test for recent infection.

Table 2: Number and prevalence (per 1,000) of diagnosed HIV infected patients by ethnic group and local authority, 2017, North East

Local outbority of	Ethnicity						T-1-12
Local authority of residence	White		Black-African		Other ethnicity		Total <sup>2</sup>
residence	N	Prev. 1	N	Prev.	N	Prev.	N
County Durham	220	0.4	14	31.3	21	2.3	258
Darlington	54	0.5	_3	-	-	-	70
Gateshead	138	0.7	38	42.1	24	3.7	204
Hartlepool	27	0.3	-	-	-	-	37
Middlesbrough	61	0.5	46	31.3	12	0.8	128
Newcastle upon Tyne	234	1.0	112	24.0	74	2.1	426
North Tyneside	116	0.6	27	46.9	17	2.7	161
Northumberland	121	0.4	7	36.3	7	1.5	136
Redcar and Cleveland	30	0.2	-	-	-	-	37
South Tyneside	49	0.3	-	-	-	-	63
Stockton-on-Tees	72	0.4	42	44.9	10	1.1	127
Sunderland	101	0.4	39	36.7	20	2.0	161
North East	1223	0.5	357	32.5	197	1.8	1808

<sup>&</sup>lt;sup>1</sup> – Prev. = Prevalence. <sup>2</sup> – Total includes those with unknown ethnicity. 3 – '-' indicates that the number and prevalence has been masked due to small numbers

Figure 25: Percentage of diagnosed HIV infected patients by ethnicity and local authority, also showing the percentage of Black Africans in the general population, 2017, North East



### 4 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 deduplicated 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 (see <a href="https://www.apho.org.uk/resource/item.aspx?RID=48457">www.apho.org.uk/resource/item.aspx?RID=48457</a>). 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.

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, that is 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, that is 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.

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 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.

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 the report for that year 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 historical data is refreshed accordingly.

## 5 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: www.gov.uk/government/uploads/system/uploads/attachment\_data/file/576052/PHE\_S H\_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 FES.NorthEast@phe.gov.uk if they do not have access to this information.

## 6 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 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 FS network, excellence and innovation is encouraged, we foster academic collaborations and take active part and lead in research, development and training.

If you have any comments or feedback regarding this report or the FS, you can contact your local FS team at FES.NorthEast@phe.gov.uk

# 7 Acknowledgements

We would like to thank the following:

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