Public Health England

Protecting and improving the nation's health

HIV testing in England: 2016 report

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Contents

List of abbreviations

ART	Antiretroviral therapy
BA	Black African
BASHH	British Association for Sexual Health and HIV
BBV	Blood borne virus
BHIVA	British HIV Association
BIS	British Infection Society
CCG	Clinical commissioning group
ECDC	European Centre for Disease Prevention and Control
ETS	Enhanced tuberculosis surveillance
GP	General practice
GUMCAD	Genitourinary Medicine Clinical Activity Dataset
HARS	HIV and AIDS Reporting System
HIV	Human immunodeficiency virus
HJIPS	Health and Justice Indicators of Performance
HCV	Hepatitis C virus
HBV	Hepatitis B virus
HBsAg	Hepatitis B surface antigen
IDPS	Infectious Diseases in Pregnancy Screening
IDU	Injecting drug use
IUSTI	International Union Against Sexually Transmitted Infections
JPAC	Joint UK Blood Transfusion and Tissue Transplantation Services Professional Advisory Committee
LA	Local authority
LTBI	Latent tuberculosis infection
MEDFASH	Medical Foundation for HIV and Sexual Health
MSM	Men who have sex with men
NAISM	National Antenatal Infections Screening Monitoring
NAT	National AIDS Trust
Natsal-3	National Survey of Sexual Attitudes and Lifestyles 3
NHSBT	National Health Service Blood and Transplant
NHSE	National Health Service England
NOMS	National Offender Management Service
NICE	National Institute for Health and Care Excellence
NSP	Needle and syringe programme
PHE	Public Health England
PHOF	Public Health Outcomes Framework
PN	Partner notification
POCT	Point of care test
PWID	People who inject drugs

RCGP	Royal College of General Practitioners
SHC	Sexual health clinic
SSBBV	Sentinel Surveillance of Blood Borne Virus Testing
SSHA	Society of Sexual Health Advisors
SRH	Sexual and reproductive health
STI	Sexually transmitted infection
TB	Tuberculosis
TOP	Termination of pregnancy
UAM PWID	Unlinked Anonymous Monitoring Survey of People Who Inject Drugs
UK NSC	UK National Screening Committee
VCT	Voluntary confidential test
WHO	World Health Organization
WSW	Women who have sex with women

Recommendations for action

HIV testing benefits infected individuals who can access treatment, and reduces HIV transmission through treatment and behaviour change. HIV testing is carried out in many different settings, for different purposes and reaches a wide range of people. Some people are offered HIV tests because they are at high risk of infection, e.g. those whose sexual partners are HIV positive. Others are tested because while they are at low risk, their potential to transmit infection is high, e.g. blood donors.

More than 1.1 million HIV tests were carried out in specialist sexual health clinics (GUM clinics and integrated GUM/sexual and reproductive health services) in England in 2015 and this testing activity identified 2,850 people with new HIV diagnoses. HIV testing in specialist sexual health clinics (SHCs) has increased steadily over the last five years, including a 47% increase in HIV testing among gay, bisexual and other men who have sex with men (gay/bisexual men).

Local authorities in England have been categorised by diagnosed HIV prevalence levels into low prevalence (<2/1,000 among 15-59 year olds), high prevalence (2-5/1,000 among 15-59 year olds) and extremely high prevalence areas (≥5/1,000 15-59 year olds).

The following actions are recommended for prioritising in 2017/18 to improve the effectiveness of HIV testing in England:

Recommendation 1: Specialist sexual health clinics should improve the notification and testing of sexual partners of people with HIV.

HIV partner notification had the highest positivity rates of all HIV testing activities (5.3%), but only 97 HIV diagnoses were reported through this system. Positivity rates were highest in clinics in extremely high prevalence areas, where 10% of those tested through HIV partner notification were diagnosed with HIV. However these clinics had the lowest partner notification testing ratios (contacts tested/new HIV diagnoses) in the country (0.2).

Recommendation 2: Specialist sexual health clinics should increase HIV testing among black African women.

Women attending specialist sexual health clinics were less likely to be offered (82%) or to receive (59%) an HIV test than men (90% and 78%, respectively). These lower rates include black African women whose HIV positivity rates were 9 times higher than other women attendees (0.9% vs. 0.1%). While just 4% of female sexual health clinic attendees were black African, 42% of HIV diagnoses among female attendees were in

this group. HIV test positivity rates among black African women were three times higher (1.8%) in low prevalence areas than in extremely high prevalence areas (0.6%).

Recommendation 3: Specialist sexual health clinics should increase HIV testing among all attendees.

HIV test coverage among eligible people attending specialist sexual health clinics in England was 67%. This low coverage level meant that 16,271 black Africans, 14,548 people born in high prevalence countries and 13,381 gay/bisexual men attended a specialist sexual health clinic but did not receive an HIV test.

Recommendation 4: Gay/bisexual men should be encouraged to have regular HIV tests at specialist sexual health clinics, at other venues, or by ordering self-sampling HIV kits on-line (www.freetesting.hiv).

Over 111,000 gay/bisexual men had HIV tests in specialist SHCs and this testing identified 1,709 HIV diagnoses. Over half were tested in extremely high prevalence areas and nearly a quarter attended clinics in low prevalence areas.

Over 13,000 gay/bisexual men returned a self-sampling HIV test kit between November 2015 and September 2016, 27% of whom reported never having been tested before. Over half of gay/bisexual men using self-sampling HIV kits lived in low diagnosed HIV prevalence areas. Of the returned self-sampling kits, there were 146 reactive test results (a reactivity rate of 1.1%) of which approximately two-thirds were highly reactive (0.7%).

The tens of thousands of people who chose to test for HIV at home in 2015 requested free self-sampling HIV test kits (35,647) or purchased self-testing HIV kits (25,571).

Recommendation 5: According to 2016 NICE guidelines, people admitted to hospital, especially in extremely high prevalence areas, should be tested for HIV.

HIV testing in hospitals in England has been assessed within emergency departments and other secondary care departments. HIV positivity rates in emergency departments were (1.4%), and in other secondary care departments were (0.8%).

Recommendation 6: National HIV test monitoring data should be improved to benchmark the effect of HIV testing policy implementation in hospitals and general practices and among different categories of sexual health service attendees.

Data quality improvements are already underway in specialist sexual health clinics, antenatal care and prisons. These developments will improve the monitoring of HIV

testing in these settings. Other developments will improve the quality of national information on HIV testing in hospitals and general practices.

Recommendation 7: According to the 2016 NICE guidelines, general practices should test patients for HIV, especially in extremely high prevalence areas.

HIV testing levels in general practices in extremely high diagnosed HIV prevalence areas (86/10,000) are nearly double that of high diagnosed HIV prevalence areas (44/10,000). In low prevalence areas only 9/10,000 of the general practice population are tested for HIV. In extremely high prevalence areas, 0.5% of HIV tests were positive compared with 0.4% in high prevalence areas and 0.2% in low prevalence areas.

Recommendation 8: HIV testing should improve for patients with hepatitis B and hepatitis C and for people who inject drugs.

Less than half of patients diagnosed with hepatitis B and hepatitis C are tested for HIV within six months of their diagnoses. Opportunistic HIV testing of people who inject drugs should also be improved across a range of healthcare services.

Recommendation 9: Two further HIV testing programmes should continue to be developed. These are the prison based opt-out testing programme for HIV and other blood borne viruses and the latent tuberculosis infection testing and treatment programme which incorporates HIV testing for people born in high prevalence countries. Data monitoring HIV testing in both these initiatives will be included in future HIV testing reports.

Recommendation 10: 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.

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)
- ask your GP for an HIV test
- request a self-sampling kit online (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.

1. Introduction

HIV testing remains critical in the response to the HIV epidemic, both globally and in England. The Joint United Nations Programme on HIV/AIDS (The UNAIDS) 90:90:90 ambition sets out a global target for 90% of people living with HIV to have their status known, 90% of those diagnosed to receive treatment and 90% of those treated to be virally suppressed [1]. Achieving the target of diagnosing 90% of people living with HIV requires an effective HIV testing programme. In 2015, 87% (95% credible interval 10-17%) of people living with HIV in the United Kingdom were estimated to be aware of their HIV infection with 13,500 (95% credible interval 10,200-17,900) people estimated to be unaware of their infection.

Prompt HIV diagnosis through regular testing provides the opportunity for treatment, and people diagnosed promptly with HIV can expect a near-normal life expectancy. In contrast, those diagnosed late have a ten-fold increased risk of death within one year of diagnosis compared to those diagnosed promptly [2]. In England, 39% (2,350/6,028) of adults newly diagnosed as living with HIV were diagnosed late (defined as a CD4 count <350 cells) in 2015. While the proportion and number diagnosed late has reduced from 56% (4,097/7,316) in 2006 to 39% (2,350/6,028) in 2015, levels remain high.

HIV testing is key to reducing onward transmission as it reduces the number of people living with HIV who are unaware of their infection, and are likely to be putting sexual partners at risk. Importantly, treatment guidelines [3, 4] now recommend treatment is offered as soon as possible after HIV diagnosis. Antiretroviral therapy (ART) is now so effective that those who achieve a suppressed viral load are extremely unlikely to pass on their HIV infection.

The National Survey of Sexual Attitudes and Lifestyles 3 (Natsal-3) suggests that HIV testing has increased in the last 10 years with 3.5% of men and 5.4% of women reported having an HIV test in the past year [5, 6]. However, only a minority of people who perceived themselves to be at high risk of HIV, including gay, bisexual and other men who have sex with men[i] and black African (BA) men and women had tested in the past year (41% and 44%, respectively).

The expansion of HIV testing across clinical and community settings in the UK has been widely advocated across HIV testing guidance [7-11], but there is concern over poor implementation and lack of commissioning in some settings [12-15].

[i] Gay, bisexual and other men who have sex with men will hereafter be referred to as gay/bisexual men/males; gay/bisexual men were previously referred to as men who have sex with men (MSM)

Reducing HIV incidence and undiagnosed infection in high-risk populations are key aims of PHE's Health Promotion for Sexual and Reproductive Health & HIV Strategic Action Plan 2016-19 [16]. Monitoring HIV testing activity in England is needed to ensure that high-risk populations are reached and that testing policies are effectively implemented.

2. HIV testing policy

HIV testing policies in England include legal requirements (testing of blood, organ and tissue donors) [17-19], national screening programmes (testing in antenatal care) [20, 21], NICE guidelines [10, 11, 22] and professional recommendations [3, 23-28]. These policies exist in a wider international context of European [9, 29] and WHO recommendations [30] (see Table 1).

Table 1. UK HIV testing legislation and guidelines

UK HIV testing legislation	
UK regulations	
The Blood Safety and Quality Regulations 2005 The Human Tissue (Quality and Safety for Human Application) Regulations 2007 The Quality and Safety of Organs Intended for Transplantation (Amendment) Regulations 2014	
National screening recommendations	
Recommendation	**Organisation**
The UK NSC recommendation on HIV screening in pregnancy	UK NSC 2006
National HIV/STI testing guidelines	
Guideline	**Organisation**
UK national guidelines for HIV testing 2008	BASHH/BHIVA/BIS 2008
HIV testing: increasing uptake in black Africans (PH33)	NICE 2011
HIV testing: increasing uptake in men who have sex with men (PH34)	
Guidelines for the blood transfusion services in the UK	JPAC 2013
Sexually transmitted infections in primary care	RCGP/BASHH 2013
Recommendations for sexually transmitted infections in men who have sex with men	BASHH 2014
Standards for the management of sexually transmitted infections (STIs)	MEDFASH/BASHH 2014
Partner notification for adults: definitions, outcomes and standards	BASHH/BHIVA/SSHA/NAT 2015
HIV testing: increasing uptake among people who may have undiagnosed HIV	NICE 2016
European HIV testing guideline	
Guideline	**Organisation**
HIV indicator conditions: guidance for implementing HIV testing in adults in health care settings	HIV in Europe 2012
2014 European guideline on HIV testing	IUSTI 2014
Other HIV testing guideiliness	
Guideline	**Organisation**
Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations	WHO 2016
Guidelines on HIV self-testing and partner notification	WHO 2016

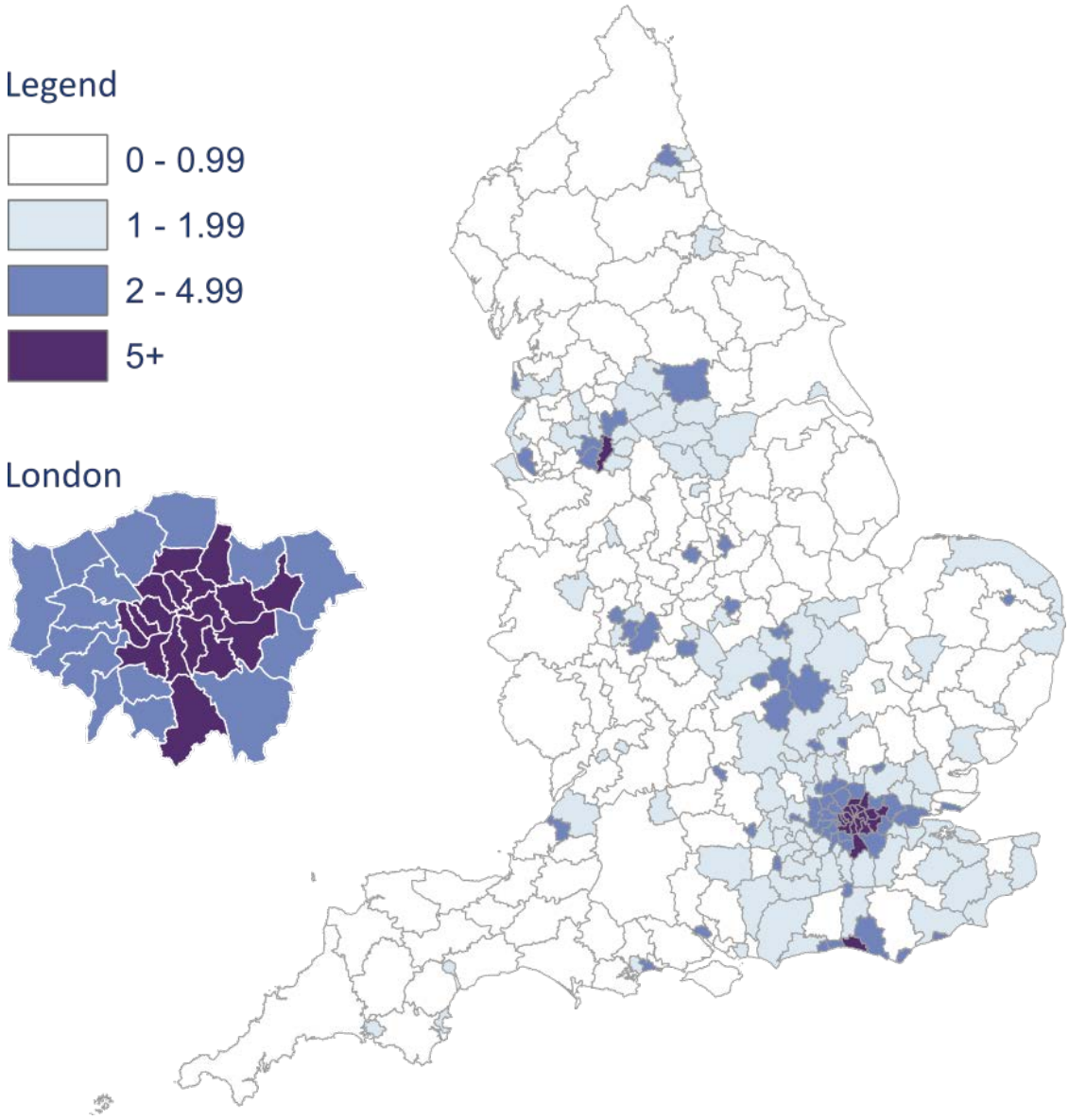
Current HIV testing policy aims to encourage testing in a range of clinical and community settings, geographical areas and risk groups. National policy is based on UK testing guidelines introduced in 2008 by the British Association for Sexual Health and HIV (BASHH), the British HIV Association (BHIVA) and the British Infection Society [7]. These advocate routine testing in certain settings, among patients with specific diagnoses or risk factors, and according to guidance on organ and blood donation and dialysis. The guidelines also recommend expanding HIV testing into primary and secondary care in areas where diagnosed HIV prevalence exceeds 2/1,000 local population (aged 15-59 years). These guidelines underpin subsequent testing recommendations. In 2011, the National Institute for Clinical Excellence (NICE) supplemented the 2008 UK guidance with recommendations to increase community engagement and testing uptake in black African (BA) populations and gay/bisexual men.

Local authorities in England have been categorised by diagnosed HIV prevalence level since 2008. Areas with a diagnosed HIV prevalence greater than 2/1,000 (among 15-59 year olds) have been defined as high prevalence areas, the remainder being low prevalence areas. In 2016, a third tier of local authorities was defined as extremely high prevalence areas. These are local authorities with diagnosed HIV prevalence greater than five per 1,000 (among 15-59 year olds) [2, 22]. In 2015, 20 local authorities in England were included in the extremely high diagnosed HIV prevalence band. These included 18 local authorities in London, along with Manchester and Brighton and Hove (see Figure 1).

In 2016, NICE issued new HIV testing guidance which incorporates recommendations based on the new diagnosed HIV prevalence bands. Updated recommendations for HIV testing in hospitals and general practices remain graded by diagnosed HIV prevalence band, and include further recommendations for services within extremely high prevalence areas [22].

Additional recommendations for testing risk groups including those with clinical indicator conditions, have been published by the European Centre for Disease Prevention and Control (ECDC) and the World Health Organisation (WHO) [29, 31]. Following the repeal of the UK ban on the sale of self-testing kits in April 2014, BASHH and European guidelines have supported the availability of self-sampling kits and the use of validated self-tests where appropriate clinical management is accessible [9, 26].

Figure 1: Diagnosed HIV prevalence per 1,000 population aged 15-59 years by England local authority, 2015



3. Aims

This report provides a single resource for national monitoring data for HIV testing activity in England. It reviews the implementation of national HIV testing guidelines. This report also addresses national and European recommendations on HIV testing, including in prisons and in other settings.

This report evaluates the effectiveness of HIV testing policies, identifying both strengths and areas for improvement in HIV testing activities and the systems that monitor them.

HIV testing data collected by national routine surveillance, sentinel surveillance and ad-hoc project data are presented. HIV testing activity is broken down by:

- specialist clinical settings where HIV testing is universally recommended
- general clinical settings where testing is recommended by geographical area: local authority areas with low (<2 per 1,000 [ii]), high (2-5 per 1,000[ii]) and extremely high (≥5 per 1,000 [ii]) diagnosed HIV prevalence
- population groups: at-risk populations including black African men and women, gay/bisexual men, and those with other behavioural or demographic risk factors

[ii] population 15-59 year olds

4. Methods

HIV testing data was collated from national surveillance, sentinel surveillance and national service data. Data are presented by setting and risk group, for each HIV testing policy recommendation (see Table 2). Where possible, HIV test offer, coverage, and positivity are presented for each diagnosed HIV prevalence band, to examine differences in policy implementation.

This report presents opportunities that are being missed to test and diagnose HIV because of partial implementation of testing policies. Missed opportunities to diagnose HIV are based on the positivity in available testing data, and assume the same positivity for the untested population.

HIV testing definitions are found in Appendix I.

Table 2: HIV testing recommendations and PHE monitoring data sources

HIV testing recommendation	Information type	Information system	Primary guidance source(s)
Universal testing in specialist services			
Sexual health clinics (SHCs)	National surveillance in specialist SHCs	GUMCADv2	NICE 2016; BASHH/BHIVA/BIS 2008
Termination of pregnancy services	No data available	No data source available	NICE 2016; BASHH/BHIVA/BIS 2008
Services for people who use drugs	Voluntary national survey in specialist drug services	UAM Survey of PWID	NICE 2016; BASHH/BHIVA/BIS 2008
Specialist clinical services (TB, HCV, HBV, lymphoma[1])	National surveillance in TB services Sentinel surveillance, 40% pop coverage through participating labs	ETS SSBBV	NICE 2016, HIV in Europe 2012
Prisons	National surveillance of BBV testing in the prison estate (in progress) National surveillance in specialist SHCs (prisoner attendees) Sentinel surveillance, 30% coverage of prison estate	HJIPS GUMCADv2 SSBBV	NICE 2016
Routine testing in clinical settings in areas of high prevalence (≥2 per 1,000 population 15-59 year olds)			
General practice	Sentinel surveillance, 40% pop coverage through participating labs	SSBBV	NICE 2016
Secondary and emergency care	Sentinel surveillance, 40% pop coverage through participating labs	SSBBV	NICE 2016
Testing at home and community settings targeting at-risk groups			
BA communities, gay/bisexual men	National surveillance in specialist SHCs	GUMCADv2	NICE 2011 PH33 & PH34
Self-sampling Self-testing	National service data, 80+ participating LAs National service data	National HIV Self-Sampling Service Independent data source	NICE 2016 WHO 2016, IUSTI 2014
Universal testing where there is a HIV transmission risk to others (includes screening)			
Antenatal screening	National surveillance of BBV testing in antenatal care	NAISM	UK NSC 2006; IDPS 2016
Blood, tissue, organ donation screening	National surveillance of testing in blood, tissue and deceased organ donors	NHSBT/PHE	UK legislation, JPAC 2013

Routine testing in high-risk groups[2]			
Those with clinical indicator diseases (including STIs, TB, HCV, HBV)	Sentinel surveillance, 40% pop coverage through participating labs National surveillance in TB services National surveillance in specialist SHCs	SSBBV ETS GUMCADv2	NICE 2016 HIV in Europe 2012
Sexual partners of those with known HIV	National surveillance in SHCs	GUMCADv2	BASHH/BHIVA/SSHA/NAT 2015, WHO 2016
Those with history of injecting drug use	Voluntary national survey in specialist drug services	UAM Survey of PWID	NICE 2016, WHO 2016, WHO 2016
Those from country of high HIV diagnosed prevalence (>1%)	National surveillance in specialist SHCs National surveillance in TB services	GUMCADv2 ETS	NICE 2016; BASHH/BHIVA/BIS 2008
Sex workers	National surveillance in specialist SHCs	GUMCADv2	RCGP/BASHH 2013; WHO 2016
Transgender people	National service data, 80+ participating LAs	National HIV Self-Sampling Service	WHO 2016
Victims of sexual assault	No data available	No data source available	RCGP/BASHH 2013
Female sexual contacts of gay/bisexual men	No data available	No data source available	NICE 2016; BASHH/BHIVA/BIS 2008
Those reporting sexual contact with people from countries of high HIV prevalence	No data available	No data source available	NICE 2016, BASHH/BHIVA/BIS 2008

[1] no data available for lymphoma services

[2] includes black African populations and gay/bisexual men (NICE 2011, P33 & P34)

5. Where are people tested for HIV?

This report presents HIV testing data for four types of settings:

1. Specialist services where all attendees should be offered testing for HIV because they may be at increased risk of HIV:
- specialist sexual health clinics (SHCs)
- clinical services for TB, hepatitis B and C
- drug dependency services
- prisons

2. General clinical services where patients should be offered HIV testing depending on the diagnosed HIV prevalence band of their local authority
- patients attending general practices
- patients admitted to hospitals, including emergency departments

3. Home and community settings, particularly for most at risk groups (gay/bisexual men and black African populations)

4. Services where all attendees should be offered testing for HIV because of the high potential transmission risk to others
- antenatal care
- blood, tissue and organ donors

5.1. Specialist services where all attendees should be offered an HIV test

5.1.1. Specialist sexual health clinics (SHC)[iii]

Recommendation:
HIV testing guidance recommends the offer and recommendation of HIV testing to all specialist sexual health clinic attendees [7, 9, 22]

Data source:
Genitourinary medicine clinic activity dataset (GUMCADv2)

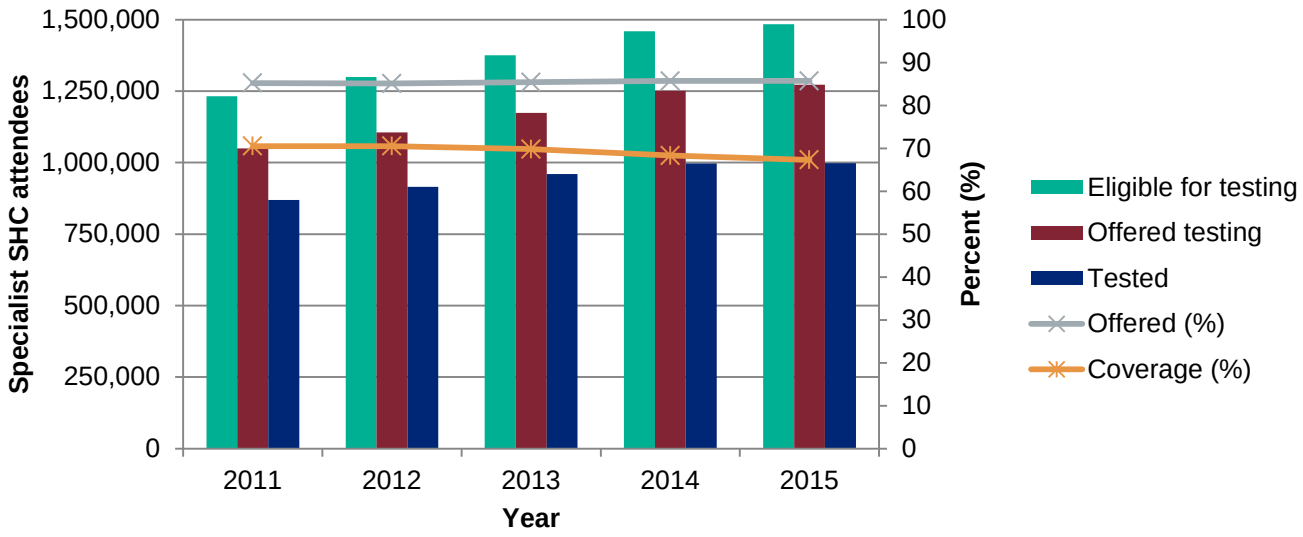
In 2015, 1,484,428 England residents attended specialist sexual health clinics (SHCs) and were eligible [iv] for HIV testing. Overall, 86% of attendees were offered an HIV test,

iii specialist sexual health services include genitourinary medicine (GUM) clinics and integrated GUM/sexual and reproductive health (SRH) services

and 67% were tested (coverage %)[v]. In 2015, 1,129,456 HIV tests were carried out, resulting in 2,850 new diagnoses[vi] identified, a positivity [vii] of 0.3%.

The total number of attendees eligible for HIV testing attending specialist SHCs has increased since 2011, and the percentage offered an HIV test has remained consistently above 85%. During the same time period, the coverage of HIV testing decreased by over 3% (see Figure 2). The relatively low HIV test coverage data may reflect changes in the reporting process. The ability to identify patients who are attending for sexual and reproductive health rather than STI related reasons, is new and this reporting has not yet been fully implemented.

Figure 2: HIV test offer and coverage in specialist SHC attendees eligible[1] for HIV testing, England 2011-2015



[1] eligible specialist SHC attendee: any patient attending a specialist SHC at least once during a calendar year; patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being related to SRH care only are excluded; includes England residents only

In 2015, more than 90% of gay/bisexual (92%) and heterosexual male (92%) attendees were offered an HIV test, while the offer was lower in WSW and heterosexual female attendees (88% and 84%, respectively). HIV test coverage was highest in gay/bisexual men (88%, 98,139/111,520) and heterosexual men (77% 381,201/ 493,824). Among female attendees, coverage was 69% in women who have sex with women (WSW) (2,292/3,315) and 61% in heterosexual females (490,159/803,864) (see Appendix III). These figures represent a 3% fall in coverage.

[iv] eligible specialist SHC attendee: any patient attending a specialist SHC at least once during a calendar year; patients known to be HIV positive or for whom a HIV test was not appropriate, or for whom the attendance was reported as being related to SRH care only are excluded (2015 only)

[v] coverage % is defined as the % of eligible new specialist SHC attendees in which a HIV test was accepted; data represent the number of persons tested for HIV and& not the number of tests reported

[vi] those not already diagnosed elsewhere

[vii] positivity: number of new diagnoses diagnosed in specialist SHCs / all eligible tests (x100%)

While all specialist SHCs should be offering their attendees HIV testing, test offer and coverage varies. In 2015, 28% (410,991/1,484,428) of people eligible for HIV tests attended specialist SHC in local authorities with extremely high diagnosed HIV prevalence (see Table 3). These clinics offered 89% of their attendees HIV tests and tested 73% of them for HIV. The tests carried out in these clinics (n=353,231) resulted in 1,354 new diagnoses (positivity 0.38%), and accounted for 48% (1,354/2,850) of all new diagnoses made in specialist SHCs.

HIV test offer, coverage and positivity were all lower for the 633,202 (43%) eligible people attending specialist SHCs in low prevalence areas. HIV tests in these clinics (n=444,147) resulted in 795 new diagnoses (positivity 0.2%), and accounted for 28% (795/2,850) of all new diagnoses made in specialist SHCs.

Table 3: HIV test offer, coverage and positivity by clinic diagnosed HIV prevalence band in eligible specialist SHC attendees, England 2015

Diagnosed prevalence band[1]	No. clinics	Eligible Attendees[2]	Offered (offered %)	Tested (coverage %[3])	Positivity (%)[4]
Low (<2/1,000)	155	633,202	537,215 (84.8)	401,417 (63.4)	795 (0.2)
High (2-5/1,000)	50	440,235	368,668 (83.7)	298,840 (67.9)	701 (0.2)
Extremely high (≥5/1,000)	27	410,991	366,015 (89.1)	298,246 (72.6)	1,354 (0.4)
Total	**232**	**1,484,428**	**1,271,898 (85.7)**	**998,503 (67.3)**	**2,850 (0.3)**

[1] based on 2015 diagnosed HIV prevalence data in those aged 15-59; banding by clinic local authority
[2] eligible specialist SHC attendee: any patient attending a specialist SHC at least once during a calendar year; patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being related to SRH care only are excluded; includes England residents only
[3] coverage % is defined as the % of eligible new specialist SHC attendees in which an HIV test was accepted; data represent the number of persons tested for HIV & not the number of tests reported
[4] [(number of 2015 diagnoses) (England residents only)/number of eligible HIV tests (not shown)(x100%)]; total: 2,850 new diagnoses/1,129,456 eligible tests (x100%)

Missed opportunities:
If specialist SHCs in all diagnosed prevalence bands reached BASHH standards and tested 80% of all eligible attendees, around 189,000 additional attendees would have been tested for HIV in 2015. Assuming HIV positivity among those not tested was the same as among those tested (0.3%), around 550 additional new HIV infections could have been identified in 2015.

Only 14% (32/231) of specialist SHCs met or exceeded BASHH HIV testing guidance of at least 80% test coverage [32] among heterosexual attendees, a slight decline from 15% (34/226) of clinics reaching this standard in 2014 (see Appendix IV). However, changes in coverage may reflect organisation changes such as integration of clinics from 2014 to 2015.

Links to more information:
Further service-level HIV test uptake and coverage information can be found at:
Sexually transmitted infections (STIs): annual data tables
HIV test uptake and coverage data is also available by patient local authority at:
Sexual and reproductive health profiles

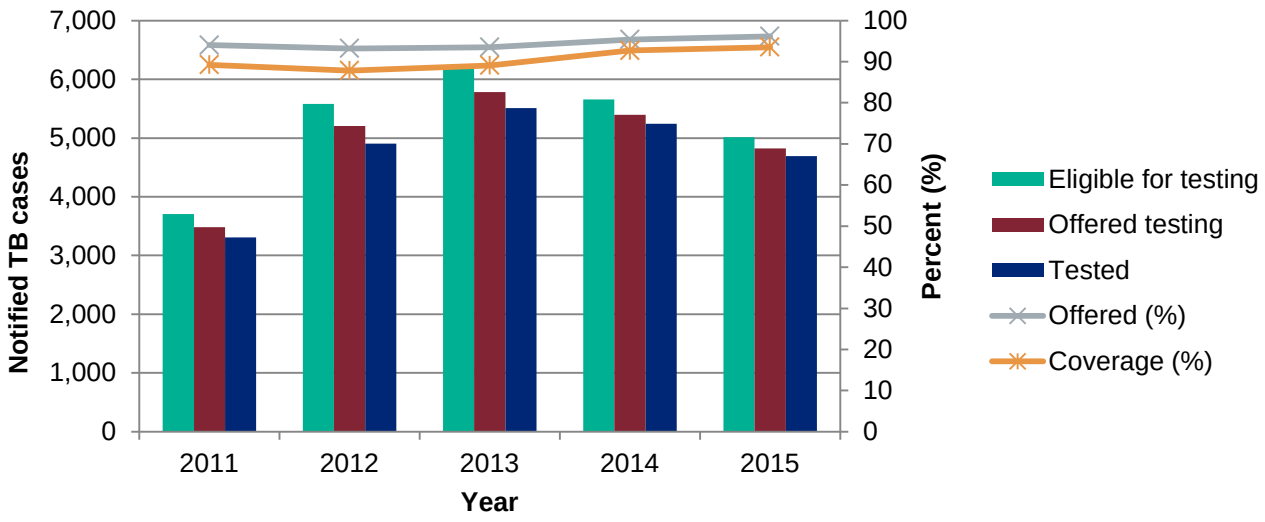
5.1.2. Healthcare services for those diagnosed with tuberculosis (TB)

Recommendation:
HIV testing guidelines recommend the routine offer and recommendation of HIV testing for all people diagnosed with TB [29] and those attending TB specialist services [7, 22]

Data source:
Enhanced Tuberculosis Surveillance System (ETS)

In 2015, testing information was available for 92% (5,016/5,442) of notified TB cases with a previously unknown HIV status. Of these cases, 94% (4,692/5,016) were tested for HIV (coverage %[viii]), an increase from the 89% tested (3,306/3,704) in 2011(see Figure 3).

Figure 3: HIV testing offer and coverage[1] in notified TB cases[2] by year, England 2011-2015



[1] coverage % is defined as % of notified TB cases tested for HIV
[2] total with previously unknown HIV status where HIV testing is known and excluding those diagnosed post-mortem

The proportion of notified cases who were tested for HIV was highest in those born in countries with high HIV prevalence (96%), followed by those born in all other countries (excluding the UK) (93%) and those born in the UK (90%) (see Table 4).

[viii] coverage % is defined as % of notified TB cases tested for HIV

Table 4: HIV testing in notified TB cases by country of birth, England 2015

Country of birth	Notified TB cases[1]	Offered (offered %)	Tested (tested %)
Country with high HIV prevalence[2]	526	517 (98.3)	506 (96.2)
United Kingdom	1,337	1,239 (92.7)	1,196 (89.5)
Other country[3]	3,036	2,965 (97.7)	4,086 (93.4)
Total[4]	**4,903**	**4,725 (96.4)**	**4,596 (93.7)**

[1] total with previously unknown HIV status where HIV testing is known and excluding those diagnosed post-mortem
[2] countries where known HIV diagnosed prevalence is >1% in ages 15-49 [33]
[3] all other countries excluding the UK and those with high HIV diagnosed prevalence
[4] includes those where COB classified as "Other" (n=4)

HIV test coverage in notified TB cases varied by age group, with the lowest rates among those aged 65 and over (86%) and those under the age of 15 (68%). Most of the children (under 15 year olds) who were not offered HIV testing were UK-born (80%, 44/55) (see Table 5).

Table 5: HIV testing in notified TB cases by age group, England 2015

Age group	Notified TB cases[1]	Offered (offered %)	Tested (tested %)
<15	190	135 (71.1)	129 (67.9)
15-44	2,954	2,910 (98.5)	2,855 (96.6)
45-64	1,173	1,143 (97.4)	1,105 (94.2)
65+	699	637 (91.1)	603 (86.3)
Total[2]	**5,016**	**4,825 (96.2)**	**4,692 (93.5)**

[1] total with previously unknown HIV status where HIV testing is known and excluding those diagnosed post-mortem

In 2014, 3.1% (190/6,209) of notified TB cases were co-infected with HIV (as determined by matching TB cases to HIV cases)[ix]. Where known, 63% (116/183) of co-infected notified TB cases were born in countries of high HIV diagnosed prevalence (>1%) [33]. The number of notified TB cases co-infected with HIV has fallen from 6.2% in 2008 (455/7,358).

ix includes TB and HIV cases aged 15 years and over

Links to more information:
Further information on HIV testing in notified TB cases can be found at:
Tuberculosis in England: 2016 (presenting data to end of 2015)
Collaborative tuberculosis strategy for England: 2015-2020
HIV testing data in notified TB cases by local authority is available at:
TB Strategy Monitoring Indicators

5.1.3. Healthcare services for those diagnosed with hepatitis B or C

Recommendation:
HIV testing guidelines recommend the routine offer and recommendation of HIV testing for all people diagnosed with hepatitis B (HBV) and hepatitis C (HCV) [29] and those attending HBV or HCV specialist services [7, 22]

Data source:
Healthcare service data captured by the Sentinel Surveillance of Blood Borne Virus Testing[x] (SSBBV) with linkage to national HIV and AIDS Reporting System (HARS)

Sentinel surveillance of blood borne virus testing has collected data on HIV, HBV and HCV testing since 2011. The 2015 testing data was provided by participating laboratories that covered approximately 40% of England's population [34].

All persons aged ≥15 years, testing positive for hepatitis C-specific antibodies (anti-HCV - indicative of a history of HCV infection), or positive hepatitis B surface antigen (HBsAg) between 2010 and 2014 were collated from SSBBV. Persons known to be HIV positive at the time of hepatitis test and who tested positive for HBV in antenatal care were excluded; the latter are assumed to be part of national antenatal screening programme for HIV and hepatitis B (see section 5.4.1).

Of the 32,114 persons testing positive for anti-HCV between 2010 and 2014, 45% (n=14,587) were tested for HIV on the same day or within six months of their positive anti-HCV test. Among those with no evidence of an HIV test in the six months following their positive anti-HCV test, 2.8% (483) had had a negative HIV test in the three months before their anti-HCV test. More HIV tests were carried out on persons who had tested positive for anti-HCV within secondary care than within primary care (51.2% vs 40.8%; p<0.001).

Among persons who tested positive for HBV surface antigen (HBsAg) (n=16,086) between 2010 and 2014, 45.5% (n=7,315) were tested for HIV on the same day or within six months of their positive HBsAg test (see Table 6). Of those with no evidence of an HIV test in the six months following their positive HBsAg test, 6.4% (563) had had

x services submitting to laboratories part of the SSBBV, see Appendix II for more information

a negative HIV test in the three months before their HBsAg test. Fewer HIV tests were carried out on persons who had a positive HBsAg test within secondary care than within primary care (39.8% vs 45.3%; p<0.001).

Table 6. HIV testing within six months in those positive for anti-HCV or HBsAg, England 2015

Hepatitis positivity (2010-2014)[1]	Tested same day[2] (%)	Tested within 6 months (%)[3]	Total tested (%)	HIV positivity[4] (%)
Anti-HCV (n=32,114)	12,429 (38.7)	2,158 (6.7)	14,587 (45.4)	284 (1.9)
HBsAg (n=16,086)	5,593 (34.8)	1,722 (10.7)	7,315 (45.5)	174 (2.4)

[1] positivity for HCV antibody (indicating HCV infection) or HBsAg (indicating HBV infection) identified from SSBBV; excludes women testing positive for HBsAg in antenatal care
[2] HIV tests for a person taking place the same day of hepatitis diagnosis
[3] excludes HIV tests for persons taking place on same day of diagnosis
[4] % of persons found HIV positive at first test following hepatitis diagnosis

Links to more information:
Further information on the number of HIV tests and positivity captured by the Sentinel Surveillance of Blood Borne Virus Testing is available at:
Sentinel surveillance of BBV testing (England): annual report 2015

5.1.4. Specialist services for people who use drugs.

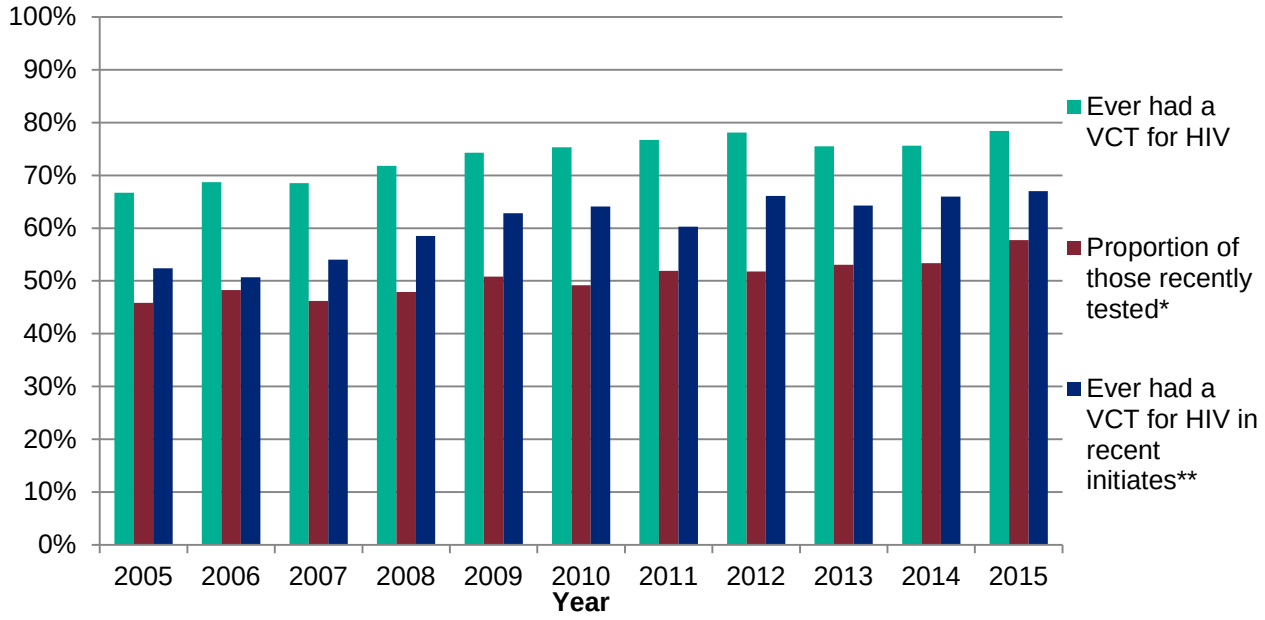
Recommendation:
HIV testing guidance recommends that all people who attend specialist services for people who use drugs or those who have a history of injecting drug use (IDU) should be universally offered and recommended HIV testing (PWID) [7, 22]

Data source:
The Unlinked and Anonymous Monitoring (UAM) Survey for people who inject drugs (PWID) collects information on HIV testing and risk behaviour among PWID that are in contact with specialist drug services in England, Wales and Northern Ireland.

In 2015, 78% (1,706/2,176) of PWID in England participating in the UAM Survey reported ever having a voluntary confidential test (VCT) for HIV. Among recent initiates [xi] to injecting, 67% (124/185) reported ever having had a VCT for HIV. Self-reported uptake of testing has increased overall and in recent initiates since 2005 (see Figure 4).

xi a recent initiate is someone who first injected during the preceding three years

Figure 4. HIV testing uptake (%) among PWID: proportion ever tested, proportion recently tested and testing uptake in recent initiates, England 2005-2015



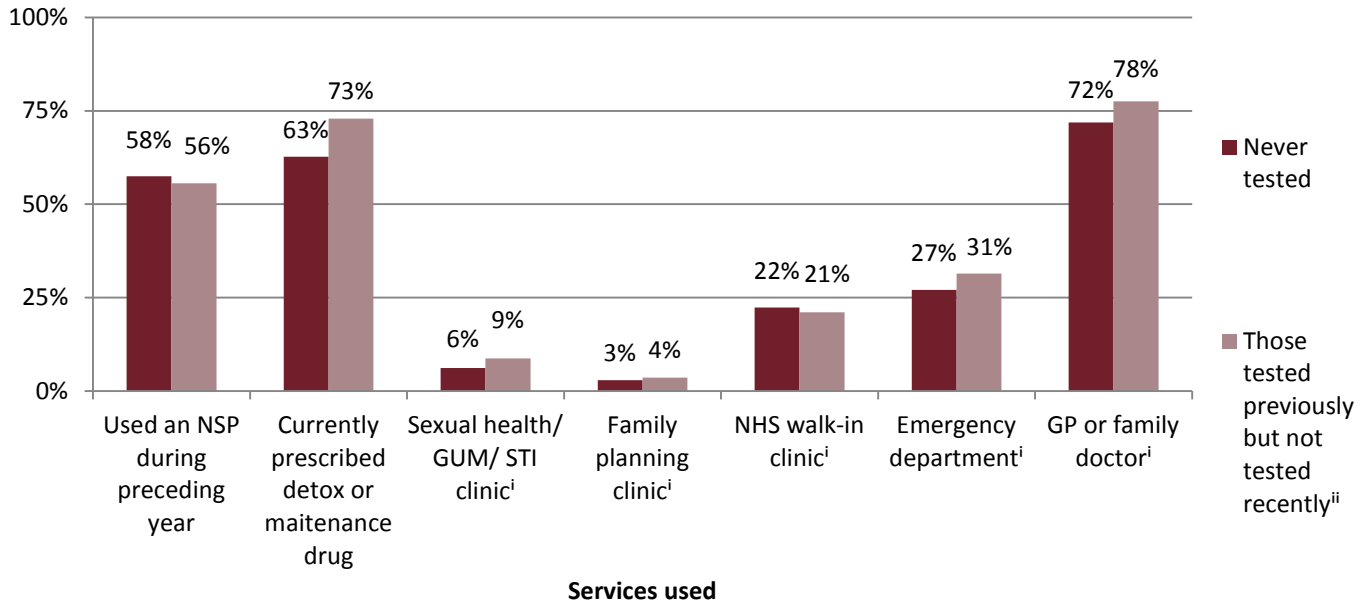
* recent testing is defined as reporting their last test as being in either the survey year or the preceding year
** a recent initiate is someone who first injected during the preceding three years,

The HIV prevalence in recent initiates (an indicator of recent HIV transmission) was 2.6% in those taking part in UAM surveys in England, Wales and Northern Ireland in 2015. Though not a significant increase in prevalence from the preceding two years, this may reflect increased injecting behaviours among some groups of gay/bisexual men rather than increased transmission in PWID overall [35]. In those with antibodies to HIV and where uptake of VCT for HIV questions were answered, 84% reported awareness of their HIV infection (in England, Wales and Northern Ireland). The overall HIV prevalence among PWID in England was 1.0% in 2015 [35].

Opportunities to test PWID for HIV in a range of health care settings are being missed. In 2015, 82% (395/470) of PWID in England who had not been tested for HIV had accessed a clinical service during the preceding year. This included 72% (302/420) who had seen a general practitioner, 63% (293/467) who were currently receiving a prescribed substitution drug, and 27% (94/420) who had been to an emergency department (see Figure 5).

The proportion of those PWID who had previously been tested for HIV, but who had not been tested recently, that had accessed services was slightly higher, with 73% currently receiving a prescribed substitution drug (392/538), 78% having seen a general practitioner (392/506) and 31% having attended an emergency department (159/506).

Figure 5. Proportion of PWID (%) never tested for HIV and not recently tested[ii] for HIV accessing health services in the previous year, England 2015



[i] used these services in the preceding 12 months
[ii] not tested in the preceding 2 years

Links to more information:
Further information on the 2015 Unlinked Anonymous Monitoring Survey of People Who Inject Drugs (UAM PWID) is available at:
People who inject drugs: HIV and viral hepatitis unlinked anonymous monitoring survey tables (psychoactive): 2016 update
Information on infections among people who inject drugs in the UK is available at:
Shooting up: infections among people who inject drugs in the UK, update November 2016

5.1.5. Prisons

Recommendation:
HIV testing guidance recommends that HIV testing is recommended at prison reception to everyone not previously diagnosed with HIV [22]

Data source:
Sentinel Surveillance of Blood Borne Virus Testing (SSBBV)

The SSBBV collects data on HIV tests carried out on approximately 30% of prisons in England. In 2015, HIV test positivity among prisoners in England was 0.6% (15/2,481) [34].

Health & Justice indicators of performance

In 2014, PHE, NHS England (NHSE) and the National Offender Management Service (NOMS) developed an 'opt-out' blood borne virus (BBV) testing programme in prisons in

England [36, 37] . Phased roll-out of the programme has been planned in 31 ‘pathfinder’ prisons from which key findings will inform BBV opt-out testing in prisons across the country. As of April 2016, more than 60% of adult prisons in England have started offering opt-out BBV testing to new receptions, and the programme aims to be fully implemented across the entire prison estate by the end of March 2017 [36].

Between April to September 2014, HIV testing in new receptions increased from 11% to 21% in 9 of 11 phase 1 pathfinder prisons that provided HIV testing data (number of tests=2,159, total new receptions=10,302).

Preliminary data for the 2015/16 financial year indicate that 40,705 HIV tests were carried out across the entire English prison estate during this period [38].

The development of data monitoring systems will enable future reporting of coverage and positivity data for HIV testing in prison settings, as well as referral into care.

Links to more information
Further information on the blood borne virus opt-out testing programme for prisons is available at:
PHE Health & Justice Annual Review 2015/16
Blood-borne Virus Opt-Out Testing in Prisons: Preliminary Evaluation of Pathfinder Programme Phase 1, April to September 2014
BBV Bulletin: Quarterly update report of the introduction of opt-out BBV testing in prisons from PHE, NHS England & NOMS

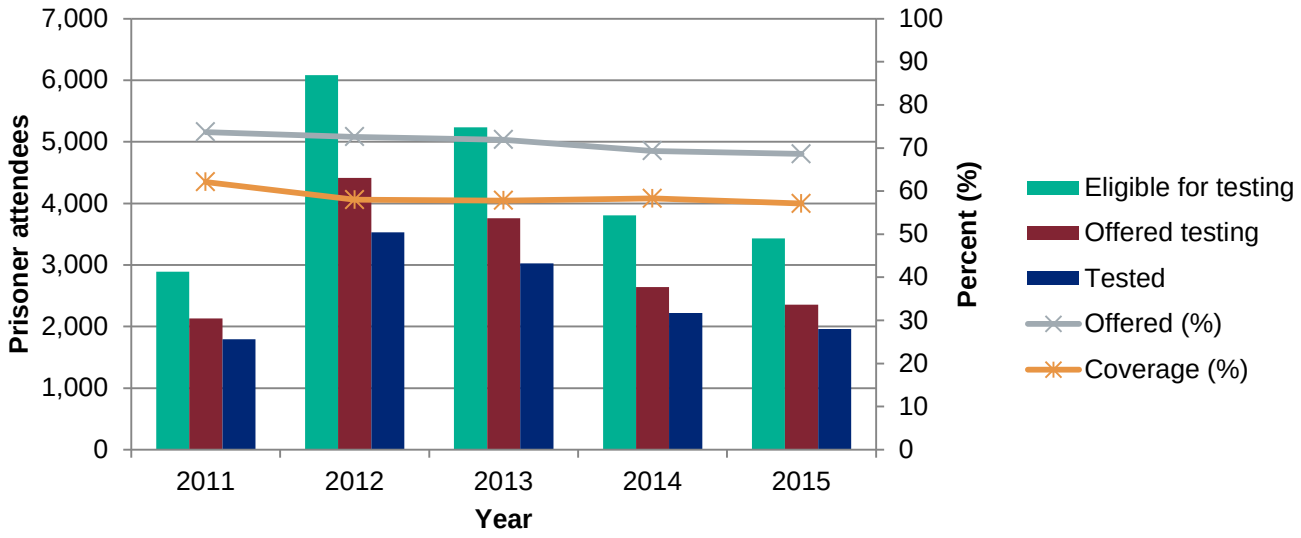
Data source:
Genitourinary medicine clinic activity dataset (GUMCADv2)

In 2015, 3,433 prisoners attended specialist SHCs and were eligible for HIV testing. Most were male (96%), and over the age of 25 (62%). For the 56% of prisoners where ethnicity was known, most were white (78%). HIV testing was offered to 69% of these prisoners, and HIV test coverage was 57%.

The number of prisoners eligible for HIV testing attending specialist SHCs has decreased sharply from 6,139 attendees in 2012 to 3,727 in 2015, but HIV test offer and coverage[xii] have remained relatively stable over this period (see Figure 6). There were 13 new diagnoses[xiii] identified in the 1,988 HIV tests carried out in 2015 (0.7% positivity[xiv]).

[xii] coverage % is defined as the % of eligible new specialist SHC attendees in which a HIV test was accepted; data represent the number of persons tested for HIV & not the number of tests reported
[xiii] those not already diagnosed elsewhere
[xiv] positivity: number of new diagnoses diagnosed in specialist SHCs / all eligible tests (x100%)

Figure 6: HIV test offer and coverage in prisoners eligible[1] for HIV testing attending specialist SHCs, England 2011-2015[2]



[1] eligible specialist SHC attendee: any patient attending a specialist SHC at least once during a calendar year; patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being related to SRH care only are excluded; includes England residents only

[2] prisoner data were significantly underreported in 2011 due to phased introduction of relevant prisoner coding

Links to more information:
Further service-level HIV test uptake and coverage information in prisoners attending specialist SHCs can be found at:
Sexually transmitted infections (STIs): annual data tables

5.2. General clinical services where attendees should be offered HIV testing depending on the diagnosed HIV prevalence of the local authority

5.2.1. Hospitals: general medical and emergency admissions

Recommendation:
HIV testing guidance recommends that all general medical and emergency admissions to hospitals identified as having as having defined risk factors (who have not previously been diagnosed with HIV) should be offered and recommended HIV testing. In addition, all general medical and emergency admissions to hospitals within high prevalence areas (who have not previously been diagnosed with HIV) who are undergoing blood tests for another reason should be routinely offered and recommended HIV testing [7, 22]. In addition, in areas of extremely high prevalence, HIV testing should be offered and recommended for all general medical and emergency admissions to hospitals (who have not been previously diagnosed with HIV) [22].

Data source:
Healthcare service data from secondary care[xv] and accident and emergency services captured by the Sentinel Surveillance of Blood Borne Virus Testing (SSBBV).

In 2015, SSBBV reported data on 63,878 people who were tested for HIV in secondary care, and 3,378 people who were tested in emergency departments (see Table 7). The positivity rate in secondary care was 0.8% (490/63,878), and the positivity rate in emergency departments was 1.4% (46/3,378).

Table 7: Number of adults (16+ years old) tested and testing positive for HIV in participating centres by service type (excluding antenatal testing), January - December 2015*†.

Service type	Number tested	Number positive (%)
Accident and emergency	3,378	46 (1.4)
Fertility services	8,817	21 (0.2)
General medical / surgical departments	8,960	84 (0.9)
Obstetrics and gynaecology	6,568	8 (0.1)
Other ward type (known service)†	27,084	151 (0.6)
Paediatric services	1,051	3 (0.3)
Specialist renal services	3,586	16 (0.4)
Specialist HIV services	138	44 (31.9)
Specialist infectious disease services	5,053	78 (1.5)
Unspecified ward§	2,530	85 (3.4)
Total	**67,165**	**536 (0.8)**

* excludes individuals aged under 16, antenatal screening, dried blood spot testing, oral fluid testing, reference testing and testing from hospitals referring all samples. Data are de-duplicated subject to availability of date of birth, soundex and first initial. All data are provisional.
† other ward types include cardiology, coroner, dermatology haematology, ultrasound, x-ray

Among all those tested in secondary care and emergency departments, the proportion of HIV positivity was higher among men than in women (1.1% 368/33,307 and 0.5% 165/33,570, respectively) (see Appendix V).

Links to more information:
Further information on the number of HIV tests and positivity in secondary care captured by the sentinel Surveillance of Blood Borne Virus Testing is available at :
Sentinel surveillance of BBV testing (England): annual report 2015

xv secondary care services include: Fertility services; general medical/surgical departments; obstetrics and gynaecology; other ward type (known service); paediatric services; renal services; HIV services; specialist infectious disease services and unspecified wards; excludes antenatal care and genitourinary medicine (GUM) services

5.2.2. General practice

Recommendation:
HIV testing guidance recommends that in all general practices, patients not previously diagnosed with HIV who are identified as having defined risk factors should be offered and recommended HIV testing. In areas of high and extremely high diagnosed HIV prevalence, HIV testing should also be offered and recommended to new registrants and to those undergoing blood tests for another reason (who have not been tested for HIV in the previous year) [7, 22, 24, 25]. In addition, in extremely high prevalence areas, HIV testing should be considered opportunistically at all consultations based on clinical judgement [22].

Data source:
General practice data captured by the Sentinel Surveillance of Blood Borne Virus Testing (SSBBV)

National data on HIV testing in general practice is derived from general practices that submit HIV tests to laboratories participating in the SSBBV. These practices cover 35% of England's general practice population (see Appendix I). HIV testing data is captured from 66% of the general practice population in extremely high prevalence areas, 37% within high prevalence areas and 29% within low prevalence areas. This data excludes any point of care tests (POCTs) carried out by GPs, and tests carried out as part of antenatal screening.

General practices in extremely high prevalence areas carried out the highest number of tests per practice population, 86/10,000 (see Table 8). This was nearly double the coverage rate of general practices in high diagnosed prevalence areas (44/10,000), and ten times the coverage rate among general practices in low diagnosed prevalence areas (9/10,000).

HIV test positivity rates were higher in general practices in extremely high prevalence areas (0.5%) than in high prevalence areas (0.4%; p-value=0.04). The positivity rate in practices in high prevalence areas was higher than that found in low prevalence areas (0.2%; p-value<0.001).

Table 8: HIV tests and positivity[1] in general practice[2] by diagnosed HIV prevalence band in data captured by the SSBBV[3], England 2014

Diagnosed HIV prevalence band [1]	% GP population covered[2]	Number of tests	Tests per 10,000 GP population covered[3]	Number of positive tests (%[4])
Low (<2/1,000)	29.3	32,157	8.6	79 (0.2)
High (2-5/1,000)	36.9	20,849	43.5	91 (0.4)
Extremely high (≥5/1,000)	66.4	33,476	86.3	182 (0.5)
Total (England)	**34.8**	**86,482**	**18.7**	**352 (0.4)**

[1] based on 2014 diagnosed HIV prevalence data in those aged 15-59; banding by service local authority
[2] % population covered by GP practices included in SSBBV
[3] from services within the sentinel surveillance of blood borne virus testing, see Appendix II for coverage details
[4] number of positive tests/number of total tests (x100%)

Links to more information:
Further information on the number of HIV tests and positivity in primary care captured by the Sentinel Surveillance of Blood Borne Virus Testing is available at :
Sentinel surveillance of BBV testing (England): annual report 2015

5.3. Home and community settings targeting the highest risk groups

5.3.1. Self-sampling

Recommendation:
HIV testing guidance recommends that the provision of self-sampling kits should be considered for people and groups with a high rate of HIV [22].

Data source:
Service data from the National HIV Self-Sampling Service

In November 2015, PHE and participating local authorities launched a nationwide HIV self-sampling service principally aimed at those most at risk of HIV acquisition including, gay/bisexual men and black African men and women and those who had never tested before. Between November 2015 and September 2016, of the 35,647 self-sampling kits delivered, 18,270 were returned for testing and 195 samples were reactive (128 high reactive [xvi] and 67 low reactive [xvii]).

From November 2015 to September 2016, 48.5% of all self-sampling kits were returned from users in areas of low diagnosed HIV prevalence, followed by areas of high (30.2%) and extremely high (21.3%) diagnosed HIV prevalence (see Table 9). The overall

xvi high reactive indicates COI above 50
xvii low reactive indicates COI below 50

reactivity rate for all returned kits was 1.1% (128 high reactive and 67 low reactive), with the highest overall reactivity rates (1.2%) found in extremely high prevalence areas (31 high reactive and 17 low reactive tests).

Table 9. Self-sampling kits tested and reactivity by diagnosed HIV prevalence band, England (November 2015-September 2016)

Diagnosed HIV prevalence band[1]	Kits tested	Reactivity[2] (%[3])		
	Total	Low	High	Total reactive
Low (<2/1,000)	8,867	33 (0.3)	58 (0.7)	91(1.0)
High (2-5/1,000)	5,516	17 (0.3)	39 (0.7)	56 (1.0)
Extremely high (≥5/1,000)	3,886	17 (0.4)	31 (0.8)	48 (1.2)
Total[4]	**18,270**	**67 (0.4)**	**128 (0.7)**	**195 (1.1)**

[1] diagnosed HIV prevalence in those aged 15-59, by patient LA
[2] low reactivity indicates COI below 50; strong reactivity indicates COI above 50
[3] no. of reactive kits/kits tested (x100)
[4] total includes those where LA not specified (n=1)

Of all users tested, 32% (5,852/18,270) reported never having been tested for HIV before. Among these users, 55% (3,226/5,852) were in low prevalence areas, 29% in high and 15% in extremely-high prevalence areas. There were 63 reactive tests found (27 low reactive and 36 high reactive) in those who had never tested (1.1% overall reactivity).

Links to further information:
National HIV Self-Sampling Service www.freetesting.hiv
Information on the national HIV prevention programme for England is available at:
HIV Prevention England http://www.hivpreventionengland.org.uk/

5.3.2. Self-testing

Recommendation:
HIV testing guidance recommends that self-tests should be offered as an additional approach to HIV testing services [39] and validated tests should be only be available with appropriate support and access to clinical care [9]. In the UK, regulatory approved self-tests are available.

Data source:
Data has been supplied by BioSure HIV Self-Test

Since 2014, it has been legal to sell home testing HIV kits in the UK. One company, BioSure, currently holds a regulatory approval to sell these kits, and has provided data for inclusion within this report.

From May 2015 to April 2016, Biosure reported that 25,571 home testing HIV kits were sold in England. The number of tests sold per 1,000 population (mean per capita rate of purchase) was higher in extremely high prevalence areas (3.4 tests/1,000) than in high prevalence areas (0.9/1,000) or low prevalence areas (0.7/1,000) (see Table 10).

Table 10: Self-tests purchased and mean per capita rate of purchase by user residence diagnosed HIV prevalence band, England (May 2015 - April 2016)

Diagnosed prevalence band[1]	Total tests purchased	Mean per capita rate of purchase (per 1,000 population)[2]
Low (<2/1,000)	13,497	0.7
High (2-5/1,000)	6,478	0.9
Extremely high (≥5/1,000)	5,596	3.4
Total	**25,571**	**0.5**

[1] based on 2014 diagnosed HIV prevalence data, bands by patient residence local authority
[2] estimated resident population (ONS 2014)

Links to further information:
Further information on available self-tests in England can be found at:
BioSure HIV self-test
Further information about self-testing is available at:
HIV testing and self-testing

5.4. Settings where there is an HIV transmission risk to others

5.4.1. Antenatal services

Recommendation:
HIV testing guidance recommends that all pregnant women are screened for HIV [40]

Data source:
National Antenatal Infections Screening Monitoring (NAISM)

Antenatal screening for HIV is recommended and offered to all pregnant women in England as part of the NHS Infectious Disease in Pregnancy Screening Programme [21]. Uptake [xviii] for HIV screening in pregnant women engaging in antenatal care has exceeded 97% since 2011 (see Table 11). During this time, the proportion of women who have screened positive and those newly diagnosed has decreased. In 2014, 0.15% (1,018) were found to be positive for HIV and 0.03% were newly diagnosed.

[xviii] uptake %: % of HIV tests accepted by pregnant women attending antenatal services

Table 11: HIV testing uptake and positivity among pregnant women presenting to antenatal care, England 2011-2015

	2011	2012	2013	2014
Uptake %	97.1	97.7	97.6	97.3
Number Tested[1]	684,510	684,566	673,373	693,570
Number Positive[2]	1,182	1,306	1,080	1,018
Positive %	0.17	0.19	0.16	0.15
Newly diagnosed[3] %	0.07	0.04	0.04	0.03

[1] among pregnant women presenting to antenatal care
[2] the number positive is the total number of women who screened positive during antenatal screening which comprises: women newly diagnosed and those previously diagnosed and retested in this pregnancy
[3] [(no. of newly diagnosed/ (no. screened - no. previously diagnosed))] (x 100%)

Links for more information:
Further HIV test uptake information through the NHS Infectious Disease in Pregnancy Screening Programme can be found at:
National Antenatal Infections Screening Monitoring: annual data tables
Further information on the surveillance of pregnant women living with HIV and their children in the UK can be found at:
National Study of HIV in Pregnancy and Childhood

5.4.2. Blood, tissue and organ donors

Recommendation:
HIV testing guidelines recommend that routine testing should be carried out among blood, tissue and organ transplant donors in accordance with UK guidance [7]. HIV testing of blood, tissues and organs is required by UK law [17-19].

Data source:
NHS Blood and Transplant (NHSBT)/Public Health England England Epidemiology Unit

HIV infection in blood donors

Blood donors in the UK are healthy volunteers, aged 17 and over, selected to be at low risk of blood borne infections according to the donor selection guidelines [41]. Donors consent to having their donations tested for HIV but are asked not to give blood or platelets if they think they need a test for HIV/AIDS. NHS Blood and Transplant (NHSBT) tests all blood donations [42] made in England (and North Wales to 1 April 2016) for evidence of HIV infection.

From 2011 to 2015, overall positivity rates were low and varied between 0.9 and 0.4 per 100,000 donations with 67 positive HIV donations identified, the majority in repeat donors. The vast majority of these were probably sexually acquired; transmission route

was not reported for four while two thirds reported sex between men and women and one third sex between men. Of the 21 HIV infected people who had reported sex between men, 81% were non-compliant with the donor selection guidelines. Non-white donors were disproportionately affected. In 2015, the rate of HIV positivity in the non-white group was 5.2 per 100,000 donations compared to 0.4 per 100,000 donations in the white group (see Appendix VI).

Tissue donors tested by NHS Blood and Transplant

Living surgical bone donors and deceased tissue donors tested by NHSBT, the blood service for England (and North Wales to April 2016), are reported to the NHSBT/PHE Epidemiology Unit. The donor selection guidelines and testing policies are similar to those for blood donors and all donors are tested for HIV. In living surgical bone donors, the median age is 68 years and 59% are female. In the deceased tissue donors the median age is similar to living surgical bone donors at 69 years but 40% are female. HIV is rare among tissue donors. In 2015, 1,381 living surgical bone donors and 2,917 deceased donors were screened with no HIV confirmed positive donors identified. One HIV positive living surgical bone donor (3.2 per 100,000 donors) and three HIV positive deceased donors (16.7 per 100,000 donors) were identified between 2006 and 2015.

Organ donors (UK data)

Organs can be donated for transplant with consent after brain stem or circulatory death. Some restrictions apply, but surgeons balance risk of using an organ from an infected donor against the risk of a patient remaining on the transplant list. Deceased organ donors are routinely tested for HIV. Unlike blood and tissue donors tested by NHSBT, the organ donor testing is performed at a local laboratory. In the UK in 2015, among 1,879 deceased donors who were consented for donation two were HIV positive (1 per 1,000 donors).

6. Who is tested for HIV?

This following section presents HIV testing data among the groups with increased risk of acquiring HIV, in the UK, these groups comprise:

- gay, bisexual and other men who have sex with men (gay/bisexual men)
- black African men and women
- sexual partners of people with HIV
- commercial sex workers
- people from countries with high HIV diagnosed prevalence (>1%)
- transgender people

6.1. All men who have disclosed sexual contact with other men

Recommendation:
HIV testing guidance recommends that gay/bisexual men are routinely offered and recommended HIV testing [7, 10, 22, 26]. Targeted testing in community settings is recommended for at-risk populations that include gay/bisexual communities [10].

National data for HIV testing in gay/bisexual men attending specialist SHCs is collected by GUMCADv2. Additional HIV testing data in gay/bisexual men is available through the National Self-Sampling Service co-commissioned by local authorities and PHE.

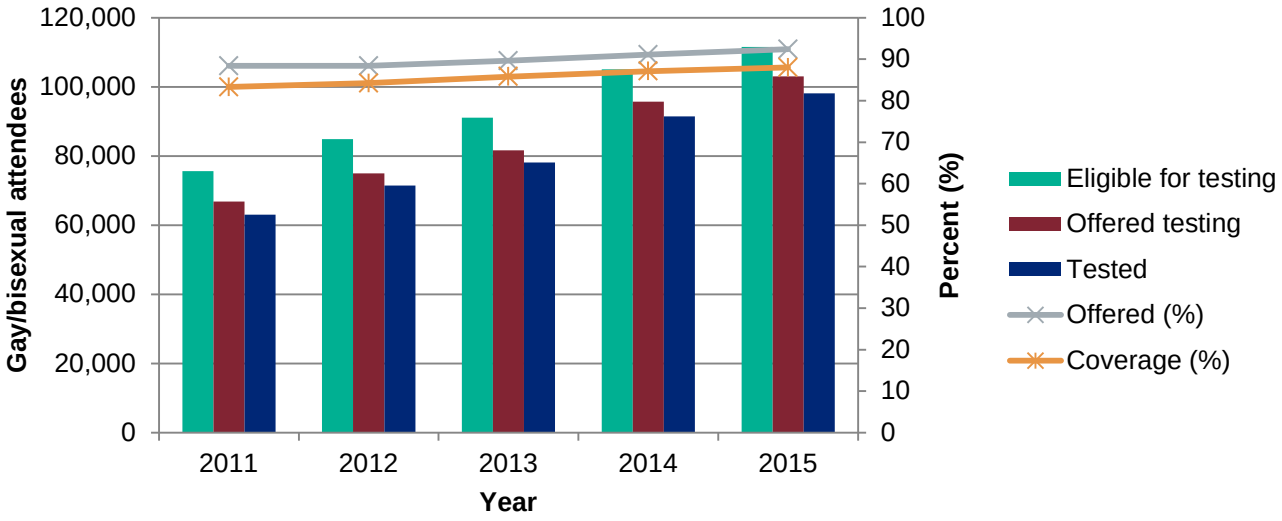
Data source:
Genitourinary medicine clinic activity dataset (GUMCADv2)

The last five years have seen a large increase (47%) in the number of gay/bisexual men eligible for HIV testing attending specialist SHCs (from 75,656 in 2011 to 111,520 in 2015).

Both the offer of an HIV test and the coverage[xix] of HIV testing among gay/bisexual attendees have increased over this time, reaching 92% and 88%, respectively, in 2015 (see Figure 7). High attendance, offer and coverage resulted in 98,139 gay/bisexual men undergoing a total of 134,342 HIV tests in specialist SHCs in 2015. These tests identified 1,709 new HIV diagnoses (1.3% positivity[xx]).

[xix] coverage % is defined as the % of eligible new specialist SHC attendees in which a HIV test was accepted; data represent the number of persons tested for HIV & not the number of tests reported
[xx] positivity: number of new diagnoses diagnosed in specialist SHCs / all eligible tests (x100%)

Figure 7. HIV test offer and coverage in gay/bisexual men eligible[1] for HIV testing attending specialist SHCs, England 2012-2015



[1] eligible specialist SHC attendee: any patient attending a specialist SHC at least once during a calendar year; patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being related to SRH care only are excluded; includes England residents only

While all gay/bisexual attending specialist SHCs should be offered an HIV test, implementation varies between areas with different diagnosed HIV prevalence (see Table 12).

Twelve percent of specialist SHCs (27/230) are in extremely high prevalence areas, and these clinics each see an average of 2,201 gay/bisexual attendees per year. The HIV testing carried out among these gay/bisexual attendees resulted in 59% (1,000/1,709) of HIV diagnoses made among gay/bisexual men attending SHCs. HIV test offer (90%) and coverage (87%) were lowest in the 22% (49/230) of the specialist SHCs in high prevalence areas; however, the positivity rate (1.4%) was highest in those clinics.

Table 12: HIV test offer, test coverage and positivity by clinic diagnosed HIV prevalence band in gay/bisexual men specialist SHC attendees, England 2015

Diagnosed prevalence band[1]	No. clinics	Eligible Attendees[2]	Offered (offered %)	Tested (coverage %)	Positivity (%)[3]
Low (<2/1,000)	154	27,548	25,123 (91.2)	24,001 (87.1)	332 (1.1)
High (2-5/1,000)	49	24,548	22,094 (90.0)	21,256 (86.6)	377 (1.4)
Extremely high (≥5/1,000)	27	59,424	55,807 (93.9)	52,882 (89.0)	1,000 (1.3)
Total	**230**	**111,520**	**103,024 (92.4)**	**98,139 (88.0)**	**1,709 (1.3)**

[1] based on 2015 diagnosed HIV prevalence data in those aged 15-59; banding by clinic local authority
[2] eligible specialist SHC attendee: any patient attending a specialist SHC at least once during a calendar year; patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being related to SRH care only are excluded; includes England residents only; includes England residents only
[3] number of 2015 diagnoses (England residents only)/number of eligible tests (x100%); total: (1,709/134,342)

Missed opportunities:
High numbers of gay/bisexual men attending specialist SHC are tested for HIV, and their increasing attendances have been matched by rising HIV test offer and coverage rates.

If specialist SHCs in all diagnosed prevalence bands tested 95% of all eligible gay/bisexual male attendees, around 7,500 additional attendees would have been tested for HIV in 2015. Assuming HIV positivity among those not tested was the same as among those tested (1.3%), around 100 additional new HIV infections could have been identified in 2015.

In 2015, 81% (187/203) of specialist SHCs met or exceeded BASHH HIV testing guidance to reach at least 80% test coverage for eligible gay/bisexual attendees [xxi] [26, 32]. This was similar to 2014 when 80% (181/226) of specialist SHCs met or exceeded this level of testing (see Appendix VII).

Further HIV test offer and coverage breakdowns in gay/bisexual men attending specialist SHCs by ethnicity (see Appendix VIII) and age group (see Appendix IX) are available in the Appendices.

Data source:
National HIV Self-Sampling Service

Since 2015, PHE has worked with local authorities to provide HIV self-sampling kits for groups at high risk of acquiring HIV, including gay/bisexual men.

Between November 2015 and September 2016, 13,722 home-sampling kits were tested for gay/bisexual males and 146 (1.1%) of these were reactive for HIV. These reactive tests are subject to confirmatory testing. Over one quarter (27%, 3,716/13,722) of gay/bisexual men using the self-sampling service reported never having been tested before. Among this group, 1.1% (42/3,716) of tests were reactive. There was little difference in total reactivity of HIV tests carried out on gay/bisexual men living in low, high or extremely high diagnosed prevalence areas (see Table 13).

The high reactivity rates among gay/bisexual men were lower (0.7%) than positivity rates seen among gay/bisexual men tested at specialist SHCs (1.3%) (see Table 12).

[xxi] eligible specialist SHC user (service-level analysis): any patient attending a specialist SHC at least once during a calendar year; patients known to be HIV positive or for whom a HIV test was not appropriate, or for whom the attendance was reported as being related to SRH care only are excluded; includes all specialist SHC service users (England and non-England residents)

Table 13. Home-sampling kit reactivity in gay/bisexual men by diagnosed HIV prevalence band, England (November 2015-September 2016)

Diagnosed HIV prevalence band[1]	Kits tested	Reactivity[2] (%[3])		
	Total	Low	High	Total reactivity
Low (<2/1,000)	7,004	26 (0.4)	51 (0.7)	77 (1.1)
High (2-5/1,000)	3,924	13 (0.3)	26 (0.7)	39 (1.0)
Extremely high (≥5/1,000)	2,793	9 (0.3)	21 (0.8)	30 (1.1)
Total[4]	**13,722**	**48 (0.3)**	**98 (0.7)**	**146 (1.1)**

[1] diagnosed HIV prevalence in those aged 15-59, by patient LA
[2] low reactivity indicates COI below 50; strong reactivity indicates COI above 50
[3] no. of reactive kits/kits tested (x100)
[4] total includes those where LA not specified (n=1)

Gay/bisexual men tested through the National HIV Self-Sampling Service had a younger age profile than those tested at specialist SHCs (see Table 14); 78% of self-sampling gay/bisexual men were under the age of 35 compared to 63% of gay/bisexual men tested at specialist SHCs.

Table 14: Age profile of gay/bisexual users testing in specialist SHCs and the national self-sampling service, England 2015-2016

Age group	Specialist SHCs[1]	Self-sampling service[2]
	Attendees tested (%)	Users tested (%)
16-19	4,618 (4.7)	1,015 (7.4)
20-24	19,273 (19.7)	4,008 (29.2)
25-34	38,198 (39.0)	5,662 (41.3)
35-44	19,571 (20.0)	1,829 (13.3)
45-64	14,469 (14.8)	1,138 (8.3)
65+	1,872 (1.9)	70 (0.5)
Total	**98,001 (100.0)[4]**	**13,722 (100.0)**

[1] includes data from January-December 2015
[2] includes data from November 2015-September 2016
[3] includes all reactive tests
[4] total includes those aged 16-99; excludes those outside of age bands

6.2. Black Africans

Recommendation:
Black African people in the UK have an increased risk of HIV and 53% of new diagnoses in black African adults were diagnosed late [xxii] [43, 44]. HIV testing guidance recommends the expansion of targeted testing in community settings for at-risk populations that include black African communities [11].

National data for HIV testing in black Africans attending specialist SHCs is collected by GUMCADv2. Additional HIV testing data in black Africans is available through the National HIV Self-Sampling Service commissioned by local authorities and PHE.

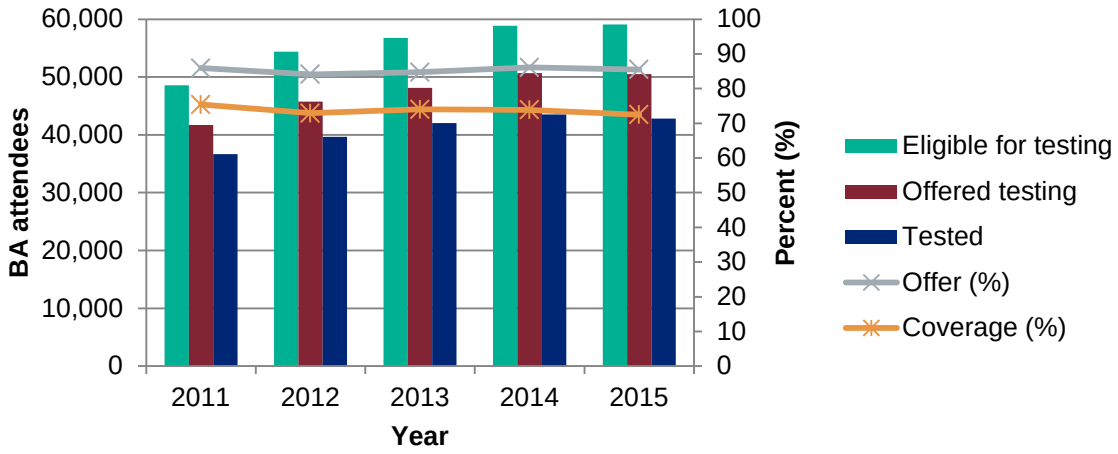
Data source:
Genitourinary medicine clinic activity dataset (GUMCADv2)

The number of black African people eligible for HIV testing attending specialist SHCs increased by 21.6% from 48,592 in 2011, to 59,090 in 2015 (see Figure 8). During this period, test offer has remained stable, while test coverage[xxiii] decreased from 75% in 2011 to 73% in 2015.

In 2015, 86% of black Africans attending specialist SHCs were offered an HIV test and 73% were tested (coverage %[xxvi]). The 48,988 tests undertaken in black Africans in 2015 led to the identification of 400 new HIV diagnoses[xxiv] (0.8% positivity[xxv]).

[xxii] late diagnosis is defined as the proportion of diagnosed HIV positive adults (aged 15 or older) who have a CD4 count of less than 350 cells/mm^3 within 91 days of HIV diagnosis (where CD4 count is known)
[xxiii] coverage % is defined as the % of eligible new SHC attendees in which a HIV test was accepted; data represent the number of persons tested for HIV & not the number of tests reported
[xxiv] those not already diagnosed elsewhere
[xxv] positivity: number of new diagnoses diagnosed in SHCs / all eligible tests (x100%)

Figure 8: HIV test offer and coverage among black African people eligible[1] for HIV testing attending specialist SHCs, England 2011- 2015



[1] eligible specialist SHC attendee: any patient attending a specialist SHC at least once during a calendar year; patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being related to SRH care only are excluded; includes England residents only

Among black African men, HIV test offer, coverage and positivity were all greater among gay/bisexual men than heterosexual attendees. Specialist SHCs had higher rates of offer and testing for male than female black African attendees (see Table 15).

Only 66% of black African female attendees received an HIV test, yet positivity rates in this group (0.9%) were higher than in black African heterosexual males (0.7%), 82% of whom were tested for HIV (see Table 15).

Table 15. HIV test offer, coverage and positivity in black African attendees eligible for HIV testing attending specialist SHCs by gender and sexual orientation, England 2015

	Eligible attendees[1]	Offered (offered %)	Tested (coverage %)	Positivity[2] (%)
Heterosexual men	23,683	21,516 (90.8)	19,318 (81.6)	0.7
Gay/bisexual men	1,721	1,585 (92.1)	1,500 (87.2)	1.6
Men (total[3])	26,797	24,015 (89.6)	21,590 (80.6)	0.8
Women (total[3,4])	32,288	26,505 (82.1)	21,226 (65.7)	0.9
Total[5]	**59,090**	**50,523 (85.5)**	**42,819 (72.5)**	**0.8**

[1] eligible specialist SHC attendee: any patient attending a SHC at least once during a calendar year; patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being related to SRH care only are excluded; includes England residents only
[2] number of 2015 diagnoses (England residents only)/number of eligible tests (x100); total: 400 diagnoses/48,988 tests
[3] includes those where orientation is not known
[4] WSW not shown due to small numbers
[5] includes those where gender is unknown/not specified

Only 4% of female attendees at specialist SHCs are black African, yet this group accounted for 42% of the HIV diagnoses made among female attendees (see Table 16).

HIV test positivity among the 96% of female specialist SHC attendees who were not black Africans was very low in all areas (<0.1%). However, for the 32,288 black African female attendees, positivity rates rose from 0.6% in extremely high diagnosed HIV prevalence areas, to 0.9% in high diagnosed HIV prevalence areas and 1.8% in low diagnosed HIV prevalence areas.

Missed opportunities:
If HIV coverage reached BASHH standards and tested 80% of all eligible black African female specialist SHC attendees, around 4,500 additional attendees would have been tested for HIV in 2015. Assuming HIV positivity among those not tested was the same as among those tested (0.9%), around 40 additional new HIV infections could have been identified in 2015.

Further HIV test offer and coverage breakdowns in black African specialist SHC attendees by gender and age group (see Appendix X) are available in the Appendices.

Table 16: HIV test offer, coverage and positivity in female specialist SHC attendees by ethnicity[1] and clinic diagnosed prevalence band, England 2015

	Ethnic group	Diagnosed HIV prevalence band[2]			
		Low (<2/1,000)	High (2-5/1,000)	Extremely-high (≥5/1,000)	Total
Eligible Attendees[3]	Black African	4,111	11,563	16,614	856,675
	Other	373,897	247,605	202,885	
	Total	**378,008**	**259,168**	**219,499**	
% Offer[4]	Black African	83.5	75.8	86.1	82.0
	Other	81.1	79.2	86.9	
	Total	**81.1**	**79.1**	**86.9**	
% Coverage[5]	Black African	68.4	64.6	65.9	59.2
	Other	55.4	59.7	64.4	
	Total	**55.6**	**60.0**	**64.5**	
Positivity (%)[6]	Black African	57 (1.8)	72 (0.9)	78 (0.6)	492 (0.1)
	Other	113 (<0.1)	99 (0.1)	73 (<0.1)	
	Total	**170 (0.1)**	**171 (0.1)**	**151 (0.1)**	

[1] ethnicity categorised as black African (BA) and other (includes White, black Caribbean, Black other, Asian, Mixed, Other and unknown)
[2] based on 2015 diagnosed HIV prevalence data in those aged 15-59; banding by clinic local authority
[3] eligible specialist SHC attendee: any patient attending a specialist SHC at least once during a calendar year; patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being related to SRH care only are excluded; includes England residents only
[4] % offer is defined as the % of eligible specialist SHC attendees in which an HIV test was offered
[5] coverage % is defined as the % of eligible new specialist SHC attendees in which an HIV test was accepted; data represent the number of persons tested for HIV & not the number of tests reported
[6] [(number of 2015 diagnoses (England residents only)/number of eligible HIV tests (x100%)]; black African women: 207 new diagnoses/24,222 eligible tests (0.9% positivity); other women: 285 new diagnoses/542,005 eligible tests (0.1% positivity); total: 492 new diagnoses/566,227eligible tests (0.1% positivity)

Data source:
Service data from the National HIV Self-Sampling Service

Since 2015, PHE has worked with local authorities to provide HIV self-sampling kits for groups at risk of HIV, including black Africans.

From November 2015 to September 2016, 1,360 self-sampling kits were tested among black Africans and 24 (1.8%) of these were reactive for HIV. These reactive tests are subject to confirmatory testing. Of those black Africans using the self-sampling service, 29% (388/1,360) reported never having tested for HIV before and 3.4% (13/388) of their tests were reactive.

HIV self-sampling reactivity rates in black African users were highest among those living in extremely high prevalence areas (2.1%) (see Table 17). This is in contrast to black Africans attending specialist SHCs, whose positivity rates were highest in low prevalence areas (see Appendix XI).

Table 17. Home-sampling kits tested and reactivity in black Africans by diagnosed HIV prevalence band, England (November 2015-September 2016)

Diagnosed HIV prevalence band[1]	Kits tested	Reactivity[2] (%[3])		
	Total	Low	High	Total reactive
Low (<2/1,000)	332	1 (0.3)	5 (1.5)	6 (1.8)
High (2-5/1,000)	598	1 (0.2)	8 (1.3)	9 (1.5)
Extremely high (≥5/1,000)	430	1 (0.2)	8 (1.9)	9 (2.1)
Total	**1,360**	**3 (0.2)**	**21 (1.5)**	**24 (1.8)**

[1] diagnosed HIV prevalence in those aged 15-59, by patient LA
[2] low reactivity indicates COI below 50; strong reactivity indicates COI above 50
[3] no. of reactive kits/kits tested (x100%)

Black African specialist SHC attendees and HIV self-sampling users have a similar age profile, and 70% of both groups were under the age of 35 (see Table 18).

Table 18: Age profile of black African HIV users tested in specialist SHCs and the national self-sampling service, England 2015-2016

Age group	Specialist SHCs[1]	Self-sampling service[2]
	Attendees tested (%)	Users tested (%)
16-19	3,234 (7.6)	81 (6.0)
20-24	10,215 (23.9)	335 (24.6)
25-34	16,468 (38.6)	541 (39.8)
35-44	8,581 (20.1)	304 (22.4)
45-64	4,031 (9.4)	99 (7.3)
65+	155 (0.4)	0 (0.0)
Total	**42,684 (100.0)[4]**	**1,360 (100.0)**

[1] includes data from January-December 2015
[2] includes data from November 2015-September 2016
[3] includes all reactive tests (low and high)
[4] total excludes those outside of age bands

6.3. Sexual partners of men and women known to be HIV positive

Recommendation:

HIV testing guidance recommends that all sexual partners of people known to be HIV positive should receive a prompt offer and recommendation of an HIV test through partner notification procedures [7, 22, 39]. Services managing patients with STIs are expected to instigate partner notification as part of HIV management [27].

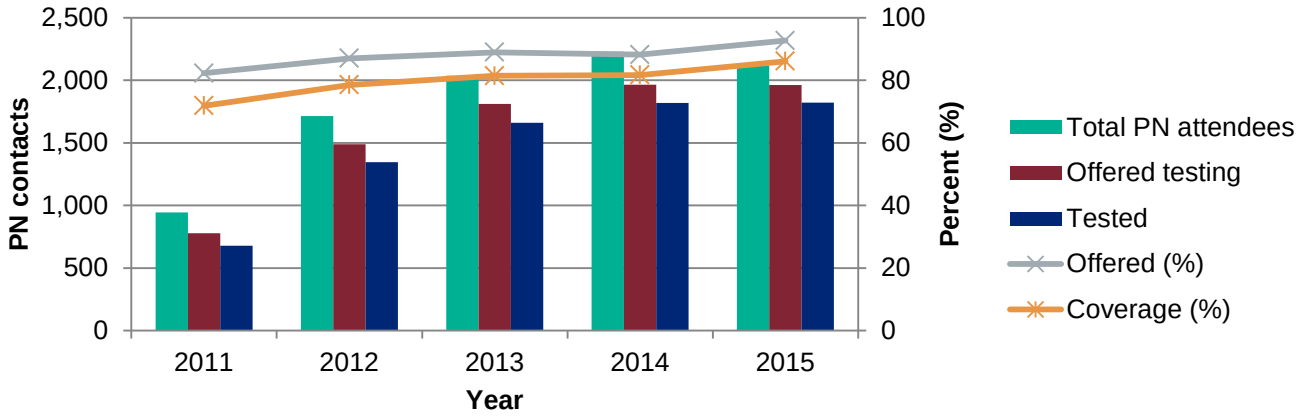
Data source:

Genitourinary medicine clinic activity dataset (GUMCADv2)

In 2015, 2,116 people attended specialist SHCs because they had been told that they had a sexual partner with HIV (HIV partner notification). The number of people attending specialist SHCs as a result of HIV partner notification more than doubled between 2011 and 2014, but then fell by 5% in 2015 (see Figure 9).

In 2015, 93% of people attending specialist SHCs as a result of HIV partner notification were offered an HIV test, and 86% were tested. There were 97 new diagnoses made in this group, a positivity rate of 5.3%.

Figure 9: Partner notification contacts[1] offered an HIV test and tested for HIV in specialist SHCs, England 2012-2015



[1] includes all service users (England and non-England residents)

Both new diagnoses (n=59) and positivity rates (6.3%) were highest among gay/bisexual men who were attending through HIV partner notification. This was despite gay/bisexual men having the lowest test coverage (84%) of attendees who had been notified that their partners had HIV (see Table 19).

Table 19: HIV PN contacts attending specialist SHCs offered HIV testing, tested and diagnosed by gender and sexual orientation, England 2015

	PN Contacts[1]	Offered (offered %)	Tested (coverage %)	Contacts diagnosed (%)[2]
Heterosexual men	512	480 (93.8)	456 (89.1)	21 (4.6)
Gay/bisexual men	1,108	1,024 (92.4)	930 (83.9)	59 (6.3)
Men (total[3])	1,634	1,517 (92.8)	1,398 (85.6)	80 (5.8)
Women (total[3,4])	482	444 (92.1)	423 (87.8)	16 (3.8)
Total[5]	**2,116**	**1,961 (92.7)**	**1,821 (86.1)**	**97 (5.3)**

[1] includes all service users (England and non-England residents)
[2] no. of diagnoses through PN (not shown)/no. of PN contacts tested (x100); 97 new diagnoses through PN in 2015
[3] includes those where sexual orientation is unknown/not specified
[4] not shown by sexual orientation due to small numbers
[5] includes all those where gender is unknown/not specified

While all people attending SHCs following HIV partner notification should be tested, testing rates and positivity vary between prevalence band areas (see Table 20). Test coverage was lowest (82%) among people attending through HIV partner notification in SHCs in extremely high prevalence areas, even though these attendees had the highest positivity rate (10%).

The partner notification test ratio is the number of people tested following HIV partner notification divided by the number of new HIV diagnoses. This measure reflects the

overall process of a sexual contact being identified by someone diagnosed with HIV, then attending a specialist SHC, being offered and then receiving an HIV test. The overall HIV PN test ratio for England is 0.6, ranging between 0.2 in extremely high prevalence areas to 1.3 in high prevalence areas.

Table 20: HIV test offer, testing and diagnosis in HIV PN contacts attending specialist SHCs by clinic diagnosed HIV prevalence band, England 2015

Diagnosed HIV prevalence band[1]	2015 new diagnoses[2,3]	PN contacts[3]	Offered (offered %)	Tested (coverage %)	Contacts diagnosed (%)[4]	PN test ratio[5]
Low (<2/1,000)	821	616	599 (97.2)	567 (92.0)	23 (4.1)	0.7
High (2-5/1,000)	723	1,071	967 (90.3)	904 (84.4)	39 (4.3)	1.3
Extremely high (≥5/1,000)	1,408	429	395 (92.1)	350 (81.6)	35 (10.0)	0.2
Total	**2,952**	**2,116**	**1,961 (92.7)**	**1,821 (86.1)**	**97 (5.3)**	**0.6**

[1] based on 2015 diagnosed HIV prevalence data; banding by clinic local authority
[2] all new diagnoses (excluding diagnoses made outside SHCs) in all service users (England and non-England residents)
[3] includes all service users (England and non-England residents)
[4] no. of diagnoses through PN (not shown)/no. of PN contacts tested (x100); 97 new diagnoses through PN
[5] testing ratio: no PN contacts tested to number of 2015 new diagnoses

Missed opportunities:
HIV partner notification has the highest positivity of all testing strategies and 97 people were identified through this route in 2015.

If 95% of people who attended specialist SHCs through HIV partner notification in 2015 had been tested for HIV, around 185 additional tests would have been carried out, Assuming HIV positivity among those not tested was the same as among those tested (5.3%), around 10 additional HIV infections could have been identified in 2015.

If specialist SHCs in extremely high prevalence areas had achieved a PN test ratio of 0.6 (the national estimate in 2015), around 450 additional sexual contacts would have been tested. Assuming HIV positivity among those not tested was the same as among those tested (10%), around 45 additional HIV infections could have been identified in 2015

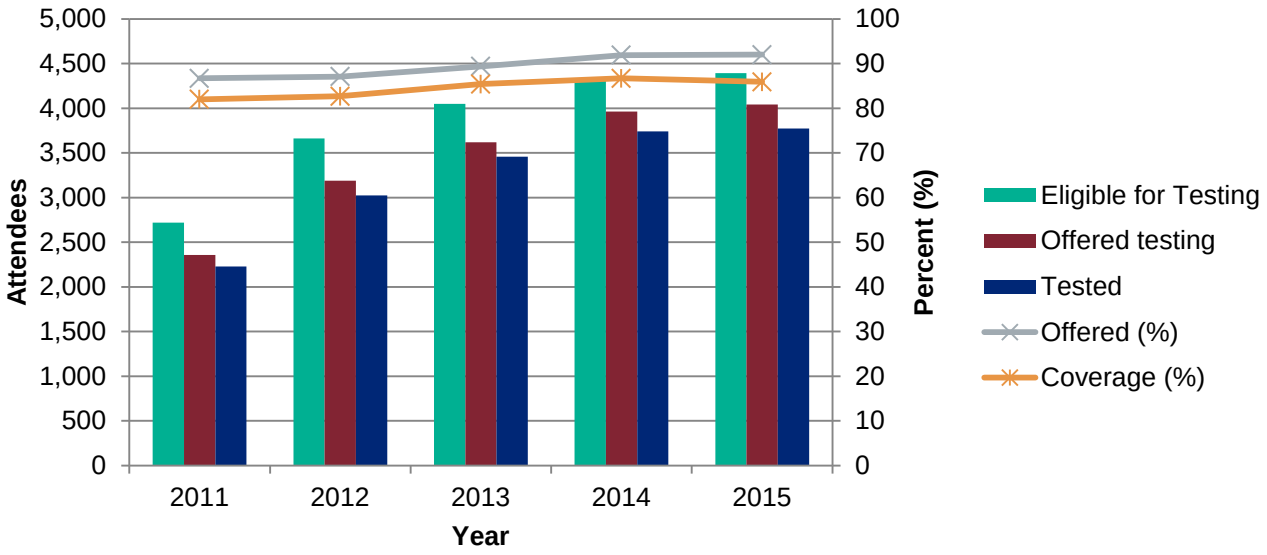
6.4. Sex workers

Recommendation:
HIV testing guidance recommends that high-risk populations, including sex workers, should be routinely offered and recommended HIV testing [25, 30].

Data source:
Genitourinary medicine clinic activity dataset (GUMCADv2)

The number of specialist SHC attendees identifying themselves as sex workers increased by over 69% between 2011 and 2015. HIV test offer and coverage [xxvi] among these sex workers have also increased over the same time period (see Figure 10). In 2015, 3,774 sex workers eligible for HIV testing attended specialist SHCs. HIV tests were offered to 92% of them, and 86% were tested (coverage %). These 5,143 tests resulted in 13 new diagnoses [xxvii] in 2015 (0.3% positivity [xxviii]).

Figure 10. HIV test offer and coverage among eligible[1] sex workers attending specialist SHCs, England 2011- 2015



[1] eligible attendee: any patient attending a specialist SHC at least once during a calendar year; patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being related to SRH care only are excluded; includes England residents only

Over 70% of sex workers eligible for HIV testing were seen in 27 specialist SHCs in areas of extremely high diagnosed HIV prevalence (see Table 21). Test offer and coverage were lowest among sex workers attending specialist SHCs in areas of high diagnosed HIV prevalence (88% and 78% respectively).

[xxvi] coverage % is defined as the % of eligible new specialist SHC attendees in which a HIV test was accepted; data represent the number of persons tested for HIV & not the number of tests reported

[xxvii] those not already diagnosed elsewhere

[xxviii] positivity: number of new diagnoses diagnosed in SHCs / all eligible tests (x100%)

Table 21. HIV test offer and coverage among sex workers attending specialist SHCs by clinic diagnosed HIV prevalence band, England 2015

Diagnosed prevalence band[1]	No. clinics	Eligible Attendees[2]	Offered (offered %)	Tested (coverage %)
Low (<2/1,000)	101	544	508 (93.4)	471 (86.6)
High (2-5/1,000)	46	761	673 (88.4)	591 (77.7)
Extremely high (≥5/1,000)	27	3,089	2,861 (92.6)	2,712 (87.8)
Total	**174**	**4,394**	**4,042 (92.0)**	**3,774 (85.9)**

[1] based on 2015 diagnosed HIV prevalence data, bands by clinic local authority
[2] eligible specialist SHC attendee: any patient attending a specialist SHC at least once during a calendar year; patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being related to SRH care only are excluded; includes England residents only

Further HIV offer and coverage breakdown in sex workers attending specialist SHCs by gender and sexual orientation (see Appendix XII) are available in the Appendices.

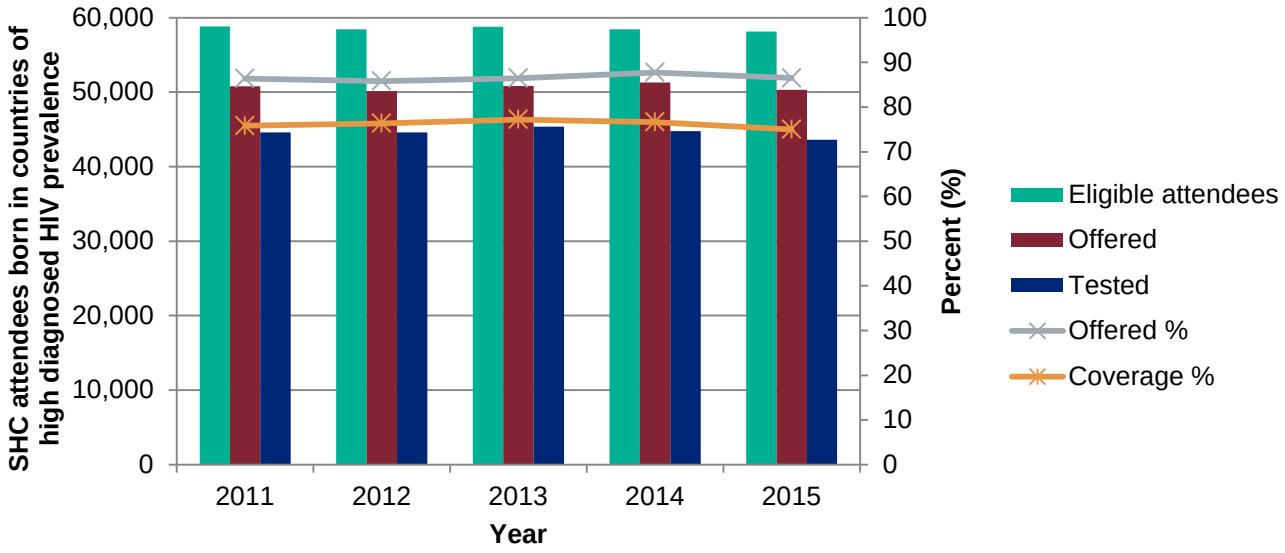
6.5. All those known to be from a country of high HIV prevalence (>1%)

Recommendation:
HIV testing guidance recommend that people born in countries of high diagnosed HIV prevalence (>1%) are offered and recommended HIV testing [7, 22]. Countries with a diagnosed HIV prevalence of >1% in the adult population are identified by UNAIDS [33].

Data source:
Genitourinary medicine clinic activity dataset (GUMCADv2)

The number of eligible attendees from high prevalence countries attending specialist SHCs has remained fairly stable over the last 5 years, as has HIV test offer and coverage rates (see Figure 11).

Figure 11: HIV test offer and coverage in eligible[1] specialist SHC attendees born in countries of high HIV prevalence[2], England 2011-2015



[1] eligible specialist SHC attendee: any patient attending a specialist SHC at least once during a calendar year; patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being related to SRH care only are excluded; includes England residents only
[2] countries where known HIV diagnosed prevalence is >1% in ages 15-49 [33]

In 2015, 58,149 people born in high prevalence countries and who were eligible for HIV testing, attended specialist SHCs in England. HIV tests were offered to 87% of them, 75% of whom were tested for HIV. These tests resulted in 459 new HIV diagnoses, a positivity rate of 0.9% (see Table 22).

Table 22. HIV test offer, test coverage and positivity among specialist attendees by country of birth, England 2015

Country of birth	Eligible Attendees[1]	Offered (offered %)	Tested (coverage %)	Positivity[2](%)
Country with high HIV prevalence[3]	58,149	50,296 (86.5)	43,601 (75.0)	459 (0.9)
United Kingdom	1,074,352	927,723 (86.4)	716,966 (66.7)	1,367 (0.2)
Other country[4]	219,393	190,950 (87.0)	160,895 (73.3)	868 (0.5)
Unknown	132,534	102,929 (77.7)	77,041 (58.1)	156 (0.2)
Total[3]	**1,484,428**	**1,271,898 (85.7)**	**998,503 (67.3)**	**2,850 (0.3)**

[1] includes England residents only
[2] number of 2015 diagnoses (England residents only)/number of eligible tests (x100%)
[3] countries where known HIV diagnosed prevalence is >1% in ages 15-49 [33]
[4] all other countries excluding the UK and those with high HIV diagnosed prevalence

Missed opportunities:
If HIV coverage reached BASHH standards and tested 80% of eligible attendees born in high prevalence countries (where country of birth was known), around 2,900 additional attendees would have been tested in 2015. Assuming HIV positivity among those not tested was the same as among those tested (0.9%), around 25 additional new HIV infections could have been identified in 2015.

6.6. Transgender people

Recommendation:
HIV testing guidance recommend that key populations, including transgender communities, should be routinely HIV testing in community and clinical settings [30]

Data source:
Service data from the National HIV Self-Sampling Service

From November 2015 to September 2016, 101 transgender people underwent HIV testing using self-sampling kits and less than five of these tests were reactive. Fifty-nine (58%) of the tested transgender people reported never having tested for HIV before and 26 (26%) reported testing over a year ago.

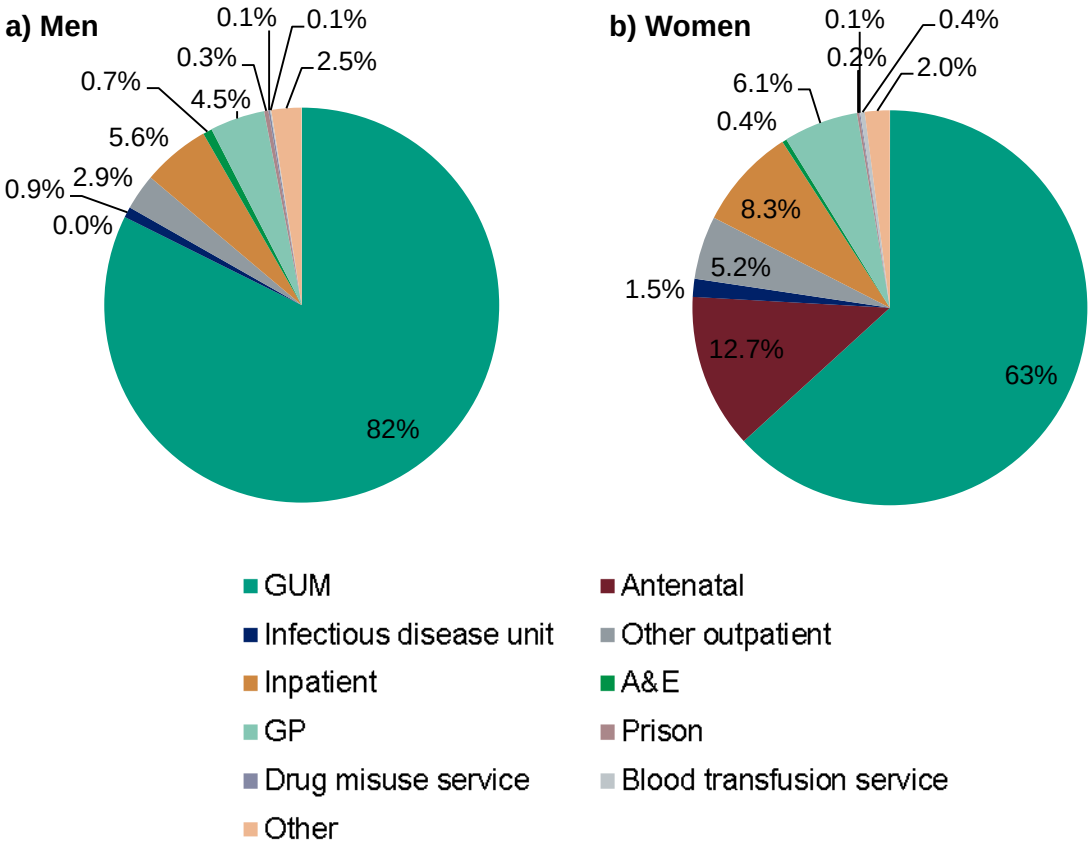
7. Where are HIV diagnoses made?

Data source:
National surveillance of new HIV diagnoses

Each year, new diagnoses of HIV are reported to PHE by laboratories and clinicians from a variety of settings, including sexual health clinics, general practice and infectious disease units. For each report of HIV diagnosis, demographic and diagnosis data are captured, including information on the initial diagnosis setting (which may differ from the reporting setting).

Diagnosis setting was ascertainable for 81% of adults (aged ≥ 15 years) newly diagnosed with HIV in England in 2014 (N=5,533). The distribution of diagnoses among men and women by setting can be seen in Figure 12. Most adults continue to be diagnosed with HIV in GUM clinics, followed by antenatal services (women), hospital wards (inpatient admissions) and in general practice.

Figure 12: New diagnoses among adult men and women (aged ≥15 years) by setting of diagnosis, England 2014



8. Data limitations and developments

National data sources on HIV testing are well developed for some clinical areas, but require strengthening in others.

Comprehensive data are available to monitor HIV testing in specialist SHCs, TB services, HIV home sampling and among blood, tissue and organ donors. These monitoring systems are continually being improved to expand coverage and data quality. For example, data is being collected from a wider range of settings that offer sexual health services. Additional behavioural data will be collected from people attending specialist SHCs to provide better information on sexual partner notification, people with sexual partners from high risk countries, victims of sexual assault and female partners of gay/bisexual men.

National surveillance data on HIV testing in antenatal care is in the process of transition to a more accurate and efficient system. Data from this new system will be incorporated into future HIV testing reports.

This report includes national surveillance data on HIV testing among people diagnosed with TB. Future reports will also include HIV testing data from the Latent TB Infection testing and treatment programme.

Data on HIV testing among patients with hepatitis B and C, in hospitals and within general practice is provided by a national sentinel surveillance laboratory based system. This national data sample is being developed through links with other data sources. This will enable nationally representative HIV test coverage rates to be included in future HIV testing reports.

Monitoring of HIV testing in prisons is currently under development and future HIV testing reports should include both coverage and positivity data.

This HIV testing report has identified gaps in national monitoring of HIV testing in recommended settings of lymphoma services, termination of pregnancy (TOP services) and among dialysis patients.

Future HIV testing reports will include data on the frequency of HIV testing among risk groups.

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10. Appendices

Appendix I: HIV testing definitions

Data source: GUMCADv2 (SHC, gay/bisexual men, BA data)
HIV test positivity
Eligible new specialist SHC episode (not shown in report)
A visit to a specialist SHC including all subsequent SHC attendances in the following six weeks. Attendances by known HIV positive patients or where an HIV test was not appropriate or where the attendance was reported as being related to SRH care only are excluded.
Offered (not shown in report)
Number of 'Eligible new specialist SHC episodes' in which (a maximum of) one HIV test was offered
Tested (not shown in report)
Number of 'Eligible new specialist SHC episodes' in which (a maximum of) one HIV test was accepted
Positivity
Number of new diagnoses identified in specialist SHCs, excluding those already diagnosed in other settings
Positivity %
% of new diagnoses from all HIV tests performed (a maximum of 1 test per attendee every six weeks)

HIV test coverage
Eligible new specialist SHC attendee:
Any patient attending a specialist SHC at least once during a calendar year; patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being related to SRH care only are excluded
Offered
Number of 'Eligible new specialist SHC attendees' in whom (a maximum of) one HIV test was offered
Tested
Number of ‘Eligible new specialist SHC attendees' in whom (a maximum of) one HIV test was accepted
Offered %
% of 'Eligible new specialist SHC attendees' in which an HIV test was offered
Coverage %
% of 'Eligible new specialist SHC attendees' in which an HIV test was accepted; data represent the number of persons tested for HIV & not the number of tests reported

HIV testing in PN Contacts
Offered
Number of PN contacts offered an HIV test on day of attendance
Tested
Number of PN contacts tested for HIV test on day of attendance
Offered %
% of PN contacts offered an HIV test on day of attendance
Coverage %
% of PN contacts tested for HIV test on day of attendance
Contacts diagnosed
Number of PN contacts diagnosed with HIV
Contacts diagnosed %
% of PN contacts diagnosed with HIV

Data source: ETS
HIV test coverage
Eligible for testing
Number of notified TB cases with previously unknown HIV status, where HIV testing is known and excluding those diagnosed post-mortem
Offered
Number of notified TB cases offered HIV testing
Tested
Number of notified TB cases tested for HIV
Offered %
% of notified TB cases offered HIV testing
Tested %
% of notified TB cases tested for HIV

Data source: SSBBV (Secondary care and hepatitis data)
Persons tested for HIV in secondary care
Number tested
Number of persons HIV tested in services part of SSSBV; data de-duplicated subject to availability of date of birth, soundex and first initial
Number positive
Number of persons found positive in services part of the SSBBV
Positive %
% of persons found HIV positive in services part of the SSBBV

Data source: SSBBV (Primary care data)
HIV tests carried out in primary care
Number of tests
Number of HIV test carried out by services taking part in SSBBV
Number of positive tests
Number of positive HIV tests found in services part of the SSBBV
Positive tests %
% of positive HIV tests found in services part of the SSBBV

Data source: National HIV Self-sampling Service
Self-sampling kits tested & reactivity
Number of tests
Number of self-sampling kits returned by service users that were tested for HIV
Reactive kits
Number of self-sampling kits returned by service users that were reactive for HIV; low reactivity indicates COI below 50; high reactivity indicates COI above 50; total includes low and high reactive kits
Reactive kits %
% of reactive kits returned by service users

Data source: NAISM
HIV test uptake
Uptake %
% of HIV tests accepted by pregnant women attending antenatal services

Data source: HJIPS
HIV test coverage
Coverage %
% of HIV tests undertaken in all new prison receptions

Appendix II: HIV testing definitions

Enhanced tuberculosis surveillance (ETS)

Tuberculosis cases in England are notified to the enhanced tuberculosis surveillance system. Data is provided by clinical teams via electronic submission or by case report forms entered to ETS by Health Protection Teams. Demographic and social risk factor data, as well as clinical information is available for all notified TB cases. The proportion of HIV testing carried out in notified TB cases is presented annually in line with the Collaborative Tuberculosis Strategy for England. Test results are not available for individual TB cases tested for HIV. Completeness of HIV testing data varies between PHECs.

Genitourinary medicine activity dataset (GUMCADv2)

GUMCADv2 collects disaggregate data on diagnoses made and services provided by genitourinary medicine (GUM) clinics (Level 3) and other commissioned Level 2 (non-GUM) sexual health services. GUMCADv2 is a mandatory dataset with full coverage in all Level 3 GUM clinics in England. Level 2 service coverage (excluding GPs) continues to improve as services continue to register. Data on HIV testing activity is submitted quarterly. Nationally reporting and by level of local authority is available annually. Clinic level activity is also accessible within participating services.

Health and justice indicators of performance

These performance indicators have been developed by NHS England, PHE and NOMS and were rolled out to capture data from April 2014 in the England prison estate. The HJIPs gather information directly from the Health Informatics system (SystmOne) and provide a broad range of quantitative measures to describe the burden of disease, patient needs and the quality of health services in prisons. Current data quality improvement work will inform future coverage and positivity analyses for HIV testing in prison settings, as well as referral into care.

HIV and AIDS new diagnoses and deaths patients reporting system (HARS)

The HARS dataset collects disaggregate information on those diagnosed with HIV infection who present to HIV outpatient services in the UK. Returns are electronic, quarterly and include demographic data taken at registration as well as clinical and risk factor information. At present, HARS is linked with other HIV surveillance in place to estimate the proportion of late HIV diagnoses in line with Public Health Outcome

Framework (PHOF) late diagnosis indicators. HARS will replace previous surveillance systems including SOPHID.

CD4 surveillance

Longitudinal CD4 cell count among adults living with HIV in the UK. Monitors trends in immunosuppression among adults infected with HIV. Linked with other HIV surveillance in place to estimate the proportion of late HIV diagnoses in line with the PHOF late diagnosis indicator [45].

Survey of prevalent diagnosed HIV infections (SOPHID)

This annual survey is among those living with HIV and accessing HIV-related care at NHS services in the UK. Clinical stage, antiretroviral regime and other clinical and demographic data are collected. This survey is linked with other HIV surveillance to estimate the proportion of late HIV diagnoses, in line with the PHOF late diagnosis indicator.

National antenatal infections screening monitoring (NAISM)

HIV screening is offered and recommended as part of the NHS Infectious Disease in Pregnancy Screening Program. Aggregate data is collected by maternity unit or at trust level and based on the number of pregnant women booking and presenting to antenatal care. Data is collated by PHE as part of the National Antenatal Infections Screening Monitoring programme. Testing uptake and positivity data are submitted quarterly, with annual collation and reporting.

National HIV self-sampling service

In November 2015, Public Health England (PHE) launched a nation-wide HIV self-sampling service for most at-risk populations for HIV acquisition with the support of local authorities. The aim of this service is to provide a cost effective and clinically robust remote HIV sampling service for sexually active individuals aged 16 years and over. Emphasis will be placed on increasing HIV testing amongst most at risk groups including gay/bisexual men and black African populations (and other black communities at increased risk of HIV). In February 2016, the service was devolved to participating local authorities who have since taken responsibility for implementing the service in their areas.

National study of HIV in pregnancy and childhood

The National Study of HIV in pregnancy and childhood (NSHPC) is a surveillance study which collects data on pregnant women living with HIV and their children in the UK and Ireland. The NSHPC surveillance programme is used to monitor the prevalence of diagnosed HIV infection in pregnant women and children, evaluate antenatal HIV testing programmes and to provide national paediatric and pregnancy surveillance data to Public Health England.

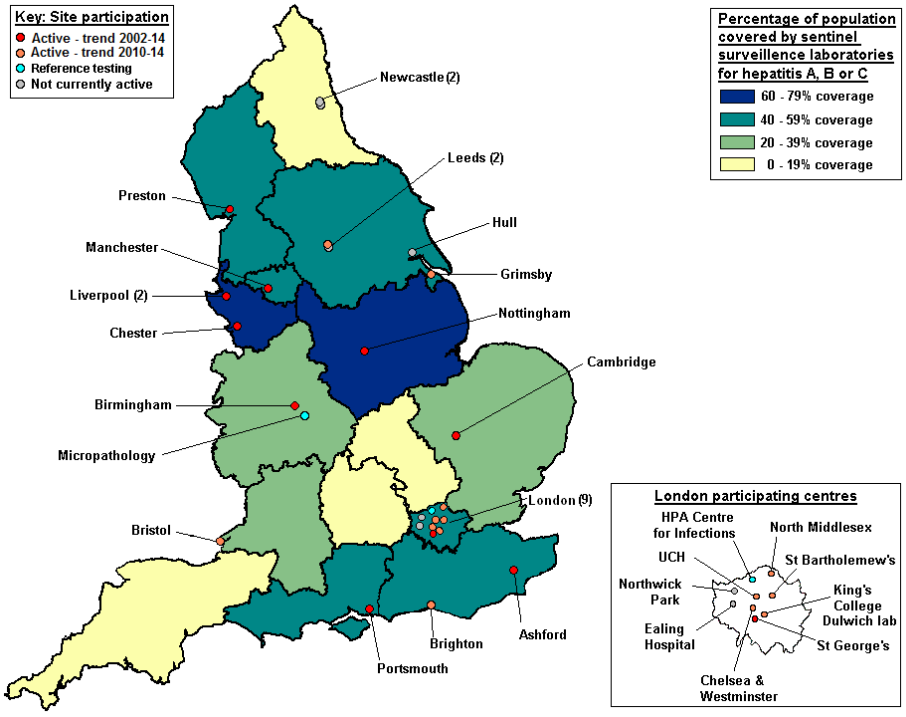
NHS blood and transplant (NHSBT)/PHE surveillance programme

The NHSBT/PHE Surveillance Programme monitors infection in blood and organ donation and in transfusion recipients. Testing activity data is collated from UK blood services. HIV testing numbers and rates of infection are reported annually in all blood and in deceased organ donations.

Sentinel surveillance of blood borne testing (SSBBV)

The sentinel surveillance of blood borne virus testing began in 2002 to supplement routine hepatitis surveillance where coverage is estimated at 40% of the population. Inclusion of HIV testing data began in 2011. HIV numbers and positivity are collected by participating laboratories (15 of 27) from a range of primary and secondary care settings in England (see Figure 13). National GP coverage is estimated at 35%, with 66% coverage in extremely high prevalence areas. Where information is available, testing data can be linked to requesting hospital setting (e.g. ward, speciality). Quarterly returns are collected and data is reported annually.

Figure 13. Map of participating Sentinel Surveillance of BBV Testing (SSBBV) laboratories, England 2014



Unlinked anonymous monitoring survey of people who inject Drugs (UAM PWID)

Unlinked, anonymous monitoring surveys of people who inject drugs (UAM PWID) are annually undertaken. Surveys are carried out in specialist drug services in the England, Wales and Northern Ireland. Self-reported uptake of voluntary confidential testing in PWID by gender and age are both reported annually.

Appendix III. HIV test offer, coverage and positivity specialist SHC attendees by gender and sexual orientation, England 2015

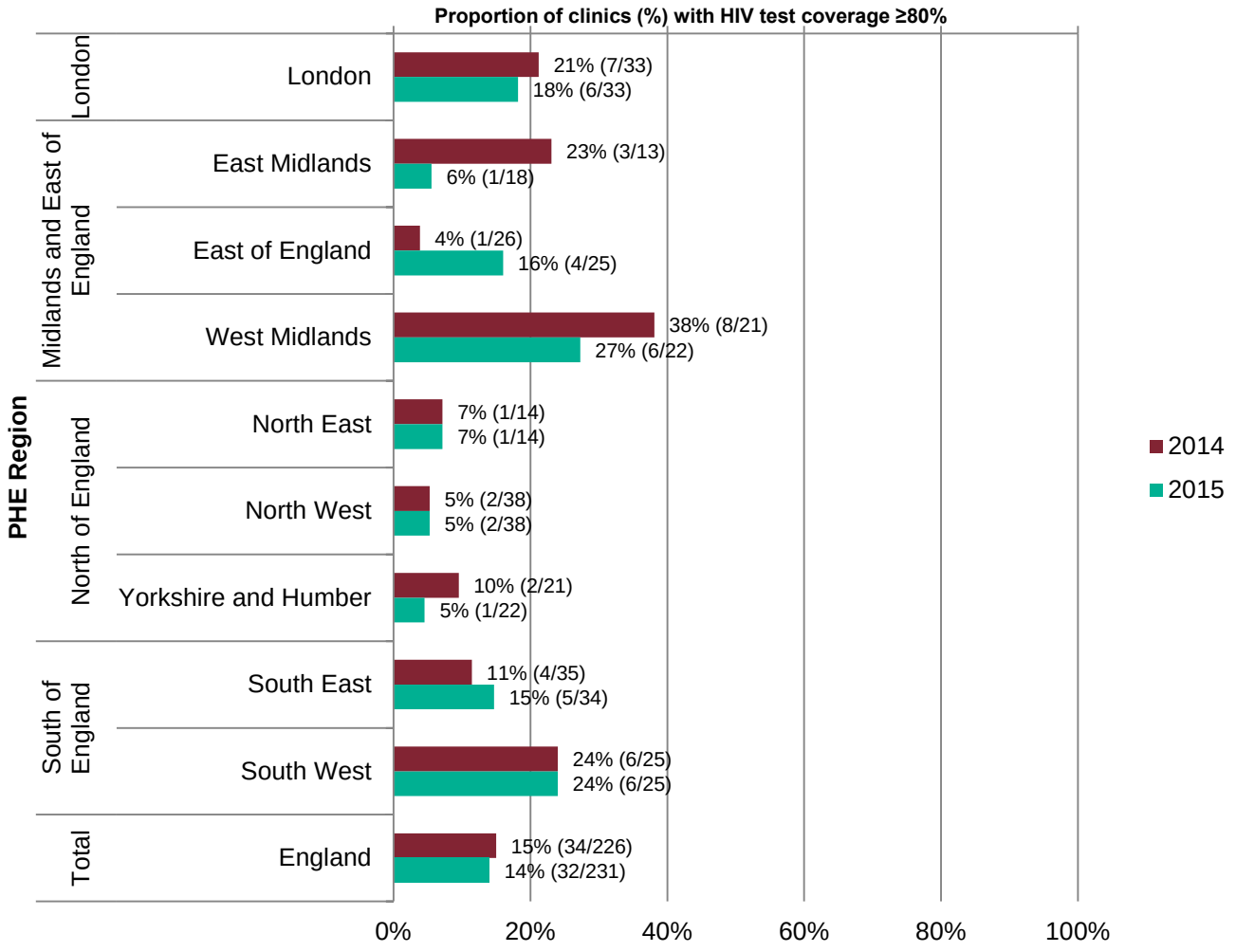
	Eligible attendees[1]	Offered (offered %)	Tested (coverage %)
Heterosexual men	493,824	451,686 (91.5)	381,201 (77.2)
Gay/bisexual men	111,520	103,024 (92.4)	98,139 (88.0)
Men (total[2)]	627,525	569,492 (90.8)	491,302 (78.3)
Heterosexual women	803,864	676,935 (84.2)	490,159 (61.0)
WSW	3,315	2,909 (87.8)	2,292 (69.1)
Women (total[2])	856,675	702,236 (82.0)	507,061 (59.2)
Total[3]	**1,484,428**	**1,271,898 (85.7)**	**998,503 (67.3)**

[1] eligible specialist SHC attendee: any patient attending a specialist SHC at least once during a calendar year; patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being related to SRH care only are excluded; includes England residents only as being related to SRH care only are excluded; includes England residents only

[2] includes those where orientation is not known

[3] includes those where gender is unknown/not specified

Appendix IV. Proportion of specialist SHCs meeting or exceeding BASHH HIV testing coverage guidelines[1] in heterosexual attendees [2] by PHE region and year, England 2014-2015



[1] meets or exceeds 80% HIV test coverage

[2] eligible specialist SHC attendee (service-level analysis): any patient attending a specialist SHC at least once during a calendar year; patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being related to SRH care only are excluded; includes all specialist SHC service users (England and non-England residents)

Appendix V. Age and gender of adults (16+ years old) tested for HIV within accident and emergency services and secondary care services (excluding antenatal testing) in participating centres, England (January - December 2015)[1]

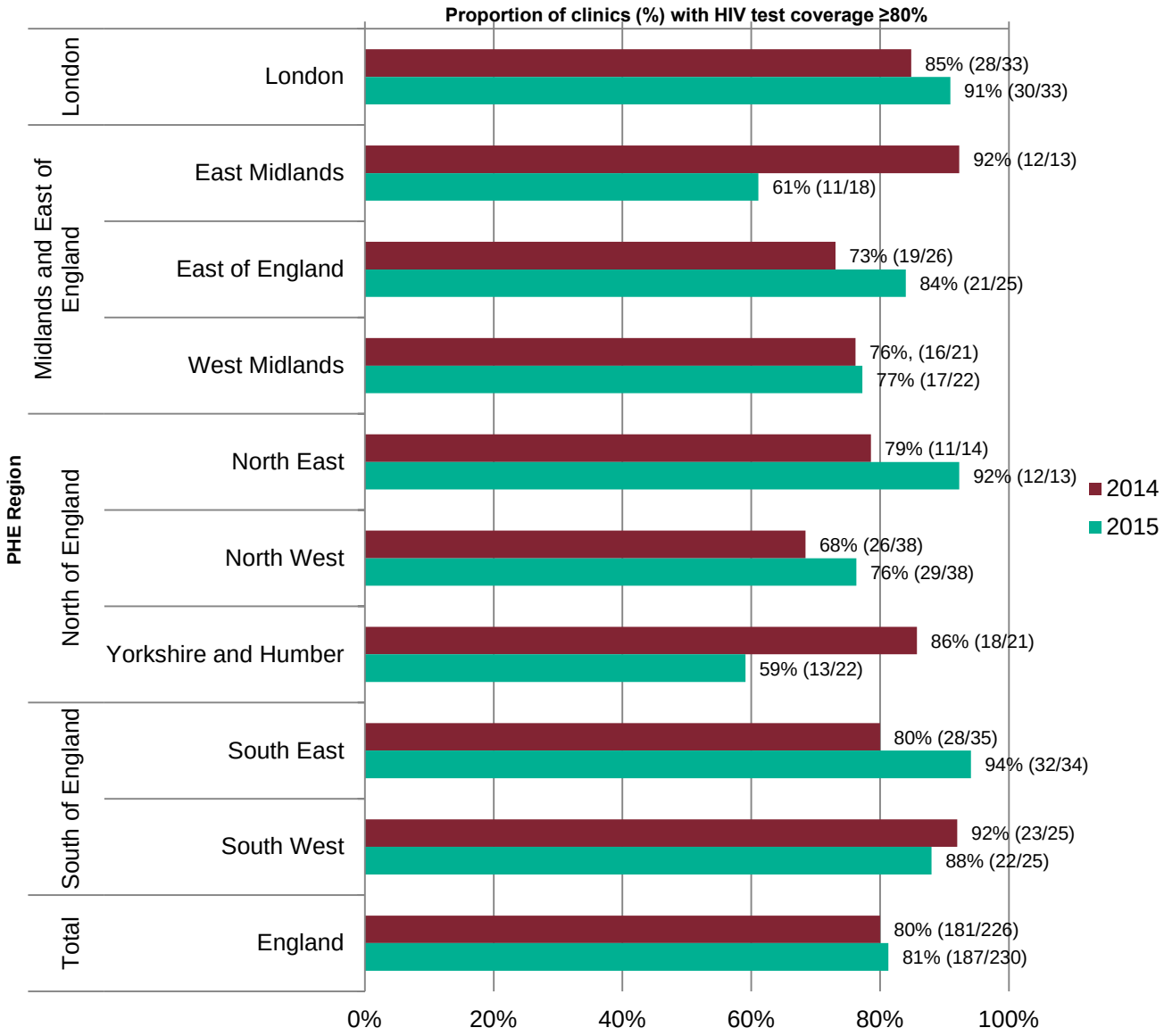
	Age group	Number tested	Number positive (%)
Women	16-24	4,555	13 (0.3)
	25-34	9,902	41 (0.4)
	35-44	6,307	49 (0.8)
	45-54	3,960	37 (0.9)
	55-64	3,648	19 (0.5)
	65+	5,039	6 (0.1)
	Unknown	159	0 (0.0)
	Women (total)	**33,570**	**165 (0.5)**
Men	16-24	2,862	27 (0.9)
	25-34	6,798	85 (1.3)
	35-44	6,562	108 (1.6)
	45-54	5,148	82 (1.6)
	55-64	4,785	43 (0.9)
	65+	6,955	18 (0.3)
	Unknown	197	5 (2.5)
	Men (total)	**33,307**	**368 (1.1)**
Total		**66,877**	**533 (0.8)**

[1] excludes individuals aged under 16, antenatal screening, dried blood spot testing, oral fluid testing, reference testing and testing from hospitals referring all samples. Data are de-duplicated subject to availability of date of birth, soundex and first initial. All data are provisional.

Appendix VI: Characteristics of blood donors with confirmed HIV positive donations, England and North Wales (2011-2015)

HIV Infected donors	New donors	%	Repeat donors	%	Total	%
Number	**26**	*100*	**41**	*100*	**67**	*100*
Male	**15**	*58*	**27**	*66*	**42**	*63*
Rate (per 100,000 donations)	**3.4**	-	**0.5**	-	**0.7**	-
Median age	**34**	-	**37**	-	**37**	-
Age range	**18-55**	-	**18-71**	-	**18-71**	-
Seroconversion (within 3 years)	**0**	*0*	**40**	*98*	**40**	*60*
Avidity-infection likely within 4-5 months	**1**		**18**		**19**	*28*
Ethnic group						
White	**14**	*54*	**36**	*88*	**50**	*75*
Indian/Pakistani/Bangladeshi	**1**	*4*	**3**	*7*	**4**	*6*
Chinese	**0**	*0*	**0**	*0*	**0**	*0*
Asian other	**1**	*4*	**0**	*0*	**1**	*1*
Black-African/Caribbean/other	**8**	*31*	**1**	*2*	**9**	*13*
Mixed	**2**	*8*	**1**	*2*	**3**	*4*
Area of birth						
UK	**13**	*50*	**28**	*68*	**41**	*61*
Europe excl UK	**2**	*8*	**3**	*7*	**5**	*7*
Africa	**6**	*23*	**0**	*0*	**6**	*9*
Asia	**0**	*0*	**1**	*2*	**1**	*1*
Not known	**5**	*19*	**9**	*22*	**14**	*21*
Probable exposure category						
Sex between men	**5**	*19*	**16**	*39*	**21**	*31*
Sex between men and women	**18**	*69*	**24**	*59*	**42**	*63*
No risk identified	**3**	*12*	**1**	*2*	**4**	*6*
Region where infection acquired						
UK	**14**	*54*	**34**	*83*	**49**	*73*
Europe	**2**	*8*	**1**	*2*	**2**	*3*
Africa	**4**	*15*	**0**	*0*	**4**	*6*
Latin America	**0**	*0*	**1**	*2*	**1**	*1*
Asia	**1**	*4*	**2**	*5*	**3**	*4*
Not known	**5**	*19*	**3**	*7*	**8**	*12*

Appendix VII. Proportion of specialist SHCs meeting or exceeding BASHH HIV testing coverage guidelines[1] in gay/bisexual male attendees[2] by PHE region and year, England 2014-2015



[1] meets or exceeds 80% HIV test coverage

[2] eligible specialist SHC attendee (service-level analysis): any patient attending a specialist SHC at least once during a calendar year; patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being related to SRH care only are excluded; includes all specialist SHC service users (England and non-England residents)

Appendix VIII. HIV test offer and coverage among gay/bisexual men attending specialist SHCs by ethnic group, England 2015

Ethnic group	Eligible attendees[1]	Offered	Tested	Offered %	Coverage %
White	88,767	82,012	78,103	92.4	88.0
Black African	1,721	1,585	1,500	92.1	87.2
Black Caribbean	1,702	1,556	1,466	91.4	86.1
Black other	811	768	729	94.7	89.9
Asian or Asian British	5,778	5,396	5,201	93.4	90.0
Mixed	4,160	3,877	3,697	93.2	88.9
Other	3,983	3,727	3,572	93.6	89.7
Unknown	4,598	4,103	3,871	89.2	84.2
Total	**111,520**	**103,024**	**98,139**	**92.4**	**88.0**

[1] eligible specialist SHC attendee: any patient attending a specialist SHC at least once during a calendar year; patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being related to SRH care only are excluded; includes England residents only; includes England residents only

Appendix IX. HIV test offer and coverage among gay/bisexual men attending specialist SHCs by age group, England 2015

Age group	Eligible attendees[1]	Offered	Tested	Offered %	Coverage %
15-19	5,301	4,921	4,715	92.8	88.9
20-24	21,381	19,979	19,273	93.4	90.1
25-34	42,786	39,919	38,198	93.3	89.3
35-44	22,347	20,636	19,571	92.3	87.6
45-64	17,387	15,523	14,469	89.3	83.2
65+	2,266	2,002	1,872	88.3	82.6
Total[2]	**111,520**	**103,024**	**98,139**	**92.4**	**88.0**

[1] eligible specialist SHC attendee: any patient attending a specialist SHC at least once during a calendar year; patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being related to SRH care only are excluded; includes England residents only
[2] total includes those where age is unknown or if age <15

Appendix X. HIV test offer and coverage among black African people attending specialist SHCs by gender and age group, England 2015

	Age group	Eligible attendees[1]	Offered	Tested	Offered %	Coverage %
Women	15-19	3,410	2,850	2,104	83.6	61.7
	20-24	8,136	7,046	5,761	86.6	70.8
	25-34	11,742	9,744	7,939	83.0	67.6
	35-44	6,430	4,913	3,826	76.4	59.5
	45-64	2,433	1,858	1,527	76.4	62.8
	65+	51	36	28	70.6	54.9
	Women (total[2])	**32,288**	**26,505**	**21,226**	**82.1**	**65.7**
Men	15-19	1,671	1,449	1,211	86.7	72.5
	20-24	5,484	4,988	4,453	91.0	81.2
	25-34	10,331	9,402	8,527	91.0	82.5
	35-44	5,893	5,227	4,755	88.7	80.7
	45-64	3,224	2,788	2,504	86.5	77.7
	65+	167	144	127	86.2	76.0
	Men (total[2])	**26,797**	**24,015**	**21,590**	**89.6**	**80.6**
All total[3]		**59,090**	**50,523**	**42,819**	**85.5**	**72.5**

[1] eligible specialist attendee: any patient attending a specialist SHC at least once during a calendar year; patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being related to SRH care only are excluded; includes England residents only
[2] includes those where age is unknown or if age <15
[3] includes those where gender is unknown/not specified

Appendix XI. HIV test offer, test coverage and new diagnoses by clinic diagnosed HIV prevalence band in BA specialist SHC attendees, England 2015

Diagnosed prevalence band[1]	No. clinics	Eligible Attendees[2]	Offered (% offered)	Tested (% coverage)	Positivity[3] (%)
Low (<2/1,000)	148	8,018	7,017 (87.5)	6,036 (75.3)	94 (1.4)
High (2-5/1,000)	50	20,521	16,916 (82.4)	14,949 (72.8)	139 (0.8)
Extremely high (≥5/1,000)	27	30,551	26,590 (87.0)	21,834 (71.5)	167 (0.7)
Total	**225**	**59,090**	**50,523 (85.5)**	**42,819 (72.5)**	**400 (0.8)**

[1] based on 2015 diagnosed HIV prevalence data, bands by clinic local authority
[2] eligible attendee: any patient attending a GUM clinic at least once during a calendar year; patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was related to SRH care only are excluded; includes England residents only
[3] number of 2015 diagnoses (England residents only)/number of eligible tests (x100); total: 400 diagnoses/48,988 tests

Appendix XII. HIV test offer, test coverage and new diagnoses among sex workers attending specialist SHCs by gender and sexual orientation, England 2015

	Eligible attendees[1]	Offered (offered %)	Tested (coverage %)
Heterosexual men	268	243 (90.7)	229 (85.4)
Gay/bisexual men	418	384 (91.9)	370 (88.5)
Men (total[2])	694	635 (91.5)	607 (87.5)
Women (total[2])	3,697	3,406 (92.1)	3,167 (85.7)
Total[3]	**4,394**	**4,042 (92.0)**	**3,774 (85.9)**

[1] eligible attendee: any patient attending a specialist SHC at least once during a calendar year; patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being related to SRH care only are excluded; includes England residents only
[2] includes those where sexual orientation is unknown/not specified
[3] includes those where gender is unknown/not specified